

SCHOOLS OF STUDY

SCHOOL OF MATHEMATICS & STATISTICS

The School offers facilities for intensive training and research in the basic areas of Mathematics, Statistics and Operations Research.

Prof. C. Raghavendra Rao is the Dean I/c of the School.

The School aims to train people who are oriented towards research and teaching in advanced areas of Mathematics, Statistics and Operations Research. Special attention is given to foundational topics.

The School offers research facilities in the following areas:

Algebraic Groups, Hopf Algebras, Lie Algebras, Algebraic Geometry, Combinatorial Number Theory, Analytic Number Theory, Dynamical Systems, Topological Dynamics, Many valued logic. Fluid Dynamics, Ordinary Differential Equations, Partial Differential Equations, Numerical PDE. Modelling and Analysis of large data, Bayesian Modelling, Modelling of Spatio-Temporal data, Bioinformatics/Genomics, Reliability, Survival Analysis, Statistical Inference, Extreme Value Theory.

The School has good computing facilities. There are three labs. A Statistics lab with 25 PCs and 2 UGC (SAP) labs with 25 and 15 PCs respectively. The University Library has been recognized as a Regional Library by the National Board for Higher Mathematics (NBHM).

Programmes of study

The School offers **I.M.Sc.**, **M.Sc.** and **Ph.D.** Programmes.

The M.Sc. Programme is offered in three streams namely, Mathematics, Applied Mathematics and Statistics-Operations Research. This programme is spread over a period of four semesters. For each stream, there are separate core courses and electives.

The School offers Ph.D. programmes in Mathematics, Applied Mathematics and Statistics. Students admitted to this programme are required to satisfactorily complete their course work prescribed by the School in the first two semesters in order to continue their Ph.D. They are also expected to take part in the weekly Colloquium / Seminar of the School.

The School also participates in the 5-Year Integrated M.Sc. Programme in Mathematical Sciences, which is administered through College for Integrated Studies.

Entrance Examination

MSc in Mathematics/Applied Mathematics/Statistics-OR

The written test in objective type will have questions on Sets, Sequences, Series, Limits, Continuity, Differentiation, Integration, Graphs of Functions, Coordinate Geometry of two and three dimensions, Group Theory, Ring Theory, Vector Spaces, Matrices, Determinants, Linear Transformations, Rank, Nullity, Eigenvalues, System of Linear Equations, Elementary Probability and Logical reasoning.

M.Sc. in Statistics-OR

The written test in objective type will have questions on Sets, Sequences, Series, Limits, Continuity, Differentiation, Integration, Graphs of Functions, Vector Spaces, Matrices, Determinants, Linear Transformations. Elementary Probability - Events, Independent Events, Conditional Events, Bayes' Theorem, Chebyshev's Inequality. Random Variables and their Distributions – Binomial, Poisson, Geometric, Negative Binomial, Uniform, Normal, Exponential, Gamma, Beta. Inference – Methods of Moments and ML Estimation, Test for Mean and Variance of the normal distribution, Contingency Tables, Simple Linear Regression. Linear Programming Problem- Graphical Solution.

Important notes

- Two separate tests will be held for M.Sc Mathematics (including Mathematics and Applied Mathematics) and M.Sc Statistics
- At the end of the first year, students can choose between Mathematics and Applied Mathematics
- Students cannot change between Mathematics and Statistics
- Topics listed above is only indicative

Ph.D in Mathematics/ Applied Mathematics/ Statistics-OR

Entrance to the programme is based on a written test. Candidates clearing the entrance test will be called for an interview as per merit list.

The written test consists of two parts.

PART A will have questions related to Research Methodology.

PART B will have questions on Linear Algebra, Real Analysis, Complex Analysis, Ordinary

Differential Equations, Partial Differential Equations, Functional Analysis, Measure & Integration, Algebra, Number Theory and Numerical Analysis (**Mathematics/ Applied Mathematics**);

Probability & Measure Theory, Real Analysis, Linear Algebra & Matrix Theory, Inference, Linear Models, Design & Analysis of Experiments, Sampling (**Statistics-OR**).

Important notes

- *The Ph.D. interview will be for 30 marks for all candidates who are called for interview, i.e., without making any distinction between those who qualify in the National level Fellowship awarding tests or the Entrance Examination.
- Candidates qualifying in National level tests awarding Fellowships (i.e., JRF's who qualify in CSIR/UGC Tests and NBHM-Ph.D. Test) will be exempted from writing the Ph.D. Entrance Examination and will be invited to appear for the interview directly.
- List of topics above is not exhaustive

Vacancy position with the faculty and their broad areas or research.

Sl. No.	Name of the Faculty	Position	Specialization	Vacancy for the Academic year 2020-21	Broad Area of specialization.
1	Prof. B.S. Padmavati	Professor		0	-----
2	Prof. R. Radha	Professor		0	

3	Prof. M. Bhattacharjee	Professor	1) Big data: Modelling and analysis of biological and environmental data, 2) Bayesian Integrated modelling: "Omics"-data, 3) Modelling and analysis of heterogeneous data: bioinformatics, statistical genetics, environmental data, reliability & survival analysis, econometrics, 4) Parametric and Non-Parametric Statistical Inference for Stochastic Processes.	2	1) Inference for high-dimensional data, 2) Variable Selection in High-Dimensional Random Matrices 3) Predictive modelling in Bayesian framework
4	Prof. Saroj Panigrahi	Professor	Ordinary Differential Equations, functional differential equations, dynamic equations on time scale, integral equations.	4	Ordinary Differential Equations, functional differential equations, dynamic equations on time scale, integral equations.
5.	Prof. Sankarnarayanan		Analytic and elementary number theory	2	number theory
6	Dr. B.Shobha	Associate Professor		0	
7.	Dr. M.S Datt	Associate Professor	Algebra/Representation Theory	0	
8.	Dr. T.K.S. Moothathu	Associate Professor	Dynamical Systems and operator theory	1	Operatory Theory
9	Dr S. Illangovan	Associate Professor			
10	Dr. T. Suman Kumar	Associate Professor	Applications of PDE	1	Population Dynamics, PDE
11	Dr. Mohan N. Chintamani	Assistant Professor	Combinatorial Number Theory, additative Combinatrix, Cryptography and Number Theory	0	
12	Dr Archana Subhash Morye	Assistant Professor	Algebraic Geometry, Vector Bundles	0	
13	Dr. B.G. Manjunath	Assistant Professor	Extreme Value Analysis-Generalized Multivariate Pareto Distribution, Distribution Theory, conditional specification, Pseudo-Distributions, Statistical Inference and Multivariate analysis	0	
14	Dr. P. Cnhiranjeevi	Assistant Professor	Dynamical Systems	1	
15	Dr. Nageswara Rao Vemuri	Assistant Professor	Fuzzy Logic	0	
16.	Dr. Biswajyothi Saha	Assistant Professor	Number Theory	0	
17.	Dr. Anjana .S.	Assistant Professor	Survival Analysis, Nonparametric Inference	1	Survival Analysis
18.	Dr. S. Abhay Anant	Asst. Prof.	Algebra	1	Division Algebras
19.	Dr. S.B. Bhalekar	Associate Professor	Analysis, Dynamical Systems and Fractional Differential Equations	0	Delay differential equations
20.	Dr. Sandipan De	Assistant Prof.		--	
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Breakup of weightages

The Ph.D. interview will be for 30 marks for all candidates who are called for interview, i.e., without making any distinction between those who qualify in the National level Fellowship awarding tests or the Entrance Examination.

Faculty

Professors		
B. Sri Padmavati	Ph.D. (Univ. of Hyderabad)	Fluid Dynamics
R. Radha	Ph.D. (IIT, Bombay)	Fluid Dynamics
M. Bhattacharjee	Ph.D. (Pune University)	Modelling and Analysis of large data, Bayesian Modelling, Modelling of Spatio-Temporal data, Bioinformatics/Genomics, Reliability, Survival Analysis
S. Panigrahi	Ph.D. (Berhampur)	Differential Equations
Associate Professors		
B. Shobha	Ph.D. (IIT, Delhi)	Statistical Inference and Reliability
M. Sumanth Datt	Ph.D. (Univ. of Hyderabad)	Hopf Algebras, Algebraic Groups
T.K.S. Moothathu	Ph.D. (Univ. of Hyderabad)	Topological Dynamics
S. Ilangoan	Ph.D. (TIFR, Mumbai)	Lie Algebras and Representation Theory
T. Suman Kumar	Ph.D. (Universite Pierre et. Marie Curie, France)	Nonlinear population dynamics, Hyperbolic PDE
Assistant Professors		
M. C. Namdev	Ph.D. (HRI, Allahabad)	Combinatorial Number Theory
A. S. Morye	Ph.D. (HRI, Allahabad)	Algebraic Geometry
B.G. Manjunath	Ph.D. (Univ. of Siegen, Germany)	Extreme Value Theory
P. Chiranjeevi	Ph.D. (Univ. of Hyderabad)	Dynamical Systems
Nageswara R. V.	Ph.D. (IIT Hyderabad)	Many Valued Logic
B. Saha	Ph.D. (IMSc. Chennai)	Analytic Number Theory

SCHOOL OF COMPUTER INFORMATION SCIENCES

The School of Computer and Information Sciences (SCIS) epitomizes excellence in all the major functions associated with higher learning such as teaching, research, student development and curriculum planning. The strengths of the School are its quality faculty, innovative and flexible curricula with their unique focus on post-graduate education, state-of-the-art research with a remarkably high number of PhD scholars – both ongoing and recently graduated, and highly open and transparent policies that foster a healthy student-faculty interaction. SCIS always stood for innovation and leadership in curriculum planning – having one of the oldest (from 1983) and even now one of the best MCA programmes; boldly proposing and introducing the M.Tech programme in Artificial Intelligence as early as in 1986 to attract the small but growing number of undergraduates in computer science; and, in 2002, introducing the unique M.Tech in Information Technology (with specialization in Banking Technology and Information Security) in collaboration with IDRBT (Institute for Development and Research in Banking Technology, a sister Institute of RBI) aimed at bridging the shortfall of trained computer professionals in banking and finance industries. In 2014, the School has started a 5-year Integrated M.Tech (CS) programme to admit students immediately after Class XII. Last year we have started an MTech (IS) programme in Information Security in collaboration with CR Rao Advanced Institute of Mathematics, Statistics and Computer Science.

The current research areas in the School include Artificial Intelligence, Machine Learning (and Deep Learning), Image Processing, Computer Vision, Pattern Recognition, Natural Language Engineering, Machine Translation, Networks, Computer and Network Security, Information Security, Software Engineering, Logic, Data Mining, Wireless Sensor Networks, Heuristics and Metaheuristics, Cryptology, Parallel, Grid and Cloud Computing, and Speech Processing.

Funding for the School

The School has been recognized by several funding agencies. The Department of Science and Technology (DST), Government of India has recognized the research contributions of the School by funding it under FIST and PURSE programmes. The School also received funding from industry. With the university recognised as an Institute of Eminence (IoE) recently, the School planned several innovative activities with the generous grants under the scheme.

Research Projects

The School currently executes several research projects (funded by MeitY, UGC, ISRO, DRDO, DLRL, MHA, DST, INCOIS etc.) on FAE, Content-Based Image Retrieval, Speech and Natural Language Processing, Grid Computing, Cryptography, Neural Networks, Formal Methods in Software Engineering, Business Process Re-engineering, Forensic Document Analysis, System Security, Wireless Sensor Networks, Manufacturing and Logistics, Grid Middleware etc.

Student Funding

Students of the School have the facility of getting funding under faculty research projects and funding from other sources such as the UPE2/PURSE funding that the university/School gets from UGC/DST etc. This is open to Ph.D./Integrated M.Tech./MCA students. M.Tech. (CS/AI/IT/IS) students are all eligible for the GATE scholarships under AICTE funding. Ph.D. students are eligible for scholarships from the university for a period of 5 years.

Other Ph.D. Fellowships

IDRBT Fellowship: Currently the fellowship will carry monthly stipend of Rs.25,000 (for 1st and 2nd year) and Rs.28,000 (for 3rd, 4th and 5th years), subject to revision from time to time. The students will work full time at IDRBT. The breakup of these IDRBT PhD Fellowships will be as per reservations norms of GOI. The areas of research of the scholars need to be relevant to banking technology and information security. There will be joint guidance of IDRBT and SCIS (UoH), one guide from each.

Visvesvaraya PhD Fellowship: Further, details can be found at <http://phd.medialabasia.in/> for fellowships for 2018-19, if available.

Industry, Academic and other Contacts

SCIS maintains active contact with both industry and research labs and participates in developing state-of-art computing systems. The School has initiated academic collaboration at an international level with University of Trento, Italy; Mahasarakham University, Thailand; Universite de Bretagne-Sud, Lorient, France; Griffith University, Brisbane, Queensland, Australia; Prof. C. R. Rao AIMSCS Institute; IDRBT, IIIT Hyderabad; ISI Calcutta and National University of Singapore. The School has MoUs for collaborative work with NISG (National Institute for Smart Government), Anna University, IBM (ISTL), Hitachi Consulting and Altair Engineering to promote research and teaching programmes in Business Process Re-engineering and Middleware Technology. The School offers elective courses in collaboration with Hitachi Consulting on Service-Oriented Architecture and with IBM ISL on Big Data and Virtualization. The School has conducted half-day and full-day workshops/technology days in collaboration with corporations such as J P Morgan Chase, Hitachi Consulting and IBM ISL

Placement

The School has a vibrant placement programme. The School attracts many product-oriented dream companies such as IBM, Teradata, GE, Cisco, Commvault, Cavium Networks, FreeScale, TeamFI, Honeywell, Oneconvergence, JPMC, HSBC, Works Apps, CA, Polaris, Imagination Technologies (HelloSoft), and other companies such as Broadridge, ADP, TCS, DST, Capgemini, Cordys, Intergraph, Aveva, Hitachi consulting, Redpine.

Programmes of Study

The School offers Seven different programmes of study leading to: **Ph.D.** in Computer Science, 5-year **Integrated M.Tech.** in Computer Science, **M.Tech.** (Computer Science), **M.Tech.** (Artificial Intelligence), **M.Tech.** (Information Technology) with specialization in Banking Technology & Information Security, in collaboration with IDRBT, **MTech** (Information Security) in collaboration with CR Rao AIMSCS, and **M.C.A.** In addition, the school also contributes and supports the School of Physics, School of Life Sciences, 5-year Integrated M.A. and M.Sc. courses.

Ph.D.

The School has a very vibrant Ph.D programme with more than 60 registered students currently, both Indian and foreign nationals, as on date and more than 120 scholars have completed their PhD till now. As the School always has a high priority for research, it strongly encourages fresh and brilliant students to participate in the above exciting research programmes as full-time/part-time Ph.D. students. School further offers Visvesvaraya PhD Fellowships (sponsored by DeitY) for supporting brilliant Ph.D. students. This is subject to sanction of the Govt. of India (Admission Notice will come as a separate advertisement). Further, details can be found at <http://phd.medialabasia.in/>. The School is also recognized as an AICTE Minor QIP Centre for Ph.D.

Programme. For further details, please refer to QIP brochure available at http://qip.iitd.ac.in/qipadm2017/QIP_Brochure_Ph.D.pdf

The **Ph.D. programme** is offered on full time, part time and external registration basis as per the university regulations. Candidates who have the required qualifications and are doing teaching/research in recognized institutions or researchers from companies registered with STPI/NASSCOM/Central Government Organizations who operate within the jurisdiction of the University can apply for part time admission, which is available during 2019-20. Interested candidates are advised to study the areas of research from the School and faculty profiles. Please visit School website <http://scis.uohyd.ac.in> for details. **Candidates interested in doing research in the following areas are strongly encouraged to apply.**

- Machine Learning, rough sets and soft computing
- Data science, analytics and big data
- Cryptography and cybersecurity
- Social networks analysis and graph theoretic techniques
- Software defined networks and network security

Entrance Examination

Admission Process: Please refer to appropriate section in the prospectus about UGC Regulations 2016. Admission will be through a written test followed by an interview. The candidates who have been awarded JRF Fellowship after writing a National-level written test will be exempted from writing written test of the University and will be directly called for the Interview.

Written Test Format and Syllabus

The written test will consist of **only objective type** questions. 50% of questions shall be from Research Methodology and the other 50% shall pertain to the concerned subject. The paper shall have two parts, Part A and Part B. The following syllabus is proposed for the PhD entrance examination

PART A: Research Methodology:

- Quantitative Methods: Data preprocessing, graph plotting, plotting functions and data, statistical data analysis.
- Research: Technical Comprehension, Meaning, characteristics and types of research; Steps of research; Methods of research; Research Ethics.
- Aptitude and Reasoning: Reasoning, Logical Reasoning, Data Interpretation.
- Computer Applications: Flow Charts, Problem Solving.

PART B: Computer Science:

Computer Organization, Computer Programming, Discrete Mathematics, Data Structures, Algorithms, Operating Systems, Database Management Systems, Graph Theory, Computer Networks, and Automata.

The written test is for total of 70 marks and both Part A (35 questions) and Part B (35 questions) will have equal weightages.

Interview Process

The number of candidates called for interview is six times the available seats. Candidates must indicate their research interest at the time of the interview. **All candidates must come prepared**

with a tentative research plan write-up of maximum 4 pages and are encouraged to submit details of research papers/technical reports (if any), they have authored.

Foreign candidates

Foreign nationals seeking admission in PhD programme should have the required basic qualifications. Candidates must demonstrate their ability to communicate in English. Following are the guidelines for admission to PhD:

Foreign students are required to submit past academic records, three reference letters, and a statement of purpose on the research topic of their interest. They must have good ability to communicate in English. In order to support the claim for admission into PhD, the following guidelines are stipulated:

- Students residing in India and who have taken prior qualifying education in India **have to appear for the interview** with all required supporting documents
- Both GRE and TOEFL/IELTS scores are to be submitted at the time of admission

Please also read section on Admission of Foreign Nationals in the prospectus.

5-year Integrated M.Tech. in Computer Science

The School has introduced a 5-year Integrated M.Tech. Programme in Computer Science with effect from the academic year 2014-15. The students will be awarded M.Tech (CS) degree at the end of five years. It is to be noted that there is no exit option. This programme is intended to provide a high quality computer science education with a curriculum that is state-of-the-art. The School boasts of a very low student-teacher ratio that allows faculty to give individual attention to students.

Admission Process

The admission to 5-year Integrated M.Tech. in Computer Science will be done through JEE(Main) examination conducted in 2020 and the counselling for admission will be done by Joint Seat Allocation Authority (JOSAA)/Central Seat Allocation Board (CSAB).

Foreign candidates should clear SAT-I or ACT examination as a pre-requisite for admission to 5-year Integrated M.Tech. in Computer Science and may apply directly to office of International Affairs, University of Hyderabad. **Please also read section on Admission of Foreign Nationals in the prospectus.**

Master of Technology (M.Tech.)

This programme is meant for graduates in engineering disciplines and postgraduates in related sciences. Four different streams of M.Tech. are offered by the School – M.Tech(CS), M.Tech(AI), M.Tech(IT) with specialization in Banking Technology and Information Security and and MTech(IS). Admissions are open for industry sponsored and foreign candidates. These are all supernumerary.

M.Tech. (Computer Science)

This programme offers core courses of computer science like Operating Systems, Computer Architecture, Algorithms, Software Engineering at an advanced level. Specialized electives of faculty research interest are offered as electives. Students can also specialize in “Systems”, “Security” and “High Performance Computing” based on courses taken and the dissertation in these areas.

M.Tech. (Artificial Intelligence)

This programme is meant for students interested in specializing in artificial intelligence. Subjects include Knowledge Representation and Reasoning, Machine Learning, Natural Language Processing, etc.

M.Tech. (Information Technology)

With specialization in Banking Technology and Information Security, this programme aims at imparting in-depth knowledge and state-of-the-art expertise to the students through innovative learning supported by high calibre research and technology leadership to create a pool of responsible and resourceful IT professionals, in particular, for the banking and finance sector. This course is offered in collaboration with IDRBT, an RBI institute.

M.Tech. (Information Security)

Security now attracts great attention and this unique programme offers an in-depth exposure to this all important area. This programme is offered in collaboration with C R Rao Advanced Institute of Mathematics, Statistics and Computer Science, colocated on the university campus.

Admission Process:

General Admission Information for M.Tech. Programmes. Admission to programmes in Computer Science, Artificial Intelligence, Information Technology and Information Security courses is through centralized counselling by CCMT (ccmt.nic.in) and is based on valid GATE scores in Computer Science and Information Technology only.

Admission and tuition fees for all the M.Tech. Programmes are uniform.

Sponsored candidates

Five sponsored seats are available for admission into each stream of M.Tech CS, AI, IT and IS. Sponsored candidates seeking admission in the **M.Tech.** (CS/AI/IT/IS) programmes are exempted from GATE qualification. Candidates with required basic qualifications would be selected through interviews. Employees with a minimum 2 years of work experience in IT companies registered with STPI or NASSCOM or Central Government Organizations can apply for M.Tech admission in CS/AI/IS. For M.Tech. (IT) those working in Banks/Financial institutions with a minimum of 3 years work experience will be considered. A candidate seeking admission in this category into M.Tech. (CS/AI/IT/IS) must submit (along with application) the organization's willingness to pay a sponsorship amount of **One Lakh Rupees per candidate** (one time) to the development fund of the School. After admission, candidates are required to pay the sponsorship amount and also the usual tuition, admission and other fees as prescribed by the University for other students from time to time. These candidates need to apply to the University as per the prescribed application form.

Foreign Candidates

Foreign nationals seeking admission to M.Tech. Programmes should have the required minimum qualification with background knowledge in Mathematics, Algorithms, Computer Programming etc. Candidates should have ability to communicate in English and should submit a supportive document with a good score in TOEFL/IELTS at the time of admission. In addition, students should submit a letter of reference which supports their claims to the background knowledge and ability to communicate in English. **Please also read section on Admission of Foreign Nationals in the prospectus.**

M.C.A.Programme

The MCA programme aims to prepare graduates in all the major areas of computer science, relevant aspects of mathematics and management so that they can take up both technical and managerial positions in industry. MCA students of earlier batches have been offered internships at companies such as IBM, GE, Microsoft, CA, CMC, Honeywell etc. and are thus provided an opportunity to learn in an industry environment during their last semester.

Note that AICTE has mandated MCA to be a 2-year programme from this academic year and there may be changes in the programme as a result. These will be announced on the university website and school website as and when the official communication is received by the university. Students applying for MCA programme this year are strongly advised to visit the school and university websites frequently for any updates before applying. However, the admission process remains the same as in the previous years.

Admission Process:

MCA admissions are done based on the scores obtained in **NIMCET (National Institute of Technology Master of Computer Applications Common Entrance Test) 2020** only. **NIMCET 2020 scores, in order of merit, will be the basis for admission which is done by the counselling at the University of Hyderabad. Interested candidates need to apply to the University of Hyderabad and separately need to provide their NIMCET 2020 scores (when available) as per the information provided by Controller of Examination, University of Hyderabad. This year NIMCET is being conducted by NIT Raipur and the candidates are advised to visit NIMCET 2020 website for details.**

Foreign candidates

Foreign nationals seeking admission to MCA programme should have the required minimum qualification. Candidates should have ability to communicate in English and should submit a supportive document with a good score in TOEFL/IELTS at the time of admission. **Please also read section on Admission of Foreign Nationals in the prospectus.**

General Information for admitted candidates:

The admitted candidates have to report to the School on the day of commencement of the semester. All first year students of all programmes – Ph.D., Integrated M.Tech, M.Tech (CS/AI/IT/IS) and MCA – will have orientation programmes on the first day of the semester to introduce them to the School faculty and be appraised of the academic procedures. The first year M.Tech. (CS/AI/IT/IS) students will have an elective orientation programme along with second and third year MCA students in the afternoon of the first day of the semester. M.Tech. students are **strongly encouraged** to attend the elective orientation as it helps them in choosing the electives. The elective registration will happen during the first week of the semester. Elective registration is done in descending order of GATE scores and according to the limits per stream for each elective course. Students who are not physically present for the elective registration will lose the opportunity to choose electives as per their interest if these seats are filled up.

Pre-Ph.D. course work for registration to Ph.D. programme:

The candidates admitted to Ph.D. programme in the School will be governed by the following rules:

- 1 All candidates admitted to Ph.D. in the School, whether full time, part time or external, are required to complete the course work. Initial admission is provisional and subject to candidate passing the course work. In case a candidate is unable to pass the course work within one year, his/her admission stands automatically cancelled.

2 The course work will consist of four papers - Research Methods in Computer Science, Data Structures and Programming, and Ethics are core courses. In addition, there will be an elective course. The elective papers will be decided by the Research Advisory Committees of the candidates concerned.

3 Candidates are advised to take all the four courses in the first semester itself. Any exceptions will be decided by the Research Advisory Committees of the candidates concerned.

4 On successful completion of all the four papers, the candidate will be allowed to continue his/her research work towards Ph.D.

Candidates are requested to refer to appropriate section in the prospectus about UGC Regulations 2016.

M.Tech (CS/AI/IT/IS) and 5-year Integrated M.Tech.

A dissertation work is done by the students starting from the 3rd semester for M.Tech (CS/AI/IT/IS) students and 9th semester for Integrated M.Tech students. The students have the option of doing part of their dissertation work in an external institution (academic or corporate) of high repute – both national and international – where the School has an ongoing collaboration. However, the final decision on being permitted to do part of the dissertation in an external institution is at the discretion of the project supervisor of the student concerned. Internship through placement is **not** considered part of the dissertation.

Internship

Short-term internships, especially during Summer vacation times, are encouraged for all students by the School.

For further information visit: <http://scis.uohyd.ac.in>

Faculty

Senior Professors

Arun Agarwal, Ph.D. (I.I.T Delhi), B.Tech. (I.I.T Delhi), SMIEEE, FIETE, FAPAS - Image Processing, Computer Vision, Pattern Recognition and Neural Networks, Grid Computing. **(Pro-Vice-Chancellor-1)**

C. Raghavendra Rao, Ph.D. (Osmania) - Simulation & Modeling, Knowledge Discovery, Computational Intelligence.

Professors

Hrushikesh Mohanty, Ph.D. (I.I.T. Kharagpur) - Distributed Computing, Software Engineering, Computational Social Science. **(On leave)**

K.Narayana Murthy, Ph.D. (Hyderabad) - Natural Language Engineering

Chakravarthy Bhagvati, Ph.D. (RPI, USA) - Image Processing, Computer Vision, Deep Learning **(Dean of the School)**.

Atul Negi, Ph.D. (Hyderabad), M.S. (I.I.Sc., Bangalore) - Pattern Recognition and its Applications, Computational Intelligence, Technology Enhanced Learning

Siba Kumar Udgate, Ph.D. (Berhampur) - Mobile Computing, Networks and Architecture.

Rajeev Wankar, Ph.D. (DAVV, Indore) – Parallel Computing, Grid Computing, Analysis of Algorithms

Alok Singh, D.Phil. (Allahabad) - Combinatorial Optimization using Heuristic & Metaheuristic techniques.

Vineet C. P. Nair, Ph.D. (Griffith University, Australia) - Knowledge Representation and Reasoning, Multi-Agent Systems, Logics in Artificial Intelligence.

S. Durga Bhavani, Ph.D. (Hyderabad) - Analysis of Algorithms, Fractal Geometry, Mathematical Modeling, Social Network Analysis, Algorithms in Bioinformatics, Analysis of Algorithms.

V.Ch.Venkaiah, Ph.D. (I.I.Sc., Bangalore) – Discrete Mathematics, Algorithms, Cryptography

Salman Abdul Moiz, Ph.D. (Osmania) – Distributed Computing, Software Engineering, Disaster Recovery

Associate Professors

T. Sobha Rani, Ph.D. (Hyderabad) - Bioinformatics, Machine Learning Techniques, Advanced Data Structures

K. Swarupa Rani, Ph.D. (Acharya Nagarjuna), Data Mining, Time-Variant Databases, Machine Learning

Digambar Povar, Ph.D. (BITS, Pilani), M.Tech. (NIT Warangal), B.Tech. (Andhra University) – Digital Forensics, Cloud Computing, Cyber Security

Nagender Kumar Suryadevara Ph.D. (Massey University, New Zealand)-Wireless Sensor Networks, Internet of Things and Real-Time Data Mining.

Y.V. Subba Rao, Ph.D. (Hyderabad) - Cryptography, Theory of Computation, DBMS, Data Forensics

P S V S Sai Prasad, Ph.D. (Hyderabad) - Data Mining, Rough Sets, Big Data Analytics- Data Mining, Rough Sets.

N. Rukma Rekha, Ph.D. (Andhra U.) - Object Oriented Analysis and Design, UML, Cryptography, Pervasive Computing, Software Engineering

Assistant Professors

Wilson Naik, M.Tech. (JNTU Hyderabad) - Network Forensics, Systems Security, Networking

P. Anupama, Ph.D. (Hyderabad), M.S. (UMBC, USA) - Networking, Operating Systems and Graph Mathematical Morphology.

M. Nagamani, M.Tech. (JNTU, Hyderabad) - Speech Processing, Information Retrieval, Intelligent tutoring system, Cognitive psychology, Embedded Systems

Rajendra Prasad Lal, Ph.D. (Utkal) - Graph Algorithms, Mathematical Programming, Computational Geometry.

Anjeneya Swami Kare, M.Tech. (IIT Kanpur), Ph.D.(IIT Hyderabad) - Graph Theory, Algorithms, Data Structures, Theory of Computation.

Nekuri Naveen, Ph.D. (Hyderabad), M. Tech (SE), B.Tech. (CSIT), – Data Mining, Neural Networks, Optimization

Md. Abdul Saifulla, Ph.D. (Anna), M.S. (IIT Madras) – Computer Networks, Algorithms

Avatharam Ganivada, Ph.D. (Calcutta), M.Tech. (Andhra), M.Tech. (**University of Mysore**) – Machine Learning, Softcomputing

Faculty of IDRBT

Professors

V.N. Sastry, Ph.D. (IIT Kharagpur) – Optimization Techniques, Fuzzy Control, Mobile Payments Security, m-Governance, ALM, Portfolio & Network Optimization

Vadlamani Ravi, Ph.D. (Osmania), RWTH Aachen, Germany – Data Mining, Text Mining, Big Data Analytics, Soft Computing, Neuro/Fuzzy/Evolutionary Computing and applications.

B.M. Mehtre, Ph.D. (IIT Kharagpur) – Cyber Security, Digital Forensics, and Biometrics

Associate Professors

M.V.N.K. Prasad, Ph.D. (B.H.U.) - Image Processing, Security and Biometrics

G. R. Gangadharan, Ph.D. (University of Trento, Italy) – Cloud Computing, Web Services, Green IT.

N. P. Dhavale, FPM (IIM Calcutta) - Payment Systems, IT Infrastructure

Assistant Professors

V. Radha, Ph.D. (Hyderabad) – Cloud Computing, Security, Networks, Web Services

Rajarshi Pal, Ph.D. (IIT Kharagpur) – Image Processing, Cyber Security.

N.V. Narendra Kumar, Ph.D. (TIFR) - Design, Modelling, Security Analysis of Systems including Operating Systems, Payment Protocols and Mobile Apps

P. Shyam Kumar, Ph.D. (Pondicherry) - Cloud Computing, Virtualization, Cryptography, Internet of Things, Big Data, Internet Technologies & Compiler Design.

Nagesh B. Sristry, Ph.D. (NIT Warangal) - Machine Learning, Data Mining, Big Data Analytics, Text Analytics, Database Systems, Distributed Systems

Abhishek Thakur, Ph. D. (BITS-Pilani), M.S.(Capella University, Minneapolis, USA) B.E. (Roorkee).

Faculty of CR Rao AIMSCS

Dr Ashutosh Saxena

Sirisha Velampalli, Ph.D. (Computer Science, JNTU Kakinada) - BigData, Software Engineering, Mathematical Modeling

Pradeepthi KV Ph.D. (Computer Science, Anna) - Cyber Security, Machine Learning, Computer Networks

Padmavathi G Ph.D (Mathematics, JNTU Hyderabad), Cryptography and Cryptanalysis

Appal T Naidu, Ph.D. (Computer Science, JNTU, Hyderabad) – Discrete Mathematics, Algorithms, Cryptography

Priyanka Mekala Ph.D. (Electronics Communications, Florida International University USA), VLSI, Embedded system.

Ashutosh Saxena Ph.D. (Computer Science, DAVV Indore), PDF (QUT Australia) - Information Security, Cryptography

Assistant Professors

Dr Pradeepthi K V, Ph D (CSE)

Dr Sirisha V, Ph D (CSE)

Dr G Padmavathi G,

Dr M Priyanka Reddy

Visiting Professors

Dr. Rajkumar Buyya, University of Melbourne, Australia

Dr. Andre Rossi, Université d'Angers, France

SCHOOL OF PHYSICS

The School of Physics is a centre of excellence for multi-disciplinary and interfacial research and teaching in diverse fields that range from nano-sciences and cold atoms to cosmology, and from photonics, quantum field theory, spintronics, and particle physics to complex systems. The School has been selected by the UGC as a Centre for Advanced Study (CAS) Level II to strengthen its teaching and research programmes. It has obtained level II funding under the FIST scheme of DST in a nationwide competition. The DST has recognized the School as one of the five founding centres in the country for Theoretical Physics Seminar Circuit (TPSC). The School has been acknowledged as a 'Centre of Excellence' by the Third World Academy of Sciences, Trieste, Italy. It has won recognition by UGC to establish the Networking Resource Centre (NRC), which promotes various outreach programmes to upgrade teaching and research through interaction with researchers from colleges and educational institutions across the country. The faculty of the School have research collaborations with many institutions both in India and abroad, such as the ongoing ones with Fermilab, on neutrino experiments, and discussions with CERN for compact muon solenoid experiments.

The School of Physics has developed high-quality teaching programmes at the Integrated M.Sc., M.Sc., and Ph.D. levels with a student-teacher ratio that is favorable for individual attention.

The School offers active research programmes to train Ph.D. scholars and has gone on to achieving national and international recognition in areas that include condensed matter physics, high-energy physics (experiment and theory), quantum field theory, cosmology, gravity, nonlinear optics, quantum optics, laser physics, nanoscience, and electronics science. In particular the areas of research include critical phenomena, liquid crystals, thin films, ion beam physics, semiconductors, nanostructured materials, quantum dots, cold atoms, quantum field theory, heavy flavor phenomenology, gravitational waves, neutrino physics, experimental high energy physics, quantum computing, high T_c superconductivity, shape formation in metals and ceramics, magnetism, modern quantum optics, femtosecond laser experiments, ferroelectrics and microwave devices, experiments and computational studies on soft and active matter, biological matter and Photonic Crystals

Prof. V. Seshu Bai is the Dean of the School.

Programmes of Study

The School offers **I.M.Sc. (Physics)**, **M.Sc. (Physics)**, and **Ph.D.** programmes.

I.M.Sc. (Physics) – a 5-year Integrated course: This programme is of five years (10 semesters) duration with an exit option in three years, with a B.Sc. degree. The Physics courses taken by the students in the first six semesters include Mechanics, Vibrations and Waves, Electricity, Magnetism and Electromagnetic Theory, Properties of Matter, Kinetic Theory and Thermodynamics, Optics, Modern Physics and Atomic and Molecular Physics. In addition, the corresponding laboratory courses are also run during all the semesters to complement the classroom teaching and strengthen the students' understanding and application. The teaching lays an emphasis on tutorials and problem-solving. In the subsequent four semesters, the I.M.Sc. student follows the course work offered in the standard M.Sc. programme.

M.Sc. (Physics) –The first three semesters cover the fundamentals of the subject. The courses taken by all the students include Classical Mechanics, Quantum Mechanics, Mathematical Methods, Electrodynamics, Statistical Mechanics, Introductory Particle Physics, Introductory Solid-

State Physics, Introductory Optics and Laser Physics, Atomic and Molecular Physics, Computer Applications and Electronics. Besides ensuring a strong Physics foundation through class room teaching, laboratory courses in Electronics, Solid State Physics, Digital Electronics, Laser Physics, Microwaves, Modern Physics, Nuclear and Particle Physics are also a part of the curriculum. There is a strong emphasis on problem-solving and learning experimental techniques. In the fourth semester, the students choose electives from a wide range of specialization courses. All students are eligible to do a project work with any of the faculty of the School in the fourth semester. Students who do not opt to do a project will have to acquire equivalent credits by taking other courses offered by the School.

Ph.D. (Physics): All students admitted into the Ph.D. programmes are required to undergo course work. Satisfactory completion of prescribed course work with at least 50% marks is a prerequisite for confirmation of Ph.D. registration. The research programme following course work comprises the student undertaking research under the supervision of a faculty member, and on a topic approved by the School. The student is required to show satisfactory progress throughout the period of research as well as fulfill other requirements prescribed by the School. Such progress is monitored every semester by a Doctoral Research Committee (DRC). Apart from the course work, the Ph.D. requirements are the submission of research results in the form of a thesis, at least one research paper in UGC-CARE listed journals and defense of the thesis in an open viva-voce examination.

Entrance Examination

M.Sc (Physics)

The entrance test for M.Sc. (Physics) will mainly be in Physics (Mechanics, General properties of matter, Heat and thermodynamics, Wave motion, Electricity and magnetism, Light, Modern physics, Electronics and Measurements) and Mathematics (Algebraic equations, Differential and Integral calculus including limits, Vectors, Matrices and Determinants, Elementary differential equations and Elementary functions and their graphs).

Ph.D (Physics)

Admission to Ph.D. in Physics is based on a written test and interview. The written test is compulsory for all students including those who have cleared UGC-CSIR NET, GATE, JEST or equivalent National level exams. Appropriate weightage for clearing the above-mentioned National-level exams will be given at the interview. Appropriate weightage will also be given for project / thesis work done at the Masters level either as a part of the curriculum or afterwards. The framework for test and interview will be as per the UGC Regulations, 2016 vide notification dated 5th May 2016. A part of the test will be based on the standard M.Sc. syllabus of Indian Universities including:

Classical Mechanics, Relativity, Thermodynamics and Statistical Mechanics. Electromagnetic Theory, Quantum Mechanics, Modern Physics, Condensed Matter Physics, Nuclear and Particle Physics, Optics, Electronics, Mathematical Physics and Experimental Techniques.

The written test will consist of objective type questions. A part of the written exam will be on research methodology to assess the acumen of the student for research. This test is a qualifying one by 2016 UGC regulations. Those who qualify in the written exam will be called for an interview on the basis of their performance.

Faculty

Senior Professors

Bindu A. Bambah, Ph.D. (Chicago) –Quantum Field Theory, Neutrino Physics, Quantum Entanglement– Theoretical Physics, Experimental Neutrino Physics, High Energy Cosmology, Women in Science (T)

V. Seshu Bai, Ph.D. (I.I.T. Madras) - Condensed Matter Physics (E), Superconductivity, Intermetallics, Rapid Prototyping and Gelcasting of Ceramic & Metallic Components (E) (**Dean**)

Ashok Chatterjee, Ph.D. (IACS, Jadavpur) – Condensed Matter Physics (T) – Low-dimensional Systems, Strongly Correlated Systems, Superconductivity (T)

Professors

M. Sivakumar, Ph.D. (University of Madras) - Quantum Field Theory (T), General Relativity, Physics Education.

Guruswamy Rajaram Ph.D. (TIFR, Mumbai) - Micro-electronics, Device Fabrication (also in CASEST)

P. K. Suresh, Ph.D. (CUSAT, Cochin) - Cosmology (T)

K. C. James Raju Ph.D. (IIT Madras) Materials, Devices, Simulations and Measurement Techniques for Microwave and THz frequency range, Micro-machined Sensors, Ferroelectric Thin Films, Laser – Matter Interactions for material processing, Nano Electronics and Condensed Matter Physics. (also in CASEST)

M. Ghanashyam Krishna Ph.D. (I.I.Sc.) - Nanostructured Materials, Thin Films, Sensors and Devices. (also in CASEST)

P. Anantha Lakshmi, Ph.D. (UoH, Hyderabad) – Quantum Optics, Cavity Optomechanics, Quantum Information (T)

Suneel Singh, Ph.D. (UoH, Hyderabad) - Quantum Optics, Non-linear Optics (T)

Nirmal K. Viswanathan, Ph.D. (UoH, Hyderabad) – Singular Optics, Optical Angular Momentum, Spin-Orbit Interaction of Light and Near- Field Optics (E)

Rukmani Mohanta, Ph.D. (Utkal University) -High Energy Physics, Heavy Flavour Physics, Neutrino Physics (T)

S. Srinath. Ph.D. (UoH, Hyderabad) - Condensed Matter Physics, Magnetic nanostructures. Multilayers/thin films, Magnetic oxides, Multiferroics (E)

E. Harikumar, Ph.D. (UoH. Hyderabad) - Quantum Field Theory and Gravity (T)

Surajit Dhara, Ph.D. (RRI, Bangalore) – Soft Matter and Living Systems, Soft Matter Photonics (E & T)

Samrat L. Sabat Ph.D. (Berhampur) (Head, CASEST) - Digital Signal Processing, Cognitive radio network, VLSI Signal Processing. (also in CASEST)

S. V. S. Nageswara Rao Ph.D. (University of Hyderabad) - Electronic Materials and Devices: Design, Fabrication, Ion beam studies, Radiation damage and Reliability studies. (also in CASEST)

B. V. R. Tata Ph.D. (University of Madras) - Soft Condensed Matter and Photonic Crystals (Experiments & Simulations)

Sharath Ananthamurthy, Ph.D. (The University of Iowa) - Soft Condensed Matter, Biophysics, Optics, Laser Spectroscopy (E)

Vemuru Subrahmanyam, Ph.D. (TIFR, Bombay) – Theoretical Condensed Matter Physics, Strongly-correlated Systems, Quantum Entanglement and Information (T)

Associate Professor

Ashoka S. Vudayagiri, Ph.D. (UoH, Hyderabad) – Quantum Optics. Laser Cooling, Quantum Information, Ferrofluids (E)

G. Vaitheeswaran, - Ph.D. (Anna University, Madras), Solid state theory, Material science, Magnetism, Superconductivity, High Pressure Studies, elastic and mechanical properties investigated using first principles density functional calculations (DFT). (T).

P. Manimaran, Ph.D. (UoH, Hyderabad) - Computational Physics, Complex Systems, Network Science, Computational Biology (T).

P. Prem Kiran, Ph.D. (UoH, Hyderabad) Laser - matter interaction, Spatio-temporal evolution of laser induced plasmas and shock waves; Propagation of Ultra short, intense femtosecond pulses in transparent media; Nonlinear Optics; Laser Shock Peening (Experiment and Simulations).

Assistant Professors

Soma Sanyal, Ph.D. (IoP, Bhubaneswar) - Cosmology, Heavy-ion Collisions (T)

A. Rajani Kanth, Ph.D. (University of Tsukuba, NIMS - Japan) – Spintronic Devices (E)

Venkataiah Gorige, Ph.D. (Osmania University, Hyderabad) - Condensed Matter Physics, Magnetic Materials & Multiferroics, Electric field control of Magnetism (E)

Shyamal Biswas, Ph.D. (IACS, Kolkata) - Statistical & Condensed Matter Physics (T)

Barilang Mawlong, Ph.D. (UoH, Hyderabad) – Theoretical High Energy Physics (T)

N. Sri Ram Gopal, Ph.D. (Tulane University, New Orleans) Ultrafast Spectroscopy, Laser Surface Patterning (E)

Jayeeta Lahiri, Ph.D. (University of South Florida, Florida) – Experimental Condensed Matter Physics, Surface and Material Science (E).

Abhiram Soori, Ph.D. (Indian Institute of Science, Bengaluru) – Condensed Matter Physics (T)

Yalla Ramachandrarao, Ph.D. (University of Electro-Communications, Tokyo, Japan) - Quantum Optics, Cavity Quantum Electrodynamics, Nano-photonics, and Diamond Nano-photonics (E)

Emeritus Faculty/ Fellow/ Scientist

A. K. Bhatnagar, Ph.D. (Maryland) - Materials Science (E), (NASI Honorary Scientist)

A. P. Pathak, Ph.D.(I.I.T. Kanpur), F.N.A.Sc .. F.Inst.P. (London), C.Phys. - Atomic Collisions in Solids, Radiation Damage, Surface Physics, Super lattices & Heterostructures (T & E), (NASI Senior Scientist Platinum Jubilee Fellowship)

S. N. Kaul, D.I.I.T., Ph.D. (I.I.T. Kharagpur), F.N.A., F.A.Sc., C.Phys., F.Inst. P (London) – Condensed Matter Physics, Phase Transitions. Magnetism, Critical and Re-entrant Phenomena (E) (INSA Honorary Scientist)

C. Bansal, Ph.D. (TIFR, Bombay) - Condensed Matter Physics, Phase Transformations, Mossbauer Spectroscopy, Nanomaterials (E) (UGC Emeritus Professor).

Honorary Professors

D. Narayana Rao, Ph.D. (I.I.T. Kanpur) - Non-linear Laser Spectroscopy (E)

Vipin Srivastava, Ph.D. (Roorkee) - Condensed Matter Physics, Neural Networks, Brain Function Modeling (T).

S. Dutta Gupta, Ph.D. (Moscow) – Quantum Optics, Nonlinear Optics, Plasmonics, Nano Optics (T).

Centre for Advanced Studies in Electronic Science & Technology (CASEST)

The Centre for Advanced Studies in Electronics Science and Technology (CASEST) is a successor to the DoE/UGC Electronics Programme initiated in 1995-96 to carry out research and teaching in Electronics Science. The Centre is supported by the UGC's Special Assistance under DRS-1. The Centre offers three programmes: Master of Technology in Integrated Circuits Technology [M.Tech. (ICT)], Master of Technology in Microelectronics & VLSI Design [M.Tech. (MVLSI)], and Ph.D. in Electronics Science and Engineering

M.Tech. (Integrated Circuits Technology): It is a two-year (4-semester) AICTE approved programme. The first two semesters are devoted to course-work, and the next two semesters are devoted to master's thesis work. Students have the option to do their master's thesis within the University or Industry or R & D Labs in relevant area. For all candidates carrying out thesis work in Industry or R&D Labs, there will be two supervisors: one from the respective Lab/Company and the other from CASEST, University of Hyderabad. Currently, the course work offered by CASEST covers theory and laboratory courses in Analog, Mixed-Signal, Digital, RF CMOS IC Design, Microwave-RFIC, MEMS, Semiconductor Devices and Microelectronics fabrication. The laboratory courses cover Design, Simulation, Fabrication, Testing and Validation of Devices, Integrated Circuits by using state-of-the art EDA Tools, Technologies and Techniques.

Admission:

M.Tech (Integrated Circuits Technology) Regular Mode (With valid GATE score: 18 Seats): Eighteen regular seats are available for candidates who have a valid GATE score in Electronics and

Communication Engineering / Instrumentation Engineering / Physics along with **60 % or equivalent aggregate marks in EITHER**

A. B.E/B.Tech. in. Electronics, Instrumentation and Control Engg/ Electronics and Communication Engg/ Electronics and Control systems/ Electronics and Information Systems/ Electronics and Instrumentation/ Electronics Engineering/ Electronics Science and Engineering/ Electronics Technology/ Instrumentation/Instrumentation & Electronics Engg./ Instrumentation & Control Systems/ Instrumentation Technology.

OR

B. M.Sc in Electronics/ Electronics and Communication/Engineering Physics & Instrumentation/ Physics(with Electronics as one of the Subjects) / Radio physics/Radio Physics & Electronics/Applied Electronics

Admission in M.Tech IC Technology regular mode is based only on the GATE scores in the order of merit in one of the following: 1) Electronics and Communication Engineering, 2) Instrumentation Engineering and 3) Physics. There is no written test or interview for admission to this course.

M.Tech. (Integrated Circuits Technology) Sponsored Mode (Without GATE Score:12 Seats): In addition to regular mode, twelve seats are available for candidates with minimum three years of experience in Govt. R&D Labs/Public Sector Units/Publicly Listed Companies and sponsored by their parent organizations. Shortlisted candidates based on marks in the qualifying degree in the order of merit will be called for the interview and the admission will be based on the performance in the interview according to merit. **The educational qualification requirements are same as regular mode M.Tech. (Integrated Circuits Technology) except for GATE score.** The sponsored applicants have the option to do their one year M.Tech Thesis work in their respective Lab/Company. The duration for completing the course for sponsored candidates will be the same as for regular candidates. Eligible candidates who wish to apply under sponsored category need to send a hard copy of their application, (in addition to online application) with “SPONSORED CATEGORY – M.Tech (ICT)” clearly marked on the top of the first page of the application, along with the sponsorship certificate from the organization to The Controller of Examination, University of Hyderabad, Prof. C.R. Rao Road, Gachibowli, Hyderabad-500046 before the last date. The course fees for sponsored category is Rs.50,000/- (Fifty thousand rupees) per semester.

M.Tech. (Microelectronics & VLSI Design): It is a two-year (4-semester) programme. The first two semesters are devoted to course-work, and the next two semesters are devoted to master’s thesis work. Students have the option to do their master’s thesis within the University or Industry or R & D Labs in relevant area. For all candidates carrying out thesis work in Industry or R&D Labs, there will be two supervisors: one from the respective Lab/Company and the other from CASEST, University of Hyderabad. The course of this program covers theory and laboratory courses in Analog, Mixed-Signal, Digital, RF devices and circuits, VLSI Signal processing, Wireless Communication IC Design, Microsystems Modeling and Design, MEMS and THz Technology, Devices and Microelectronics fabrication. The laboratory courses cover Design, Simulation, Fabrication, Testing and Validation of Devices, Integrated Circuits by using state-of-the art EDA Tools, Technologies and Techniques.

Admission:

M.Tech. (Microelectronics & VLSI Design) Regular Mode (Without GATE Score: 12 Seats-regular mode): Admission to this program does not require GATE score and will be based on a written examination conducted by the University of Hyderabad as per the schedule mentioned in the prospectus. Candidates shortlisted based on their performance in the written examination will be called for an interview. The admission will be based on the combined performance in the written examination and interview according to merit. The written examination will be of objective type. It will include questions from the standard B.E/B.Tech syllabi of Indian Universities in the areas of

Electronics & Communication Engineering, Instrumentation Engineering/ Electronics Engineering. The candidates admitted to this program are not entitled for any fellowship from AICTE/University even if they have a valid GATE score.

Educational Qualification: A minimum 60 % or equivalent aggregate marks in B.E/B.Tech in Electronics and Communication Engineering/ Electrical and Electronics Engineering/Electronics and Instrumentation Engineering/Electronics Engineering. (Please see table in Chapter 2 for eligibility criteria).

M.Tech. (Microelectronics & VLSI Design) slow-pace mode (06 seats):

In addition to regular mode, six seats are available as slow-pace mode for candidates employed in (i) listed company in any stock exchanges in India or (ii) Corporate Social Responsibility (CSR) company (Ministry of Corporate Affairs has notified Section 135 and Schedule VII of the Companies Act as well as the provisions of the Companies (Corporate Social Responsibility Policy) Rules, 2014 (CSR Rules) which has come into effect from 1 April 2014 and certain amendment in May 2016.) or (iii) National research laboratories (DRDO, CSIR, ISRO, DAE, DBT, DST, MeiT etc) .

Educational Qualification: A minimum of 60 % or equivalent aggregate marks in B.E/B.Tech in Electronics and Communication Engineering/ Electrical and Electronics Engineering/Electronics and Instrumentation Engineering/Electronics Engineering. (Please see table in Chapter 2 for eligibility criteria).

Admission: Shortlisted candidates based on marks in the qualifying degree in the order of merit will be called for an interview and the admission will be based on the performance in the interview only, according to merit. Reservation policy as per the govt of India rules will be applied.

Course Duration: In this mode, an admitted candidate needs to complete all the credits (100 credits) of M.Tech (Microelectronics & VLSI Design) within four years of their admission, extendable by one year with due permission from the University with valid reasons. The candidates have the option to do their one year M.Tech Thesis work in their respective Lab/Company.

Semester registration and fees: A candidate admitted under slow pace category need to register for minimum two theory courses in a semester until all theory courses are completed. The fees for the slow pace category candidate will be as per the University guidelines.

Attendance: The attendance requirement for theory courses is as stipulated (75%) as per University rules. For laboratory courses, flexibility in timings may be allowed.

Examinations: The slow pace category candidates will write examinations along with the regular M.Tech (Microelectronics & VLSI Design) students. There will be no flexibility in scheduling the examinations.

Hostel Accomodation: The candidates admitted under slow pace category are not entitled for University hostel accomodation.

The candidates admitted to this program are not entitled for any fellowship from AICTE/University even if they have a valid GATE score.

Eligible candidates who wish to apply under slow-pace category need to (i) apply online for the course M.Tech (Microelectronics & VLSI Design) (ii) take printout of the online filled form (iii) Send the hardcopy of the filled printed applicaion form along with the valid certificate indicating proof of employment in a listed company/CSR company/National research lab, to The Controller of Examination, University of Hyderabad, Prof. C.R. Rao Road, Gachibowli, Hyderabad-500046, such that it should reach the Controller of Examination office within 15 days of the last date of filling the online application, failing which it will be rejected. The candidate needs to clearly write

“SLOW-PACE CATEGORY – M.Tech (MVLSI)” on the top of the first page of the application and the envelope.

Ph.D. (Electronics Science and Engineering) (02 Seats for AY 2020-21): It is a research program covering areas such as Semiconductor Devices, Thin Film Devices, Tunable Microwave Devices, Sensors, Signal Processing etc,. The proposed intake is two for the academic year 2020-21.

Admission to Ph.D program: The University will conduct a written examination, following the written examination; candidates will be shortlisted for interview based on merit in the written examination. The admission to selected students will be based on the combined performance in the written examination and interview according to merit. UGC/CSIR JRF qualified candidates are not exempted from the written test.

All admitted Ph.D students will have to successfully complete the course work as stipulated by the University of Hyderabad regulations. Further details are available at the following link <http://casest.uohyd.ac.in>

Break-up weightages for Ph.D. interviews

Sl.No	Wightage being considered	Marks
1	Research Proposal and its defence	5
2	a. UGC/CSIR JRF OR	5 OR
	b. UGC NET (Lectureship)	3
3	Interview	20
Total		30

Faculty

Professors

Guruswamy Rajaram Ph.D. (TIFR, Mumbai) Micro-electronics, Device Fabrication

K. C. James Raju Ph.D. (IIT Madras) Materials, Devices, Simulations and Measurement Techniques for Microwave and THz frequency range, Micro-machined Sensors, Ferroelectric Thin Films, Laser –Matter Interactions for material processing, Nano Electronics and Condensed Matter Physics.

M. Ghanashyam Krishna Ph.D. (I.I.Sc.) Nanostructured Materials, Thin Films, Sensors and Devices

Samrat L. Sabat Ph.D. (Berhampur) **(Head)** Digital Signal Processing, Cognitive radio network, VLSI Signal Processing

S. V. S. Nageswara Rao Ph.D. (University of Hyderabad) Electronic Materials and Devices: Design, Fabrication, Ion beam studies, Radiation damage and Reliability studies.

Associate Professor

VijayaSankara Rao Pasupureddi Ph.D. (IIT Kharagpur) Analog, RF and Mixed-Signal Integrated Circuits and Microsystems.

Assistant Professors

PratapKollu Ph.D. (Chungnam National University, South Korea) Nanomagnetic sensors and materials, 2D Materials, Lab on-chip biosensors.

Bhawna Gomer, Ph.D (Saha Institute of Nuclear Physics) Experimental High energy physics, Trigger Electronics, Algorithm development and Signal processing.

Anjali Priya, Ph.D.(MNNIT Allahabad) Semiconductor Devices, VLSI Design, Nanoscale Device Modeling and Simulation

Ph.D. vacancies and areas for supervision

Sl.No	Faculty name	Research area	Vacancies
1	Prof. S. V. S. Nageswara Rao	Electronic Materials and Devices: Design, Fabrication, Ion beam studies, Radiation damage and Reliability studies	01
2.	Dr. Pratap Kollu	Nanomagnetic sensors and materials, 2D Materials, Lab on-chip biosensors	01

Advanced Centre of Research in High Energy Materials (ACRHEM)

ACRHEM-Advanced Centre of Research in High Energy Materials, a DRDO centre of excellence, came into existence with a memorandum of Collaboration (MOC) signed between Defence Research and Development Organisation (DRDO) and University of Hyderabad (UoH) in March 2005. The major objective of the centre is to develop new novel high energy materials (HEMs) for explosives and propellant application and development of explosive detection techniques using ultrafast laser-based spectroscopic techniques. The research at the Centre is interdisciplinary in nature, directed to develop deeper insights into the design of new energetic materials based on quantum chemistry principles, synthesis and development of new HEMs, development of energetic binders, oxidizers, nanomaterials and nanothermites, LASER based technologies for detection and discrimination of HEMS, LASER - mater interactions and theoretical studies on solid state properties of HEMs.

The chemistry research facilities are supported by four state of the art wet chemistry laboratories to deal with HEMs. The wet laboratories are developed with inputs from HEMRL (Pune) and VSSC (Trivandrum), the two leading laboratories working in the area of HEMs for a long time. About 30 chemistry researchers work full time for the Centre. The Centre has in-house facilities for characterization of intermediates and final products of chemical reactions and also to evaluate the sensitivity of newly developed HEMs. The characterization facilities include Liquid chromatograph coupled high resolution mass spectrometer (LC-HRMS), FTIR, UTM, Fluorimeter, DMA, TG-DTA, DSC, UV-Vis-NIR spectrophotometer, Combustion Calorimeter, Pycnometer, Viscometer, etc., and being augmented with solid state NMR, single crystal XRD, CHNS/O analyser etc.

ACRHEM provides high-quality teaching with student-faculty ratio highly favourable for individual attention. The Centre has various ongoing research programmes both in experimental and theoretical fields to train Ph.D. scholars in fundamental as well as applied areas of Physics and Chemistry processes involved with HEMs. The following broad areas of research are being pursued at ACRHEM: Design of novel HEMs; Synthesis of novel HEMs; Synthesis of green oxidizers; Synthesis of energetic binders and plasticizers; Synthesis of nanomaterials and development of

nanostructures; Development of nanothermites; Computational modelling of chemical kinetics of HEMs; Computational Physics;; THz generation/characterization and spectroscopy, Surface Plasmon characterization and applications; Laser induced shock wave generation and characterization; Numerical simulations of laser induced shock waves; Time and spatially resolved spectral analysis under extreme conditions; Development of instruments and technology to observe, measure, by ultrafast measurement techniques the processes involved in the HEM applications; Detection of HEMs using LIBS, THz, Raman, CARS, SERS, Photoacoustic techniques; Polymer Sciences involving HEMs; Density functional study of HEMs involving electronic structure and mechanical property calculations; Modelling the physics of the release of energy by HEMs; Material Sciences of HEM;

More details can be found at www.acrhem.org.

ACRHEM faculty, scientists and students have accomplished several national and international honours such as Fellow of the Institute of Physics, UK; Senior Members of the OSA, IEEE, SPIE; MRSI medal; B.M. Birla Science Prize; DAE Young Achiever award; NASI-SCOPUS young scientist award; Fellow of the Telangana Academy of Sciences; Dalmia-HEMCE award; Chancellor's award of the UoH; K.V. Rao Young Scientists etc.. Some of the Ph.D. students of ACRHEM have been placed in prestigious institutes abroad as post-docs and as faculty members in IIT Kanpur and NIT Kurukshetra.

Infrastructure

ACRHEM has state-of-the art laboratory facilities with advanced equipment required to carry out research in all the major areas of our expertise, in addition to being able to access other infrastructure from the University pool. More details of the **facilities of the Centre** are available on our website.

Computer & Library Facilities:

The Centre also possesses EXPLO5 ver. 6.03 Thermokinetic Code for Explosive/Combustion Property Calculations. Access to the University's CMSD / HPCF computer facility is additionally available for simulation work.

The Centre has a highly specialized library which houses books on a range of subjects relevant to the fields of research of its faculty and research scholars. In addition, access is available to a large number of books and journals through the University's Indira Gandhi Memorial Library.

Faculty

Dr. V. Kameswara Rao, Ph.D. (IIT Madras-Chemistry) M.C.A (IGNOU, New Delhi).High Energy Materials, Gas Sensors, Biosensors, Nanomaterials, Adsorption Materials, Electrochemistry
(Director)

Professors

Prof. S. Venugopal Rao, Ph.D. (Hyderabad) – Ultrafast Laser Spectroscopy, Ultrafast Ablation, Femtosecond Laser Induced Breakdown Spectroscopy, Laser Direct Writing, Surface Enhanced Raman Spectroscopy, Ultrafast Nonlinear Optics, Explosives Detection Techniques. (Experiment)

Prof. A.K. Chaudhary, Ph.D. (Burdwan) - Laser Spectroscopy and Nonlinear Optics. (Experiment)

Dr. G. Manoj Kumar, Ph.D. (Hyderabad) - Laser induced breakdown spectroscopy, Raman spectroscopy, Design and development of experimental methods for detection of hazardous materials, Multivariate statistical analysis of spectroscopy data. (Experiment)

Project Scientists

Dr. Sree Harsha Srikantaiah, PhD (Oklahoma State University, USA) Terahertz spectroscopy, Terahertz imaging, Terahertz waveguide sensors for explosives, Ultrafast laser pulse propagation and characterization, Ultrafast filamentation, Optical methods for Remote sensing. (Experiment)

Dr. Balaka Barkakaty, PhD (Okayama University, JAPAN) Polymers and Plasticizers – Synthesis and Applications, Green Chemistry, Development of Stimuli-Sensitive Smart Nano-Materials, Methods for development of environment friendly sustainable methods and materials through Chemistry. (Experiment)

Dr. Rajasekhar Koorella, Ph.D. (IICT, Hyderabad) - Synthetic Organic Chemistry, Asymmetric Synthesis, Synthesis of High Energy Materials, Development of novel synthetic methods. (Experiment)

Dr. Sudha Kumaraswamy, Ph.D. (University of Pune) – Organic synthesis, Inorganic synthesis (Experiment)

Dr. N. Kishore Babu, Ph.D. (University of Hyderabad) Synthetic Organic Chemistry, Development of Novel Synthetic Methods - Organic Small Molecules, Rational Design and Synthesis of High Energy Materials, Synthesis of Precursors for Polymer Synthesis and Asymmetric Synthesis, (Experiment)

Associate Faculty

School of Chemistry

Prof. M. Durga Prasad, Ph.D. (Calcutta) Theoretical Chemistry: Quantum Dynamics and Many-Body Theories (Theory)

Prof. Tushar Jana, Ph.D. (Jadavpur) Polymer and Materials Science (Experiment)

Prof. P.K. Panda, Ph.D. (IISc., Bangalore) Synthesis and Exploration of chemical, biological and material aspects of porphyrinoids (Experiment)

Prof. A.K. Sahoo, Ph.D. (NCL, Pune) Organic synthesis and Organometallic chemistry. (Experiment)

Prof. K. Muralidharan, Ph.D. (IIT, Kanpur) Synthetic main group chemistry and polymers, Nano synthesis (Experiment)

School of Physics

Dr. P. Prem Kiran, Ph.D. (Hyderabad) - Laser - matter interaction, Spatio-temporal evolution of laser-induced shock waves; Propagation of Ultrashort, intense femtosecond pulses in transparent media; Nonlinear Optics. (Experiment and Numerical simulations)

Dr. G.S. Vaitheeswaran, Ph. D. (Anna University) Solid state theory, Material Science, Magnetism, Superconductivity, High-Pressure Studies, elastic and mechanical properties investigated using first-principles density functional calculations (DFT). (Theory)

Dr. A. Vudayagiri, Ph.D. (Hyderabad) Quantum Optics, Laser Cooling (Experiment).

Centre for Earth, Ocean & Atmospheric Sciences (CEOAS)

The Centre for Earth, Ocean and Atmospheric Sciences (CEOAS) was established (formerly as UCESS) at the University of Hyderabad (UoH) in February 2005 to carry out multidisciplinary research and teaching programmes in the areas of Solid Earth, Ocean and Atmospheric Sciences, and processes that connect all three components. The vision of the CEOAS is to achieve

an internationally recognized hub of excellence in Earth Science research and education. The Centre's focus is on advancement in understanding of Earth processes, resource exploration for future generations, natural hazards, extreme events in the context of global environmental and climate change. The subject of study at this Centre encompasses dynamics and evolution of the Solid Earth, its natural resources, soils and water systems, environment, physics and dynamics, of oceans and atmosphere, climate variability and change, and its global biodiversity. The Centre's mission is to conduct innovative fundamental and applied research in Earth Sciences in order to open up new understandings of the Solid Earth, Oceans and Atmosphere, Hydrosphere and Biosphere, and the processes that connect them. Further, the curriculum and various courses at the CEOAS are designed in such a way as to train students to evolve into leading researchers in relevant professional organizations, government departments and industries, and also pioneers in the advancement of Earth Sciences knowledge in academia. We also teach a foundation course (Earth and its Interacting Components), which reaches hundreds of students who major in non-geoscience courses every year. This promotes a broader understanding of processes and critical issues linking the Solid-Earth, Oceans, Atmosphere, hydrosphere and biosphere, and their relevance for society.

Recently, the CEOAS has signed MoUs with the Indian National Centre for Ocean Information Sciences (INCOIS) and CSIR – National Geophysical Research Institute (NGRI) for carrying research in mutually interested areas in the field of Earth, Ocean & Atmospheric Sciences, and also utilizing the knowledge of scientists from both institutions for teaching in the university. Besides, the Centre also collaborates with several other reputed national and international academic and research institutions. The UGC has accorded recognition to the Centre, and granted faculty and research grants through their Innovative Research Programme. The Centre is currently in the path of expansion of its infrastructure facilities with funding from DST-PURSE, MoES, DST and DST-FIST.

Programmes of Study

The Centre offers (i) **M.Sc. (2-year)** Programme in Ocean & Atmospheric Sciences, and (ii) **Integrated M.Sc. (5-year)** Programme in Applied Geology. The Centre also offers a **Ph.D.** Programme in Earth, Ocean & Atmospheric Sciences. All Programmes ensure that the man power trained at the Centre has the knowledge and competence to carry our frontline research, and develop cutting-edge Earth Science technologies.

M. Sc. in Ocean and Atmospheric Sciences

This is a four-semester programme open to candidates with a Bachelor's degree in any branch of science, who have studied both mathematics and physics as compulsory subjects at the B. Sc. level, or B. Tech. degree in civil/mechanical/electrical branches. The admission is for both sponsored and non-sponsored candidates. Selection of candidates for admission will be based on their academic qualifications, written test marks and a personal interview. The enrolled students will also have to bear any and all costs towards any oceanographic cruises (travel, accommodation, food, etc.), which will be conducted as a part of their curriculum during the second semester of the programme. The enrolled students must also get their passports ready by the middle of the first semester.

Total number of seats/intake is 10. Both sponsored (sponsoring agency) and non-sponsored candidates will have to pay the fee as prescribed by the University.

M. Sc. (5-year Integrated) in Applied Geology

This is a ten-semester programme open to candidates who have studied science subjects at 10+2 level of education (Intermediate/CBSE/ICSE/HSC or equivalent) with a minimum of 60% marks. The first four semesters of Applied Geology course are common on par with other M.Sc. (5-year

integrated programmes) courses. The course not only includes Mathematics as a subject, but also involves significant applications of Mathematics. Therefore, students with Biology background at +2 stage, particularly if they had not studied mathematics after the 10th class, are expected to put necessary efforts to learn mathematics during the first two years of the course.

The total number of seats/intake is 10.

Ph.D. in Earth, Ocean and Atmospheric Sciences

The Centre offers a Ph.D. programme in Earth, Ocean and Atmospheric Sciences, remote sensing, environmental sciences, water resources and closely related areas of other branches of science. PhD seats are advertised as per the requirement and availability with a faculty of the Centre.

The following two major focused themes are identified for multidisciplinary research.

Solid Earth:

Structure, dynamics and evolution of Indian continental lithosphere through time; Archean magmatism, continental growth and tectonics; Geophysical exploration of mineral resources, hydrology, climate records, and natural hazards; Dynamics of oceanic lithosphere: Marine Geophysics, Tectonics, Plate Tectonics, Surface dynamics; High Resolution near Surface Geophysics/ hydrology/ tectonics and climate; Evolution of life through time.

Oceans and Atmosphere:

Seamless dynamical climate prediction, and applications; past (Holocene) and future climate change simulations; tropical climate variability, air-sea-land interactions; scale interaction; dynamical localized extreme event prediction; Observational atmospheric physics; aerosol-cloud-monsoon interactions; modeling of climate; monitoring and modelling of the ocean circulation patterns and its effect on marine life; North Indian Ocean physics and dynamics; remote sensing of oceans and atmosphere.

Infrastructure

The students would be utilizing well-developed state-of-the art facilities of the University of Hyderabad, National Geophysical Research Institute and Atomic Minerals Directorate for Exploration and Research, National Remote Sensing Centre, Indian National Centre for Ocean Information Services, India Meteorological Department Hyderabad, and other national facilities. More details on our infrastructure can be accessed from: [GIVE URL](#)

Field work

Students of Integrated MSc in Applied Geology will have to participate in 3-4 weeks geological and structural mapping programmes from 4th semester onwards. The enrolled students will abide costs towards any field work including travel, accommodation, food etc.

Oceanographic Cruise

Students of M.Sc. in Ocean and Atmospheric Sciences may undergo offshore cruise programme of 1-2 weeks duration with an emphasis on ocean and atmospheric data acquisition, marine instrumentation, etc., under the supervision of experts from NIOT, NCAOR, INCOIS, NIO, etc., and/or University of Hyderabad. The enrolled students will have to bear any and all costs towards oceanographic cruises including travel, accommodation, food, medical examination, etc. All students MUST have their passports ready by the middle of the first semester to take part in oceanographic cruise immediately after first end-semester examinations.

Activities of the Centre

The activities of the Centre are integrated with the socio-economic development of the region, with need-based interdisciplinary programmes, which benefit both the students and the society.

Projects

The Centre currently executes research projects in Solid Earth including origin of continents, rift initiation and evolution, lithospheric dynamics, resource exploration, crust-mantle evolution, water resources management, geophysical applications in crustal structure and environmental sciences, modelling and inversion techniques, ocean processes, ocean models and climate forecasts, paleoceanography and paleoclimate, Solid Earth dynamics, (funded by CEFIPRA, UPE, DST, UGC, MoES, ISRO, NRB, PURSE grant, etc.).

Outreach programmes

The Centre organizes outreach programmes in management of water resources, Geosciences for sustainable development in the context of global environment and climate change, reclamation and utilization of badlands, environmental management, etc. Geoscience education, popularization of Earth Sciences among school children and the general public.

Workshops/Training Programmes

Apart from 2-year M.Sc. and 5-year Integrated M.Sc. programmes, the Centre organizes workshops/training programmes in Earth, Ocean and Atmospheric Sciences and highly focused short-term refresher courses on enabling cadres to update their knowledge and skills and improve their employment opportunities. Most importantly, the programmes are designed to enhance competence to develop new-cutting edge technologies.

Entrance Examination

Ph.D. in Earth, Ocean and Atmospheric Sciences

Admission to the Ph.D. programme is based on a qualifying written test (weightage = 70%), followed by interview (weightage = 30%). The written entrance examination consists of two sections, PART A and PART B. PART A contains 35 Multiple Choice Questions (MCQ), and PART B contains 35 MCQ. The questions will be covered from the following areas: Geology, Geophysics, Atmosphere and Ocean Sciences (M.Sc., level, PART B); and Research methodology, Quantitative methods, Data interpretation, Aptitude and logical reasoning (PART A). Selection of candidates for admission to PhD programme will be based on their academic qualification, written entrance examination and a personal interview.

Intake for the Ph.D. Course indicating the vacant slots of faculty along with areas for supervision (2020-21)

S. No.	Name of the faculty	Designation	Areas for supervision (2020-21)	Ph.D. vacancies
1	Prof. M. Jayananda	Professor	Early Earth Dynamics, Continental Growth, Crust-mantle Evolution, Petrology, Geochronology and Geochemistry	01
2	Prof. K. Ashok	Professor	Arabian Sea, Physics and Mesoscale Dynamics, Monsoonal and Associated 'drivers', Variability, Change and	02

			Prediction. Paleoclimate Modelling.	
3	Prof. V. Chakravarthi	Professor	Magnetotelluric (or) Controlled source Audio-frequency Magnetotellurics (CSAMT)	01
4	Dr. S. Srilakshmi	Assistant Professor	Seismics, Seismology	01
5	Dr. V. Kanawade	UGC-Assistant Professor	Aerosol-cloud Interactions, Monsoon Dynamics	01
6	Dr. D. M. Tiwari	UGC-Assistant Professor	Paleoclimatic Reconstructions, Source Rock Geology/Geochemistry	01
7	Dr. A. Ao	Assistant Professor	Metamorphic Petrology, Geochemistry, Geodynamics	01

Additional information:

The PhD seats falling vacant in July session will be filled in January Session (2021)

M.Sc. in Ocean and Atmospheric Sciences

The Entrance examination consists of Multiple Choice Questions (MCQ) in sections PART A and PART B. PART A consists of 25 Multiple Choice Questions (MCQ) and PART B contains 50 MCQ. The questions cover the following areas: Physics, Chemistry, Mathematics and Statistics (B.Sc. level). Selection of candidates for admission to MSc programme will be based on their academic qualification, written entrance examination and a personal interview.

Faculty

The Centre has accomplished faculty with several prestigious awards like Shanti Swarup Bhatnagar, JSPS Fellowship, J.C. Bose National Fellowship, National Science Academy Fellowships, National Mineral Award, National Geoscience Award etc.

Professors

Prof. K.S. Krishna – Marine geophysics, lithospheric dynamics, Tectonics and Plate Tectonics. (Head of the Department).

Prof. M. Jayananda - Solid earth geochemistry including radiogenic isotopes/ geochronology and early earth dynamics.

Prof. K. Ashok – Tropical indo-pacific climate variability prediction and change, Earth System Science.

Prof.V. Chakravarthi – Geophysics (Gravity modelling).

Assistant Professors

Dr. S. Sri Lakshmi – Geophysics (Seismics and modelling).

Dr. Vijay P. Kanawade – Atmospheric and Climate Sciences.

Dr. Devleena Mani Tiwari – Biogeochemistry.

Dr. Aliba Ao - Geology

DST Inspire Faculty

Dr. Mohammad Ismaiel– Marine Geophysics, Mathematical Simulations and Modelling.

Visiting Professor

Prof. A. C. Narayana– Geomorphology, Paleoclimatology and Remote Sensing

Ramanujan Fellow

Dr. Ritima Das

Associate Faculty

Prof. V.S.S. Sastry, UoH

Dr. Maqbool Ahmed, UoH

Dr. Ameen Shaik, UoH

Visiting Faculty

Prof. G. V. R. Prasad, University of Delhi

Prof. A. M. Bhola, University of Delhi

Prof. S.K. Parcha, Wadia University

Prof. D. V. Bhaskara Rao, Andhra University, Visakhapatnam

Prof. R. R. Rao (Retd.), NPOL, Cochin

Prof. M. S. Sethumadhav, University of Mysore

Prof. R. Nagendra, Anna University

Dr Yamuna Singh, formerly AMD, Hyderabad

Dr. T.R.K. Chetty, (Retd.), CSIR-NGRI, Hyderabad

Dr. P. Francis, INCOIS, Hyderabad

Prof. Nittala Sarma, formerly at Andhra University, Visakhapatnam

Dr. Prasanna Kumar, NIO, Goa

Dr. Y.V. Ramarao, (Retd.), Chief Scientist, IMD, Hyderabad

Dr. K. Hanumantha Rao, NRSC, Hyderabad

SCHOOL OF CHEMISTRY

The School of Chemistry has established itself as one of the leading centres in the country for education and research in chemical sciences. It offers fundamental and advanced courses covering a wide gamut of topics in Chemistry and closely related areas, and comprehensive research training to nurture future scientists, teachers, and technical professionals in the field.

The School has made notable impact at the national and international levels in chemical research. It receives support from funding agencies like the Department of Science and Technology (DST) and the Council for Scientific and Industrial Research (CSIR), New Delhi, international collaborative projects and industrial projects. The School receives support under DST FIST programme at Level II and University Grants Commission (UGC), New Delhi, under the Special Assistance Programme as a Centre for Advanced Studies (Phase III).

A Networking Resource Centre established in the School through dedicated funding from the UGC, operates various outreach programmes to promote chemical education and research at different levels -- undergraduate, postgraduate, doctoral and post-doctoral -- in colleges and Universities across the nation. Teachers and students visit the School for research projects, training programmes and workshops. The only UGC-NRC in Chemistry in the country, it is currently in Phase II.

Prof. Anunay Samanta, is the **Dean** of the school.

Programmes of Study

The School admits students to the **M.Sc.** and **Ph.D.** Programmes. The M.Sc. programme lasting four semesters comprises two foundation courses, 3 courses each in Organic, Inorganic, Physical and Theoretical Chemistry, 2 laboratory courses each in Organic, Inorganic and Physical Chemistry and elective courses. The syllabus lays emphasis on current developments in chemical science. Some unique features of the programme are special courses in Computer Applications, Symmetry and Mathematics, Materials Chemistry, Biological Chemistry and also project work and seminars by each student in Semester IV.

The School also participates in the **M. Sc. (5-year Integrated)** programme run by the College for Integrated Studies (CIS). The entrance examination for this programme is conducted by the CIS. The first two years of the programme are common to all science students; they get a thorough exposure to all branches of sciences. The students move to the School from the third year.

The **Ph.D.** programme is entirely research-oriented in which a student undertakes research under the guidance of a faculty member of the School in an area chosen by the student and approved by the School. Areas where research is being undertaken presently are listed in the School website. Students admitted to the Ph.D. programme carry out course work suited to their academic background and tailored to the demands of their research.

Entrance Examination

M.Sc (Chemistry)

Admission to the M.Sc. programme is based on the performance of the candidate in the written test. Candidates are expected to have a sound knowledge of B.Sc. level general chemistry and basic mathematics. The question paper consists of two parts: Part A (25 marks) and Part B (75 marks). The paper consists of multiple-choice questions and carries negative mark for wrong

answers.

Ph.D (Chemistry)

Admission to the Ph.D. programme is based on a qualifying written test (weightage = 70%), followed by interview (weightage = 30%). The question paper for the written test consists of two parts: Part A (35 marks) and Part B (35 marks); the total will be for 70 marks for final evaluation. Part A consists of 20 questions on research methodology. Part B contains 60 questions (20 each from Organic, Inorganic and Physical Chemistry) at the M.Sc. level, and the candidate is required to answer any 20 questions. All questions are of the multiple-choice type. Students who have qualified in the national level UGC-CSIR examination with a Junior Research Fellowship (JRF) can take exemption from taking the written test, in which case they will be allotted 52.5 marks towards the written test component; if the JRF holders take the written test and score higher, the latter will be considered for the final evaluation.

Admission to the Ph.D. programme and assignment of supervisor for the selected Ph. D. students are done concurrently through a counselling session.

Syllabus for the courses offered by our School:

See the website: <http://chemistry.uohyd.ac.in/>

Recognition

The faculty of the School have won recognition in the form of prestigious awards and fellowships of various academic bodies at the national and international levels. Our master's students do well in national level competitive examinations and several of them go on to pursue a research career. Many of our alumni occupy important positions in the academia and industry in India as well as abroad.

Infrastructure

The School is equipped with a wide range of sophisticated analytical equipment in keeping with the interdisciplinary nature of the subject today. A list of the major equipment can be accessed from the website.

Additionally, the resources at CMSD, ACRHEM, CIL, and Centre for Nanotechnology of the University are also available to the research groups in the School.

Faculty

Senior Professors

Anunay Samanta, Ph.D. (Jadavpur) - F.A.Sc., F.N.A.Sc., F.N.A. – Electronically Excited Systems: Spectroscopy and Dynamics

K. C. Kumara Swamy, Ph.D. (IISc, Bangalore) F.A.Sc., F.N.A.-Catalytic Organic Transformations, Organophosphorus Chemistry, Synthetic Chemistry (Organic/ Inorganic)

T. P. Radhakrishnan, Ph.D. (Princeton) F.A.Sc., F.N.A.Sc., F.N.A. - Materials Chemistry

Ashwini Nangia, Ph.D. (Yale) F.A.Sc., F.N.A.Sc., F.N.A. – Supramolecular Chemistry, Crystal Engineering, Pharmaceutical Solids (On EOL to NCL, Pune, as Director)

Musti J. Swamy, Ph.D. (IISc, Bangalore) F.A.Sc., F.N.A.Sc. - Biophysical chemistry of membranes and proteins, glycobiology

Abani K. Bhuyan, Ph.D. (Univ. of Pennsylvania) - NMR Spectroscopy, Physics and Biology of Biological Molecules

Susanta Mahapatra, Ph.D. (IIT, Kanpur) F.A.Sc., F.N.A.Sc. - Theoretical Chemical Dynamics, Non-adiabatic Chemistry

Samudranil Pal, Ph.D. (Jadavpur) – Coordination and Organometallic Chemistry

Professors

M. Durga Prasad, Ph.D. (Calcutta) F.A.Sc. – Quantum Chemistry, Many Body Theories and Computational Chemistry

Samar Kumar Das, Ph.D. (IIT, Kanpur) F.A.Sc., F.N.A.Sc. - Functional Inorganic Materials

K. Lalitha Guruprasad, Ph.D. (Osmania) - Protein structure and function; Experimental and Computational

D. B. Ramachary, Ph.D. (IISc, Bangalore) F.T.A.S., F.A.Sc., F.R.S.C. - Synthetic Organic Chemistry, Engineering Asymmetric Organocatalysis, Theoretical Aspects of Organocatalysis and Engineering Multi-Catalysis Cascade (MCC) reactions

Tushar Jana, Ph.D. (IACS, Jadavpur) - Polymer Chemistry and Materials Science

R. Nagarajan, Ph.D. (Madras) - Heterocyclic chemistry and natural products synthesis

Pradepta Kumar Panda, Ph.D. (IISc, Bangalore) - Bioinorganic, Bioorganic & Supramolecular Chemistry of Porphyrinoids, Porphyrinoids based Materials for Solar Cell & Near Infrared Diagnostics, High Energy Materials

R. Chandrasekar, Ph.D. (Max-Planck), F.R.S.C. - Nano-Photonic Organic Materials and Devices, Single-Particle Microscopy/Spectroscopy

R. Balamurugan, Ph.D. (IIT, Kanpur) - Development of organic compounds for material applications, Synthetic organic chemistry - transition metal and Brønsted acid catalysis, synthetic methodologies and strategies

Akhila Kumar Sahoo, Ph.D. (NCL, Pune) F.N.A.Sc. - C-H Activation, Ynamides, Energy Materials, Organometallics

K. Muralidharan, Ph.D. (IIT, Kanpur) – Nanomaterials, Polymers, Catalysis, High-energy Materials

Viswanathan Baskar, Ph.D. (IIT, Kanpur) – Molecular Clusters & Magnetism

M. Sathiyendiran, Ph. D. (IIT, Bombay) - Organometallic Chemistry

Perali Ramu Sridhar, Ph.D. (IISc, Bangalore) - Synthetic Organic Chemistry, Total Synthesis of Natural Products and Carbohydrate Therapeutics, Glyco-Biology, Synthesis of Peptide Based Drugs and Carbohydrate Vaccines

Associate Professors

Debashis Barik, Ph.D. (IACS, Jadavpur) - Nonequilibrium Statistical Mechanics, Stochastic Processes in Physical and Biological Systems

Srinivasarao Yaragorla, Ph.D. (IICT, Hyderabad) -Organic Chemistry, Allenes, Propargylic systems, C-H functionalization, Annulations, Cascade-Cycloaddition reactions

Assistant Professors

Jovan Jose K V, Ph.D. (Pune) - Developing Methods for Theoretical Molecular Spectroscopy, Theoretical Organic Reaction Mechanisms, Ab Initio Crystal Structure Prediction, Theoretical Studies on Transition Metal Oxides and Sulphides, Folding Pathways Proteins and Computer Aided Drug Designing

Murali Banavoth, Ph.D. (IISc, Bangalore) - Solar Energy Materials and Solar Cells; Functional Materials for Nanoscience and Nanotechnology, Ultrafast Spectroscopy and Photophysics for Donor/Acceptor Interfaces in Solar Energy Materials

Manju Sharma, Ph.D. (IISc, Bangalore) - Computer simulations of soft condensed matter, Nucleation, Carbon capture, water purification

T. Saravanan, Ph.D. (IIT, Madras) - Bioorganic Chemistry, Photo-Biocatalysis, Protein Engineering, Directed Evolution and (Chemo-)Enzymatic Cascade Synthesis of Pharmaceuticals.

Professor (Retired and Re-employed)

D. Basavaiah, Ph.D. (BHU) F.A.Sc., F.N.A. – Organic Chemistry: The Baylis Hillman Chemistry, Chiral Catalysis (Retired & re-employed)

Distinguished Professor

Goverdhan Mehta, Ph.D. (Poona). FRS – Synthetic Organic Chemistry, (University Distinguished Professor & Dr. Kallam Anji Reddy Chair)

Emeritus Professors

M. Periasamy, Ph.D. (IISc, Bangalore), F.A.Sc., F.N.A. – Organic Molecules & Materials for Harvesting Ambient Solar Heat and Stored Solar Heat.

M.V. Rajasekharan, Ph.D. (IIT, Madras) – Coordination Networks, Polyiodides, Magnetic Exchange

Honorary Professor

Kalidas Sen, Ph.D. (IIT, Kanpur), F.A.Sc., F.N.A. – Density Functional Theory, Confined Electronic Systems

SCHOOL OF LIFE SCIENCES

The School of Life Sciences has been established with an emphasis on interdisciplinary teaching and research leading to M.Sc. and Ph.D. Degrees in modern biology, biotechnology, bioinformatics and systems biology.

The School consists of five Departments:

- 1) Department of Biochemistry
- 2) Department of Plant Sciences
- 3) Department of Animal Biology
- 4) Department of Biotechnology and Bioinformatics
- 5) Department of Systems and Computational Biology

The details related to the eligibility for admission and mode of selection of the candidates for various academic programmes that includes the two-year M.Sc., M.Tech. and 5-Year Integrated Masters and doctoral programs offered in different disciplines, faculty, and their research specializations in the various departments can be seen as mentioned in their respective web pages maintained by the University of Hyderabad or as mentioned above.

The **School of Life Sciences** is committed towards achieving academic excellence in teaching and research in basic and applied areas. It is one of the most vibrant schools with a lot of academic and educational activities all through the year. The new building of School of Life Sciences, occupied in March 2013, is designed for housing a total number of 65 research laboratories, classrooms, teaching laboratories, central instrumentation facilities, cell and microbial culture facilities, seminar halls and auditorium. Most of our faculty are well trained in some of the leading national and international laboratories before joining the University of Hyderabad and have won several national and international recognitions. A healthy competitive atmosphere among the academic programs and the faculty resulted in excellence in teaching and research. The faculty are engaged in research and consultancy activities in cutting edge areas of modern biology and biotechnology to answer some of the most challenging questions in biological systems and improve the well-being of humankind, with support from national and international funding agencies as well as biotech/ pharmaceutical industries. Recently, 'Bio-incubator Nurturing Entrepreneurship for Scaling Technologies' (BioNEST) facility was established by the University of Hyderabad on the third floor of the School of Life Sciences with the support from BIRAC of Department of Biotechnology for providing incubation facilities for innovative ideas of faculty and scholars where many of the faculty from the School of Life Sciences are actively involved.

The **infrastructural facilities** of the School have been established with the plan funds of the University Grants Commission (UGC), Department of Biotechnology (DBT), Department of Science and Technology (DST), New-Delhi as well as extra-mural funding attracted by the faculty of the School of Life Sciences. The University Grants Commission upgraded Phase III of UGC-Special Assistance, DSA programme (period 2002-2007) and sanctioned the status of Centre for Advanced Studies (UGC-SAP-CAS-I) in School of Life Sciences for a period of five years (2008-2013). Now each of the Departments are supported by UGC-SAP-DRS1. School also received grants from UGC under University Potential for excellence (UPE Phase I and II) and from DST, New-Delhi under FIST (Funds for Improvement Science and Technology Infra Structure) program.

The facilities include seven state of the art teaching laboratories and centralized high end facilities such as Proteomics-MALDI/MS-MS/TOF-Q, Robotic Crystallization System, LC-MS and GC-MS for Metabolomic Research; Surface Plasmon Resonance, Confocal/Fluorescence Microscope, Super Resolution Microscope, Real-time PCR machine Microarray spotter/analyzer, Next generation sequencing system, Bioruptor, Electroporator, Luminometer, Nano-drop machine, HPLC, FPLC and AKTA PILOT, CD Spectrophotometer, Fluorescence spectrophotometer, Radioactivity facility, Chemidoc-imaging system, , Flow cytometry, Microtome/Ultramicrotome (Tissue sectioning), in vivo imaging for whole cell and animal imaging, Green house facility and Bio-safety Level three facility (BSL3). In addition, the School has access for infrastructural facilities set up at Nanotechnology Center, Centralized Instrumentation Laboratory (CIL) and Center for Modelling, Simulation and Design (CMSD), located within the campus which carry facilities such as Transmission Electron Microscope (TEM), Atomic Force Microscope (AFM) and high end computational facilities.

Several distinguished faculty and scientists have visited the School and lectured at the School of Life Sciences independently or in connection with a seminar/ conference and or under GIAN (Global Initiative on Academic Network) program that is supported by the Ministry of Human Resource and Development (MHRD). This year, Prof Erwin Neher, Nobel laureate in Physiology in Medicine for the year 1991, from Max Planck Institute, Gottingen Germany; Professor Bruce Michael Alberts, the past President of US National Academy of Sciences and Editor in Chief of Science Journal, and Prof. Martin Chalfie, from Columbia University who shared the 2008 Nobel prize in Chemistry, visited the School and delivered lectures. The School conducted several conferences during the year that include International Conference on Reproductive Biology and Comparative Endocrinology; European Union Sponsored Nano3Bio Final Dissemination meeting; International Conference on Biotechnological Aspects of Chitosan and Chitooligosaccharides & 6th Indian Chitin and Chitosan Society Symposium; 8th International Conference on “Photosynthesis and Hydrogen Energy Research for Sustainability – 2017, International Conference on Biology of Yeast and Filamentous Fungi, Science Communication Workshop by The Wellcome Trust/DBT Alliance, “International Conference on Innovations in Pharma and Biopharma Industry : Challenges and Opportunities for Academy and Industry (ICIPBI-2017), Work Shop on Data Science, BioQuest , a conference organized by the students and faculty of the School of Life Sciences, etc.

Many of our School faculty competed to obtain funding from the Ministry of Human Resource and Development under GIAN program and conducted the following courses and workshops on Protein Structure and Drug Discovery; Glycobiology: Role in Biology and Biomedical Relevance; Lipid Signaling in Health and Disease in Plants and Animals, Basics and Therapeutic Applications of Pluripotent Stem Cells Cancer Drug Discovery and Development; Immunologicals in Animal and Human Health; Transgenic Technology, Stem Cells and Regenerative Medicine, Ion Channels and Human Diseases, Systems Biology for Drug Discovery and Personalized Medicine. The workshops and courses were taught by overseas experts coming from US, UK and Germany for a duration of 2-3 weeks to the benefit of our MSc students, research scholars and to people working in the Industry. Recently the School of Life Sciences has signed an MoU with Academia Sinica, Taiwan, for a sandwich Ph.D. program in the frontier areas of biology and with Cornell University for bilateral collaborations in research and development in Biology and Biotechnology.

Prof. S Dayananda, Department of Animal Biology is the **Dean of the School**.

Department of Biochemistry

Funded by DST-FIST and UGC-SAP-DRS programs the Department of Biochemistry is renowned for its teaching programs and cutting-edge research activities. The department offers M.Sc., PhD, and Integrated M.Sc.-PhD programs. The primary aim of these academic programs is to train students to ask important scientific questions as well as providing them with the wherewithal and knowledge for finding the relevant solutions to these problems. We lay special emphasis on analytical and critical thinking, knowledge creation and discovery. Focused research programs in various fields of modern biology make the department a hub of basic fundamental research and an emerging epicentre for translation research. The research activities in the Department of Biochemistry revolve around the following broad areas: (i) Genome maintenance, organization and expression; (ii) Protein synthesis, homeostasis, structure-function correlation and engineering; (iii) Organelle biogenesis and trafficking of macromolecules; (iv) Intra-cellular communication, cancer biology and stem cell development; (v) Infectious diseases and host-pathogen interactions; (vi) Bioinformatics and computational biology and (vii) Natural and engineered biological sensors, cellular dynamics and imaging.

The students of the department have been achieving high consistently at all the national level examinations. The success rate of our students in the CSIR-UGC examination is between 33-50%. Upon completion of their M.Sc. degree the students are pursuing PhD at premier research institutions across the globe. Similarly the PhD students continue their academic pursuits in the leading research laboratories in the world as post-doctoral fellows. The research output and creativity of our students is a testament to the world class training provided by the department.

Programs of study:

M.Sc. Biochemistry:

This is a four-semester program based on choice based credits system. In addition to crediting several theoretical and laboratory based core courses, a student needs to choose from a wide variety of foundation courses and elective courses. The students also undertake an in-house research project in the final year.

Integrated MSc-Ph.D. Biochemistry and Molecular Biology:

This is a 5-year program extendable up to a maximum of 8 years. During the initial 2 years, students will be involved in an extensive course work, which needs to be completed before continuation to the PhD stream. The course structure is similar but not identical to that of M. Sc. Biochemistry consisting of core courses, foundation courses and elective courses. Students who are unable to secure a minimum of 7.5 CGPA, but are able to pass the minimum prescribed course work, cannot continue for Ph.D., but are offered a path of exiting the course with a degree in M.Sc. Biochemistry and Molecular Biology. The students with an overall CGPA of 7.5 or higher during their 4 semesters of coursework and project may be promoted to PhD stream. They will carry out their work under the supervision of a faculty member and are advised by a doctoral committee. They are required to complete a program of PhD coursework in the first semester of Ph.D. They are also required to actively participate in journal club seminars, research work presentation etc. Publishing research articles in highly reputed journals is a requirement before submission of the thesis work.

Ph.D. Biochemistry:

This is 6 years programme according to UGC regulations. They will carry out their work under the supervision of a faculty member and are advised by a doctoral committee. **During the first semester students will be involved in course work for a total of 12 credits.** The students also need to actively participate in journal club seminars, research work presentation etc. Publishing research articles in highly reputed journals is a requirement before submission of the thesis work.

Entrance Examination:

M.Sc. Biochemistry program:

Candidates who have passed B.Sc. with a minimum of 60% marks in aggregate of science subjects with Chemistry or Biochemistry as one of the subjects are eligible to apply for the admission to M.Sc. Biochemistry. However, the selection is based on their performance in the written examinations conducted at the National level. The paper consists of three parts: Part A, Part B and Part C. Part A consisting of 25 questions, Part B consisting of 45 questions and Part C 15 questions with multiple choices. Questions are drawn from various areas of Biology and Chemistry from the degree level. Part A marks will be taken into account to break the tie, if any, among candidates.

Integrated M. Sc.-Ph.D. Biochemistry and Molecular Biology program:

Candidates who have passed B.Sc. with a minimum of 60% marks in aggregate of Science subjects with Chemistry or Biochemistry as one of the subjects are eligible to apply for the admission to Integrated M.Sc.-PhD Biochemistry and Molecular Biology. However, the selection is based on their performance in the written examinations and **an interview conducted by the department.** The question paper for the written examination will consist of multiple-choice questions from various areas of Biology and Chemistry from the degree level. The paper will test research aptitude as well as subject knowledge of the candidate. The paper consists of two parts with total marks of 70. Qualified candidates will be called for interview.

Ph.D. Biochemistry:

Students having a Master's degree in Biochemistry or in a closely related area, M.Sc. or M. Tech. in Bioinformatics, with at least 55% marks or an MBBS degree with a minimum of 55% marks are eligible to apply. In addition, Ph.D. admission in Biochemistry will be based on an entrance examination and interview conducted by the Department. The question paper of the entrance examination will consist of multiple-choice questions of M.Sc. standard drawn from different areas of Biochemistry and Life Sciences. The paper will test research aptitude as well as subject knowledge of the candidate. The paper consists of two parts with total marks of 70. Qualified candidates will be called for interview. JRF holders are exempted from taking the entrance test and will be given 35 marks for the test. However, they may write the exam if they wish and in that case the higher of the two scores will be considered. Unfilled seats would be filled in January 2021 session. However, this will be open to JRF holders only.

Faculty

Senior Professor:

N. Siva Kumar, Ph.D. (CFTRI) FAS-AP - Glycobiology, Protein biochemistry, Cell and Molecular Biology, Structure function relationships of plant, animal lectins and glycosidases. **(Coordinator UGC-SAP-DRS-1)**

Professors:

Krishnaveni Mishra, Ph.D. (CCMB) –Nuclear architecture in gene regulation, genome stability and interorganellar communication. Protein SUMOylation in gene regulation and genome stability and anti-fungal target. **(Head of the Department)**

Naresh Babu V Sepuri, Ph.D. (UoH) – Mitochondrial redox homeostasis, the role of mitophagy and biogenesis in aging using animal, cell culture and yeast model systems.

Mrinal Kanti Bhattacharyya, Ph.D. (TIFR) – Biochemical, cellular and molecular basis of parasitism of human malarial parasite: Genome stability and organization; genetic and epigenetic control of virulence gene expression; telomere dynamics in gene silencing.

Sharmistha Banerjee, Ph.D. (CDFD) – Molecular pathogenesis and immunology of HIV, Mycobacterium tuberculosis (M.tb) and M.tb-HIV co-infection.

Gutti Ravi Kumar, Ph.D. - (IARI) - Stem Cell Biology, Developmental Biology, Signal transduction, Epigenetics, Gene Regulation, Apoptosis, Molecular and translational medicine.

Bramanandam Manavathi, Ph.D. (SKU) – Cancer Biology: Molecular basis of Tumor Heterogeneity and Metastasis.

Associate Professor:

Akash Gulyani, PhD (IISc, Bangalore) – Cellular dynamics and imaging, Biosensors for protein activity and cell signaling, fluorescent probes for mitochondrial activity and cell state, Natural light sensing and processing, photoreceptors, Eye-brain Regeneration

Assistant Professors

Seema Mishra, Ph.D (NII) Computational Biology and Systems Biology of diseases

Mohd. Akif, Ph.D. (CDFD) - Structural Biology, X-ray Crystallography. Structural and functional characterization of biologically important proteins

Santosh Kumar Padhi, Ph.D. (IIT-Madras), - Biocatalysis, Protein engineering, Enzymes for organic/asymmetric synthesis, Engineering enzymes for synthesis of pharmaceutical intermediates, lipid modification and industrial applications

P. Anil Kumar, Ph.D. (NIN) - Importance of nuclear transcriptional factors (HIF1, ZEB2, and WT1) in kidney disease development. Role of the embryonically active events in adult kidney disease. Characterization of obese mouse models to determine the critical role of metabolism in kidney disease.

Shashi Kiran, Ph.D. (CDFD) - Protein ubiquitination and deubiquitination in cellular processes and disease, HPV induced oncogenesis, post translational modifications in cellular activities.

BSR Fellow

K.V.A.Ramaiah, Ph.D. (JNU). FNASc, FAS-AP - Gene expression, protein synthesis regulation in eukaryotes, protein phosphorylation, protein and cellular homeostasis

Department of Plant Sciences

The Department has been supported by the grant-in-aid received from major funding bodies which include UGC-SAP (DRS-1, Phase 1) and DST-Funds for Infrastructure in Science and Technology (FIST) Level-II (Phase 2). The foundations for the rapid growth of the Department in the last twenty-seven years have been laid with its philosophy to provide a comprehensive training to equip graduate and doctoral students in modern day, cutting edge tools and techniques in Plant Sciences and Microbiology to enable them to make best career-oriented choices in both advanced teaching and high quality research. The Department offers two programmes at Masters level *i.e.* Plant Biology and Biotechnology, and Molecular Microbiology. The Department offers two programmes at Ph.D. level *i.e.* Ph.D. in Plant Sciences and Ph.D. in Microbiology.

The Department has set up state-of-the-art laboratories for M.Sc. teaching and Ph.D. programmes with the support from DBT, UGC and DST to strengthen teaching and research activities of the Department.

The Department has been receiving support from several national and international funding agencies like DBT, MNES, CSIR, DST, INSA, UGC, NATP-ICAR, DAE, DOD, ICAR, MoES, Indo-UK, Indo-Israel, AP-Netherlands Biotechnology Programme, Humboldt Foundation, International Atomic Energy Agency, Rockefeller Foundation, Volkswagen Foundation, USDA, Indo-French Centre for Promotion of Advanced Research, the European Union, Third World Academy of Sciences etc. for its research activities. The individual research laboratories are well equipped, apart from the availability of major equipment in central facilities of the Department, sister Departments in the School, and also at Central Instrumentation Lab of the University. The Faculty members from the Department of Plant Sciences have the track record of consciously publishing in reputed peer-reviewed journals.

Programmes of Study

M.Sc. Plant Biology and Biotechnology

The programme comprises of a four-semester study that is evaluated based on credit system. A total of 17 core courses, 3 elective courses, 3 practical courses and a research project (dissertation) are mandatory for successful completion of the programme of study. In addition to these courses, it is compulsory for the students to take two foundation courses (6 credits) offered by various Departments/Schools under choice based credit system at the University.

M.Sc. Molecular Microbiology

The Master's programme in Molecular Microbiology ensues the subjects covering all aspects of advanced Microbiology are offered in a four-semester programme and the study is evaluated based on a credit system. A total of 17 core courses, 2 elective courses, 3 practical courses and a research project (dissertation) are offered. In addition to these courses, the students need to take two foundation courses (6 credits) offered by various Departments/Schools under choice based credit system at the University. The students who have met the requirement of completion of the above-mentioned courses are awarded the degree in the program.

Ph.D. Plant Sciences and Ph.D. Microbiology

The Ph.D. programme requires a minimum of three years pursuance from the date of admission. The Ph.D. students are involved in a course work comprising of 12 hours credit load to strengthen their analytical skills in the areas of their research with choice-based selection of teaching modules. The course work will comprise of theory sessions in (i) Analytical Techniques (ii) Research Ethics, Data analysis and Biostatistics offered by the four Departments of the School of Life Sciences. (iii) Research Proposal and Scientific Writing. The students should qualify the Ph.D. course work as per UGC regulations. The requirement for the award of Ph.D. includes the presentation of research work in the Plant Sciences Colloquium after 2-3 years and submission of a thesis on an approved topic of research under the guidance of a faculty member. The research progress of the scholar will be assessed periodically by the doctoral committee members comprising of three faculty members including the supervisor of the student as the chairperson of the committee. The scholar presents the research work in a comprehensive/open seminar before the submission of the thesis and faces an oral examination in defence of the thesis. The candidate has to publish at least one research paper in a reputed national/international journal and presentation of the research work (oral/poster) in at least two national/international conferences for the award of Ph.D. degree as per UGC regulations.

Entrance Examination

M.Sc. Plant Biology and Biotechnology entrance examination question paper consists of 100 objective type questions of B.Sc. standard and all are to be answered. Broadly, the question paper will consist of 40 questions in Botany, 20 questions each in Biochemistry/Chemistry, Microbiology and Genetics. **Negative marking (0.33 marks for every wrong answer) is applicable for wrong answers.**

M.Sc. Molecular Microbiology entrance examination question paper consists of 100 objective type questions of B.Sc. standard and all are to be answered. Broadly, the question paper will consist of 25 questions each in Botany, Zoology, Biochemistry/Chemistry, and Genetics/Microbiology. **Negative marking (0.33 marks for every wrong answer) is applicable for wrong answers.**

Ph.D. in Plant Sciences and Ph.D. in Microbiology admissions will be based on two separate entrance examinations and interviews conducted by the Department. The question papers will consist of objective type questions of 70 marks where 50% are based on research methodology and 50% are subject specific (M.Sc. standard). Broadly, the subject specific questions will be from the areas of Plant Biology, General Biology, Microbiology, Molecular Biology, Genetics and Biochemistry.

Candidates having Junior Research Fellowship (JRF) through qualification in national level written examinations have a choice to directly appear for the interview. However, they have to apply to the University with their JRF Certificate. NET (LS) are not eligible to apply directly and they have to appear entrance examination conducted by the University.

The candidates who have qualified University of Hyderabad Entrance examination and Junior Research Fellowship (e.g. CSIR/UGC/DBT/ICMR) holders appearing for the interview will be interviewed for 30 marks. The weightage given to the Junior Research Fellowship holders appearing for the interview directly without writing the University of Hyderabad entrance examination will be 35 marks as against candidates who write University of Hyderabad Entrance examination for 70 marks where the marks secured by them in the entrance examination will be considered. For those Junior Research Fellowship holders who also write the University of Hyderabad entrance examination, the marks secured either in University of Hyderabad entrance examination or the weightage given *i.e.* 35 for JRF's whichever is higher will be taken.

The Ph.D. admission for unfilled vacancies will be done in January session 2021 and is based on an interview to be conducted for Junior Research Fellowship (e.g. CSIR/UGC/DBT/ICMR) holders only through qualification in national level written examinations. The Department will not conduct any entrance examination for January session 2021. JRFs have to apply to the University with their Junior Research Fellowship (JRF) certificate to be called for the interview. NET (LS) are not eligible to apply.

Vacancies in Ph.D. Plant Sciences for 2020-21

Department of Plant Sciences			
Faculty	Designation	Areas for Supervision (2020-2021)	Ph.D. Vacancies
Dr. G. Padmaja	Professor	Biotechnology of Tree species of Economic Importance Abiotic Stress Tolerance of Crops	1

Dr. S. Rajagopal	Professor	Bioenergy and Biomolecular Interactions	2
Dr. Sarada D. Tetali	Professor	Pharmacognosy, Medicinal Plant Metabolomics and Secondary Metabolism	1
Dr. Ragiba Makandar	Professor	Plant Molecular Genetics, Plant-Microbe Interactions, Genetic Engineering and Functional Genomics	2
Dr. Santosh R. Kanade	Associate Professor	Environmental Epigenetics	2
Dr. Y. Sreelakshmi	Associate Professor	Tomato Functional Genomics	1
Dr. Irfan Ahmad Ghazi	Assistant Professor	Functional Genomics and Biochemical Analysis of Rice Cultivars	1
Dr. Rahul Kumar	Assistant Professor	Plant Functional Genomics, Plant Biotechnology	1
Dr. M. Muthamilarasan	Assistant Professor	Molecular Genetics and Genomics of Underutilized Crops	2

Vacancies in Ph.D. Microbiology for 2020-21

Department of Plant Sciences			
Faculty	Designation	Areas for Supervision (2020-2021)	Ph.D. Vacancies
Dr. Appa Rao Podile	Senior Professor	Plant Microbe Interactions; Chitinases/Chitosanases and Plant Cell Wall Degrading Enzymes	1
Dr. Ch. Venkata Ramana	Professor	Bacterial Diversity Metabolomics	2
Dr. K. Gopinath	Associate Professor	Host Pathogen Interactions; Plant Virus Perspective	1

Infrastructural Facilities

The faculty and students of the Department have access to a range of sophisticated equipment supporting diverse research topics. These include Confocal Microscope, CD-Spectroscopy, Ultracentrifuges, High Speed Centrifuge, Infra-Red Gas Analyzer, Atomic Absorption Spectrophotometer, HPTLC, HPLC, Lyophilizer, RT-PCR machine, UV-VIS-NIR Spectrophotometer, Liquid Scintillation Counter, Laser Scanner, Gel Documentation System, Transilluminators, Inverted Microscope, Electroporator, Internet, Green house and Plant Culture facility, Fluorescence Microscope, Imaging System/Microarray Reader etc. Further the facilities developed under UoH-DBT Centre for Teaching and Research in Biology and Biotechnology are also accessible.

School of Life Sciences facilities include, LC-MS, Preparative LC-MS, GC-MS, MALDI, Super Resolution Microscopy etc. University's Central facilities include Confocal Microscope, Scanning Electron Microscope, TEM, Peptide Sequencer etc. In addition, the individual faculty members have their own well equipped laboratories, computers and access to internet.

Faculty

Senior Professor

Appa Rao Podile, Ph.D. (Sardar Patel) FNA, FASc, FNASc, FNAAS, FAS-TS, FPSI, FAMI, Formerly Tata Innovation Fellow (DBT), J.C. Bose Fellow (DST) --- Molecular Plant Microbe Interactions, Chitinases/chitosanases and plant cell wall degrading enzymes (on lien as Vice-Chancellor, University of Hyderabad w.e.f. 23rd September 2015).

Professors

Ch. Venkata Ramana, Ph.D. (Osmania), FNASc, DBT Tata Innovation Fellow --- Bacterial Discovery, Bacterial Physiology & Biochemistry, Metabolomics.

G. Padmaja, Ph.D. (Osmania), FAS-TS --- Plant Genetics, Plant Tissue Culture, Plant Biotechnology. **(Head of the Department)**.

Subramanyam Rajagopal, Ph.D. (Sri Venkateswara), FNASc, FAS-TS --- Structural Biology, Protein Biochemistry, Proteomics - Protein Drug Interactions.

Sarada D. Tetali, Ph.D. (UoH) --- Pharmacognosy, Medicinal Plant Metabolomics and Secondary Metabolism.

Ragiba Makandar, Ph.D. (IARI, Delhi) --- Plant Molecular Genetics, Plant Microbe Interactions, Genetic Engineering & Functional Genomics.

Associate Professors

Gopinath Kodetham, Ph.D. (Sri Venkateswara) --- Molecular Plant Virology, Construction of PTGS Vectors & Cell Biology.

Santosh R. Kanade, Ph.D. (CSIR-CFTRI Mysore) --- Epigenetics & Cell Signalling.

Sreelakshmi Y., Ph.D. (UoH) --- Tomato Functional Genomics, Proteomics, Plant Development.

Assistant Professors

Irfan Ahmad Ghazi, Ph.D. (Jamia Harmdard) --- Rice Functional Genomics and Biological Properties of Rice Bran.

Rahul Kumar, Ph.D. (Delhi) --- Functional Genomics, Hormone Signalling, Plant Biotechnology.

Jogi Madhuprakash, Ph.D. (UoH) --- Biomass Degrading Microbes, Carbohydrate Active enzymes (CAZymes), Protein Engineering and Proteomics, Applied Enzymology.

M. Muthamilarasan, Ph.D. (NIPGR) --- Plant Molecular Genetics and Genomics.

Professors (Retired and Re-employed)

R.P. Sharma, Ph.D. (JNU) --- Plant Developmental Biology, Tomato Functional Genomics

A.S. Raghavendra, Ph.D. (Sri Venkateswara), FTWAS, FNA, FASc, FNASc, FNAAS --- Plant Biochemistry and Plant Molecular Physiology: Photosynthesis, Signal Transduction, Medicinal Plant Metabolomics.

Professors (Emeritus)

M. N. V. Prasad, Ph.D. (Lucknow) --- Environmental Sciences, Phytotechnologies,

Attipalli R. Reddy, Ph.D. (Sri Venkateswara) --- Photosynthesis, Carbon Sequestration in higher plants.

Ramalingaswamy Re-entry Fellow

Ashish Ranjan, Ph.D. (CCMB-JNU) --- Molecular Plant Pathology, Plant Biotechnology

Department of Animal Biology

The Department of Animal Biology, formerly known as the Department of Animal Sciences, was established in 1993, under the umbrella of the School of Life Sciences. The primary focus of the Department of Animal Biology is to impart knowledge in biomedical sciences at the highest level of excellence and to advance the frontiers of biology through innovative research programs. Since the inception, the Department has been rich in traditional biological sciences and at the same time continues to recognize the new developments in biological research. The Department had and continues to have an esteemed faculty with diverse cutting-edge research programs: Developmental Biology, Immunobiology, Reproductive Endocrinology, Neurobiology, Chronobiology, Cancer Biology, Infection Biology, Microbiology, Chromatin dynamics and Systems Biology of the Cell. The broad base of faculty expertise combined with the state-of-the-art laboratories creates an environment that fosters innovation and advancement in science and technology.

Programmes of study

MSc Animal Biology and Biotechnology: The curriculum of the course has a mix of basic and modern aspects of Biology and Biotechnology. The four-semester program is comprised of core courses in the first two semesters followed by elective courses during the third and fourth semesters. The core courses offer an in-depth knowledge in Evolutionary Biology, Biochemistry, Microbiology, Cell Biology, Molecular Biology, Mammalian Physiology, Developmental Biology, Enzymology and Intermediary Metabolism, Genetics, Endocrinology and Reproductive Biology, Immunology, Stem Cell Biology and Transgenic Technology. The elective courses offered during third and fourth semesters include: Epigenetics & Nuclear Dynamics, Vaccinology, Infection Biology, Oxidative Stress and Antioxidants in Health and Disease, Aquaculture: Nutraceutical & Pharmaceutical Applications, Neurobiology, Cancer and Cancer Stem Cell Biology, Chronobiology, Signal Transduction, Gene Regulatory Networks, and Heterologous Gene Expression and Downstream Processing. The students are required to take a total of four elective courses with the freedom to opt for electives offered by the other departments. The Department of Animal Biology provides comprehensive practical courses that provides hands-on-experience in Molecular Biology, Microbial and Mammalian culture, and protein purification. During third and fourth semesters, the students pursue problem-oriented research work in individual faculty laboratories allotted to them at the end of 2nd Semester as part of early hand holding and providing them an opportunity to develop experimental skills. Thus, the MSc program provides the students not only broad range of areas of research, but also provides an opportunity to develop mastery skills on the frontiers of biological sciences.

Ph.D. in Animal Biology: The faculty members of the Department of Animal Biology play the active role of mentor by ensuring innovative research and training of Ph.D. students. Students are selected into the PhD program, based on their performance in the entrance examination followed by the interview. Admitted students are offered their choice of mentor to pursue their research interest.

Integrated M.Sc. and Ph.D. in Animal Biology and Biotechnology: This is a 7-year program. During the initial 2 years, students will be involved in an extensive course work, which needs to be completed before continuation to the PhD stream. The course structure is same as that of M. Sc.

Animal Biology and Biotechnology consisting of core courses, foundation courses and elective courses. Students who could not secure at least 7.5 CGPA, but passed the minimum prescribed course work, should exit the course with a degree in M.Sc. Animal Biology and Biotechnology. The students with an overall CGPA 7.5 or higher obtained during their 4 semesters of the coursework and project may be promoted to PhD stream to carry out their work under the supervision of a faculty member and are advised by a doctoral committee. They have to go through a PhD coursework like other regular PhD students. They also need to actively participate in journal club seminars, research work presentation etc.

The Department of Animal Biology offers students the opportunity to earn, in a continuous plan of study, both the M.Sc and the Ph.D. through its accelerated programs. Following successful completion of the Master's program, the combined degree program enables qualified students join Ph.D program. The broad objective of this program is to encourage the understanding of and to provide research training relevant to the This combined degree program allows students to initiate the research project towards their Ph.D. thesis while studying as a Master's student thus reducing the full-time study needed for the Ph.D. degree. The academic program leading to the Ph.D. degree is broad-based. It involves completion of specified course work, which provides exposure to broad-range of research areas and techniques of traditional as well as modern biology and completion of a research project. The thesis shall be the report of original research work carried out during the tenure of the program.

Entrance Examination

M. Sc. Animal Biology and Biotechnology: An entrance examination will be conducted for the selection of candidates to the program. The entrance examination consists of 100 compulsory objective questions of bacalaureate standard, covering all aspects of Zoology, Botany, Chemistry, Biochemistry, Microbiology, Genetics, Molecular Biology and Biotechnology. Those who qualify in the entrance are admitted into the program based on the merit list.

Ph.D. Animal Biology: An entrance examination will be conducted for the initial screening, which will be followed by an interview. Candidates qualified for JRF from CSIR-UGC/ICMR/DBT will be exempted from the written test and allowed to appear for the interview. The entrance examination consists of 70 compulsory objective questions of post-bacalaureate standard with emphasis in Animal Biology, Cell Biology, Molecular Biology, Microbiology, Genetics, Cancer biology, Immunology, Biochemistry, Physiology, Infection Biology, Neurobiology, Endocrinology, Reproductive Physiology, Developmental biology and Stem Cell Technology. Those who qualify in the entrance test are required to attend an interview. The merit list for admission will be prepared based on the marks obtained in the entrance test and the interview.

Integrated M.Sc. and Ph.D. in Animal Biology and Biotechnology: An entrance examination will be conducted for the selection of candidates to this combined degree program. The entrance examination consists of 70 compulsory objective questions of bacalaureate standard, covering all aspects of Zoology, Botany, Chemistry, Biochemistry, Microbiology, Genetics, Molecular Biology and Biotechnology, Research aptitude and Methodology. Those who qualify in the entrance test are required to attend an interview. The merit list for admission into the Integrated M.Sc. and Ph.D. will be prepared based on the marks obtained in the entrance test and the interview. However, the students will have the option of the 'Exit' after completion of four semesters. In such case, he/she will be awarded M.Sc. degree in Animal Biology and Biotechnology.

Infrastructural facilities:

State-of-art facilities are available for the students of the Department of Animal Biology. Specifically, the School of Life Sciences offers the following core facilities: Next Generation

Sequencing (NGS) platforms, Flow Cytometry, Proteomics, Genomics and Metabolomics. In addition, core facilities include fish breeding, mosquito breeding, insect breeding and BSL3 pathogen containment facilities. Additionally, the School of Life Sciences offer 2D electrophoresis, MALDI-TOF/TOF and Q-TOF, Real-Time PCR, Chip maker, Spot picker, microarray set-up, metabolomics facilities for the analysis of small molecules, including LC-MS-MS. Other common facilities include High Speed Refrigerated Centrifuges, Ultra-Centrifuges, Spectro-fluorimeter, Spectro-photometers, Gel-Documentation System, Phosphor-Imager, HPLC, PCR Machine, Liquid Scintillation Counters, Luminometer, Oxygraph, Bioreactors, French press, Lyophilizers etc. The students also have access to Central Instrumentation Laboratory of the University, which contains amino acid analyzer, scanning electron microscope, transmission electron microscope (TEM), atomic force microscope (AFM), SPR spectrometer, Super-Resolution 3D Microscope system, Confocal microscopes etc. The entirety of the facilities is established through various national funding programs such as DST-FIST, DBT-CREBB and University Plan Grants. The members of the Department of Animal Biology are:

The vacancies with faculty and their broad areas for the years 2020-21

Sl. No.	Name of the Faculty	Designation	Areas for Supervision (2020-2021)	Ph. D Vacancies
01.	Prof. P. Jagan Mohan Rao	Professor	Molecular immunology, stem cell biology, gene networks, epigenetic regulation of cell fate and cancer biology	2
02.	Prof. Anita Jagota	Professor	Neurobiology, neurodegeneration and brain aging, Molecular Chronobiology	1
03.	Prof. K. Sreenivasulu	Professor	Signaling and epigenome dynamics in stem cell development	1
04.	Prof. Arun Kumar	Professor	Identifying drug and vaccine targets for malaria by approaches of reverse genetics, Plasmodium-host interactions at liver stages	2
05.	Dr. Nooruddin Khan	Associate Professor	Immunobiology of infectious and metabolic diseases, Vaccine and adjuvant development.	2
06.	Dr. M.K. Arunasree	Assistant Professor	Biology of (HDACS) histone deacetylases.	2
07.	Dr. A. Bindu Madhava Reddy	Assistant Professor	Cell signaling, gene regulation related to diabetes and cancer.	2
08.	Dr. T. Prasad	Assistant Professor	Molecular neurosciences, Vesicle Transport, Autophagy and Alzheimers Disease.	2
09.	Dr. Parul Mishra (UGC-FRP)	Assistant Professor	Ubiquitin mediated protein degradation, Protein Engineering, Chaperone networks in neurological diseases and cancer.	3
Total				17

FACULTY:

Senior Professor(s)

S. Dayananda, Ph.D. (SVU), FNA, FASc, FNASc, FAP-AS – Bacterial small RNAs, post-transcriptional regulation, bacterial horizontal gene transfer, catabolomics, metabolic engineering, biotransformation and biodegradation.

Professors:

Manjula Sritharan, Ph.D. (University of Hull, UK), FT-AS – Infection biology, host-pathogen interactions – Iron acquisition by pathogenic mycobacteria and *Leptospira* spp. & evaluation of candidate markers as sero-diagnostic agents for tuberculosis & leptospirosis

Balasubramanian. Senthilkumaran, M. Phil, Ph.D. (BHU), FNA, FNASc, FAP-AS – Molecular Endocrinology, Developmental Biology, Reproductive Biology of fish, Molecular mechanisms of Sex Differentiation, Fish Neuroendocrinology

Jagan Pongubala, Ph.D. (Bombay) – Molecular immunology, stem cell biology, gene networks, epigenetic regulation of cell fate

Anita Jagota, Ph.D. (JNU), FT-AS, FIAN – Neurobiology, Aging, Neurodegeneration and Brain-aging, Molecular Chronobiology (Head)

Sreenivasulu Kurukuti, Ph.D. (BHU)– Signaling and epigenetic control of gene expression during embryonic stem cell to neuronal differentiation. 3-D Epigenomics

Kota Arun Kumar, Ph.D. (UoH) – Identifying drug and vaccine targets for malaria by approaches of reverse genetics, Plasmodium-host interactions at liver stages.

Associate Professors:

Suresh Yenugu Ph.D. (OU) – Reproductive immunology and toxicology, transgenic technology

Nooruddin Khan, Ph.D. (Manipal University)-Immunobiology of infectious and metabolic diseases, Vaccine and adjuvant development.

Assistant Professors:

Radheshyam Maurya, Ph.D. (BHU) – Mechanism of Infection and Immunity in visceral leishmaniasis, Drug discovery and identification of new diagnostic markers.

Aruna Sree M.K., Ph.D. (UoH) - Epigenetics: Basic and translational research on Histone Deacetylases (HDACs); Drug discovery and Repurposing for multidrug resistance

Bindu Madhava Reddy Aramati, Ph.D. (UoH) - Cell signaling, gene regulation related to diabetes and cancer.

Raja Ram Mohan Roy, Ph.D. (UoH) – Cellular homeostasis, Inflammation and Tumorigenesis

Prasad Tammineni, Ph.D. (UoH) – Molecular neurosciences, Vesicle Transport, Autophagy and Alzheimers Disease.

UGC-FRP Faculty (Assistant Professor)

Parul Mishra, Ph.D. (CDRI-JNU) – Ubiquitin mediated protein degradation, Protein Engineering, Chaperone networks in neurological diseases and cancer.

Retired Professors (BSR Fellows):

Aparna Dutta Gupta, Ph.D. (BHU), FNA, FASc, FNASc, FAP-AS (UGC-BSR-Fellow) – Molecular physiology and biotechnology, bio-intensive-integrated insect pest management.

P. Reddanna, Ph.D. (SVU) – Eicosanoids, Inflammation and Cancer.

Department of Biotechnology and Bioinformatics

The Department offers application oriented, sought-after and cutting-edge courses in frontier areas of Biotechnology and Bioinformatics. Innovation based training is imparted to the students with a special emphasis on basic concepts of biological processes in order to pursue research in frontier areas of modern biology. A total of 12 independent research groups are active at the department studying molecular and cellular processes involved in cyanobacteria, yeast, higher plants, and human health and disease with an emphasis on discovery of interventional molecules and identification of targets with respect to malarial and leishmanial parasites, lepidopteran pest control, bacterial and viral infections, cancer and neurodegenerative diseases. Functional

genomics, cellular biology, microbiology, protein biochemistry and structure-function studies, Drug Discovery, bioinformatics and computational biology constitute major skill domains of our research groups. In addition, the Department has an exclusive expertise in generation and analysis of high throughput genome sequence data of bacterial species and harnessing them towards discovery of new gene functions and pathways. Teaching and research programs of the department are supported by special grants from the DBT, DST, CSIR, ICMR and UGC towards M.Sc., M.Tech., Ph.D. and Int-M.Sc. /Ph.D. courses. The faculty members at the Department are supported with several extramural grants and are recognised by national and international agencies. The Department actively participates in several student exchange and research training programs with international organizations such as German Research Foundation (DFG), European Commission), AvH Foundation, DAAD and Academia Sinica etc.

Infrastructural Facilities

The Department has been supported by the grant-in-aid received from major funding bodies which include UGC-SAP (DRS-1) and DST-Funds for Infrastructure in Science and Technology (FIST) Level-I. The Department has advance research facilities such as animal and plant cell culture, microbial culture, HIV culture, neuronal and neuroglial culture and stem cell culture, etc.. Further, it has several essential instruments such as high-speed centrifuges, spectrophotometers, circular dichrometer, phosphorimager, PCR machines, FPLC, 2-D Electrophoresis, shakers, incubators, multimode plate reader, bioreactor, fluorescence microscope, real time PCR and flow cytometer, etc. The students can benefit from the state of art high resolution confocal microscopy facility and the genomic/proteomics/metabolomics/crystallization facility available in the School. The Bioinformatics infrastructure facility and library facility funded by the Department of Biotechnology; Government of India is a well-equipped facility that is used by the students. In addition, students also have access to high performance computing facility at Centre for Modelling, Simulation and Design for their project works.

Programs of Study

M.Sc. Biotechnology: This flagship course was introduced in the year 1990 under the nationwide post graduate program by the Department of Biotechnology (DBT), Ministry of Science and Technology, Government of India. The program comprises of four-semesters with credit system of evaluation and latest curriculum recommended by DBT. Students can choose elective courses offered at Department/School level and the Foundation courses offered at University level. In addition to rigorous academic training, students interact with Biotech industries to avail opportunities for learning translational aspects of product development and commercialization. After successful completion of 2 semesters of coursework, students shall be assigned to the available project supervisors based on the criteria in practice or as decided by the admission committee/Department/School (please refer the admission criteria in 'Entrance Examination' section).

M. Tech. Bioinformatics: M.Tech. Bioinformatics is a state-of-art course approved by AICTE. The course is designed to train students in theory and computational techniques including hands-on practice using state of the art servers and computer labs equipped with different software packages. The program is truly interdisciplinary and is offered with the help of different collaborating entities/scientists and computer experts within and outside the University. Each year, some of the students obtain attractive placement opportunities from reputed software and bioinformatics companies. The courses spread over first two semesters include computer programming, proteomics, basic mathematics and statistics molecular modelling, genomics, bioinformatics, molecular dynamics, drug design, machine learning and data analytics,

mathematical modelling of biological systems and metagenomics etc. Students are encouraged to choose one elective course in the first and in the second semesters either within the department or from the other Schools of the University. The students will carry out a full-time project work during their 3rd & 4th semesters under the guidance of a faculty member, either at the Department or elsewhere in a collaborative mode. After successful completion of 2 semesters of coursework, the students shall be assigned to the available project supervisors, based on the criteria in practice or as decided by the admission committee/Department/School.

Ph.D. Biotechnology: This is generally a 3 to 6 years course (Relaxation for women candidates are as indicated in the UGC guidelines) and in the first year there will be a minimal but essential Ph.D. course work component to assess for interdisciplinary skills and impart training in research methodology and ethics etc. Soon after admissions, the students are expected to begin their work under the supervision of a faculty member and are advised by the doctoral committee from time to time. They have to actively participate in Journal club seminars and research work presentation at the end of the semester. As per UGC guidelines PhD student have to publish at least one paper in peer reviewed journal and present their work in two conferences. The research students have to present their work in a comprehensive seminar before submission of their thesis. The students shall be assigned to the available research supervisors at the time of selection based on the criteria in practice or as decided/suggested by the admission committee/Department/ School.

Integrated MSc-PhD Biotechnology: This is a 5 year program extendable up to a maximum of 8 years. During the initial 2 years, students will be involved in an extensive course work, which needs to be completed before continuation to the PhD stream. The course structure is similar to that of M.Sc. Biotechnology consisting of core courses, foundation courses and elective courses. At the end of 2nd semester, students shall be assigned to the available research supervisors based on the criteria in practice or as decided/suggested by the admission committee/ Department/School. After completion of fourth semester, students have the choice to exit with a M.Sc. Degree or continue for their Ph.D. program. Students are expected to exercise this option by the end of February during their fourth semester. Students who could not secure at least 7.5 CGPA, and could not secure at least B grade in each course, should exit the program compulsorily with a degree in M.Sc. Biotechnology. The students with an overall CGPA 7.5 or higher obtained during their 4 semesters of the coursework and project will be allowed to continue to their PhD stream. They are also advised by a doctoral committee as described for regular PhD Biotechnology students. They also need to complete PhD course work in the first year of their PhD tenure as per UGC regulations and actively participate in journal club seminars, research work presentation etc. UGC regulations for awarding PhD will be followed after promoting the student from M.Sc to PhD program. (Relaxation for women candidates are as indicated in the UGC guidelines).

Entrance Examination

M. Sc. Biotechnology:

Selection is based on a national level common entrance examination for admission to PG programs in biotechnology like General Aptitude Test of Biotechnology (GAT-B) conducted by RCB Faridabad.

M.Tech Bioinformatics: Admission for 25 seats in this program will be done through CCMT. Interested students with a valid GATE score card can apply for the course through Centralized Counselling for M.Tech. (CCMT - <https://ccmt.nic.in/>). The qualifying degree for this program includes B.Tech./B.E./M.Sc. in Bioinformatics, Biochemistry, Biotechnology, Applied Microbiology, Biology, Biomedical Genetics, Bio-Sciences, Life Science, Life Sciences (Botany), Life Sciences (Zoology), Microbiology, Agricultural Science, Biochemical Engineering, Biomedical Engineering, Biotech Engineering, Bioengineering, Biological Sciences and Bioengineering, Biomedical

Instrumentation, Biosciences, Bioengineering, Biochemical Engineering and B.Pharma. GATE qualification with the subjects, Biotechnology-BT, Chemistry-CY, Chemical Engineering-CH, Biomedical engineering - BM, Life sciences – XL, and Ecology and Evolution - EY will only be considered for admission. Admission will be based on their GATE score. The admitted students will be eligible for GATE-fellowship according to AICTE rules and norms.

Integrated M.Sc./Ph.D. Biotechnology: Admission is based on an entrance examination (70 Marks) followed by interview (30 Marks). The question paper will carry 70 multiple choice type questions. Question paper consist part A and B each carrying 35 questions. Part A is to test knowledge pertaining to Mathematics, Physics, Chemistry, General Biology and quantitative aptitude. Whereas Part B is to test subject knowledge in various areas of modern Biology at Bachelor degree level standards. The candidates will be called for an interview in their order of merit based on the entrance examination.

Ph.D. Biotechnology: Admission to PhD Biotechnology should be through an entrance examination (70 marks) followed by an interview (30 marks). The question paper for the entrance examination will comprise of 70 multiple choice questions. Question paper consist part A and B each carrying 35 questions. Part A is to test knowledge pertaining to Research methodology encompassing Mathematics, Physics, Chemistry, General Biology and quantitative aptitude. Whereas Part B is to test subject specific knowledge in the cutting-edge areas of Modern Biology and Biotechnology at Master’s degree level standards. The candidates will be called for an interview in their order of merit based on the entrance examination. JRF qualified candidates who passed the NET examination (under Junior Research Fellowship category only) conducted by the CSIR/UGC/DBT/ICAR/ICMR will be directly called for interview. However, they can also write the entrance examination to enhance their scores. For JRF candidates who opt for exemption from written test and directly appear for interview, they will be given thirty five (35) marks in lieu of written test. For JRF candidates who appeared for written test and scored more than 35 marks, the written test marks will be considered. The PhD seats falling vacant in July session will be filled in January Session (2021) through interview mode by inviting JRF candidates qualified in CSIR/UGC/DBT/ICAR/ICMR and no written test will be conducted for the same.

Intake for the Ph.D. Course indicating the vacant slots of faculty along with areas for supervision (2020-21)

S.No.	Name of the faculty	Designation	Areas for supervision (2020-21)	Ph.D. vacancies
1	Prof. P. Prakash Babu	Professor	Mechanism of brain tumour progressing/neurodegeneration	1
2	Prof. KPMSV Padmasree	Professor	Cloning, Expression and characterization of Proteinase Inhibitors for insecticidal activity	1
3			Understanding the biochemical and molecular mechanisms involving AOX in abiotic stress tolerance	1
4	Prof. J S S Prakash	Professor	Anti-sense RNA mediated gene regulation	1
5			Engineering cyanobacteria for Biofuel	1
6	Dr. Vaibhav Vindal	Assistant	Computational and Functional	2

		Professor	Genomics	
7	Dr. Sunanda Bhattacharyya	Assistant Professor	Characterization of topoisomerases as novel drug targets from medically relevant pathogen	1
8	Dr. Insaf Ahmed Qureshi	Assistant Professor	Structural and Functional Characterization of enzymes from human parasite	1
9	Dr. G B Madhu Babu	Assistant Professor	Mechanisms of Neurodegeneration, and Behavioral Neuroscience	1

Faculty

Senior Professors

Anand K. Kondapi, PhD (Andhra University): Molecular therapeutics, functional characterization of DNA topoisomerases in metastasis, HIV infection, neurodegeneration and brain aging (On Sabbatical until Jan 2021).

P. Prakash Babu, PhD (University of Hyderabad): Neuroscience: Cell signalling and cell death (apoptosis) in cerebral ischemia (stroke), cerebral malaria, brain tumors, and stem cells. Screening natural and synthetic compounds for their anti-malarial and anti-cancer (*in vitro* and *in vivo*) activities.

Professors

Niyaz Ahmed, PhD (Manipal University): Pathogen biology, molecular epidemiology, biology of chronic infections, host-pathogen interaction dynamics.

K. P. M. S. V. Padmasree, PhD (University of Hyderabad): Biotechnological applications of proteinase inhibitors (agricultural and human therapeutics); Understanding the molecular mechanisms for pest resistance; Role of Alternative Oxidase (AOX) pathway in stress tolerance (**Head of the Department**).

J. S. S. Prakash, PhD (Jamia Hamdard): Functional genomics and cyanobacterial gene regulatory networks.

Assistant Professors

Musturi Venkataramana, PhD (Sri Venkateswara University): Molecular studies on viruses causing Dengue and Chikungunya

Vaibhav Vindal, PhD (Manipal University): Gene regulatory networks, functional genomics of pathogens, analysis of protein sequence/structure/function.

N. Prakash Prabhu, PhD (University of Hyderabad): Protein structure, folding and dynamics.

Sunanda Bhattacharya, PhD (Bose Institute, Kolkata): Role of chaperones in genome stability and chromatin remodelling, understanding *Plasmodium* biology and host parasite interaction.

Insaf A. Qureshi, PhD (Jamia Hamdard): Molecular biology and protein crystallography.

Gajula B. Madhubabu, PhD (Max-Planck Institute for Biophysical Chemistry, Goettingen, Germany): Behavioural neuroscience and neurodegenerative diseases

Nooruddin Khan, PhD (CDFD, Hyderabad): Molecular immunology, Infectious diseases **(On lien)**.

Pankaj Singh, PhD (University of Hyderabad): Machine learning for Data Science, Mathematical/computational modelling of gene networks, Knowledge discovery in Neuronal aging/senescence and neurodegenerative diseases.

Department of Systems and Computational Biology (doscb.uohyd.ac.in)

The Department of Systems and Computational Biology (DoSCB) (erstwhile Virtual Centre for Systems Biology) is the fifth department in the School of Life Sciences. It was established as per the statute 17(5) (a) & (b) of University of Hyderabad based on a resolution passed by its Executive Council on 30th September 2018.

Currently the department has four faculty members (one Professor and three Assistant Professors (of these one is UGC-FRP)) who are actively involved in research projects in some of the forefront areas of modern biology. They have been the recipients of research grants from the national agencies such as CSIR, DST, DBT etc., and are currently part of national and international collaborative research grants (in collaboration with Rostock Medical Centre, Germany and University of Madeira, Portugal). The faculty members of the department have published research articles in the prestigious peer-reviewed journals such as Proceedings of National Academy of Sciences (USA), Journal of Proteome Research, Journal of Molecular Biology, Nucleic Acids Research, Molecular and Cellular Biology, Molecular Neurobiology, Blood etc.

The faculty members of this department are involved in teaching the courses in the areas of Genomics, Computational Biology, Bioinformatics, Recombinant DNA technology, Mathematics & Statistics and Systems Biology.

The department is poised to grow rapidly and is optimistically looking forward to get associated with eminent professors/scientists at various stages of their career.

Programs of Study

Integrated M.Sc Systems Biology (5 years)

This has been offered in conjunction with the College of Integrated Studies (CIS), University of Hyderabad. This course encompasses an interdisciplinary approach that is developed with the changing nature of current biological research, wherein students are trained in analyzing complex molecular systems, high-throughput biological data and mathematical modeling. Many of the students of Int MSc (Syst Biol) are either placed in biologicals/pharma companies or pursuing their PhDs and beyond in the prestigious universities/research institutes in India and abroad.

PhD in Systems and Computational Biology

For research areas please visit the website doscb.uohyd.ac.in

Faculty

Professors

H. A. Nagarajaram, Ph.D. (IISc): Computational systems biology; assessment of functional impact disease causing mutations at molecular and systems level; discovery of basic structural principles governing protein functions; prediction and modelling of disease causing mutations in human proteins. Organic volatiles (detectable in urine and saliva samples) based biomarker discovery for human communicable and non-communicable diseases; Modelling of transport of metal ions by siderophores in soil bacteria.

Assistant Professors

Vivek, Ph.D. (JNU): Integration of various 'omics' data for gene knowledge mining and improvement of genome annotation; Candidate gene discovery; Nutri-genomics; Trait discovery related to C4 photosynthesis; Taxonomic/Functional characterization of gut microbiota for nutrition and diseases; Taxonomic/Functional characterization of plant root microbiota for sustainable agriculture

Manjari Kiran, Ph.D. (CDFD): Cancer genomics: Multi-omics based prognostic signature in cancers; Identification and characterization of novel RNAs in cancer; Network based approaches for drug repurposing and repositioning

Assistant Professor (UGC-FRP)

Sivahari Prasad Gorantla, PhD (TUM, Germany): Leukemia models and novel therapeutic agents in Chronic Neutrophilic Leukemia, Acute myeloid Leukemia and Myeloproliferative neoplasms. Identification of novel drug resistance mechanisms in these leukemias.

SCHOOL OF HUMANITIES

The School of Humanities was founded on the conviction that the Humanities give purpose, direction and value to education and life and these subjects are as important to society as are the scientific and technological disciplines. The School of Humanities is the largest School in the University with 14 Departments / Centres, 77 permanent faculty members as of now, and around 900 students in different Masters, M.Phil. and Ph.D. programmes. The School aims at providing an appropriate space for common awareness and a sense of responsibility for making the University more than a complex of specialized departments and centres. In addition, it is committed to the achievement of academic excellence, creativity, and the all-round development of students.

The courses offered in the School reflect these objectives and concerns. The Departments of Hindi, Telugu, Urdu and the Centre for Applied Linguistics and Translation Studies participate in the five-year Integrated Masters's Programme of the College for Integrated Studies.

Prof. S. Sarat Jyothsna Rani is the **Dean** of the School.

Department of English

Rated as the best department in India for the postgraduate study of English by QS World Rankings for three consecutive years, the Department admits into its M.A. programme graduates from any basic discipline. While the Department lays emphasis on giving students a sound foundation in canonical British and American texts, genres and methods of literary analysis, it also familiarizes them with literatures in English emerging from 'other' parts of the world and equips them with interdisciplinary methods of 'reading' the literary in newer formal, cultural and mediated contexts. The Department updates and orients its academic programmes in keeping with the ever-changing disciplinary contours of literary studies and actively promotes teaching and research in areas both within and beyond the traditional limits of the 'English' canon.

Programmes of Study

M.A. (English)

This programme extends over four semesters and bears 72 credits, of which 56 credits are awarded for core courses and 16 credits for elective courses (4 of which may be obtained from other departments). Students may register for additional courses to earn up to a maximum of 80 credits, provided the classes for such courses do not conflict with those scheduled by the Department for its regular courses.

The M.A. programme surveys various areas of English Studies (Literature and Language) such as Shakespeare and the Seventeenth Century, Eighteenth Century, Romantic, Victorian and Modern British Literature, American Literature, New Literatures, Indian Writing in English, and Literary Criticism and Theory. In addition to these courses in the domain of canonical English literature belonging to the Anglo-American tradition, the M.A. programme has also included core courses on Dalit Literature and Cultural Studies with a view to make its scope more inclusive and relevant to the specific socio-political contexts of studying English in 21st century India. The programme offers a wide array of electives, within and beyond the discipline of English literary studies, for students to choose from. These include, among others, European Drama in Translation, Jewish American Writing, African-American Literature, Just Reading, Telugu Dalit Literature in Translation, Modern Indian Thought, Western Aesthetics, Contemporary South Asian Diaspora, Children's Literature, Introduction to Basic Concepts in Film Studies, Society, Technology and Culture, Food

and Literature, Literature and Space, Digital Cultures, Introduction to Popular Culture, The New Humanities, Life Writing, Narratives of Law and Literature, and Writing the Subject in Human Rights Literature.

The Department enrolls students for research both at the M.Phil. and Ph.D. levels. The topics of the dissertations are approved by the Department and students carry out their research under the supervision of the assigned faculty.

M. Phil (English)

This is a 24 credit programme that extends over three semesters. For admission to the M. Phil. programme, the applicant must submit, at the time of the interview, a brief research proposal. During the first semester, the student completes mandatory course work for 12 credits. The dissertation, to be submitted by the student at the end of the programme, is assessed for 12 credits. The programme includes written examinations for the course work, the grades of which are part of the final tally for the M.Phil. as a whole. Attendance, as mandated by the Department, is strictly monitored. Candidates are expected to give open pre-submission seminars on their respective research topics. The dissertation is examined by both internal and external examiners and followed by a final viva-voce examination.

Ph.D (English)

The Ph. D. programme normally extends from two to five years from the date of admission. Applicants for admission into the Ph.D. programme must submit, at the time of the interview, a brief research proposal. The programme requires mandatory course work of 16 credits to be completed in the first two semesters; this leads to the submission of a comprehensive research proposal, complete with a clear outline of the proposed project, survey of scholarship, and a working bibliography at the end of the third semester. Consequent upon the formal approval of the research proposal, the student is required to write a dissertation on her/his topic of choice under the guidance of the assigned faculty supervisor. During the course of their research, students are required to make regular presentations on the progress of their work to members of their respective Research Advisory Committees (RACs), constituted by the Department. The dissertation is finally submitted and forwarded to three external examiners for evaluation. Based on the reports of the research supervisor and the external examiners, the student defends her/his thesis in a formal viva-voce exam before the award of the degree.

The Department offers specialized guidance to newly admitted M.Phil. and Ph.D. scholars in choosing their topics and formally assigns them research supervisors within a month of their joining the respective academic programmes.

Currently, the Department encourages work in: Indian Writing in English, Dalit literature, Diaspora Studies (specifically literature from the South Asian Diaspora), Victorian Literature and Culture, Shakespeare Studies, Indo-British Literary and Cultural Transactions, Children's Literature and Young Adult Fiction, Popular Culture, English Literature of the Romantic Age, and Postcolonial Literatures in English. The Department particularly encourages research projects relating to English in India, its socio-historical and pedagogical reaches – its thrust area for the UGC's DSA-II programme.

The Department supervises research only where primary materials are available in English, or in respectable English translation.

Domains of interest/expertise are listed against the names of individual faculty below, and indicate the areas in which they might be willing to supervise research. Prospective candidates are

advised to go through faculty profiles here and on the University-Department website when they apply for admission into research programmes.

Entrance Examination

MA (English)

The M.A. entrance examination question paper comprises Multiple Choice Questions for 100 marks. These include questions and exercises that test the applicant's language and comprehension skills as well as literary appreciation and awareness.

M. Phil. and Ph.D (English)

As per the UGC Regulations, 2016, the entrance examination for admission into the M.Phil. and Ph.D. programmes is conducted for 70 marks. The question paper consists of two parts: Part A comprises questions on Research Methodology and Part B tests the candidate's subject knowledge.

Part A, for 35 marks, tests the candidate's aptitude for English Research. This section includes questions on research methods as they are practised in the major areas of English Studies. The MCQs test the candidate's familiarity with standard sources and formats of English scholarship such as the MLA and comparable citation formats, online databases, journals and other resources for research in English studies. These questions also pertain to the aims and methods of research in English Studies, such as finding appropriate topics, conducting survey of scholarship, major schools of theory and critical approaches, stages toward writing and editing papers/ dissertation; the mechanics of writing, and the prospects of publishing research and presenting papers at scholarly fora.

Part B, also for 35 marks, tests the candidate's knowledge of the subject and his/her scholarly aptitude. This involves writing an essay on a given topic and critically analysing a prose passage, or a poem, as directed.

Additionally, shortlisted candidates are required to appear for an interview (for 30 marks). At the interview, the candidate's aptitude for research is examined on the basis of the following criteria:

- Research Proposal: quality, innovativeness, methodology
- Language skills
- Review and analysis of scholarship
- Argumentation (in the proposal and at the interview)
- Familiarity with primary sources and working bibliography

Break-up weightages for M.Phil./Ph.D. interviews

Weightage	Marks
Research proposal: innovativeness, quality, methodology	5
Language Skills	5
Review and analysis of scholarship	5
Argumentation (in proposal and at interview)	5
Familiarity with Primary Sources and Working Bibliography	5
JRF or M.Phil (only on production of M.Phil thesis at the Interview)	5

05 Marks will be awarded at the Interview to candidates with a JRF or an awarded M.Phil (only on production of M.Phil thesis by the candidate at the Interview). No marks will be given for candidates with just NET/SLET/SET.

Activities

In addition to adhering to the standard requirements for continuous assessment of their academic progress under various programmes, the students of the Department actively participate in co- and extra-curricular activities, such as organizing regular boon readingsessions and film screenings, in which both students and faculty engage in discussing and debating ideas relevant to the broad context of studying literature, culture and media in contemporary society. The Department also periodically organizes special lectures and invited talks to keep students and faculty abreast with the ever-expanding possibilities of teaching and research in the multiple trajectories of English Studies. Thus, for instance, over the last two years the Department has organized special workshops as part of the “Innovation in the Humanities” initiative of the University, which is aimed at promoting critical thinking and awareness beyond the traditional methods of syllabus-driven academic study and research. It is also noteworthy that the researchscholars of the Department have recently taken the initiative in organizing roundtable discussions and a series of workshops and lectures as part of the UGC-DSA-II activities of the Department.

Faculty

Professors

K. Narayana Chandran, Ph.D. (IIT Bombay); American Literature; Modern Literatures in English; English in India (the history and pedagogy of the discipline); Translation; Short Narrative Forms; Reading/Literacy Theories; Malayalam Literature and Culture; Indian aesthetic/comparative studies; New Literatures /Theory in English; Allusion, Intertextuality, and Intergenres. (Re-employed)(Not available for Supervision)

Pramod K. Nayar, Ph.D. (Hyderabad); Colonial Discourse Studies, Literary & Cultural Theory, Posthumanism, Comics and Graphic Novels, Human Rights and Literature, Medical Humanities.

D. Murali Manohar, B.A. B.Ed., M.Phil., Ph.D. (Hyderabad); Indian Writing in English, Indian English Women’s Fiction, Dalit Literature/Studies and Women’s Studies.

Anna Kurian, Ph.D. (CIEFL, Hyderabad); Shakespeare Studies, Children’s Literature (**Head of the Department, DSA-II Coordinator**)

Assistant Professors

Sireesha Telugu, Ph.D. (Hyderabad); Indian Writing in English, South Asian Diaspora and Literature.

Siddharth Satpathy, Ph. D. (University of Chicago): 18th and 19th Century British Literature, Post-Colonial Thought, Modern Indian Intellectual Tradition

Girish D. Pawar, Ph.D. (EFLU, Hyderabad); Cultural Studies, Film Studies and Popular Culture.

B. Krishnaiah., M.A., SLET, M. Phil., Ph.D. (Kakatiya); Indian Writing in English, Indian Fiction in English by Women, Postcolonial Studies, Dalit Studies.

Gopika Sankar U. Ph.D. (IIT Madras, Cambridge CELTA): Literature and space (Spatial literary studies), Diaspora literature, Contemporary Indian English fiction, Short Fiction

Bhaskar Lama, Ph. D. (EFLU, Hyderabad); Jewish American Writings, African American Literature

Saradindu Bhattacharya, Ph.D. (Hyderabad); Young Adult Fiction, Narratives of trauma, Popular Culture and Media

Department of Philosophy

The Department is eminently known in the country for research in diverse fields of philosophy. It has been recognized by the UGC as a Department of Special Assistance since 1987. The thrust areas of research under this programme are (1) Philosophy of Language (2) Philosophy of Cognition and Mind. In addition to these, the Department also carries on research in Contemporary Western Philosophy, Systems of Indian Philosophy like Nyaya, Buddhism and Vedanta, Indian Aesthetics, Philosophy of Science, Social and Political Philosophy, Epistemology, Ethics and Logic.

Programmes of Study

M.A. (Philosophy)

In this programme the Department offers courses at two levels. At the basic level it offers core courses in the classical schools of Indian and Western Philosophy, Ethics and Logic. At the advanced level it offers optional courses in the various fields of philosophy such as Advanced courses in Nyaya and Buddhism, Social and Political Philosophy, Philosophy of Science, Philosophy of Language, Philosophy of Art, Philosophy of Mind, etc.

M.Phil. (Philosophy)

In this programme emphasis is laid on generating aptitude for independent research. It requires both course work and the writing of a dissertation. The course work consists of studying Contemporary Indian and Western philosophical problems. In addition, the students are required to do a course on Research Methodology and a course related to their respective dissertations. Interdisciplinary research is encouraged, where two or more departments/schools are involved.

Ph.D. (Philosophy)

The Ph.D. programme aims at developing original research in diverse fields of philosophy. It encourages interdisciplinary research. The research scholars are required to write a dissertation on a topic of their choice in consultation with the supervisor after completing at least two semesters of course work. Interdisciplinary research is encouraged, where two or more departments/schools are involved.

Entrance Examination

The question paper for the entrance test for M.A. course consists of 100 objective (multiple-choice) questions of one mark each. The questions pertain to Reading and Comprehension, Quantitative and Analytical Reasoning, among others. There will be a negative marking of 0.33 for every wrong answer.

The question paper for M.Phil. and Ph.D. courses shall consist of 70 marks in two sections, as per the UGC Regulations, 2016.

Part-A: 35 marks will be on Research Methodology. The methodology may include research publication, interview, surveys and other research techniques, and could include both present and historical information, besides questions on Quantitative methods, Data interpretation, Aptitude and Logical Reasoning.

Part-B: 35 marks will be on subject concerned.

Faculty

Professors

A. Raghurama Raju, Ph.D. (IIT, Kanpur) - Social and Political Philosophy, Contemporary Indian Philosophy (On Lien to IIT Tirupati)

C. A. Tomy, Ph.D. (Hyderabad) – Philosophy of Mind, Philosophy of Language, Metaphysics and Nature of Modality (**Head**)

K. Siddeswara Prasad, Ph.D. (Sri Venkateswara) - Nyaya, Indian Philosophy (Superannuated and Reemployed)

Associate Professors

Chandra B. Varma, D.Litt (Ranchi) – Buddhism, Indian Philosophy, Phenomenology, Translation of the Philosophical Works from Pali, Prakrit and Sanskrit into English

Laxminarayan Lenka, Ph.D. (Hyderabad), Philosophy of Language, Epistemology

Assistant Professors

Abhijeet Joshi, Ph.D. (Pt. Ravi Sankar) – Indian Philosophy (Advaita Vedanta: Classical and Contemporary)

B. Ananda Sagar, Ph.D. (Hyderabad) – Epistemology and Analytic Philosophy

Venusa Tinyi, Ph.D. (Hyderabad) – Logic, Analytic Philosophy

Kavita Chauhan, Ph.D. (Panjab) – Philosophy of Art, Indian Philosophy

Shinod N. K, Ph. D. (Hyderabad), PDF (IIT Delhi) – History and Philosophy of Science

Department of Hindi

The Department of Hindi provides teaching and research facilities in Hindi, keeping in view the changing social norms, communication patterns, different social roles of language in our society and fast changing social values in our time. While drawing up the syllabus, sufficient care has been taken to cater to contemporary needs of society. Special attention is paid to the regional needs and comprehensive studies of language and literature.

Programmes of Study

The Department offers M.A., M. Phil. and Ph.D. Programmes in Hindi.

M.A. Hindi Language and Literature

Extended over four semesters, this programme provides instruction and guidance for acquiring knowledge in various new fields of Hindi language and literature without entirely neglecting the

old and medieval texts and offers wide scope for elective studies. Special emphasis is also given to the functional aspects of the language.

M.A. Hindi Language and Literature course will have two streams: (i) Literature Stream (ii) Functional Hindi and Translation stream.

This course will have common papers up to 3rd Semester and in the 4th Semester the Streams will be separated. In case a student opts for the Functional Hindi and Translation stream, he/she will be offered four separate courses (Four credits each) and it will be mentioned -'Specialization in Functional Hindi and Translation' in his/her degree of M.A. Hindi Language and Literature.

M. Phil (Hindi)

This is a three-semester programme. The students will take courses on research methodology and advanced literary trends in the first semester and write a dissertation on an approved topic during the second and third semesters under the supervision of a faculty member.

Ph.D. (Hindi)

This is a research programme, with course work of 16 credits in the first year. Students are required to submit their thesis after passing the prescribed courses for Ph. D programme. No student is permitted to submit his/her thesis for the Ph.D. degree unless he/she has passed the courses of research in the department as prescribed in a period of one year, extendable up to a period of one more year (semester by semester) from the date of confirmation of admission. There will be written and oral examinations for the course work as prescribed.

Applicants for the M. Phil and Ph.D. courses must submit a brief description (in about 500 words) of their proposed topic of research along with their applications.

Research in the following fields is given preference:

Bhakti Literature/ Bhakti Movement, Comparative Studies, Literary Criticism, Sociological approach to Literature,

Various aspects of Modern Literature, Dakkhini Hindi – Language and Literature, Dalit and Tribal Literature,

Functional Hindi and Translation, Mass Media, Cinema and Cultural Studies, Women and Gender discourse.

Entrance Examination

MA (Hindi)

The entrance examination for M. A. Hindi Language & Literature will consist of 100 objective type questions only to be answered on OMR Sheet. The written test will be based on objective type questions of B.A. Standard related to the following areas :

History of Hindi Language and Literature, works of prominent personalities of Hindi Language and Literature.

Scientific and academic topics related to Hindi language and literature, General Hindi Grammar/Linguistics.

There is negative marking and 0.33 marks will be deducted from total marks obtained by the candidate for each wrong answer.

M.Phil and Ph.D. (Hindi)

The question paper of M.Phil. and Ph.D. courses shall consist of 70 marks in two sections, as per the UGC Regulations 2016.

Part A – 35 marks will be on Research Methodology that includes:

Data collection process; publication research, interviews, surveys and other research techniques; researching present and historical information; Quantitative methods, Data interpretation, Aptitude and Logical Reasoning.

This part of the Entrance Test will be on the lines of Paper-I/Part-I of the UGC-CBSE/CSIR JRF exam.

Part B: 35 marks will be on subject concerned which is as follows :

The areas from which questions will be asked include: History of Hindi Literature, History of Hindi language, General Linguistics, Works of prominent personalities of Hindi Language and Literature, Scientific and academic topics related to Hindi language and literature, Hindi Criticism, Indian, Western Poetries, Hindi Cinema, Journalism, Dalit, Adivasi Discourers, Functional Hindi and Translations, Research Methodology, Women Writing in Hindi, Sociology of Literature, Bhakti Poetry, Comparative literature.

In addition, there is an Interview for 30 marks for shortlisted candidates.

Faculty

Professors

V. Krishna, Ph.D. (Osmania)- Modern literature, Philosophy of literature, Comparative studies, Functional Hindi, Translation, Dalit Literature and Identity Studies.

Ravi Ranjan, Ph.D. (Hyderabad)- Bhakti Poetry, Modern Literature, sociology of Literature & Literary Criticism

R.S. Sarraju, Ph.D. (Andhra)- Functional Hindi and Translation studies, Comparative Indian Literature, Sociology of Literature.

Sachidananda Chaturvedi, Ph.D, Sanskrit (Kanpur University), Ph.D. (Manipur University)- Sanskrit literature, Indian Poetics, General Linguistics, Modern Hindi Literature. (**Head**)

Gajendra Kumar Pathak, M.A.Hindi (JNU), M.Phil. (JNU), Ph.D. (V.K.S.U.)- Bhakti movement and poetry, Hindi navajagan, Hindi Criticism, Philosophy of History of literature, Modern and contemporary Hindi Literature.

Alok Pandey, M.Phil. & Ph.D. (JNU) – Kabir, Nirala, Ageyay,, Media, Cinema, Cultural Studies, Interdisciplinary and comparative studies.

Cherla Annapurna, Ph.D PG & Research Institute (DBHPS) Language studies, Translation studies, Comparative and modern Literature.

Vishnu Ramba Sarwade, Ph.D Dr.B.R Ambedkar Martwada University Aurangabad, Adunik sahity Hindi sahitya ke vividh vimarsh (Dalit, adivasi, stri, alpsankyank etc., Tulanatmak adyayan.

M. Shyam Rao, Ph.D. (Hyderabad) – Modern Hindi Poetry, Modern Hindi prose, Aesthetics, Marxist Approach to Literature, Sociology of Literature, Comparative Literature, Indian Literature.

Associate Professors

Bhim Singh, Ph.D. (Delhi)- Modern Hindi Literature, Contemporary Hindi literature and Discourses, Historiography of Hindi Literature, Folk Literature of Rajasthan, Lexicography and Semantics.

M. Anjaneyulu, Ph.D. (Hyderabad)- Modern Hindi Literature, Comparative Studies, Bhakti Literature. Indian Literature.

Assistant Professor

J. Atmaram, Ph. D (Osmania)- Hindi Criticism, Modern Hindi Literature (Poetry & Prose), Functional Hindi and Translation, Social contest of Hindi language and Registers.

Department of Telugu

The main objective of the Department of Telugu is to promote studies in Telugu Language and Literature. The Department undertakes teaching and research in Telugu with emphasis on various aspects of historical and comparative studies in language and literature. The syllabus for various courses is drawn keeping in view the changing needs of society in relation to language use, and the role of literature in the society. An equal importance is also given for studies in Classical literature and Sanskrit, along with an interdisciplinary approach.

Programmes of Study

MA (Telugu)

The M.A. programme in Telugu is of four-semester duration with all the important areas of study. There are 3 Core and 2 Optional courses in each semester totalling 20 courses. All the courses are 4 credits each and the students of M.A. have to earn 80 credits to get the Degree. The courses are designed with an emphasis on all-round development of the personality of the students with adequate importance to job opportunities. The courses provide a wide range of specializations such as classical, modern, folk, Dalit and Diaspora literatures, literary criticism and aesthetics, traditional grammar, Telugu linguistics, computer application to Telugu language, and mass media.

M.Phil and Ph.D (Telugu)

The M.Phil is of 1- 1 ½ year duration which includes coursework and dissertation. In the first semester, there are 4 courses with 4 credits and in the 2nd semester, students have to write the dissertation.

The Ph.D. programme is entirely a research programme oriented towards studies in classical and modern Telugu literature, comparative literature and culture, history, and Language studies. The Ph.D. programme will normally extend over a minimum period of three years from the date of confirmation of admission and maximum of six years. The nature of the programme is individually designed for each candidate, but invariably includes course work in the first semester and later, a thesis on the approved topic under faculty guidance.

Entrance Examination

MA (Telugu)

The Entrance Examination for M.A. consists of 100 objective-type questions of one mark each to be answered in OMR Sheet. The questions will be based on graduation level in the areas of classical and modern literary works, genres, authors, quotations, grammar, chandas, alankaras,

Andhra Culture, history of literature, and history of Telugu language, General Knowledge, current events etc. Negative marking is applicable for every wrong answer.

M.Phil (Telugu)

The Entrance Examination for M.Phil consists of 70 objective type questions at postgraduate level of one mark each to be answered in OMR sheet. Part A, 35 marks, will be on Research Methodology and Part B, 35 marks, on the subject concerned.

The questions will be based on classical and modern literature, linguistics and history of Telugu Language and Literature, grammar, chandas, alankaras, literary criticism, folk Literature, dramaturgy ,methodology, aesthetics, literary works, authors, basic Sanskrit knowledge, General Knowledge etc. The candidates who qualified in the written test have to attend an oral test for 30 marks. Negative marking is applicable for every wrong answer.

Ph.D (Telugu)

The Ph.D. Entrance Examination paper consists of 70 objective type questions at postgraduate level of one mark each to be answered in OMR sheet. Part A, 35 marks, will be on Research Methodology and Part B, 35 marks, on the subject concerned.

The questions will be based on classical and modern literature, linguistics and history of Telugu Language and Literature, grammar, chandas, alankaras, literary criticism, folk Literature, dramaturgy, methodology, aesthetics, literary works, authors, basic Sanskrit knowledge, General Knowledge etc. The candidates who qualified in the written test have to attend an oral test for 30 marks. Negative marking is applicable for every wrong answer.

Break-up weightages for M.Phil./Ph.D. interviews	Research Proposal and its defence: -5 marks Having UGC fellowship/M.Phil./ -5 marks Interview performance -20 marks
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Faculty

Professors

S. Sarat Jyotsna Rani, M.A. (Acharya Nagarjuna), M.Phil.(UoH), Ph.D. (Osmania), D. Litt. (Berhampur). Classical and Modern Literature; Modern Poetry; Folk Literature and Cultural History of Andhras, Telugu Drama and Literary Criticism.

Tummala Ramakrishna, M.A., M.Phil., Ph.D. (Sri Venkateswara). Modern Literature, Fiction Studies and Creative Writing and Text Book Preparation, Audio and Visual Lesson Preparation and Mass media writing.

G. Aruna Kumari, M.A. Telugu, M.A. Sanskrit, M.A. Philosophy (Osmania); M.Phil. and Ph.D. (UoH). D. Litt. (Berhampur). Modern Literature, Classical Literature, Folk Literature, Sanskrit, Logic and Inscriptional studies, Epigraphy and Manuscriptology, Comparative Literature. **(Head)**

Darla Venkateswara Rao, M.A. Telugu (UoH), M.A., Sociology (B.R.A.O.U.), M.Phil., Ph.D. -Telugu (UoH) P.G. Diploma in Linguistics & Teaching of Telugu Language (PSTU.), Diploma in Sanskrit (O.U). Comparative Aesthetics, Literary Criticism, Applied Criticism, Classical Literature, Modern Poetry, Dalit Literature, Sociological approach to Literature, Telugu Diaspora Literature.

Pillalamarri Ramulu, M.A. (Osmania) M.Phil., Ph.D. (UoH) P.G. Diploma in Sanskrit. Classical and Modern Literatures, East and West Aesthetic theories, Literary Criticism, Evolution of Telugu Literature, and Cultural Studies.

M.Gona Naik: M.A. (Sri Krishnadevaraya Univ.Ananthapuramu, A.P.), M.Phil. (SKD Univ) and Ph.D.(SKD Univ.) Modern Literature, Folk Literature and Classical Literature.

Yendluri Sudhakar Rao:M.A. (Osmania), M.Phil (Osmania), Ph.D.(PS Telugu University):Modern Literature, Classical Literature and Comparative Literature (Hindi and Urdu).

Pammi Pavan Kumar, M.A. Telugu (UoH), M.A. Linguistics (Annamalai), M.Phil., Ph.D. (UoH). Applied Linguistics, Natural Language Processing, Preparation of e-courseware.

D. Vijayalakshmi, M.A. Telugu (Madras), M.A. Linguistics (Annamalai), Ph.D (SPMVV, Tirupati) Diploma in Tamil (Madras), P.G. Diploma in Telugu Translation (SPMVV, Tirupati). Telugu Language, Literature. Applied Language study, Comparative Dravidian and Folklore.

Assistant Professors

B. Bhujanga Reddy, M.A., M.Phil. Telugu (UoH), M.A - Applied Linguistics, Ph.D. - Linguistics (PSTU), M.A. Sanskrit (Kakatiya) P.G. Diploma in Translation Studies, Literary Criticism, Literary Translation, Telugu Grammar and Linguistics.

D. Vijayakumari, M.A.(Andhra), M.Phil., Ph.D.(UoH). Folk Literature and Desi Literature.

Department of Urdu

The Department of Urdu aims at providing teaching and research facilities in Urdu. Special importance is given for studies in Deccani research especially editing of Deccani Manuscript and Classical Literature. The syllabus is updated keeping in view the changing needs of society. The syllabus includes job-oriented courses like Translation: theory and practice, Computer and Urdu software Practices, Urdu journalism and script writing for Audio-Visual media. This is the only Urdu department in the country with a Computer Lab. The Department conducts workshops, extension lectures by eminent scholars, and symposia/seminars of national and international repute. Our research programmes -- M.Phil and Ph.D -- receive good response.

Programmes of study

The Department offers M.A, M.Phil. and Ph.D. programmes in Urdu.

MA (Urdu)

The M.A. Urdu syllabus has both modern and inter-disciplinary features. The programme aims at giving a fair knowledge of all the important forms of Urdu Literature with introduction of other disciplines in the Humanities and the Social Sciences relevant to Urdu Literature. The programme consists of several innovative optional courses like translation theory & practice, writing methods for audio-visual media and core/compulsory courses in Computer & Urdu software practices and introduction to Urdu Journalism.

M.Phil (Urdu)

The M.Phil. Programme aims to : i) train students in research methodology so that he/she may pursue Ph.D. research in a systematic manner, and ii) familiarize the students with practical criticism so that their research does not become a mere enumeration of facts, but exhibits critical appreciation and evaluation of literary works.

Ph.D (Urdu)

Candidates for Ph.D will be required to work on a topic approved by the Departmental committee but our focus is on i) Interdisciplinary topics ii) Topics of Comparative Literature. Applicants for the Ph.D. course must submit along with their applications, a brief description (in about 500 words) of their proposed topic of research.

Entrance Examination

M.A. (Urdu)

The entrance examination for M.A. will consist of two parts, Part 'A' and Part 'B', with objective-type questions for 40 marks under part 'A' which will be based on General Knowledge and reasoning and part 'B' will be based on Urdu Language and Literature of 60 marks.

M.Phil. and Ph.D (Urdu)

The question paper of M.Phil. and Ph.D. courses shall consist of 70 marks in two sections, as per UGC regulations 2016.

Part A – 35 marks will be on Research Methodology that includes:

Data collection process; publication research, interviews, surveys and other research techniques; researching present and historical information; Quantitative methods, Data interpretation, Aptitude and Logical Reasoning. This part of the Entrance test will be in the UGC-CBSE/CSIR-JRF exam pattern.

Part 'B': 35 marks, will be on the subject concerned.

The examinations of M.Phil. and Ph.D. will be based on M.A. and M.Phil. syllabi respectively. The question paper for both the examinations, will consist of objective type questions to be answered in the answer book. The candidates for M.Phil. And Ph.D. will have an interview for 30 marks.

Faculty

Professors

Dr. Habeeb Nisar: Ph.D (Hyderabad) Deccani Literature, Dastan, Interdisciplinary studies, Textual Criticism, Classical Prose and Poetry.

Dr. A.M.Syed Fazlullah: Urdu Journalism, Urdu Computer, Fiction, Non-fiction, Mass Media and Criticism. **(Head)**

Associate Professors

Dr. Arshia Jabeen: PhD (Hyderabad) Modern Prose, Modern Fiction, Modern Literary Criticism, Computer Studies.

Dr. Md. Zahidul Haque: Ph.D. (JNU) Classical Poetry, History of Urdu Language and Literature, Urdu Journalism and Mass Media, Comparative Literature.

Dr. Abdur Rab Manzar: Ph.D (Osmania) Modern Criticism, Modern Prose and Poetry.

Assistant Professors

Dr. Mohd. Kashif: Ph.D. (JNU) Modern Fiction and Mass Media.

Dr. Nishat Ahmed: Ph.D. (Hyderabad) Deccani Literature, Modern Prose and Poetry.

Dr. Rafia Begum: Ph.D. (Hyderabad) Fiction, Non Fiction and Modern Poetry.

Centre for Applied Linguistics and Translation Studies (CALTS)

The Centre for Applied Linguistics and Translation Studies (CALTS), established as a research centre in 1988, began offering a post-graduate programme in 1990. The Centre specializes in Language Interface Studies with an emphasis on Language Teaching, Sociolinguistics, Psycholinguistics, Translation Studies, Lexicography, Language Typology and Language Technology [for which a Special Assistance Programme has been sanctioned by UGC – Phase-I: 2002-2007, Phase-II: 2007-2012, DSA-I, 2015-2020]. Apart from being one of the advanced centres of teaching and research in Applied Linguistics and Translation Studies in the country, CALTS has also created a substantial computational facility for research and training in Natural Language Processing (NLP) and Machine Translation (MT). CALTS has faculty members specialized in the areas of Language Teaching, Syntax, Semantics, Historical Linguistics, Psycholinguistics, Sociolinguistics and Translation studies involving different Classical and Modern Indian Languages such as Telugu, Tamil, Kannada, Marathi, Bangla and Khasi.

CALTS has undertaken major research projects like Indian Language to Indian Language Machine Translation (IL-ILMT), Shallow Parser Tools for Indian Languages (SPTIL: Assamese, Bodo, Dogri, Gujarati, Hindi, Konkani, Kashmiri, Maithili, Manipuri, Nepali, Odia and Santali) and Indian Languages Corpora Initiative (ILCI) Phase II funded by DeITY, Ministry of Communications and IT, Govt. of India. CALTS has been evaluated and rated by the Research Council of the United Kingdom as a Centre of Excellence in 2010 among 32 important institutions in the country.

Programmes of study

The Centre offers the following programmes:

- i) Integrated M.A. in Language Sciences
- ii) M.A. in Applied Linguistics
- iii) M.Phil. in Applied Linguistics
- iv) M.Phil. in Translation Studies
- v) Ph.D. in Applied Linguistics
- vi) Ph.D. in Translation Studies

I.M.A. (Language Sciences)

This ten-semester programme trains students in Humanities in the emerging areas of Computational Linguistics, Language Technology and Cognitive Linguistics among others. The course is offered through the College for Integrated Studies.

M.A. (Applied Linguistics)

This is a four-semester programme with 4 papers per semester, in addition to two Foundation Courses one each in the first two semesters. The compulsory courses include: Phonetics and Phonology, Morphology, Syntax, Semantics, Language Teaching & Testing, Translation Studies, Computational Linguistics, Historical Linguistics, Psycholinguistics and Sociolinguistics. The

electives offered include: Formal Semantics, Advanced Morphology (Word Formation), Advanced Topics in Sociolinguistics, Advanced Computational Linguistics, Machine Translation, Computational Lexicography, Linguistics and Literature, Analytical Techniques, Structure of Select Indian languages (Telugu, Tamil, Kannada, Marathi, Khasi etc.), Advanced Syntax, etc.

M.Phil. (Applied Linguistics/Translation Studies)

Courses are offered for a maximum period of three semesters. Out of which the first semester of the first year is for Course work which comprises four papers (16 credits) and the remaining two semesters are for dissertation, on topics approved by the Centre. The dissertation has to be submitted by the end of the third semester.

Ph.D. in Applied Linguistics/Translation Studies

The tenure for Ph.D. is as per UGC norms. The students need to fulfil the UGC requirements for successful completion of the programme. The programme consists of two parts - Coursework and thesis submission. The course work comprises four papers (16 credits) spread over 2 semesters of the first year. It is followed by submission of a thesis on a research topic approved by the Centre. The course is tailor-made to cater to the specific requirements pertaining to the research interests of individual research scholars.

Entrance Examination

The pattern of the question paper for the entrance examination 2020 shall be as follows:

M.A. in Applied Linguistics (100 marks)

There will be 100 objective type questions spread across five sections:

Section - A: Verbal & Numerical Aptitude -- 20 marks

Section - B: Analytical Aptitude -- 20 marks

Section - C: Knowledge of English -- 20 marks

Section - D: Knowledge of World Languages -- 20 marks

Section - E: Language Analysis & Problem-Solving -- 20 marks

IMA Language Sciences (100 marks)

There will be 100 objective type questions spread across three parts to test

Part –A: Knowledge and Awareness of World Languages -- 40 marks

Part –B: Competence in English -- 35 marks

Part –C: Competence in the current affairs and general knowledge -- 25 marks

(For details look under College for Integrated Studies)

M.Phil. and Ph.D.

The question papers of M.Phil. and Ph.D. Courses shall consist of 70 marks in two sections, as per the UGC Regulations 2016.

Part A: 35 marks will be on Research Methodology and broadly will be as follows:

Research Methodology: Data collection process; publication research, interviews, surveys, historical research, quantitative methods, data interpretation; Aptitude and logical reasoning.

This part of the Entrance Test will be in the lines of Paper-I/Part-I of the UGC-CBSE/CSIR JRF exam.

Part B: 35 marks will be on subject concerned.

In addition to this, there will be an interview for 30 marks for those who qualify in the written examination.

Note:

1. The question papers of M.A. M.Phil. and Ph.D. are in the objective type and shall be answered in an OMR sheet following the instructions given both in the question papers and the OMR sheet.
2. There is a negative marking of 0.33 marks for each wrong answer.

Faculty**Professors**

Shivarama Padikkal, Ph.D. (Mangalore): Translation Studies, Cultural Studies, Kannada Language & Literature.

J. Prabhakara Rao, Ph.D. (Moscow): Systemic Linguistics and Systemic Typology, Mathematical & Computational Linguistics, Methodology of Linguistics, Translation Studies, Russian Linguistics and Russian as a Foreign Language.

K. Rajyarama, Ph.D. (UoH): Derivational Morphology, Morpho-Syntax, Language Teaching & Testing, Machine Translation, Translation Theory and Practice. (**Head**)

Bhimrao Panda Bhosale, Ph.D. (Aurangabad): Stylistics, Linguistics, Applied Linguistics, Poetry, Critical Theory, Translation, Ambedkar Studies, Comparative Literature.

Associate Professors

Gracious Mary Temsen, Ph.D. (Delhi): Syntax, Linguistic Typology, Language Documentation, Khasi Linguistics.

S. Arulmozi, Ph.D. (UoH): Computational Linguistics, Sociolinguistics, Language Analysis.

Assistant Professors

K. Parameswari, Ph.D. (UoH): Computational Linguistics & Machine Translation, Linguistic Divergence.

Sriparna Das, Ph.D. (UoH): Translation Studies, Gender Studies, Literature Studies.

Morey Dipak Tryambak, Ph.D. (EFLU): Phonology: Linear and Non-Linear Phonology.

Y. Viswanatha Naidu, pursuing Ph.D. (Sweden): Linguistics & Computational Linguistics, Semantic Typology.

G. Uma Maheshwara Rao, Ph.D. (Osmania): Computational Linguistics & Machine Translation, Historical Linguistics and Remote Genetic Relations in Mongolian, Turkic and Dravidian families, Derivational Morphology, Nonlinear Phonology (Retired & re-employed)

Vacancy position in M.Phil and Ph.D. programmes

Prof. Bhimrao Panda Bhosale: M.Phil. (AL) - 1 and M.Phil. (TS) - 2

Areas of specialization: Systemic Functional Linguistics, Translation, Stylistics and Discourse Analysis

Ph.D. (AL) - 2 and Ph.D. (TS) - 2

Areas of specialization: Systemic Functional Linguistics, Translation, Stylistics and Discourse Analysis

Dr. Gracious Mary Tansen: M.Phil. (AL) -1 and Ph.D. (AL) - 2
Areas of specialization: Typology, Syntax and Morpho-Syntax

Dr. S. Arulmozi
M.Phil. (AL) - 1
Area of specialization: Computational Linguistics

Dr. K. Parameswari
M.Phil. (AL) - 1
Area of specialization: Computational Linguistics

Dr. Sriparna Das
M.Phil. (TS) - 1
Area of specialization: Translation Studies (Literary Translation, Gender and Translation, Culture and Translation)

Dr. Morey Dipak Tryambak
Ph.D. (AL) - 4
Area of specialization: Phonology

Centre for Comparative Literature (CCL)

The Centre for Comparative Literature, functioning since 1988, aims at providing an interface between literatures and cultures. The Centre offers M.A., M.Phil. and Ph.D. programmes which encourage a study of systems of knowledge in order to develop a critical awareness of socio-political and cultural discourses.

Programmes of Study

MA (Comparative Literature)

The M.A. in Comparative Literature is a four-semester programme and each semester carries 16 credits, apart from two foundation courses in the first year. There is continuous evaluation followed by semester-end examinations. The programme allows a choice of elective courses and a research-oriented dissertation in the fourth semester. While the programme traces the history of the discipline and the development of methodologies, it also emphasizes Translation Studies and Cultural Studies as tools to engage with literatures and cultures.

M.Phil (Comparative Literature)

The M.Phil. in Comparative Literature is a three-semester programme, including course-work and dissertation, with maximum one more semester extension. The first semester course-work, of compulsory / elective courses for 16 credits, has continuous evaluation and a semester-end examination. By the end of the second / third semester, the student is required to submit a dissertation, written under faculty guidance on an approved topic, as per the rules and regulations of the Centre/University.

Ph.D (Comparative Literature)

The Ph.D. in Comparative Literature extends over a minimum period of two years. The nature of the programme is decided by the student in consultation with faculty, but the requirements invariably include course-work comprising 16 credits over two semesters and a thesis on an approved topic under faculty supervision.

Entrance Examination

MA (Comparative Literature)

The entrance examination for M.A. will carry 100 marks, comprising questions of objective type that will test the candidate's English language / literary comprehension skills as well as awareness of Indian / world literatures, literary criticism / theory and contemporary trends / movements.

M.Phil and Ph.D (Comparative Literature)

The entrance examination for M.Phil. / Ph.D. will carry 70 marks and consists of objective type questions in two parts. Part A for 35 marks will be on research / analytical / reasoning capabilities. Part B for 35 marks will test the candidate's knowledge of Indian / world literatures, comparative / literary / cultural theories, contemporary trends / movements as well as English language proficiency.

Applicants for the M.Phil. programme must submit along with the application a brief research proposal (about 500 words). Applicants for Ph.D. admission must submit along with the application a brief research proposal (about 750 words).

Short-listed M.Phil. / Ph.D. candidates are to appear for an interview (30 marks), with six copies of their research proposal, on dates notified by the Centre/University.

Faculty

Professors

M.T. Ansari, Ph.D. (EFLU, Hyderabad) – Cultural Studies, Criticism and Theory, Kerala Studies, Minority Discourse.

Sowmya Dechamma C.C., Ph.D. (Hyderabad) – Literatures of India, Translation Studies, Gender and Minority Discourse, Kodava Language and Cultural Discourse.

Associate Professor

J. Bheemaiah, Ph.D. (Osmania) – Dalit and Tribal Studies, Indian Literatures, Literature of the Margins, Culture Studies.

Department of Sanskrit Studies

The Department offers a Ph.D programme in Sanskrit Studies. The present focus of programme is in Language Technologies and Ayurveda. The Ph.D. Programme extends over a minimum period of two years from the date of confirmation of admission. The nature of each course is individually decided for each candidate, which will include a minimum of three courses and a dissertation on an approved topic under the faculty guidance.

The goal of Language Technologies discipline is to train Sanskrit Scholars in the emerging field of Sanskrit Computational Linguistics showing the relevance of traditional śābdabodha theories to the field to computational Linguistics, thus bridging the gap between the past and the present.

The goal of Ayurveda discipline is to conduct literary research in Ayurveda to redefine the concept of 'svāsthya' while establishing an interdisciplinary dialog between Sanskrit, philosophy and medical science. Students are trained to work in Indian psychology, linguistic aspects of Ayurveda samhitās, translation related problems and encouraged to generate data useful for pre-clinical research, based on original texts.

Programmes of Study

The department offers an **MA (Sanskrit Studies) & Ph.D (Sanskrit Studies)**.

Faculty

Amba Kulkarni, Professor (Head)

J.S.R. Prasad, Professor

Aloka Parasher Sen, Emeritus Professor

Centre for English Language Studies

The Centre for English Language Studies caters to a diverse group of students across disciplines and is emerging as a research and resource centre for language studies. The Centre offers **M.A, M.Phil and Ph.D.** programmes in English Language Studies. English language education and other aspects of language study such as linguistics and history of English in India, are some focal areas. The Centre is also engaged in the teaching of English at the Centre for Integrated Studies for Integrated Masters students, besides offering need-based courses on Academic Writing, Communication Skills and Technical Writing to students at the postgraduate and research levels.

The research interests of the faculty at the Centre span several areas of language studies and aspects of pedagogy. The faculty of the Centre publish in areas pertaining to their research interests and are part of ongoing research projects.

Programmes of study

M.A. in English Language Studies

The MA programme covers a wide range of areas in the field of English Language studies. It has courses drawn from Linguistics, English Language Teaching, Sociolinguistics, Pedagogy, etc. The programme extends over four semesters and has a minimum of 70 credits. Apart from the core courses, the programme has elective courses which are offered in the third and fourth semesters. The electives offered enable the students to specialize in specific domains like language teaching, corporate communication, technical writing, editing, etc. Students are encouraged to opt for courses outside the Centre as well.

Ph.D (English Language Studies)

The Ph.D. programme normally extends over a minimum period of two years from the date of admission. The programme comprises mandatory course work of 12 credits spread over the first and second semester. Scholars are required to write a thesis on an approved topic under the supervision of a faculty member. The thesis is examined by internal and external examiners and is followed by a viva voce examination. During the period of research, scholars are required to give seminars on their “work-in-progress” every semester.

Entrance Examination

MA (English Language Studies)

The Entrance Examination will be in two parts:

Part A: 25 Marks; 25 multiple-choice questions testing English language proficiency. (Negative marking: 0.33 deducted for every wrong answer; no marks deducted for questions not attempted).

Part B: 75 Marks; multiple-choice questions on basics of Linguistics and ELT, and questions testing analytical and problem solving abilities. (No negative marking)

Ph.D (English Language Studies)

Written Examination: 70 Marks. The Ph.D Entrance Examination will be in two parts:

Part A: 35 marks; this part will be on Research Methodology and will test the following:

Basics of research such as research processes, types of research, research design, variables, measurement and scaling techniques, sampling and data collection methods, data processing and data analysis and research report writing.

Part B: 35 marks; this part will be on the subject concerned i.e. English language education and English Linguistics.

This will consist of two sections:

Multiple choice questions worth 20 marks and an essay question for 15 marks. In addition, there will be an Interview for 30 marks for shortlisted candidates.

Other information:

Applicants for admission to the Ph.D. programme must submit, along with the application, a brief description (about 1000 words) of their proposed topic of research.

Faculty

Professors

Pingali Sailaja, Ph.D. (CIEFL, Hyderabad); Phonetics, Phonology, Morphology, Sociolinguistics, World Englishes, Indian English, English Language Education, Testing and Assessment, English in India: Historical, Educational and Linguistic aspects.

Sunita Mishra, Ph.D. (CIEFL, Hyderabad); Politics of English Language Education, Sociolinguistics, Discourse Studies, Critical Pedagogy, History of English Language Teaching in India, especially Odisha, and Indian Philosophy of Language. (Head of the Centre)

Associate Professor

Shree Deepa, Ph.D.(Osmania), M.Ed (Bharathidasan University), PGDTE (CIEFL); English Language Education, Stylistics, Teacher Education, Inclusive Education, Critical Thinking, Corporate Training, English for Specific Purposes.

Assistant Professors

Jyothi Hymavathi Devi, M.Phil Translation Studies (University of Hyderabad); English Language Teaching, Translation Studies, Research Methods, Psychology of Language Learning.

Jasti Appa Swami, Ph.D (Osmania); Academic Writing, Discourse Analysis, Genre Pedagogy, English for Specific Purposes (ESP), Systemic Functional Linguistics (SFL), Second Language Reading and Writing, and Corpus Applications to Language Learning and Teaching.

Joy Anuradha, Ph.D. (CIEFL, Hyderabad); Cognitive Linguistics, Systemic Functional Linguistics, Psycholinguistics, English Language Education, and Technical Communication.

SCHOOL OF SOCIAL SCIENCES

The School of Social Sciences comprises the following Departments and Centres.

Departments

Department of History
Department of Political Science
Department of Sociology
Department of Anthropology
Department of Education and Education Technology

Centres

Centre for Regional Studies
Centre for Folk Culture Studies
Centre for Study of Social Exclusion and Inclusive Policy
Centre for Study of Indian Diaspora
Centre for Knowledge, Culture and Innovation Studies
Centre for Human Rights
Centre for Ambedkar Studies
Centre for Women's Studies

All the Departments (Anthropology History, Political Science and Sociology) have been recognised by the University Grants Commission for the Special Assistance Programme and the Department of Political Science as the Centre for Advanced Studies.

An Archival Cell with the support of the UGC is functioning under the auspices of the Department of History for preservation of rare and valuable manuscripts. The Department of Anthropology has developed a Museum as a teaching aid for the students. The Centre for Folk Culture Studies has an Audio Visual Archive containing the Centre's field work, documenting films, etc., The Centre for the Study of Indian Diaspora has a special library consisting of historical material (diasporic literature) collected from different parts of India. All the Departments are equipped with Internet facilities.

The School offers a 5-Years Integrated Programme in Social Sciences leading to a Master's Degree in History, Political Science, Sociology, and Anthropology. For the first three years, the students admitted to the programme do courses offered by various departments in the School and at other Schools in the University conducted at the Centre for Integrated Studies. At the end of the three years, students are transferred to their parent departments, namely, Departments of History, Political Science, Sociology and Anthropology.

From the Academic Year 2018-19, the School of Social Sciences under the Department of Education and Education Technology (DEET) is offering M.A. Education, Ph.D. in Education. From the Academic Year 2020-21, the Department is offering M.Ed. Programme – subject to getting approval from NCTE.

Prof. Arun Kumar Patnaik, Department of Political Science is the **Dean** of the School.

Department of History

The Department of History offers courses leading to M.A., MPhil and Ph.D. degrees. It also offers 10 courses in history for the first three years of IMA (5-year integrated) programme in Social Sciences. Its teaching programme is designed to provide students with a broad overview of world history narrowing down to focus on the history of India with special emphasis on socio-economic history, science & technology, environment and cultural history.

There is a two-fold aim of all research activities in the Department: a) Widening the database in its studies of local and regional history, and b) introducing an interdisciplinary approach to understand the underlying social and economic realities of the history of India through the ages. The Department has also been involved in guiding research on North- East India, science & technology, environment, medicine, economic history, maritime history, women's history, Indian national movement, peasant and tribal movements, cultural history, and contemporary history.

Infrastructure

Under the support from the Special Assistance Programme of the UGC, the Department has been able to purchase a large number of books on most of the recent writings on history. Under the UGC Programme of Universities with Potential for Excellence (UPE) the Department strengthened its infrastructural facilities. It has also been able to support the subscription of several foreign and Indian journals in the discipline of History. The Archival Cell in the Department contains several private papers of individuals who participated in the freedom movement. The Department has an archaeological museum containing antiquities representing artifacts from stone ages to late medieval period.

The Department of History has a Computer Laboratory with 12 computers and a printer.

Programmes of Study

MA (History)

This is a two-year programme consisting of 16 courses spread over four semesters, with four courses per semester. The main thrust of the first two semesters is to equip students in certain core compulsory courses in both Indian and non-Indian history. These are designed to be comprehensive and to introduce students into the various interpretative dimensions of understanding the history of human civilization with a focus on India. During semesters III and IV a wide range of special courses are offered as optionals by the Department, thus providing an opportunity for students to specialize in specific areas of Indian history. Students also have an opportunity to do at least two courses outside the Department during their third and fourth semesters with the aim to encourage interdisciplinary studies. The Students securing an overall CGPA of 7.5 in the first two semesters would be allowed to do a dissertation of 12000 words in the IV semester. Dissertation is purely optional and will be in lieu of a standard 4-credit course.

M.Phil (History)

The M.Phil programme covers three semesters including dissertation, extendable by one semester. During the first semester, three compulsory courses have to be done by the students. The focus is on issues of historical interpretation and method. One of these is an intensive introduction to the problem being researched by the individual student leading in the following semester to the writing of a dissertation under the guidance of a faculty member on an approved topic.

Ph.D (History)

The Ph.D programme is mainly a research programme. Those students admitted directly without M.Phil degree are required to do the course work and pass the examinations conducted by the Department. Students undertake research on an approved topic under the guidance of a faculty member.

Entrance Examination

M A (History)

The entrance examination will be of 100 marks. It will consist of 100 multiple choice questions of one mark each. Students will be tested on their knowledge of Indian history, World history, and comprehension.

M.Phil. and Ph.D. (History)

The question paper of M.Phil. and Ph.D. Courses shall consist of 70 marks in two sections. Part A will be on Research Methodology and Part B will be on subject concerned (consists of questions on Indian History). The pattern of exam would be in essay form.

There is an Interview for 30 marks for shortlisted candidates. The break-up of 30 marks would be as follows: 15 marks for interview performance, 10 marks for proposal and 5 marks for MPhil awarded/submitted/JRF (UGC/ICHR/ICSSR).

Faculty

Professors

Rila Mukherjee: Ph.D. (Paris) - Economic History of South Asia, Early Modern European History, Democracy and Citizenship Studies, Maritime and Oceanic History, Historical Cartography

K P Rao : Ph.D. (Nagpur) - Field Archaeology, Pre and Proto History, Ancient Indian History, Iron Age, Megalithic Culture and Ancient Trade

Rekha Pande: Ph.D. (Allahabad)- Medieval Indian History, Women's History, Cultural History, History of Medieval Science & Technology, Socio and Religious History, Women's Studies.

Sanjay Subodh: Ph.D. (Chandigarh) – Medieval Indian Historiography, Science and Technology, Medieval Archaeology (Director, College for Integrated Studies).

Bhangya Bhukya: Ph.D. (Warwick, UK) - Modern Indian History. His research interests are community histories, the effects of power/knowledge, governmentality and dominance, the state and Nationalism, intellectual histories of subaltern communities, identity politics by forest and hill people in the nineteenth and twentieth century.

(Head of the Department)

Anindita Mukhopadhyay: Ph.D. (London) - Modern Indian History, Modern Western Ideas and their impact, Law and Society, Society and Culture.

Associate Professors

Y Swarupa R Shankar: Ph.D. (Hyderabad)- Modern Indian History, Social and Cultural History of South India, Women's History, Historiography.

B Eswara Rao: Ph.D (IIT Madras)- History of science, Technology and Medicine, Environmental History.

V Rajagopal: Ph.D. (Wisconsin) – Modern Indian History, Social History, History of South India.

V J Varghese: Ph.D. (Hyderabad) - Modern Indian History, Modern Kerala, Making of Modern Subjectivities, Regional Modernities, Transnational Migrations.

Assistant Professors

M N Rajesh: Ph.D. (JNU, Delhi) - Medieval Indian History, Socio- Religious Movements and Polity in South India and the Deccan, Tibetan History and Culture.

Rashmi: Ph.D. (JNU, Delhi) - Medieval and Early Modern Indian History, Urban History, Cities and Maritime History.

Vijaya Ramadas M: Ph.D. (Manchester)- Modern Indian History, Environmental History.

Department of Political Science

The Department of Political Science, started in 1979, has 18 faculty members and 300 students now. Recognized by the UGC as a Centre for Advanced Studies, the Department has completed the first phase of the programme, with “Democracy, Development and Autonomy: India in a Globalising World” as the thrust area.

Programmes of Study

MA (Political Science)

The M.A. programme in Political Science consists of 16 courses (8 core courses and 8 optional courses) spread evenly over 4 semesters. Each course carries 4 credits. In addition, students must complete 2 Foundation Courses (3 credits each), in the first two semesters. In formulating the programme, the Department is guided by the consideration that at the postgraduate level, students should be familiar with all the sub-disciplines, trends, approaches, and paradigms of Political Science. With this in view, the Department offers core courses on Political Thought, Comparative Politics, International Relations, Indian Political Process, Public Administration and Public Policy. These courses attempt to acquaint students with the latest theoretical and political trends. After completing 8 core courses in the first two semesters, students are required to choose 8 optional courses, 4 each in the third and fourth semesters, in frontier areas such as Dalit Politics, Women’s Movements, Governance, Policy Studies, Indian Political Thought, India’s Foreign Policy and Globalization. Students can also opt for 2 courses offered by other departments as optionals in the second year. The Foundation Courses are designed to enhance skill sets in general.

M.Phil (Political Science)

The M.Phil. programme is for 2 semesters. Students are required to devote the first semester to course work, which consists of two courses in Research Methodology (4 credits each), one course on Academic Writing (2 credits) and one course in the field of student’s research interest (4 credits, and directed by the Supervisor). In the following semester, students are required to present their research proposals and write a dissertation on an approved topic under the supervision of a faculty member and research advisory committee. The committee consists of the

supervisor and a faculty member and meets at least once a semester. All M.Phil students are required to defend their theses in a pre-submission seminar and viva-voce.

Ph.D (Political Science)

The Ph.D. programme is for 3-6 years. Students are required to write a thesis on a topic approved by the Department. Students will work with their supervisors and doctoral research committees in researching and writing the thesis. In each semester, they must secure a satisfactory report from the doctoral committee in order to be able to register. They will be required to present and defend their research proposals in a seminar organized by the Department. Doctoral students are encouraged to present their work-in-progress at least once during their tenure in the Department. All Ph.D. students are required to defend their theses in a pre-submission seminar and viva-voce. Students who do not have an M. Phil degree with coursework on research methodology and academic writing will have to do the course work as part of their Ph. D. programme.

Entrance Examination

M.A.

The written test for admission to MA Political Science consists of 100 multiple choice questions (1 mark each) that test the general knowledge about politics, subject specific knowledge, and passage comprehension abilities of the candidate. The candidate must answer in the OMR sheet.

The MA questions are based on the undergraduate syllabus of BA (Political Science) taught in universities/colleges across India. This broadly covers the areas of Political Theory and Thought (including Indian Thought), Indian Government and Politics, Public Administration, International Relations and Comparative Government and Politics.

MPhil/Ph.D.

The question paper of MPhil/PhD consists of 70 multiple choice questions (1 mark each) that test the general knowledge about politics, subject specific knowledge, familiarity with research methodology and the passage comprehension abilities of a candidate.

The questions are based on the syllabus of MA (Political Science) as taught in universities/colleges across India, with the following sub-fields:

Indian Government and Politics: Indian constitution, institutions and structures of governance, federalism, parties and party system, elections, civil society, social and political movements

Political Theory and Thought (Western and Indian): Major Western Political Thinkers from Plato to Marx and Mill, Twentieth century developments in Political Theory, Political Concepts, Political Ideologies, Ancient Indian Political Thought: Texts and Concepts, Modern Indian Political Thought: Thinkers, Concepts and Isms.

Comparative Politics: Political Institutions, Regimes, Systems and Isms, Rights and Social Movements, Major Issues and events within countries, Concepts for understanding political processes.

Public Policy/Public Administration: Meaning, Principles, Origin as a discipline, Approaches to study Public Policy/Public Administration, Types of policies, Formal and informal institutions and structures, Techniques of policy decisions.

International Relations: Theories in International Relations, Events and Issues in World Politics (Historical and Contemporary), International Organizations, State and Non-State Actors, International Law, Processes in International Relations (pertaining to security, economic, diplomatic, cultural and non-traditional arenas), Foreign Policies and International Approaches of States and Regions.

The above mentioned sub-fields also include Research Methodology (approaches, theories, concepts, analysis, techniques etc) as pertaining to research within the sub-field.

The **MPhil/Ph.D.** question paper will consist of Part A and B.

Part A – The questions will cover research methodology. Research methodology would broadly comprise theory and concepts, approaches and techniques of empirical analysis including interviews, surveys and other research techniques, and could include both present and historical information. It would include Quantitative and Qualitative methods, Data interpretation, Aptitude and Logical Reasoning.

Part B –The questions will cover subject specific knowledge as mentioned in the sub-fields above. The candidate must answer in the OMR sheet.

Candidates shortlisted in the qualifying exam will be called for an interview. The interview is to assess the knowledge of students in their areas of research interest, based on their research proposals, which must be submitted to the interview board at the time of the interview. The topic of research, hypotheses/research questions, goals or objectives of the study, statement of the problem and methods should be clearly written in the proposal. This is an essential requirement to interview the candidates for the selection. **Candidates will not be interviewed if they do not have a research proposal.** Candidates are advised to bring proof of additional qualifications such as JRF/M.PHIL/NET certificates and publications if any.

While the interview focuses on the research proposal and subject knowledge, some weightage is given for fellowships/M.Phil etc. Once admitted, students may be asked to modify or adapt their research proposals according to the supervisory expertise available in the Department. **Candidates may note that faculty members to guide Ph.D research in International Relations are not available for the year 2020-2021.**

Faculty

Professors

Arun Kumar Patnaik, Ph.D. (JNU) – Political Theory, Political Economy of Development. (**Dean**)

Jyotirmaya Sharma, M.A. (Hull) – Political Philosophy/Theory, Indian Political Thought (on leave).

K.C. Suri, Ph.D. (JNU) – Indian Political Process and Public Policy

Vasanthi Srinivasan, Ph.D. (Ottawa) – Political Philosophy, Comparative Politics, Indian Political Ideas

Sanjay Palshikar, Ph.D. (Poona) - Political Theory, Indian Political Thought

Prithvi Ram Mudiam, Ph.D. (London) – International Relations, Indian Foreign Policy, South Asian Politics, International Political Economy.

Manjari Katju, Ph.D. (London) – Indian Political Process, Politics of Hindu Nationalism, State Institutions (**Head of Department**)

Kham Khan Suan Hausing, Ph.D. (JNU) Federalism, Nationalism, Ethnic Conflict, Indian Politics, Northeast India.

R. Ramdas, Ph.D. (JNU) – Indian Political Process, Tribal Development, Comparative Politics.

Venkatesu. E., Ph.D. (Hyderabad) – Democratic Decentralization and Governance, Public Policy, Backward Class Politics, Election Studies and Political Process in India.

K. K. Kailash, Ph.D. (JNU) – Indian Political Process, Comparative Federalism, Party Politics.

Associate Professors

K.Y. Ratnam, Ph.D. (JNU) – Indian Political Process, Dalit Politics in India, Democratic Process in Andhra Pradesh.

Biju. B. L., Ph.D. (Kerala) – Political Theory, Indian Political Process, Politics of Globalization, Society and Politics in Kerala.

Assistant Professors

Shaji. S., Ph.D. (Hyderabad) – International Relations, Foreign Policy of India, Foreign Policies of Developing States, Transfer of Technology and International Politics.

Aparna Devare, Ph.D. (American University, Washington D.C.) - Comparative Politics, Historiography, Indian Politics, International Relations Theory, Post- colonial Theory, World Politics (on leave).

D. Veera Babu, Ph.D (Osmania)—Public Policy

Bhim Bahadur Subba (DU) – Comparative Politics, International Relations, Chinese Studies

Sneha Banerjee, Ph.D (JNU)-- Comparative Politics, Public Policy, Gender Studies, Global Political Economy

Department of Sociology

The Department, constituted in the year 1979, has grown over the years to be one of the important centres of sociology teaching and research in the country. While emphasizing topics and themes central to the discipline, the Department's teaching and research activities have been oriented towards contemporary questions that have both basic and applied dimensions. The academic activities of the Department have a unique disciplinary and interdisciplinary orientation, designed to guide and support student development as independent learners as well as to inspire them to critically engage with policies, issues, and social action. While the department's prime focus is teaching, research is as much its strength. The learning ambience of the department is both informal and rigorous, being geared towards promoting a critical spirit of inquiry among students. The structure and content of our courses are meant to give a grounding that not only prepares students for future studies in sociology/social science, but also offers the benefits of learning to work in a constructive way in other areas of life.

Programmes of Study

Three programmes of study are offered leading to the **M.A.**, **M.Phil** and **Ph.D.** degrees in Sociology. The Department also participates in the Five-Year Integrated Master's Programme in Social Sciences by offering a variety of courses at the Centre for Integrated Studies. At the end of three years, students in the Integrated Master's Programme have the option to join the Department with the regular M.A. students, subject to some conditions. The courses offered by the Department under the auspices of the Integrated Master's programme are the following: Introduction to Study of Society; Changing Indian Family; Equality and Inequality; Caste in Modern

India; Rural and Urban Societies; Roots of Social Protest; Contemporary Development Issues; Religion and Society; Introduction to Social Research; Work and Organizations; and Theories of Society.

MA (Sociology)

The M.A. Programme in Sociology is a four-semester programme spread over two years, and consists of 10 compulsory courses and six optional courses. Both the compulsory and optional courses are of four credits each. Students are allowed to take up to three of the six optional courses from other departments, subject to the permission of the Head of the Department.

The Compulsory Courses for M.A. are the following : Classical Sociological Theory; Research Methods I - Survey Research and Basic Statistics; Society in India: Approaches; Society in India: Contemporary Issues; Knowing the Social World; Modern Sociological Theory; Research Methods II - Qualitative Research Methods; Social Stratification; Sociology of Development; and Political Sociology.

Some of the following Optional Courses for M.A. are: Sociology of Gender; Rural Society and Agrarian Change; Law, State and Society; People, Nation and State; Industrial Relations and Contemporary Capitalism; Urban Sociology; Science, Culture and Society; Technology, Culture and Society; Sociology of Organizations; Environmental Sociology; Sociology of Culture; Social Movements; Decentralized Governance and Development; Society and Sexuality, Sociology of Health, Sickness and Healing; Sociology of Education; Ethics and Society; Debating Ethnicity and Race; Sociology of Business, Industry and Labour; Indian Diaspora, Sociology of Backward Classes, and Sociology of Communication, Sociology of Dalits, Colonized Societies and Post-Colonial Predicaments. The Department will announce which of these optional courses will be offered every semester. The contents of most of these courses are available on the University Website.

M.Phil (Sociology)

The M.Phil. Programme is a preliminary research degree. The course work during the first semester consists of three compulsory courses in Advanced Sociological Theories, Research Methodology, Academic Writing and one Optional Course in the broad area of research in which the dissertation is planned. The M.Phil dissertation is expected to be completed before the end of the third semester, although students could also complete it by the end of the second semester. The examination of M.Phil course includes dissertation evaluation and an open house Viva Voce examination. The progress of the research candidate is monitored by a Research Advisory Committee convened and authorized by the respective supervisors.

Ph.D (Sociology)

The Ph.D. Programme is a full-time research programme covering a minimum of two years. Those Ph.D. students who have not done M.Phil coursework will have to do the coursework in Sociological Theories, Research Methodology, Academic Writing and one Optional Course in the broad area of research in which the dissertation is planned. The examination pattern of Ph.D. includes thesis evaluation and an open house Viva Voce examination. The progress of the research candidate is monitored by a Doctoral Committee convened and authorized by the respective supervisors.

Entrance Examination

MA (Sociology): The M.A. entrance examination will be based on OMR. The components of the entrance examination question paper will be Comprehension 30 marks; Literary Passage 20 marks; Sociology 20 marks; Arithmetic & Reasoning 10 marks; and Current Affairs 20 marks.

M.Phil (Sociology)

The M.Phil entrance written test will be partly based on objective type OMR questions and partly on substantive writing. The qualifying marks are 50% in the entrance test which will be based on M.A. level Sociological Theory and Methods, both in the wider context of the discipline and in the specific context of India. Only the qualified candidates will have to appear in the interview. Candidates have to bring a written research proposal for the interview and answer questions on theory, methodology and area of proposed research interest.

Ph.D (Sociology)

The Ph.D. entrance test will be partly based on objective-type OMR questions and partly on substantive writing. The qualifying marks are 50% in the written test which will examine a candidate's knowledge of Sociological Theory and Methods. Ph.D. candidates will be interviewed on the general area of specialization indicated by them and their M.Phil. work if applicable. The qualified candidates will have to appear in the interview. Candidates have to bring a written research proposal for the interview and answer questions on theory, methodology and area of proposed research interest.

Admitted Ph.D. candidates will be required to undertake course work, if recommended by the Department. The candidates seeking admission to the Ph.D. programme must submit with their application, an outline of their research proposal bringing out specific theoretical and methodological approaches to be employed.

Faculty

Professors

Sasheej Hegde, Ph.D. (Bangalore) – Philosophy of Social Science, Social and Political Theory, Law and Ethics, and Indian Sociology/Historiography.

Aparna Rayaprol, Ph.D. (University of Pittsburgh) – Sociology of Gender, Indian Diaspora, Urban Sociology, and Qualitative Research Methods.

N. Purendra Prasad, Ph.D. (Hyderabad) – Agrarian Studies, Sociological Theory, Political Economy of Development and Health, Urban Studies (**Head of the Department**).

C. Raghava Reddy, Ph.D. (Hyderabad) – Science and Technology Studies, Sociology of Organisations, and Sociology of Disability.

Nagaraju Gundimeda, Ph.D. (Hyderabad) – Sociology of Education, and Information Technology and Society.

Pushpesh Kumar, Ph.D. (Jamia Millia Islamia) – Sociology of Gender and Sexuality, & Globalisation and Social Change.

Tanweer Fazal, Ph.D. (JNU) - Sociology of Nationalism & Minority Studies, Historical Sociology, Peace and Conflict Studies

L. Lam Khan Piang, Ph.D. (JNU) - Ethnicity, Identity, nation and nationalism, tribal studies, border studies, health system research, and Quantitative Techniques

Associate Professors

V. Janardhan, Ph.D. (Hyderabad) – Sociology of Industrial Relations, Corporate Business and Society, Sociology of Culture, Sociological Theory, Marxism and Capitalism, and Ethics and Society.

Satyapriya Rout, Ph.D. (Mysore) – Sociology of Environment, Natural Resource Management and Development, and Decentralized Governance.

Anurekha Chari Wagh, (Pune) - Sociology of Gender, Development studies, Agrarian studies, Citizenship rights and Teaching and Pedagogy

Assistant Professors

N. Annavaram, M.Phil. (JNU) – Indian Sociology and Classical Sociological Thought.

Hoineilhing Sitlhou, Ph.D. (JNU.) – Religion, Culture and Ethnicity Studies.

Nagalakshmi Chelluri, Ph.D. (Hyderabad) – Sociology of Organisations, Sociology of Science and Technology.

R. Thirunavukkarasu, Ph.D. (JNU.) – Political and Historical Sociology, Social Movements, Ethnicity, Nation and Nationalism.

Asima Jena, Ph.D. (Hyderabad) - Sexuality Studies, Sociology of Health, Sociology of Gender.

Department of Anthropology

The Department of Anthropology, set up in 1988-89, has earned the reputation of being one of the best Departments in the country, particularly for the faculty publications, extra mural research grants and academic outreach. It is also noted for the number of students qualifying in the National Eligibility Test (NET) and for research fellowships by UGC, ICMR, ICSSR and other bodies. The UGC awarded the Special Assistance Programme (SAP) first in the year 2011-12 and now the Department is awarded with the UGC-DRS (Departmental Research Support) - phase II. The Department imparts training in theoretical and applied research in Anthropology, which equips students to meet the academic challenges in urban/rural/tribal field studies. Besides studying ethnographic diversity, the Department is oriented towards application of anthropological knowledge to the understanding of social problems and development issues. The department has developed a small museum as a teaching aid for students. The museum houses archaeological artefacts and cultural materials for research and learning. Practical training is imparted in Physical and Archaeological Anthropology courses.

Programmes of study

MA (Anthropology)

The Department offers a Master of Arts (M.A.) programme in Anthropology (Social/Cultural), besides participating in the College for Integrated Studies (CIS) **IMA** (Social Sciences) programme. The M.A. programme is of two years duration and comprises different courses under the Choice-Based Credit System (CBCS). The total credit requirement for M.A is 80 credits of which the Department offers 28 credits under 'Foundation Courses', 16 credits under 'Core Electives', and 16 credits under 'Departmental Electives'. The 16 credits under 'Departmental Electives' can be earned by choosing any four courses of 4 credits each out of the 12 different courses that the Department may offer during the 3rd and 4th semesters of M.A programme. The courses under

'Departmental Electives' include: Development Anthropology, Ecological Anthropology, Medical Anthropology, Peasant Society, Economic Anthropology, Anthropology of Communication, Anthropological Linguistics, Natural Resource Management and Livelihood Systems, Kinship and Marriage, Anthropology of Religion, Business Anthropology, Urban Anthropology, Anthropology of Public Policy and Environmental Anthropology. The students can, however, opt to do more than the required credits under 'Audited courses', for which the students will be given certificates separately by the Head of the Department. The detailed course outlines of the different courses offered by the Department are available on the University website.

Submission of a dissertation to the Department, based on fieldwork, by the end of the 4th semester is a mandatory requirement to complete the M.A Programme. The student is expected to carry out about a month's field-based research assisted by the Department faculty at the end of the 3rd semester. The topics are decided in consultation with the Department faculty.

College for Integrated Studies: The Department offers seven courses including one compulsory course in the 2nd semester to the IMA (Social Sciences) students. These courses are: Introduction to Anthropology (2nd semester); Indian Civilization (3rd semester); Anthropology of Marginalized Communities (4th semester); Anthropological Theories of Human Society (5th semester); Prehistoric Cultures (5th semester); Anthropological Fieldwork (6th semester); and Approaches to Socio-Cultural Change (6th semester).

M.Phil (Anthropology)

The M.Phil programme is for two semesters. The first semester is devoted for course work consisting of two compulsory courses of 4 credits each, viz., 1) Advanced Anthropological Theories and 2) Advanced Research Methods, and one optional course of 4 credits, generally in the broad area of research on which the scholar's dissertation is planned. The second (and third semester, if required) is devoted for preparation and submission of M. Phil Dissertation.

Ph.D (Anthropology)

The Ph.D. is a full-fledged research programme on an approved research topic for a minimum period of two years. Students who are admitted to Ph.D. programme directly (i.e., without an M. Phil in Anthropology) are also required to do the course work prescribed for the M.Phil programme.

Entrance Examination

MA (Anthropology)

The M.A. entrance exam will consist of 100 objective-type questions of one mark each to be answered in an OMR sheet. The pattern of questions will be: a) General Studies/ Knowledge b) Social Science Aptitude c) Language and Communication skills d) Comprehension and e) Test of Reasoning. The Part-A of the question paper will have 25 questions of one mark each and a negative mark of 0.33 for every wrong answer. The Part-B will have 75 questions of one mark each and negative mark of 0.33 for every wrong answer. The marks scored in Part-A will be considered in case of any tie with other candidates.

M.Phil and Ph.D (Anthropology)

The **M.Phil.** and **Ph.D.** entrance examination consists of **Part-A** and **Part-B**.

Part-A will consist of fifty objective type questions. Each question will carry one mark for the right answer and **negative mark of 0.33** for every wrong answer. **Part-B**- will consist of descriptive questions of twenty marks.

The objective type questions are to be answered in the OMR sheet provided descriptive questions will be written in separate sheet. Candidates will be selected on the basis of performance in the written test and evaluated based on their research proposal and interview (30 marks). The questions will be in the areas of: a) Anthropological Theories b) Research Methods (Quantitative and Qualitative) c) Indian Society d) Applied Anthropology and e) Tribal Ethnography/Indian Anthropologists.

Interview Weightage for M.Phil & Ph.D interview

Sl. No.	Weightage being considered	Marks
1	Interview and Proposal defence	25
2	Total	25

MPhil and PhD seats available in the Department (Faculty Wise Break –Up)

Sl. No	Faculty	Areas for Supervision (2020-21)	M.Phil Vacancies	Ph.D Vacancies
1	Prof. B V Sharma	Social Anthropology	2	Nil
2	Prof. M. Romesh Singh	Social Anthropology	1	Nil
3	Dr. Alok Kumar Pandey	Social Anthropology	Nil	1

Faculty

Professors

P. Venkata Rao, Ph.D. (Andhra)- Anthropology of Development, Economic Anthropology, Tribal Studies, Complex Societies, and Ageing.

B.V. Sharma, Ph.D. (Hyderabad)- Medical Anthropology; Anthropology of Education; Community participation in Development.

M. Romesh Singh, Ph.D. (Hyderabad)- Business Anthropology; Urban Anthropology, Anthropology of Development, and Indian society and Tribal Development Studies. (Head of the Department)

Associate Professors

George Tharakan C, Ph.D. (Hyderabad)- Kinship Studies; Theories of Culture; Indian Society.

Assistant Professors

Shaik Abdul Munaf, M.Sc. (S.V.U)- Archaeological Anthropology, Ethnoarchaeology, Indian Prehistory.

Apparao Thamminaina Ph.D. (Hyderabad). Ethnicity and Identity, Development, Globalization, Anthropology of Policy, Anthropological Theory, Urban Governance.

Alok K. Pandey, Ph.D. (Hyderabad) Environment and Development; Livelihoods; Pastoral and Nomadic Communities; Biodiversity Conservation; Mountain Regions.

Department of Education and Education Technology

The department strives to incorporate all elements of Educational Studies, from knowledge production to the preparation of teachers and teacher educators, to help improve the quality of

school and higher education in the country. The Department of Education and Education Technology attempts to bridge the gap between the pedagogy and curriculum and the school and higher education institutions.

The department focuses on different areas relating to Curriculum and Pedagogical Studies, Teacher Education, Philosophy of education, Psychology of Education, Sociology of Education, History of Education, etc. The department also attempts to undertake In-service Training of Teachers. The department will undertake research in the area of education, taking into consideration the learners' perspective and use of technology in reaching education to all sections of the Society.

The thrust areas of the faculty members broadly relate to: the cognitive domain, Science education, Mathematics Education, Value education, Environmental education, Education technology, Social science education, Educational psychology, Constructivism, Curriculum Studies, Child rights in education, Sociology of education, Early childhood education and Demography of schooling, etc.

Programmes of Study

The Department offers a two-year M.Ed (Education) and Ph.D. programme.

M.Ed (Education)

M.Ed is a broad-based programme spread over 4 semesters that includes theory, practice, research, policy and planning in education. It aims to prepare the students with good understanding of education, capabilities for action and deep social commitment. M.A. Education is basically a theoretical programme which focuses on basic knowledge of theory and practice of educational thought and processes accumulated around the discipline of education. It encompasses a series of basic subjects which are designed in a way to cover basics of all the areas of education concerned and many advanced courses in areas demanding specialization on one or the other kind followed by Education Technology, Early Childhood Care and Education etc. Apart from specialization there are inter-disciplinary electives offered to the students of the department and other departments under the CBCS.

Curriculum Framework (Total 92 Credits)

T: Theory credits

Core – 12

(Perspective Course,

Tool courses & Teacher Education Courses)

Specialization – 1

Closed Electives - 2

Open Elective – 1

Total Credits for Theory = 64

P: Practicum credits

Field Engagement - 16

(given at the end of each course)

Internship # - 4

Dissertation* - 8

Total Credits for Practicum = 28

* Department shall offer a course on Dissertation with 2 credits in II semester and III semester followed by 4 credit courses on dissertation in IV semester. The students shall have to complete the dissertation before the IV semester.

The internship of 4 credits in two parts each is spread over two semesters. First part involves an attachment with a teacher education institution during I semester. The second part involves interns associating with a field site relevant to the area of specialization during the III semester. During the internship the students will be associated as interns in partner organization/schools/ teacher education institutions. The internship is a mentored

component whereby a faculty and a member from the host institution/s (field mentor) together assess the field work of interns.

Note: The expenses to meet practicum will be borne by the students.

Ph.D Programme

The department also offers Ph.D (Education) programme. The programme requires mandatory course work (16 Credits) to be completed in the first 2 semesters.

Entrance Examination

M.Ed (Education)

Question paper of Entrance Examination consists of 100 (marks) broadly divided in to two parts Viz., Part A and Part B.

Part A carries 25 marks. It also has negative marks @ -0.25 for each incorrect answer

Part (A): Logical Reasoning, Current Affairs in Education and English Language Competency

Part B carries 75 marks which includes (B.Ed syllabus as per NCTE norms).

Ph.D in Education

The question paper for entrance examination shall consist of 70 marks in two sections, i.e., Part A and Part B. Part A- 35 marks will be on research methodology, nature & Scope of research methods related to literature, methods of educational research and statistics in educational research will be tested at Postgraduate level. Part B-35 marks will be on subject concerned, i.e., in the areas of teacher education, Philosophy of Education, Psychology of Education, Sociology of Education, Educational Technology, Educational Administration and Management at PG levels. The entrance test is followed by an interview, which carries 25 Marks.

Break-up weightage for interview

S.No	Weightage being considered	Marks
1	Research proposal and presentation	10
2	UGC-JRF/ M.Phil	5
3	Interview	15
	TOTAL	30

Faculty

Professor

Dr.G. Bhuvaneshwara Lakshmi, M.Sc (Botany), M.Ed, Ph.D- Science Education, Environmental Education, Value Education, Mathematics Education and Inclusive Education.

Associate Professor

Dr.J.V.Madhusudan, MPS, M.Ed, CIG, M.Phil, Ph.D- Demography of Schooling, Health Education, Early Childhood Care and Education.

Assistant Professors

Dr.Talla Sumalini, M.Com,M.A (Lit), M.Ed, UGC-NET(Ed) Ph.D(Edn). - Curriculum Studies, Experiential Learning and Work Education, Child Rights in Education.

Dr.Ravula Krishnaiah, M.A, M.A (Phil), M.Ed, M.Phil, SET(Ed), Ph.D – Philosophy of Education, Sociology of Education, Constructivism, Politics and Education, Yoga Education.

Dr.Geetha Gopinath, M.A, M.Sc (Psy), M.Ed, UGC-NET(Ed), Ph.D – Environmental Education, Social Science Education, and Educational Psychology.

Dr.A.S. Jalandharachari, M.Sc (Applied Math), M.Ed, UGC-NET(Ed), Ph.D – Education Technology and Mathematics Education.

Centre for Regional Studies

The Centre for Regional Studies conducts multi-disciplinary research in the Deccan and other regions of India. The envisaged research programmes encompass ecological and environmental studies; socio-economic history, regional historical processes; regional social structure; regional economics, development studies, tribal studies, identities and violence.

Programmes of Study

The Centre for Regional Studies offers M. Phil and Ph.D. programmes in the broad areas of research outlined above.

Entrance Examination

The entrance test (written) for admission to M.Phil and Ph.D. programmes consists of two parts.

Part-A of the question paper consists of objective type questions to test the aptitude of the candidates to pursue research in the Centre. Questions will be on Social Sciences including Research Methodology.

Part-B consists of a single paper with essay questions drawn from the Social Sciences of the postgraduate level. In their answers students are expected to demonstrate an understanding of multidisciplinary and / or regional studies.

The qualifying marks are 50% in the entrance test for M.Phil and Ph.D. Qualified candidates will have to appear in an Interview. Candidates have to bring a written research proposal for the interview and answer questions on theory, methodology and area of proposed research interest. Ph.D. candidates will be interviewed on the general area of specialization proposed and on their M.Phil work if applicable. Course work (three courses) is compulsory for all M.Phil and Ph.D students joining the Centre. There is an interview of 30 marks for shortlisted candidates.

Faculty

Professor

Sheela Prasad, Ph.D. (JNU) – Urban and Regional Geography, Health, Environmental studies (**Head of the Centre**)

Associate Professor

Arvind S. Susarla, Ph.D. (Clark, USA)-Geography of Hazards and Disasters, Environmental Studies, Communicating Risks

V. Srinivasa Rao, Ph.D. (Hyderabad) – Community Participation and Regional Education, Politics of Tribal Development, Regional Politics, Exclusion and Inclusion of Regions.

Assistant Professor

Salah P, Ph.D. (JNU)-Sociology of Violence, Region and Collective Identities, Migration and Borderlands, Marginalized Communities

Centre for Folk Culture Studies

The Centre for Folk Culture Studies is the first of its kind in the Central University system in India and was established with the assistance of the Ford Foundation, USA. The Centre's interdisciplinary and multi-perspectival approaches emphasize research and teaching in Folk Culture Studies in the milieu of contemporary ethnographic fieldwork. To decode and explain the folk expressive forms, the Centre is adopting a research strategy that combines the methodological procedures and theoretical approaches of both humanities and social sciences. The main objectives of the Centre are: to study diverse aspects of folk expressive behaviour as a dialogue between human groups and their physical and social environments; to analyse culture in relation to various aspects of human creativity such as Science, Technology, Art, Religion, Literature etc; to document and utilize folklore genres and folk lifestyles of various cultural landscapes in order to cognate the native knowledge systems for sustainable development.

Programmes of Study

Ph.D (Folk Culture Studies)

The intake for 2020-21 is **one seat**.

Entrance examination

The question paper of Ph.D. will consist of 70 marks in two sections, as per the UGC Regulations. The Part A is Objective Type similar to UGC NET Exam for 35 marks and the Part B is Descriptive Type related to the Subject for 35 marks. Both sections will have questions on Research Methodology.

In addition, 30 marks for Interview to shortlisted candidates.

Weightage	Marks
Research Proposal and its defence	5
Performance in the Written Test (proportionate)	5
Having fellowship - JRF /M.Phil	5
Publications	3
Research Experience	2
Interview Performance	10
Total (Total break up of weightages for Ph.D Interviews) (20+10 marks)	30

Faculty

Professor

Y.A. Sudhakar Reddy, Ph.D. (I.I.T., Madras) – Folklore and Folk Culture Studies, Performance Studies, Hermeneutics, Narratology, Peasant Studies and Oral History. (Head of the Centre)

Associate Professor

Joly Puthussery, Ph.D. (Hyderabad) – Folk Theatre, Performance Theory, Public Performance and Discourse, Religion and Theatrical Practices, and Material Culture.

Assistant Professor

N. Naveen Kumar, M.S.W. (Bharathiar), M.A. (Annamalai) - Folklore

Honorary Professor

P.S. Kanaka Durga, Ph.D. (Acharya Nagarjuna) - Folklife Studies, Folklore and Gender Studies, Religion and Mythology, Ethnohistory and Epigraphy.

Centre for the Study of Social Exclusion & Inclusive Policy (CSSEIP)

The Centre for the Study of Social Exclusion and Inclusive Policy, established in 2007, is one of the few such Centers set up in the country with UGC funding. The Centre been set up for undertaking comprehensive studies and research into Social Exclusion as a complex and multidimensional concept, with social, cultural, political and economic ramifications. The Centre focuses on exploring the processes that produce Social Exclusion. The studies on historical processes of exclusion and the methodological aspects have been the mainstay of the Centre. This encompasses all forms of discrimination which operate in covert and overt manner on the basis of caste, gender, ethnicity, religious and linguistics minorities, and other excluded groups such as the disabled. The Centre, through its research programmes, strives to intervene in policy processes to mitigate the problems of social exclusion and help build the democratic processes. The Centre has the following objectives:-

- a. To understand the dynamics of discrimination and exclusion.
- b. To focus on a multidisciplinary approach to analyse the processes of exclusion.
- c. To work on theoretical and empirical dimensions of exclusion.
- d. To help with the critical inputs into the inclusive policy processes.

Programmes of Study

The Centre has adopted a multi-disciplinary approach. It offers **M. Phil** and **Ph.D.** programmes in the broad areas of research outlined in the objectives.

Prospects for employment:

- a. Academic and research institutions with multi-disciplinary orientations.
- b. Non- governmental agencies and consultancies in the development sector.
- c. Avenues in policy spaces.
- d. Journalism- Print and Electronic

Entrance Examination

M.Phil and Ph.D.

The question paper of M.Phil and Ph.D courses shall consist of 70 marks in two sections, as per the UGC Regulations 2016. Part A – 35 marks, will be on Research Methodology and broadly will be as follows:

Research Methodology: Data collection process; publication research, interviews, surveys, historical research, quantitative methods, data interpretation; aptitude and logical reasoning. This part of the Entrance test be on the lines of Paper-I/Part-I of the UGC-CBSE/CSIR JRF exam.

Part B: 35 marks, will be on subject concerned.

In addition, there is an Interview for 30 marks for shortlisted candidates.

Faculty

Professors

K. Raja Mohan Rao, Ph.D. (Sri Krishnadevaraya) – Development Economics, Rural Development and Social Exclusion Studies (**Head of the Centre**)

Ajailiu Niumai, Ph.D. (JNU) - Gender, Non-Governmental Organizations (NGOs) and Development, North East Studies and Diaspora and Philanthropy.

Associate Professor

Sreepati Ramudu, Ph.D. (Jamia Milia Islamia) - Dalit Studies, Caste, Public Policy, Child Labour and Social Movements.

Assistant Professor

J. Rani Ratna Prabha, Ph.D. (Hyderabad) - Child Labour & education, Health, Poverty, Gender and Economics of Exclusion.

Centre for Women's Studies

The Centre for Women's Studies (CWS), at the University of Hyderabad is an interdisciplinary Centre collaborating with faculty from different disciplines. The University of Hyderabad had a Women's Studies Cell established in 1984, alternatively located in the School of Social Sciences and the School of Humanities. This Cell was upgraded to a Centre in June 2007. It was a stand-alone Centre until it was affiliated to the School of Social Sciences in March, 2014 as a statutory Centre of the University.

Aims and Objectives:

- Actively coordinate courses on gender and women in different departments, and introduce fresh areas of gender research.
- Build a systematic database on gender issues.
- Mainstream gender issues in teaching and research.
- Facilitate gender analysis on critical issues

Programmes of Study

The Centre offers MA and Ph.D. Programmes in Gender Studies. **However, there shall be no admission to the Ph.D programme for 2020-21 since there are no vacancies.**

Entrance Examination

MA (Gender Studies)

The entrance examination will be for 100 marks. It will consist of 100 multiple-choice questions of one mark each, no negative marking. The following is the pattern of the question paper.

S.No.	Subject	Marks
I	Comprehension	20
II	Concepts related to Gender	20
III	Reasoning and Interpretation related to Gender	20
IV	Gender Awareness	20
V	Contemporary Gender issues	20
Total Marks		100

Faculty

Rekha Pande, Ph.D. (Allahabad): Women's History, Women's Movement, Women and Religion, Violence against Women, Women and Globalization with special emphasis on Women's work in Agriculture and the ICT sector (**Head of the Centre**).

K. Suneetha Rani, Ph.D. (Hyderabad): Gender Studies, New Literatures in English, Cultural Studies, Comparative Studies, Translation Studies.

Deepa Sreenivas, Ph.D. (EFLU, Hyderabad) – Cultural Studies, Feminist Pedagogy, Childhood Studies

SCHOOL OF ECONOMICS

The School offers programmes of study leading to **M.A.**, **M.Phil.** and **Ph.D.** degrees. Among the PG programmes, the School offers M.A. and M.A (5-year Integrated) in Economics as well as M.A. and M.A (5-year Integrated) in Financial Economics. The School offers well-balanced courses of study at all levels incorporating Economic Theory, Quantitative Analysis, and Indian Economic Problems. The School has more than 20 faculty members actively engaged in theoretical and empirical research in several areas of contemporary relevance. It was initially established as the Department of Economics and subsequently, it was elevated as a School in 2012. At present the School has about 300 post-graduate and research students.

Prof. Naresh Kumar Sharma is the Dean of the School.

Programmes of Study

MA (Economics)

The M.A. programme in Economics has been designed to expose the students to mainstream and heterodox approaches in theory, tools and techniques. The programme equips the students with analytical skills to engage with conceptual and empirical dimensions of the economy, policy, polity and society. Besides the standard courses like microeconomics, macroeconomics, trade, growth, public finance and econometrics, the core courses also include classical political economy and political economy of development, which makes it a well rounded programme. The programme also offers a range of optional courses that enable the student to acquire specialised knowledge in specific theoretical and applied branches of economics, like New Institutional Economics, Law and Economics, Social Choice Theory, Game Theory, Capital Theory, Development Economics, Economics of Education, Economics of Discrimination, Health Economics, Public Policy, Transitional Economics, Urban & Transport Economics, Natural Resource and Environmental Economics, Labour Economics, Financial Economics, Financial Econometrics, Time Series, and so on. This programme is divided into four semesters, in which they have to do 10 compulsory and six optional courses in addition to two foundation courses. Knowledge of high school level mathematics is expected from the prospective candidates as a minimum qualification, as several courses have mathematical orientation.

MA (Financial Economics)

The M.A. Programme in Financial Economics has been designed to expose the students to alternative paradigms of economic and financial theories and of global financial markets. The students would also be equipped with necessary analytical tools and techniques by way of an in depth training in econometric and time series techniques, and other quantitative methods. The focus of the training would be on practical applications and hands-on experience through assignments and projects, to enable them to competently analyse the market trends, and handle big data sets to aid the decision making process. Keeping these objectives in mind, the two-year programme offers a judicious mix of core and electives along with a project to be submitted at the end of the programme. Internships with industry, banks and financial institutions would be an integral part of the programme.

IMA (Economics)

I.M.A. (5-Year Integrated) programme consists of a component that is common to all the social sciences during the first three years. The students are admitted through an entrance test common to all social sciences. The students spend the first three years of study at the College for Integrated Studies, after which they branch out to the respective allotted discipline. The final two years of the I.M.A. (5-Year Integrated) in Economics programme are common with the M.A.

Economics programme or with M.A. Financial Economics programme allotted as per their choice at the end of three years. Further details about the programme and entrance test can be found under College for Integrated Studies in this Prospectus.

M.Phil (Economics)

M.Phil. programme consists of course work and dissertation. The course work places emphasis on: a) recent advances in selected areas of economics, b) literature in the chosen area of research and, c) proficiency in research methodology of economics. Students are required to do course work in the first semester. During the second semester they have to write a study area examination in the chosen area of research and in the remaining part of the programme, they are required to write a dissertation. The M.Phil. is a 3-semester programme. However, the students, if they so desire, are permitted to submit the M.Phil. dissertation within two semesters.

Ph.D (Economics)

Ph.D. programme consists mainly of research work leading to a thesis on an approved topic. The thesis will be of a high standard seen as a contribution to knowledge and will be defended in an open viva-voce examination. Ph.D. programme requires course work of about 12 credits, which includes Research Methodology as a compulsory course. The course work must be completed within the first year of the Ph.D. programme.

Entrance Examination

MA (Economics)

The Entrance Examination for M.A. in Economics consists of only objective type questions. The test is designed to examine/evaluate the candidates' general aptitude (including quantitative ability) and understanding of economics at the bachelor's level. The test is of TWO hours duration and consists of 100 multiple choice questions. The broad syllabus for the entrance test of M.A. in Economics covers (at undergraduate level): Microeconomic Theory, Macroeconomic Theory, International Economics, Public Finance, Basic Mathematics, Basic Statistics, Economic Development and Indian Economy.

MA (Financial Economics)

There is a separate test for M.A. in Financial Economics. The modalities and syllabus for the entrance examination for this programme are the same as for the entrance test for M.A. in Economics.

Entrance test details for the I.M.A. (5-Year Integrated) programme are given under the College for Integrated Studies.

M.Phil. and Ph.D.

The entrance test for M.Phil. and Ph.D. programmes consists of a written test for 70 marks and interview for 30 marks. There is a common written test for M.Phil. and Ph.D. programmes.

The written test is for 70 marks and consists of two sections, as per the UGC Regulations 2016. Part A – (35 marks) will be on Research Methodology including questions based on research methods, types of research, quantitative methods (mathematical, statistical, econometric), data interpretation, aptitude and logical reasoning. Part B – (35 marks) includes postgraduate level questions pertaining to core economics subjects such as microeconomics, macroeconomics, public finance, trade, growth, political economy, Indian economy; quantitative subjects such as basic

mathematics, statistics, econometrics; a few questions from specialized areas of economics such as labour, health, finance, environmental etc.; and general economics awareness.

In addition there is an interview for 30 marks for the shortlisted candidates. Candidates called for an interview for Ph.D. programme must come prepared with a research proposal to be submitted at the time of Interview.

Ph.D Vacancies available

M.Phil. and Ph.D. admissions are based on vacancies available with the faculty as provided below:

Sl.No.	Faculty Name	Desgn.	Areas of research (2020-21)	M. Phil Vacancies	Ph. D Vacancies
1.	Prof. G. Omkarnath	Professor	Classical Economic Theory, Capital Theory, Indian Economy, Teaching of Economics.	01	--
2.	Prof. Naresh Kumar Sharma	Professor	Economic Theory, Gandhian Economic Thought, Development, Agriculture, Money & Finance.	02	--
4.	Prof. R.V. Ramana Murthy	Professor	Agrarian Relations, Political Economy, Macro-economics, Heterodox Economics	01	02
5.	Prof. R. Vijay	Professor	Political Economy, Development Economics, New Institutional Economics	01	02
7.	Prof. Debashis Acharya	Professor	Macro-Monetary Economics, Financial Economics.	01	01
9.	Prof. N.A. Khan	Professor	Public Economics, International Trade, Infrastructure Economics, Macroeconomics, Islamic Banking.	01	--
10.	Prof. B. Nagarjuna	Professor	Industrial Economics, Transitional Economics, International Finance and Indian Economy.	01	01
11.	Prof. Phanindra Goyari	Professor	Econometrics, Mathematical Economics, Model Building & Simulation in Economics, Microeconomics, Agricultural Economics, Economic Growth and Development	02	--
13	Dr. G. Sridevi	Associate	Food Security, Health Care,	01	--

		Professor	Economics of Discrimination.		
14	Dr. Alok Kumar Mishra	Associate Professor	Macroeconomic Dynamics, Financial Economics, Urban and Transport Economics.	01	--
18	Dr. B. Nageswara Rao	Assistant Professor	Tribal Development, Economic History, Agricultural Economics.	01	02
Total				13	08

S.No.	Weightage being considered	M.Phil.	Ph.D.
1.	Interview component	30	30
	Total	30	30

Faculty

Professors

Goddanti Omkarnath, Ph.D. (JNU) – Classical Economic Theory, Capital Theory, Indian Economy, Teaching of Economics.

Naresh Kumar Sharma, Ph.D. (ISI, Delhi) – Economic Theory, Gandhian Economic Thought, Development, Agriculture, Money & Finance. (Dean of the School)

J. Manohar Rao, Ph.D. (JNU) – Health Care Economics, Development Theory and Policy, WTO and Globalization, Classical Political Economy, Economics of Science, Technology, Technical Change.

R.V. Ramana Murthy, Ph.D. (UoH) – Agrarian Relations, Political Economy, Macroeconomics, Heterodox Economics.

R. Vijay, Ph.D. (UoH) – Political Economy, Development Economics, New Institutional Economics.

S. Sandhya, Ph.D. (JNU) – Population Studies, Population and Development, Health Economics, Health Policy.

Debashis Acharya, Ph.D. (UoH) – Macro-Monetary Economics, Financial Economics.

K. Laxminarayana, Ph.D. (UoH) – Economics of Education, Political Economy of Development, Agricultural Economics, Indian Political Economy of Class and Caste.

Nasir Ahmed Khan, Ph.D. (Allahabad) – Public Economics, International Trade, Infrastructure Economics, Macroeconomics, Islamic Banking.

Boppana Nagarjuna, Ph.D. (UoH) – Industrial Economics, Transitional Economics, International Finance and Indian Economy.

Phanindra Goyari, M.Phil. (IGIDR, Mumbai), Ph.D. (UoH) – Econometrics, Mathematical Economics, Model Building & Simulation in Economics, Microeconomics, Agricultural Economics, Economic Growth and Development.

S. Raja Sethu Durai, Ph.D. (University of Madras) – Macroeconomics, Applied Econometrics, Financial Economics.

Associate Professors

G. Sridevi, Ph.D. (Institute of Social and Economic Change, Bangalore) – Food Security, Health Care, Economics of Discrimination.

Alok Kumar Mishra, Ph.D. (UoH) – Macroeconomic Dynamics, Financial Economics, Urban and Transport Economics.

Assistant Professors

G. Vijay, Ph.D. (Institute of Social Studies, The Hague) – Labor Economics, Environmental Economics, Economics of Business Organizations, Law and Economics, Political Economy.

Limakumba Walling, M.A. (UoH) – Macroeconomics, Political Economy, Economics of Competition.

Prajna Paramita Mishra, Ph.D. (UoH) – Environmental and Natural Resource Economics.

B. Nageswara Rao, Ph.D. (UoH) – Tribal Development, Economic History, Agricultural Economics.

K. Ramachandra Rao, Ph.D. (Andhra) – Urban Economics, Health Economics.

Krishna Reddy Chittedi, Ph.D. (CDS-JNU) – Macroeconomics, Financial Economics, Developmental Issues.

Motilal Bicchal, Ph.D. (UoH) – Monetary Economics, Macroeconomics.

Other Professors

Prasanna Kumar Mohanty, Ph.D. (Boston, USA), Post-Doc (Harvard, USA), MA-Economics, Delhi School of Economics, MA-Political Economy, Boston University – Land, Transport, Urban and Housing Economics; Public Finance. **Chair Professor.**

G. Nancharaiah, Ph.D. (Andhra) – International Economics, Agricultural Economics, Development Economics & Mathematical Economics. **Emeritus Professor.**

B. Kamaiah, Ph.D. (IIT, Bombay) – Macro-Monetary Economics, Financial Economics. **Emeritus Professor.**

SAROJINI NAIDU SCHOOL OF ARTS AND COMMUNICATION

The Sarojini Naidu School of Arts and Communication started functioning from 1988-89 and offers Masters-level courses in Dance, Theatre Arts, Fine Arts, and Communication and Doctoral (PhD) programmes in Communication, Theatre Arts, and Dance.

The University is indebted to the family of Sarojini Naidu for the bequest by the late Padmaja Naidu of the 'Golden Threshold', where the University started functioning. In recognition of this gesture, the University started this School by naming it after Sarojini Naidu to offer postgraduate and research programmes in the fields of arts and culture.

The School provides courses of study in the Departments of Dance, Theatre Arts, Fine Arts, and Communication. It seeks to enlarge the scope of the academic programme so as to include other areas of artistic endeavor like music. The broad objective of the teaching programme is not only to explore the evolution and forms of arts, but also to bring about an integrated approach to the study of creativity. Apart from the core Faculty, experts in various fields and Guest Faculty of national and international repute teach courses in the School.

Prof. P. Thirumal, Department of Communication is the **Dean** of the School.

Department of Dance

The dance department has been one of the first attempts to adapt traditional systems of training in classical dance styles of Kuchipudi and Bharatanatyam for postgraduate studies at the university level, providing opportunity for students to sharpen their technique and craft, analyze classical dance forms through closer study of aesthetic theories expounded in ancient Sanskrit texts, and made critical interventions in bridging gap between theory and practice.

The Department of Dance conducts advanced training in dance, particularly classical Indian dances both in theoretical and practical aspects. As one of the pioneering University bodies to adapt classical dance studies to a modern university approach, department of dance has been progressing in envisioning and executing innovative ideas in classical dance practice in all its various professional aspects such as choreography, stage presentation in all its component aspects, *rasaabhinaya*, dance music composition, art management and digital arts, international understanding of Indian classical dance, dance history, natyasastra, dance appreciation and dance research.

Programmes of Study

MPA (Dance) (Kuchipudi & Bharatanatyam)

The Masters in Performing Arts (Dance) course is a full time two years and it is very rigorous. The course is well-balanced in terms of theory and practice and the course spread over four semesters in two years; the course structure provides scope to enhance scholarship, practical and theoretical understanding of dance forms, and initiate students into research and teaching.

Significant emphasis is given to research orientation to train interested students towards research right from the postgraduate level, through a course on research methodology and dissertation project as part of their MPA programme. Students will be given the opportunity to enhance their performance skill through the department's production. Frequent workshops are organized with artistes and experts of national and international repute.

The programme offers a holistic training which helps in the exploration of not only performative and academic areas of the field but also the allied arts. The students strengthen their skills in performance, choreography, applied theory, analysis, designing of dance music, stage décor, stagecraft, lighting, costumes, production and organizational strategies. The course structure enables the master aspirants to become an independent performer / choreographer / teacher / nattuvanar / music composer/ researcher/ dance critique and production designer towards the completion of their Master’s degree. This is one of the most unique and innovative programmes offered in dance academia.

Ph.D. (Dance)

The doctoral programme offers scope for students and scholars to specialize in chosen minute niche fields of dance. The programme aims at creating a new knowledge in Indian Classical Dance understanding compatible with global scientific understanding of performing arts in their practice, theory, social relevance, heritage value, cultural significance etc., Incorporating all the relevant methodological tools such as qualitative research, performances theory, ethnography, performance documentation etc., from suitable disciplines such as cultural anthropology, history, art history, management etc., the programme helps the society acquire scientific, socially and culturally relevant understanding of Indian Classical Dances.

Entrance examination

MPA (Dance)

Admission is through an entrance examination consisting of a combination of objective (25 marks) and essay-type questions (25 marks) on subjects related to the specific field of study i.e., Dance. There would be a common question paper for both specializations. Those selected in the entrance examination will then be called for a practical test for (50 marks) before final selection.

Candidates are required to indicate in the application their preference of specialization in order of priority. Based on the prerequisite experience and the candidate’s performance in the admission test and viva, the Department shall assign specialization streams to each of the selected students.

Ph.D (Dance)

For Ph.D. the written test is for 70 marks and Viva voce for 30 marks.

The question paper of Ph.D. course shall consist of 70 marks in two sections, as per the UGC Regulations 2016.

Part A – 35 marks will be on Research Methodology and broadly will be as follows:

Research Methodology: Data collection process, publication research, interviews, surveys, historical research, quantitative methods, data interpretation; aptitude and logical reasoning.

This part of the Entrance Test will be on the lines of Paper-I/Part-I of the UGC-CBSE/CSIR JRF exam.

Part B: 35 marks will be on subject concerned.

In addition, there is an Interview for 30 marks for shortlisted candidates.

Break-up weightages for Ph.D. interviews for 30 Marks

Fellowship (JRF) 5 marks	Proposal defense 5 Marks	Interview 20 Marks	Total Marks 30
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Faculty

Professors

Anuradha. J, Ph.D. (Dance) (Hyderabad) – Theoretical Aspects and Kinesthetics of Dance, Kuchipudi Practical and Choreography.

Pasumarthy Ramalinga Sastry, Diploma (Kalakshetra, Chennai) – Bharatanatyam - Practical, Theory, Choreography

M.S. Siva Raju, Ph.D. (Dance) (Hyderabad) – Comparative Dance Studies, Musical Aspects of Dance, Movement for Dance and Choreography.

G. Aruna Bhikshu, Ph.D. (Dance) (Hyderabad) – Applied Theory and Dance Studies, Abhinaya (Head of the Department)

Visiting Faculty

C.V. Chandrasekhar

Sunil Kothari

Chitra Vishweswaran

Pappu Venugopala Rao

KalaKrishna

Harimohan Paruvu

Shashidhar Acharya

Gunakar Dev Goswami

Shama Bhate

Department of Fine Arts

The Department of Fine Arts was established in 1988 at the University of Hyderabad alongside the Departments of Dance, Theater and Communication to form the Sarojini Naidu School of Arts and Communication. The aim was to bring various artistic practices within a broader academic programme, to interrogate more systematically, the communicative aspects of the aesthetic traditions, and the aesthetic dimensions of communication systems.

The Department of Fine Arts was established under the stewardship of eminent artists, Laxma Goud, DLN Reddy, RS Shamsunder, and other young faculty, and has developed into a premier Art School in the country. The pedagogical commitment has been to provide a safe space for a serious art practice that can be freely carried out in a supportive, challenging and enriching environment. The increasing visibility, and growing list of achievements of our alumni in the world of Contemporary Indian Art are testimony to the pedagogical successes of our school.

Programmes of Study

MFA (Painting / Sculpture / Printmaking / Art History and Visual Culture Studies)

The Department of Fine Arts offers two-year, terminal MFA degree courses in the disciplines of Painting, Sculpture, Printmaking, and Art History and Visual Culture Studies. Our academic programmes are designed to integrate the practice of Fine Arts with a strong understanding of the social, economic, and intellectual histories of art traditions from around the world. Our students are encouraged to understand the roots and intentions that fuel their own artistic trajectories, while simultaneously situating their work amidst the larger context of the debates in art traditions from around the world. Students from the practical disciplines are encouraged to explore the

world of books, reading, writing and research. Conversely, it is mandatory for students from the theory disciplines to work in the studios, so as to grapple with the pleasures and challenges of converting inert, obdurate, physical materials into living works of art. The students of the Practical streams (Painting, Sculpture and Printmaking) submit a dissertation on their own work, while students of the Art History and Visual Studies discipline submit a dissertation on a topic of their choice, subject to the approval of the concerned faculty.

Instruction in the Department is essentially tutorial in nature, involving a close working relationship between the faculty and students. The academic curriculum is strengthened and complemented by incorporating workshops by eminent visiting artists, artist camps, conferences and lectures by distinguished scholars on a regular basis.

Entrance examination

Essential requirements at the time of Application for MFA in Painting/Sculpture/Printmaking: Applicants must specify the stream (Painting/Printmaking/Sculpture) on priority basis on which they wish to apply to the Department of Fine Arts. However, based on an evaluation of the portfolio, campus interview and photographs of works submitted, and availability of seats within a discipline, the Selection Committee of the Department of Fine Arts reserves the right to allot the stream in which the student may be admitted to the Department.

At the time of application, in addition to the online registration form sent to the University of Hyderabad, each applicant must also submit a digital copy of the online application along with 15 properly labelled digital images (JPEG, web format) of recent artworks to: sfa.entranceimages@uohyd.ac.in

The email must contain the following information

Name of Candidate

Registration Number

Name of Institution

Priority Basis for Choice of Discipline

Attachments: 15 Digital Images, JPEG web Format. Each image must be properly labelled with name of artist, size, medium and date of work; Soft copy of Online Registration Form

At the time of the On-Campus interview, the student must bring hard copies of the digital works submitted with the online application. A responsible faculty member of the Fine Art College/Institute must attest and verify the photographs of art works from where the applicant received his/her BFA/BVA/BA (Fine) degree.

Candidates must fulfill all the above requirements in order to be considered for the on-campus Entrance Test and Admission for MFA in Painting/Printmaking/Sculpture.

Fraudulent or Misrepresentation of works presented during Admission Process

Any instance of misrepresentations/wrongful attributions/ untrue claims or any other fraudulent acts with regard to student works made during the admission process that come to light at any stage of the academic programme, will be duly addressed in accordance with the academic rules and administrative statutes of the university.

Distribution of marks for the Entrance Exams MFA Programmes (Painting/Sculpture/Printmaking)

<p>Part A Written Test (OMR)</p> <p>Written Test will be conducted in Different Centers. Written test will comprise OMR (i) and Essay questions (ii). OMR questions will comprise 25% of the grade.</p> <p>(The essays will be addressed as part of the on-campus oral interview and portfolio evaluation).</p>	25%
<p>Part B 15 Digital Images of Recent Works</p> <p>In addition to the online registration form that is submitted to the University of Hyderabad, each applicant must also submit 15 Digital images of recent artworks (JPEG web format). Each work must be properly labeled with name of artist, size, medium and date of work.</p> <p>A soft copy of the Online application along with the 15 digital images of recent art works must be sent to: snfa.entranceimages@uohyd.ac.in</p>	25%
<p>Part C On Campus Oral Interview</p> <p>Oral Interview (On campus)</p> <p>Section (ii) of the Written Exam (Essay Questions) will be considered as part of the evaluation process at this time.</p> <p>Candidates must bring 15 photographs (Hard copy versions of images sent during the application process) to the campus interview. Each photograph must carry details of size, medium and date, and must be individually attested or verified by the Head of the Department/Institution or by a responsible member of the teaching faculty in the institution where the student has completed his/her BFA/BVA/B. A. (Fine) degree.</p>	25%
<p>Part D (Artist Portfolio)</p> <p>Artist Portfolio (To be shown at the time of Campus interview)</p> <p>(For the portfolio, students are required to bring 5-10 representative works in their field of specialization along with their sketch books. Students applying to the Sculpture discipline may bring 2 small original works (along with photographs of their works and sketchbooks.)</p> <p>Each photograph of the artworks must be duly attested and verified by the Head of the Department, or by a responsible member of the teaching faculty where the student has completed his/her BFA/BVA/BA(Fine) degree.</p>	25%

Note

- (i) The shortlisting of candidates for the campus interview will be on the basis of their performance in OMR section (Part A) of the written exam, and on the evaluation of the 15 digital photographs of art works (Part B) that have been sent directly to the Department of Fine Arts.
- (ii) The essays of the written exam will be evaluated and considered only for those candidates who qualify for the campus interview. The essays will be evaluated for their ability to convey ideas, and to write in meaningful ways about visual images and art practices. The essays will be addressed and included as part of the campus interview and portfolio evaluation.
- (iii) The criteria for evaluation of visuals will be demonstration of technical ability, conceptual clarity, stylistic coherence, and understanding of visual image making practices.
- (iv) In the oral interview, the student must be able to back the claims being made in the written essays and in the accompanying portfolio.
- (v) At the time of Campus Interviews, all photographs of the student's works that are presented for evaluation and admission to the University of Hyderabad must be duly attested and verified by a responsible member of the teaching faculty in the institution from which the student has received the BFA/BVA/B. A (Fine) degree. Any instance of misrepresentation or wrongful attribution of artworks that come to light at any time during the course of the MFA programme, will be taken seriously and will be addressed in accordance with the rules and statutes of the university.

Essential requirements at the time of Application for MFA Art History & Visual Studies:

Bachelor Degree in Fine Arts: BFA, BVA or BA (Fine). Candidates from related disciplines like History, Sociology, Literature and Anthropology may also be considered provided they demonstrate evidence of aptitude in Art History, capacity to read visual images and demonstrate adequate knowledge of contemporary artistic practices. Students must provide evidence of training or practice in visual arts at the time of the oral interview by bringing sketchbooks, art works or photographs of their original art works.

The Distribution of marks for the Entrance Exam for Art History & Visual Studies students will be as follows:

Part A Written Test (OMR Questions) Written Test will be conducted in different centers. It will comprise OMR questions and Written Essays Part A (OMR) Objective type Questions Written Essay questions will be addressed as part of on Campus interview.	50%
Part B Written Essays Written Essays to be addressed as part of On-Campus interviews	20%
Part C Oral On-Campus Interview For the oral interview, student must bring a portfolio of their art practice in the form of drawing books, original works or photographs.	30%

Note

- (i) The shortlisting of candidates for the campus interview will be on the basis of their performance in OMR section (Part A) of the written exam.
- (ii) The written essays will be evaluated and considered only for those candidates who qualify for the campus interview.

(iii) The essays will be evaluated for their ability to demonstrate an aptitude for art history, adequate language skills to convey ideas, as well as a basic understanding of image making practices. The essays will be addressed, and included as part of the campus interview and portfolio evaluation. Student's basic knowledge in Art History, and communication skills in English is expected

Faculty

B V Suresh (Head of the Department) -- Professor in Painting

Alex Mathew -- Associate Professor in Sculpture

L N V Srinivas -- Associate Professor in Painting

Dr. Kirtana Thangavelu -- Associate Professor in Art History & Visual Studies

Suneel Mamadapur -- Associate Professor in Printmaking

Dr. Baishali Ghosh -- Associate Professor in Art History & Visual Studies

Tanmay Santra -- Assistant Professor in Painting

Department of Theatre Arts

The Theatre Arts Discipline of S.N. School strongly believes that creating good theatre is an arduous activity and there is no simple formula to achieve it. As an academic discipline within a University system, Theatre Arts concentrates on giving training in seminal concepts, basic principles and practices of drama and theatre to create a successful theatre in society, where live interaction can lead to new terrains of experience and intellect. The course pattern is aimed at the integration of theory with practice, art with technology, and artists with audience. It addresses the core and frontier areas of theatre art, while maintaining flexibility to adapt the art for many different contexts.

The objective of our programmes is to empower students through rigorous training, to practice and appropriate the art of theatre to new contexts thrown up by the rapidly changing contemporary culture and technology. To do this, thorough knowledge of the history and theory of performance is imperative so that a theatre artist understands the field as full of choices and can chart out his or her own path in society and market.

We endeavour to balance training in the practical aspects of theatre with the historical and theoretical aspects. The aim is to train multi-faceted theatre artists, integrating theory with practice, imagination with technology, and art with the practical issues of management and marketing in diverse contexts of the globalized market.

Apart from experienced permanent faculty, the Department also organizes workshops with prominent experts in theatre from India and abroad. The Department has strong international presence as it has research and practice projects funded by United Kingdom-India Education and Research Initiative (UKIERI), Norwegian Embassy, University Grants Commission (UGC) and Sir Ratan Tata Trust. We continuously work with Indian Society for Theatre Research (ISTR) and

International Federation for Theatre Research (IFTR) to develop the practical and research capabilities of the faculty and students.

The medium of instruction will be English. But there is no language bar for acting or other practical work. Students can work in the language of their choice and multilingual plays are encouraged. The department offers the following courses:

M.P.A (Theatre Arts)

The Masters in Performing Arts programme is a rigorous, **full time three-year course**. This course trains the students in the practical and theoretical work so that they understand and practice theatre as a unique form of artistic communication. The core components are designed to provide hands-on experience of all the areas of theatrical communication and their possible application in different contexts. The theory courses teach the students to look at the history of theatre practice from multiple perspectives-like the literary, socio-economic, political, philosophical, etc. The course content covers both Western and Indian Drama and theatre. It also provides understanding of theatre in relation to other forms of artistic expression-like painting, sculpture, music, cinema, etc. The course tries to encompass the whole spectrum, from classical to contemporary, traditional to commercial, and folk to the digital.

Ph.D. Programme in Theatre Arts

The focus of Doctoral program in Theatre Arts is to generate a knowledge base in the area of Performance research and practice of theatre. Performance is seen as an inclusive field encompassing all the genres of performance from traditional to contemporary, and explored in the backdrop of constituent and frontier domains like history, language, literature, anthropology, cultural studies, folklore, music and management in the social and historical context. A flexible interdisciplinary framework is followed to enable researchers to carry out work in the area of performance studies. To bridge the domains of practice and research, practice as Research in Performance is encouraged.

Entrance Examination

MPA (Theatre Arts)

Any graduate with an aptitude for theatre can apply for the M.P.A. Course. Experience in theatre or any performing art will be an added advantage. Eligible candidates are required to write an entrance examination of two-hour duration, consisting of objective type questions on areas related to theatre and culture. Those qualified in the written test will be called for an audition/interview at the University, where they need to write descriptive and analytical essay as one of the given topics to their experience in theatre.

For the audition/interview, candidates are expected to come prepared to discuss a full-length play of their choice and also perform a dramatic passage from a play of their choice in a language of their choice.

Candidates who fail in the audition/interview cannot be selected irrespective of the marks secured in the written exam. Any additional talents like music, dance, martial arts, drawing etc., will be added advantage.

Ph.D. Programme in Theatre Arts

Eligible candidates will be required to appear for an entrance test with maximum marks of 70 for two sections:

Section A: will be to test the candidate's aptitude for performance/theatre research and

Section B: will be for the candidate's overall knowledge proficiency in the area of performance/theatre scholarship. Section B will be having questions directed to descriptive answers.

Those qualified in the written test should attend an interview with a tentative research proposal.

Candidates qualified for UGC-JRF will be given a weightage of 5 marks in the Interview.

Faculty

Professors

Bansi Kaul, Dr. Radhakrishnan Chair Professor.

B. Ananthakrishnan, Ph.D (Madras)-Performance Studies, Production Process (Head of the Department).

Satyabrata Rout, M.A (National School of Drama), Ph.D (C.C.S. University, Meerut University) – Scenography and Direction: Theory and Practices

N. Jnaneswara Bhikshu, Ph.D (Hyderabad)-Indian Drama and Theatre (Classical), History, Theory, Text (Western)

Associate Professors:

Rajiv Velicheti, M.A. in Dramatic Arts (National School of Drama) – Theatre History, Acting and Direction

Noushad Mohammad, M.A. (National School of Drama), Adv. Diploma in Actor Training (TTRP, Singapore) – Acting.

Kanhaiya Lal Kaithwas, M.A. (National School of Drama) Design and Theatre Craft

Assistant Professor:

Riken Ngomle, M.A. (National School of Drama), Advance Course in Acting, Grotowsky Institute, Wroclaw, Poland- Acting.

Department of Communication

The Department of Communication at the University of Hyderabad has been consistently ranked the best university department in the country by various surveys over the years. It has acquired a reputation for excellence in teaching and research, with a good track record of placements. Graduates have found positions in a range of media-related companies, as well as in supportive communication roles in the corporate, government, and civil society sectors. A significant number have gone on to pursue higher degrees both within India and abroad, and several of these alumni now hold teaching/research positions in reputable HEIs.

Experienced faculty members and the state-of-the art infrastructure makes it the most sought after department for media and communication studies. Its geographical and cultural position combined with the faculty members' vast experience in various fields makes it a hub for various national and international projects. Students also benefit immensely from a steady flow of scholars and experts in all areas related to the discipline.

Programmes of Study

The Department offers **two postgraduate programmes** that have a judicious mix of theory and skills, but with different emphases--one of which would be primarily focused on media practice and the other, on theory and research. The idea, in each case, is to build practitioners with a sensitivity to the conceptual underpinnings of media and society, and to build critical researchers with an understanding of media practice.

MA Communication (Media Practice): With a convergent journalism media practice and technology focus resulting in the ability to tell engaging stories for a variety of purposes and in a range of contexts.

This two-year programme exposes students to an array of media skills and practices, ranging from writing to audio-visual and digital media production, preparing them for jobs in the media industry or for independent media practice. Courses under this specialization build on a foundation of media and communication theory while equipping students with the skills, techniques and understanding to function in a variety of media roles, from content creation to dissemination to management in the rapidly converging media ecosystem.

MA Communication (Media Studies): With a theory, research and critical focus, this two-year programme exposes students to the theoretical and conceptual foundations of the discipline as well as building in them the skills to apply these principles in the field as practitioners and researchers. Courses under this programme range from understanding how communication and media interface with issues of development and social change to critically analyzing media industries, popular cultural phenomena, histories of media, and digital culture.

Students can select from a range of courses while meeting the requirements of their chosen programme, in a manner that blends theory and practice even as it may emphasize one or the other. **Supplementing teaching with regular workshops by experts/ industry professionals enriches the programmes.**

Ph.D (Communication)

The Department offers a Doctoral Programme in Communication. Research students will be required to complete mandatory coursework in the first two semesters of 14 credits, including Advanced Theory, Advanced Research, Academic Writing, and Topic-based Readings, before taking up their research work.

Currently, the department encourages research in communication and social change, community media, historical and cultural studies of media, ontology of media and information, health and science communication, digital media studies, feminist media studies, media law and ethics, media and gender, and practice-based research.

Entrance examination

MA Communication (Media Practice) and MA Communication (Media Studies)

The department will conduct **two separate entrance examinations** for the two programmes. Short-listed candidates will be called for a personal interview.

The entrance examination (60 marks), to be held in several centres across the country, will comprise questions related to general knowledge, current affairs, media awareness, logical reasoning, English language and analytical skills. There is negative marking for incorrect answers.

Shortlisted candidates on the basis of merit will be called for a personal interaction in Hyderabad, that includes a writing ability test (15 marks), and a personal interview (25 marks). Candidates who successfully clear both the written test and interview will be admitted into the two programmes.

Ph.D (Communication)

Eligible candidates will be required to write a written test comprising questions in: theory and concepts in the field; research methodology; and a project synopsis. Although students are expected to bring along a PhD proposal and be prepared to discuss it with the interview panel, this need not necessarily be the topic that the selected candidates will eventually work on.

The admission procedure consists of a written entrance examination (70 MARKS), followed by a personal interview (30 marks) for shortlisted candidates.

The Entrance Examination question paper (70 marks) will consist of:

PART A: Will consist of questions related to Communication Theories and Concepts.

PART B: Will consist of questions related to Methodology

PART C: Candidates will be required to write a synopsis for a research proposal they wish to undertake that must include a clearly articulated problem statement, relevant literature, specific aims and objectives, and methodology. This need not be the eventual research topic on which a selected candidate will work, but only a means to test the candidate's ability to articulate a feasible research problem in the field of communication and media studies.

Personal Interview

Shortlisted candidates will be called for a Personal Interview (30 marks) during which they would be required to demonstrate their aptitude to undertake doctoral research. Candidates are expected to bring along a PhD proposal and be prepared to discuss it with the interview panel; this need not necessarily be the topic on which the selected candidates will eventually work.

Weightages for Ph.D interview

S.No.	Weightage being considered	Max. Marks: 30
1.	Having fellowship - JRF and equivalent only	5
2.	Research Proposal and its defence	10
4.	Domain Knowledge and Research Aptitude	15
Total		30 marks

Faculty supervisors, areas of research and vacancies for the academic year, 2020-21

Total vacancies: 5

FACULTY	AREA OF RESEARCH SPECIALISATION	VACANCY
Prof. Vinod Pavarala	Communication and Social Change; Community Media	ONE
Prof. P. Thirumal	Historical and Cultural studies of Media, Ontology of Media and information, Cultural Histories of North East India and subjugated communities	ONE
Prof. Usha Raman	Health and Science Communication, Digital Media Studies, Feminist Media Studies	ONE
Prof. Vasuki Belavadi	Community Media, Communication & Social Change, Practice-based research	ONE
Prof. Kanchan K. Malik	Community Media, Media Law and Ethics, Media and Gender, Communication and Social Change	ONE

Faculty

Senior Professor

Vinod Pavarala, Ph.D. (University of Pittsburgh, USA) – Communication and Social Change, Community Media, Popular Culture. Also holds the **UNESCO Chair on Community Media**.

Professors

P. Thirumal, Ph.D. (Pondicherry) – Rhetoric of Development, Theory and History of Media. Also **Dean, S N School**.

Vasuki Belavadi, Ph.D. (Hyderabad) – Radio, Video Production, Community Media. (**Head of the Department**)

Kanchan K. Malik, Ph.D. (Hyderabad) – Print Journalism, Community Media, Media Law and Ethics, Media and Gender, Communication and Social Change.

Usha Raman, Ph.D. (University of Georgia, USA) Print Journalism, Health and Science Communication, Digital Media Studies, Feminist Media Studies

Prof. B. P. Sanjay, Ph.D. (Simon Fraser University, Canada) – Political Economy of Communication Technologies, Development Studies, International Communication, Communication/Media Policy (Retired and re-employed)

Associate Professors

P. Kennedy, Ph.D. (Osmania) -- Television Studies, ICTs for Development / Education.

E. Sathya Prakash, Ph.D. (Osmania) – Television Production, Documentary Filmmaking, Media Management.

Janardhan Rao Cheeli, Ph.D. (Hyderabad) – Television Production, Documentary Production, Participatory Video.

Assistant Professors

Madhavi Ravi Kumar, Ph.D. (Andhra) - Print and Broadcast Journalism, Convergence Journalism, Development Communication, Digital Media Studies.

Anjali Lal Gupta, M.A. (Jamia Millia Islamia) - Theory and Practice of Journalism, Narrative Journalism, Features and Analytical Writing, Development Journalism.

SCHOOL OF MANAGEMENT STUDIES

The School of Management Studies (SMS) was established in 1999. The School has completed 21 years of excellence in providing Management Education and preparing business leaders for the global market place. The School is acknowledged for its cutting-edge research, excellent teaching and learning activity in an intellectually stimulating environment. It promotes faculty and doctoral research, consultancy, training, and outreach activities in various sectors.

The Vision

The broad vision of the School is to continually strive to achieve excellence in management education, research, training, consultancy and outreach activities with a multi-disciplinary, multi-sectoral and developmental perspective.

The Mission

- To continually broaden the scope of application of management concepts to Infrastructural, Institutional, Environmental & Developmental services, Entrepreneurship and emerging areas in management.
- To promote the development of sound conceptual and adaptable functional and strategic skills among students.
- To encourage socially responsive managers of tomorrow.
- To instill a culture of lifelong learning and self-development among the students.

THE CORE ACTIVITIES

- Organizing the course work including electives
- Providing relevant inputs/skills - self-awareness and growth lab, organizational skills, summer internship, and project work
- Conducting Faculty and Management Development Programmes
- Encouraging research by faculty and Ph.D. scholars
- Organizing seminars and encouraging participation in external seminars
- Collaborating with reputed national / international institutions / industry
- Encouraging students to organize and participate in co-and extra-curricular activities

Prof. P.Jyothi is the Dean of the School.

Programmes of study

MBA Programme

The two-year MBA full-time programme with an intake of 60 students is spread over four semesters. During the first two semesters, core and foundation courses are offered. These include Management Concepts and Approaches, Managerial Accounting and Finance, Marketing, Organizational Behaviour, Human Resource Management, Quantitative Techniques, Managerial Economics, Communication and Personal Effectiveness, Operations Management, Research Methodology, Business Analytics and Business Environment. In addition, a three-day concentrated Self-awareness and Growth Lab is also organized during the first semester.

The students are required to get practical exposure by undertaking eight weeks internship in an organization during the summer intervening between the second and third semesters. These internships are intended to familiarize the students with current management practices, work environment and organizational culture. During the second year, the students have the opportunity to specialize in two select areas of their interest. These specializations are offered

through electives and project work spread over the two semesters. The students may choose from the following specializations offered:

- Marketing Management
- Finance Management
- Human Resources Management
- Operations Management
- Business Analytics
- Entrepreneurship
- Banking

The students also undertake a long-term research project during the final year. It is intended to provide research skills thus enabling them to develop decision-making skills as managers.

Admissions for the M.B.A. 2020-21 academic year, with an intake of 60 students are completed on the basis of CAT-2019 scores. **Candidates planning to take MBA admission for the academic year 2021-2022 are advised to check for admission notification in the months of August/September 2020. The notification would be advertised in popular newspapers and can also be accessed on the University website.**

MBA (Health Care and Hospital Management)

The School has been offering a unique MBA programme (Health Care & Hospital Management) since 2008-09. The two-year (four semesters) programme is offered in association with leading hospitals to meet the challenges and opportunities offered by the growing health care industry in India. The programme caters specific needs of middle level administrators in hospitals / health care and related sectors. This comprehensive programme will provide a professional qualification and insights into managerial functions for those serving graduates who wish to take up health care and hospital management as a professional career. It will also be of immediate benefit to serving professionals in this sector.

The broad vision of the programme is to strive to achieve excellence in the areas of health care and hospital management education, research, training, and consultancy on par with International benchmarks and standards. The broad mission is to prepare competent and trained hospital management professionals in a synergistic learning environment having strategic alliances with leading healthcare institutions in India and abroad. The major focus is on enhancing and enabling the existing mechanisms engaged in management of healthcare sector in India through capacity building programmes, dissemination of knowledge through continuous interaction between academia and industry, and to promote developmental activities in health care sector.

Highlights of the Programme

- Curriculum is spread over foundation and core courses in the first year and specialized courses and electives in the functional areas in the second year
- Course curriculum developed by seeking inputs from senior hospital management and health care professionals
- Self-awareness and growth lab for personal effectiveness
- 8-10 weeks of summer internship to understand the nuances of the hospital environment
- Final project under the supervision of a Faculty guide in conjunction with an industry mentor

Programme Pedagogy

The teaching/learning methodology is significantly interactive with case studies and group projects to study global health care and hospital management practices

- Interaction with eminent professionals from health care and hospital management
- Individual learning through guided assignments
- Personal growth/self-development and organization skill workshops
- Computer-based learning and audio-visual aids

During the period of study, the student will be required to carry out an 8 weeks summer project after completion of the second semester and final internship project work in any health care institution in the final semester. Efforts would also be made to provide the students a continuous learning opportunity through short-term projects and attachment with recognized hospitals. The intake, qualifications for admission and schedule for written exam/interviews for M.B.A. (Health care and Hospital Management) are provided in a tabular format in this brochure.

MBA (Business Analytics)

The School launched a very unique and innovative two year MBA in Business Analytics programme in the academic year 2017-18. This program is spread over four semesters. It is supported by School of Economics, School of Computer and Information Sciences, School of Mathematics and Statistics, CR Rao Advanced Institute of Mathematics, Statistics and Computer Science and Industry. The course includes the basic foundation subjects of Management that include Management Concepts and Approaches, Finance, Marketing, Human Resource Management, Operations and Business Analytics subjects like Statistics for Business Analytics, Business Analytics for Decision Making, Machine Learning, Marketing and Retail Analytics, Big Data, Financial Analytics, Econometrics, HR Analytics, Manufacturing and Supply Chain Analytics etc. Lab sessions are also included in the course.

Students are required to get practical exposure by undertaking eight weeks internship in an organization during the summer intervening between the second and third semesters. These internships are intended to familiarize the students with current developments in the area of Business Analytics along with the management practices, work environment and organizational culture. The students also undertake a long term research project during the final year. It is intended to enhance their analytics skills enabling them to join organizations.

Highlights of the Programme

- Curriculum is spread over foundation and core courses related to Management, Information Technology and Analytics in the first year and emphasis is placed on courses related to advanced Business Analytics in the second year.
- Course curriculum developed by seeking inputs from industry professionals and academicians.
- Self-awareness and growth lab for personal effectiveness.
- 8-10 weeks of summer internship to understand the working environment of the analytics industry.
- Final project under the supervision of a Faculty guide along with an industry mentor.

Course Curriculum and Programme delivery

The course curriculum is developed with active collaboration / involvement of industry professionals to provide the students with state of the art knowledge and practical orientation in the field of business analytics and management. The course is being offered to a limited strength

of about 30 students plus 5 Industry sponsored candidates with key inputs from the Faculty of the school and other visiting Faculty with supplementary inputs from industry professionals.

Foreign Nationals: 2020-22 MBA

Up to five international students may be considered for admission to the MBA programme in absentia. Their selection would be based on:

- 60% marks or above or its equivalent grade in a Bachelor's degree in any field from an officially recognized University/institution in their country of residence;
- Proof of proficiency in English (score in TOEFL or equivalent Test or certification);
- Statement of purpose; and
- At least two academic references

Interested students should submit an application with full personal details, summary of academic records from high school onwards, attested copies of mark-sheets and TOEFL (or equivalent) scores, a brief (200 to 300 words) statement of purpose for pursuing the course, names and contact addresses of at least two referees, by **May 10, 2020** at the latest. They should also ensure that, if admitted, they must join the programme before **15th July, 2020**.

The charges for hostel accommodation on campus for all students from abroad will be the same as paid by students from India. All fees and charges are subject to revision by the School/University from time to time.

Executive MBA Programme

The School launched another MBA programme for working professionals in the year 2019. This is a weekend MBA programme offered for working professionals with minimum of three experience. It is designed to cater to the specific needs of working professionals who are planning transition to managerial roles. The Mission is to develop and nurture socially responsive managers with a holistic concern for a better environment and society. The students are offered all the courses of a regular MBA and fulfil the criterion of credits and receive a degree in MBA. This "**Two Year Executive MBA**" programme is offered **under Graded Autonomy**".

Highlights of the Programme

- Curriculum spread over TWO years during weekends and offers foundation and elective courses in the Functional Areas.
- Course Curriculum developed according to Industry inputs.
- Courses taught by experts from Industry and Eminent Academicians.
- Scope for doing Internship in a Foreign University
- Specializations include Business Analytics Marketing, Finance, Human Resources Management, Operations Management and IT.
- Case based pedagogy in addition to the conventional modes of teaching.

Ph.D. Programme

The School also offers a Ph.D. programme in Management Studies. The students are expected to produce a dissertation of international quality based on research in analytical and/ or applied areas of management. All the students admitted into Ph.D. programme are required to undergo course work as stipulated by the UGC. The course includes the subjects in Statistics, Research Methodology, Academic Writing and Research issues in Management. The School has been focussing its research on various contemporary issues of Management including the following:

- Banking Management

- Brand Management
- Business Analytics
- Corporate Social Responsibility
- Customer Relationship Management
- Organizational behavior
- Entrepreneurship
- Financial Markets
- Financial Services
- Health Care and Hospital Management
- Investment Analysis
- Performance Management
- Risk Management
- Service Quality
- Supply Chain Management
- Technology Management
- Tourism and Hospitality Management

Note: Coursework of a minimum of 12 credits is mandatory for Ph.D. programme. All the candidates admitted for the Ph.D. programme need to complete the coursework within one year period of admission.

Entrance Examination

➤ **MBA-** Admissions for the MBA 2020-22 batch, with an intake of 60 students is on the basis of CAT-2019. The admissions are completed. Candidates planning to take MBA admission for the academic year 2020-20 are advised to check for admission notification in the months of August/September 2020. The notification can be accessed on the University website (www.uohyd.ac.in).

➤ **MBA (Healthcare and Hospital Management)** - An entrance exam would be conducted by the University. Entrance exam will be for 75 marks (comprising Multiple Choice Questions related to Logical Reasoning, Verbal Ability, Quantitative ability, Data sufficiency, Healthcare awareness, and General Knowledge). Candidates shortlisted after the written exam will be called for Group Discussion and Personal interview. The final offer would be made on the basis of performance in the written exam, Group Discussion and Personal Interview and the weightage for the written exam, Group Discussion, and Personal Interview will be 60%, 15 % and 25% respectively. The eligibility criteria and the dates of entrance exam and interview are mentioned in a tabular format in this brochure.

➤ **MBA (Business Analytics)** - An entrance exam would be conducted by the University. Entrance exam will be for 75 marks (comprising Multiple Choice Questions related to Logical reasoning, Verbal ability, Quantitative ability, Mathematical ability, Statistical Ability, Data Analysis and Interpretation etc.) followed by Group Discussion and Personal Interview. Candidates shortlisted after the written exam will be called for Group Discussion and Personal interview. The final offer would be made on the basis of performance in the written exam, Group Discussion and Personal Interview and the weightage for the written exam, Group Discussion, and Personal Interview will be 60%, 15 % and 25% respectively. The eligibility criteria and the dates of entrance exam and interview are mentioned in a tabular format in this brochure.

➤ **Executive MBA** – An entrance exam would be conducted by the University. Entrance exam will be for 75 marks (comprising Multiple Choice Questions related to Logical reasoning, Verbal ability, Quantitative ability, Mathematical ability, Statistical Ability, Data Analysis and Interpretation etc.) followed by Group Discussion and Personal Interview. Candidates shortlisted after the written exam will be called for Group Discussion and Personal interview. The final offer would be made on the basis of performance in the written exam, Group Discussion and Personal Interview and the weightage for the written exam, Group Discussion, and Personal Interview will be 60%, 15 % and 25% respectively. The eligibility criteria and the dates of entrance exam and interview are mentioned in a tabular format in this brochure.

➤ **Ph.D. Programme-** Applicants (including Senior Management Professionals) satisfying the minimum qualifications will be required to take an entrance exam. Entrance exam will be for 70 marks (comprising multiple choice questions in Research Methodology, Logical reasoning, Analytical ability, Data analysis & Interpretation etc. for 35 marks and Principles of Management, Managerial Economics, Marketing Management, Accounting, Costing, Financial Management, Human Resources Management, Operations Management, Strategic Management, Business Statistics, Operations Research etc. for 35 marks). The entrance exam shall be qualifying with qualifying marks as 50% and the shortlisted candidates among the qualified will be called for an interview. Applicants will be required to submit, along with the application, a brief tentative proposal (about 500 words) on their proposed topic of research. The eligibility criteria and the dates of entrance exam and interview are mentioned in a tabular format in this brochure.

Faculty

Professors

V. Venkata Ramana, M.B.A. (Sri Krishnadevaraya), Ph.D. (Management - Osmania) - Marketing Management, General Management, Corporate Strategy and CRM and Services Marketing.

V. Sita, M.A., (Osmania) M. Phil, (Hyderabad), Ph.D. (Osmania) - FDP(IIM, Ahmedabad), PGDHRM (Pondicherry) -Public Policy, General Management, E-Governance, Entrepreneurship and Women Studies.

P. Jyothi, M.A., Ph.D. (Psychology - Osmania) - Organizational Behaviour, Human Resource Management, Organizational Development, and Entrepreneurship.(Dean of the school)

B. Raja Shekhar, B. Tech. (Civil - Acharya Nagarjuna), M.B.A. (Osmania), Ph.D. (Management - Kakatiya), M.Sc., Ph.D. (Psychology - Sri Venkateswara), M.A. (Education-IGNOU), FDP (IIM, Ahmedabad), PGDPMIR (Kakatiya), PGDCS (Hyderabad) - Quantitative Techniques, Service Quality, Business Analytics, Research Methodology, Industrial and Organizational Psychology.

Mary Jessica, M.Com., Ph.D. (Management - Osmania) - Financial Management, Merchant Banking and Financial Services, Investment Management and International Financial Management.

G.V.R.K. Acharyulu, B. Tech. (Chemical- Andhra), M. Tech. (Chemical – NIT Warangal), M.B.A. (Osmania), Ph.D. (Management - Osmania), DPM (Annamalai) - Quantitative Techniques, Operations Management, Supply Chain Management, Health Care Management and Business Analytics. (**Coordinator, M.B.A Health Care and Hospital Management Programme**).

Vijaya Bhaskar Marisetty, M.B.A (Sri Krishnadevaraya), M.S. (RMIT, Australia), Ph.D. (Monash, Australia), PDF (Wharton School, University of Pennsylvania & ISB, Hyderabad) – Investments,

Financial Regulation, Indian Financial Markets; Corporate Governance; Machine Learning Applications in Finance.

Associate Professors

Chetan Srivastava, MBA, Ph.D. (Management - Osmania), PGCCA, MCSD - Strategic Marketing, International Marketing, Advertising, Sales Management, IT in Management.

Sapna Singh, MBA, Ph.D. (Management - Osmania) - Marketing, Branding and Advertising.

I. Lokanandha Reddy, MBA (Sri Krishnadevaraya), Ph.D. (Management - JNTUH) - Corporate Finance, Investment Analysis, Strategic Financial Management and Business Analytics.

Assistant Professors

D.V. Srinivas Kumar, B. Tech. (Acharya Nagarjuna), MBA (Andhra), Ph.D., (Management-Hyderabad), FDP (IIM, Indore) - Services Marketing, Customer Relationship Management and Business Analytics. **(Coordinator, M.B.A Business Analytics Programme).**

K. Ramulu, M.Com (Kakatiya), MBA (DRBRAOU), M. Phil. (Commerce - Nagpur), Ph.D. (Management-Kakatiya) - Materials Management-Financial Management, Financial Accounting, Management Accounting, Financial Risk Management, Security Analysis and Portfolio Management and Financial Markets.

Punam Singh, MBA(ISM-IIT, Dhanbad), Ph.D. (Management - JNTUH) - Human Resource Management, Organisational Behaviour, Corporate Social Responsibility, Performance Management and Compensation Management.

Pramod Kumar Mishra, M.Sc.(Mathematics- NIT Rourkela), MBA (Biju Patnaik), Ph.D. (Management-Hyderabad), PDF (IIM, Bangalore)- Supply Chain Management, Logistics Management, Mathematical Modelling and Business Analytics.

Murugan Pattusamy, M.B.A., Ph.D. (Management-Anna) – Work-family balance, Business analytics, HR Analytics, Research Methodology, Application of Multi-Variate data analysis techniques in Management, Item response theory, Mediation and Moderation analysis.

Varsha Mamidi, M.B.A; Ph.D. (Monash University, Australia)- Machine Learning, Predictive Analytics, Financial Analytics, Big data.

Dr. Ranjit Kumar Dehury, BHMS, MHA, Ph.D (IIT-Kharagpur)-, Health Systems Studies, Public Health, TQM in Hospital, Strategic Management in Health Care, Health Manpower Planning, Marketing Management of Health Care, Global Health Diplomacy, Healthcare Data Analytics

Some of the key invited visiting Faculty:

1. **Prof. Arun K Tiwari**, Secretary, CARE Foundation, Hyderabad.
2. **V. Nagadevara**, Former Dean, IIM, Bangalore.
3. **Dr. S. Raja Sethu Durai**, School of Economics, University of Hyderabad.
4. **Dr. Naresh Manwani**, IIIT-Hyderabad.
5. **Dr. K. Venkateswara Rao**, Healthcare Consultant, Hyderabad.
6. **Dr. Zafer Hashmi**, CAS-RMO, Osmania General Hospital, Hyderabad.

In addition, several local and international senior managers and management experts are regularly invited to interact with the students as Guest Speakers.

SCHOOL OF MEDICAL SCIENCES

The School of Medical Sciences is DST- FIST supported. The School was established with a mission to “Promote, Nurture and Achieve Excellence” in frontier areas of Medical and Health Sciences by offering novel teaching and research programmes. The school specifically focuses on outcome-based education, evidence-based teaching and learning and empowers them for translational health services and research. The inter- and multidisciplinary nature of the School by its establishment collaborates with the School of Life Sciences, School of Management Studies, School of Social Sciences, School of Economics, SN School of Arts & Communication, and Centres of the University involved in Health Sciences research. The School of Medical Sciences has several Adjunct, Joint and Visiting Faculty from the University and other Institutes who actively participate in the multidisciplinary teaching and research programmes. The Centre for Health Psychology (CHP) and the Centre for Neural and Cognitive Sciences (CNCS) are two centres affiliated to the School.

Programmes of study

1. Integrated Master of Optometry (M.OPT): The 6-year Integrated M.OPT.

The course objectives are to enable to students

- Possess and acquire scientific knowledge to work as an eye and health care professional.
- Demonstrates and possesses clinical skills to provide quality eye and health care services.
- Demonstrate team work skills to support shared goals with the interdisciplinary health care team to improve societal health.
- Possesses and demonstrates ethical values and professionalism within the legal framework of the society.
- Communicate effectively and appropriately with the interdisciplinary health care team and the society.
- Demonstrate high quality evidence-based practice that leads to excellence in professional practice.
- Enhance knowledge and skills with the use of advancing technology for the continual improvement of professional practice.
- Display entrepreneurship, leadership and mentorship skills to practice independently as well as in collaboration with the interdisciplinary health care team.
- To take up research in specialized fields of optometry and vision sciences.

Course is designed to train the students in different aspects of optometry and is backed up with extensive practical skills and one year of mandatory clinical internship during their 4th year of training. The students spend part of the first year at College of Integrated studies learning courses which are common for sciences. The second, third, fifth and sixth year at the School. In the fourth year they go for clinical Internship. The clinical internship can be undertaken at any of the recognized Institutions approved by the SoMS like LV Prasad Eye Institute, Hyderabad, Aravind Eye Hospital, Mehdipatnam, Hyderabad. Centre for Sight, Hyderabad, Pushpagiri Eye Institute, Swaroop Eye Hospital upon fulfilling the selection criteria of written test and or interview conducted by the clinical institution at the end of their third year. If a student has a backlog in basic science and core optometry courses at the end of the third year then he/she will not be allowed to go for internship. Some of the clinical institutions charge fees for internship which has to be paid by the student. During the Internship the student is required to make arrangements for transport from University to the Clinical Internship centres.

Eligibility for the Integrated Master of Optometry (M.OPT)

I.M.Sc optometry eligibility: Biology, Chemistry, Physics and Mathematics and English at +2 level with a minimum of 60% marks.

No of Seats = 28

The eligibility for admission to the course is based on a written test. The written test paper based on XII Board syllabus will have a total of 100 objective type questions in Biology, Chemistry, Physics, Mathematics and English.

Exit clause: Any student enrolled for Integrated Master of optometry will be able to exit the program at the end of fourth year after completing the compulsory clinical internship of one year duration and project work with B.Optom degree. For a student to continue into the Integrated Master of optometry program she/he should have cleared all courses from first to the fourth year or else she/he will have to exit the course at the end of fourth year after completing the compulsory clinical internship of one year duration and project work.

Master of Public Health (MPH)

The major objectives of the MPH programme are as follows:

- Prepare professionals to work in public health in socially, culturally and economically diverse populations by being attentive to needs of vulnerable and disadvantaged groups.
- Promote public health research in institutional and field settings.
- Train professionals for teaching /training posts in public health institutions for disability, ageing and gender sensitive issues and health project management.
- Promote qualities of leadership among public health professionals and effectively use communication skills for health advocacy.

- Train professionals for teaching /training posts in public health institutions for disability, community nursing and health project management.

Eligibility: Bachelor's degree in Medicine, Dentistry, AYUSH, Physiotherapy, Occupational therapy, Nursing, Nutrition, Pharmacology, Veterinary Sciences, Agricultural Sciences, Social sciences or any other science degree. Degree holders in arts and humanities with an interest in public health are also encouraged to apply.

No of Seats = 38

Selection is through entrance examination of the University of Hyderabad. The written test paper would be based on Bachelors degree syllabus in public health and allied specialties and will have a total of 100 objective type questions covering above cited subjects.

Ph. D. programme: Ph. D in Health Sciences - 7 seats

The School offers a Ph. D programme in 4 streams (Public Health, Optometry & Vision Sciences, Nursing and Biomedical Sciences). This year there will be an intake of 7 candidates as below, and will follow all the regulations as stipulated under the MHRD/UGC/Notification dated 5th May 2016. The applicants can select only one stream for pursuing their study. For the admission period 2020-2021 the following are the faculty who are available to take new students for Ph.D in the areas mentioned against their names:

PhD Vacancies and Faculty's areas of Specialization:

A) PhD Health Sciences (Public Health) : 4 seats

Dr. B.R. Shamanna (1) : Public health policy making, Public Health Project Management including Monitoring and Evaluation, Health Care Economics and Implementation research in Health Sciences.

Dr. Katta Ajitha (2) : Ageing and health and disability, tribal health population and Road traffic injuries.

Dr. C. T. Anitha (1) : - Non-Communicable Diseases related to diet and lifestyle .

Eligibility

Master's Degree in Public Health with at least 55% marks in aggregate in qualifying examination.

b. Master's degree in any stream of Health Science including Indian Systems of Medicine, Applied sciences, Allied Health Sciences, Nursing with at least 55% marks in aggregate in qualifying examination.

c. Master degree holders in Life sciences, Social sciences, Medical Social Work, Behavioural sciences, Health Management and Health Administration with at least 55% marks in aggregate in qualifying examination.

Applicants of b. and c. categories above should have demonstrable Public Health Experience in addition to the minimum qualifications criteria which will be assessed during the time of interview.

Selection process: Entrance Examination followed by Interview.

Note: JRF in Social Medicine & Community Health of UGC-NET with eligibility are also eligible to appear for interview without appearing for University Entrance Examination.

B) Ph.D Health Sciences (Biomedical Sciences) - 3 seats

Prof. Geeta K. Vemuganti (1): Adult Stem Biology and Cancer Biology

Dr. Athar Habib Siddiqui (1) Biomedical Research, especially Renal Physiology, Cardiovascular Biology, Diabetes, Female reproductive biology

Dr. Mahadev Kalyankar (1) Biomedical research especially Metabolic Disorders, Diabetes, Obesity and Fatty Liver

Admission

Candidates to the two Ph.D programmes should be a JRF in Life Sciences (CSIR, UGC and ICMR). Eligible candidates will be selected through an interview.

Entrance Examination: Admission for Ph. D Health Sciences (Public Health) shall be through an entrance examination for screening and interview for final selection. The Entrance Examination will carry a total of 70 marks and divided into 2 sections. Section A - The entrance examination question paper will have 50 % of questions (35 questions) in Section A which will have multiple choice questions based on general sciences, aptitude plus analytical & basic research skills. It will have negative marking of 0.33 for first 25 questions for wrong answer. Section B – Public Health specialty stream paper will not have negative marking. The final marks will be moderated in order to make available at least 6 screened candidates for each Ph. D seat to be filled in the individual streams of research study. Selection of final candidates for the Ph. D program in the 2 streams will be based on interview performance, whether screened in through entrance examination for Public Health stream or JRF qualified candidates for biomedical and public health stream. All other guidelines will be as per prospectus of the University of Hyderabad 2020-21.

Compulsory Course Work – 14 credits including common courses and specialization related courses as per University guidelines.

Faculty

Senior Professor

P. Prakash Babu, Dean (i.c), Ph. D (University of Hyderabad, Hyderabad): Neuroscience: Cell signalling and cell death (apoptosis and autophagy) in cerebral ischemia (stroke), cerebral malaria, brain tumour and stem cells.

Professors

Geeta K. Vemuganti, DCP MD (Path), DNB (Path), FAMS, FICP (University of Rajasthan, Nizam's Institute of Medical Sciences, National Academy of Medical Sciences) -- Adult Stem Biology research, Cancer stem cells, Ocular tumors and Ocular infections.

B. R. Shamanna, MD, DNB (MCH), DNB (SPM), M. Sc. (Lon.) (Karnataka University, All India Institute of Medical Sciences, National Academy of Medical Sciences, University of London). Health and Welfare Economics, Monitoring and evaluation of public health programmes, Implementation research, and Health technology assessment.

Associate Professors

Athar Habib Siddiqui, Ph. D (Aligarh) –Integrative physiology, Cardiovascular biology, Hypertension, Clinical Biochemistry.

Mahadev Kalyankar, Ph. D (University of Hyderabad, Hyderabad) – Diabetes, Insulin Resistance and Metabolic Disorders, Obesity and Fatty Liver.

K. Ajitha, MD (Community Medicine), Ph. D.- Disability studies, Geriatric health of geriatric population.

C. T. Anitha, MD, MPH (Rajiv Gandhi University of Health Sciences, University of South Florida, USA) - Food safety, Public health Nutrition, Maternity and Child health.

Assistant Professors

M. Varalakshmi, M. Sc (Nursing), Ph. D. (Nursing), MBA (Hosp. Admn.), PG Diploma in Bioethics, MA Edu. –Translational research in Healthy Ageing, Socio behavioural health, Adolescent health, Women- Child Health, , Non-Communicable diseases with Gender and equity dimensions.

Rishi Bhardwaj, Ph. D. (Vision Science-New Zealand): Binocular rivalry, Visual masking, Perception in amblyopia, Visual field loss from glaucoma and its influence on motion trajectories and development of visual apps and technology

Konda Venkata Nagaraju , Ph. D (Optometry and Vision Sciences, University of New South Wales, Sydney) - Contact lenses, Ocular surface, Dry Eye and Innate immunity, antimicrobials and Eye care technologies.

M. Surya Durga Prasad, MBBS, MD (Community Medicine) (Osmania) - Basic and applied Epidemiology, Communicable and Non-communicable diseases.

Centre for Health Psychology

Health Psychology is a holistic approach to Health and Well-being. The holistic approach shifts the emphasis of health from biomedical to bio psychosocial models. Health Psychology is the field

within Psychology that studies every aspect from wellness to illness. It focuses on health promotion and maintenance; prevention and treatment of illness; the etiology and correlates of health, illness and dysfunction, and improvement of the healthcare system.

The Centre for Health Psychology is the first ever Centre in the Country, and was established in the University in 2007. The research focus of the Centre includes bio psychosocial aspects of chronic illness, quality of life, ICU trauma, behavioural cardiology, community health, reproductive health, psycho oncology, geriatric health, health issues in women, behavioural diabetology, occupational health, disability studies, resilience studies, and positive health. Special emphasis is given to Indian approach to health and wellness.

Infrastructure

The Centre is equipped with Experimental Laboratory, Counseling Laboratory, Behaviour Technology Laboratory, and Sleep Laboratory. The Experimental Laboratory has modern digital instruments and more than 200 standardized psychological tests. The Counseling Laboratory is a state-of-the-art laboratory to train the students in micro skills of counseling. The Behaviour Technology Laboratory is well-equipped with a good number of equipment such as a Biofeedback machine. The Sleep Laboratory is equipped with a Polysomnography system to conduct research related to sleep.

Placements

Almost all the students who completed their course in Integrated MSc & MSc Health Psychology have found good placements in educational and research Institutes such as UoH, BHU, Central University of Tamil Nadu, Central University of Karnataka, Deemed to be Universities and also in national government organization such as DIPR. About 50% of the students have joined Ph.D. in Universities in India and abroad. On completing Ph.D. students have been placed in Universities and Colleges in teaching positions and in hospitals as Health Psychologists.

Programmes of study

M.Sc. (5-year Integrated) in Health Psychology (with exit option – B.Sc. Psychology)

Two-year M.Sc. in Health Psychology

Ph.D. in Psychology

Entrance Examination

MSc (5-yr Integrated) and MSc (Health Psychology)

Admission to both M.Sc. (5-Year Integrated) and M.Sc. (2-Year) programmes in Health Psychology is based on the performance in the national level written test conducted by the University.

The test for admission to M.Sc. (5-year Integrated) in Health Psychology will assess knowledge in Psychology at +2 NCERT and proficiency in English.

The test for admission into M.Sc. Health Psychology will assess knowledge in Psychology (Graduation Level) and proficiency in English.

Ph.D (Psychology)

The Admission to Ph.D. in Psychology is through a national level entrance examination (written test and interview) conducted by the University.

The test for admission to Ph.D. in Psychology will assess knowledge in Psychology & Research Methodology (Masters Level). The pattern for all the written examinations will be objective multiple choice questions.

Faculty

Professor

Prof. Meena Hariharan, Ph.D. (Utkal) – Stress & Coping, Behavioural Cardiology and Resilient Studies (**Head**)

Associate Professor

Dr. G. Padmaja, M.A., M.Phil, Ph.D. (Osmania) – Health Psychology, Counseling Psychology, Psycho-oncology, Geriatric Health and Health Issues Related to Women

Assistant Professors

Dr. Meera Padhy, M.Phil, Ph.D.–Developmental and Educational Psychology, Health Psychology, Behavioural Diabetology and Occupational Health

Dr. N. D. S. Naga Seema, M.A. Ph.D. – Community Health Psychology, Developmental Psychology and Yoga

Dr. Suvashisa Rana, M.A., M.Phil. B.Ed., LL.B., Ph.D. –Positive Psychology, Psychometrics

Dr. C. V. Usha, M.A., PGDCP, Ph.D. – Clinical Health Psychology, School Psychology and Counselling Psychology

Dr. C. Vanlalhruii, M.A., (Psychology), Ph.D. – Health Psychology, Psycho Oncology , Caregiver Health

Adjunct Faculty

Prof. Girishwar Misra, Vice-chancellor, Mahatma Gandhi International Hindi University, Wardha.

Prof. C.R.Rao, Professor, School of Computer Sciences, University of Hyderabad, Hyderabad.

Visiting Professors

The following eminent persons from the field of Psychology and Medical sciences have been the Visiting Professors in the Centre.

Prof. Gyanmudra, Head & Professor, Centre for Human Resource Development, NIRDPR, Hyderabad

Dr. N. Balakrishna, Scientist 'E' (Retd.), National Institute of Nutrition, Hyderabad

Prof. N. C. Pati, Professor of Applied Psychology, PG Dept. of Applied Psychology, Chetana College of Special Education, RRL Campus, Bhubaneswar

Prof. A. S. Dash, Retd. Professor, Utkal University

Dr. B. Sesikeran, Former Director, National Institute of Nutrition, Hyderabad

Dr. Saroj Arya, Retd. Clinical Psychologist, NIMH, Hyderabad

Dr. Susie Hariharan, Research Physician, Apollo Hospitals, Hyderabad

Prof. A.K. Saxena, Retd. Professor of Psychology, SVP National Police Academy, Hyderabad

Dr. Manika Ghosh, Director, Eudaimonic Centre for Positive Change and Well-being, Bangalore

Guest Faculty

Dr. Durgesh Nandinee, Health Psychologist, Hyderabad

Dr. K. Niranjan Reddy, Senior Clinical Psychologist, Roshni Counselling Centre, Begumpet, Hyderabad

Visiting Fellow

Dr. Rakesh Kumar Jain, Senior Clinical Psychologist, IMHH, Billochpur, Agra

Centre for Neural and Cognitive Sciences

The Centre for Neural and Cognitive Sciences (CNCS) is a multidisciplinary research centre affiliated to the School of Medical Sciences, University of Hyderabad, offering research degrees in the areas of Neurosciences and Cognitive Sciences. The Centre has four permanent faculty members who specialize in Neurosciences, Cognitive Sciences and sub-disciplines therein with additional adjunct faculty from other departments and Schools. The Centre has been actively participating both nationally and internationally over a period of time in training, collaboration and dissemination of knowledge in these areas.

The Centre has conducted many national and international events over the years which have made the Centre and its work known to researchers and students widely. The Centre has excellent research facilities to provide theoretical and experimental training to research students in the areas of Neurosciences and Cognitive Sciences. The Centre's faculty members have excellent publication record in their respective areas of research and they constantly participate in international and national events that include workshops, symposia, etc. The Centre has received research support from DST, DBT and other bodies over the years. The Centre's research and teaching activities have also been actively supported by many other faculties from different departments and schools of the University resulting in excellent cross fertilization of knowledge. The multidisciplinary nature of its research programme has attracted students from different disciplines who wish to do research in Neuroscience and Cognitive Science.

Programmes of study

The Centre offers MSc (Neural and Cognitive Sciences) and PhD (Cognitive Science) programmes.

Entrance Examination

M.Sc , Programme in Neural and Cognitive Sciences

Entrance is through a multiple-choice written exam (100 marks). The question paper will carry 100 objective type questions to be answered in two hours. There will be a negative marking of

0.33 for every wrong answer. The question paper will have two sections, I and II. First section will be testing on numerical, verbal and logical aptitude (40 marks). The second section will be subject specific to Neuroscience and Cognitive science (60 marks)

Ph.D. Programme in Cognitive Science

Selection will be on the basis of an entrance test followed by an interview. However, candidates with JRF (from CSIR, UGC, ICMR, DBT, etc.) have the option to come in for an interview with 40 marks or with the marks obtained in the entrance test (whichever is more) if they satisfy the prerequisite conditions as mentioned above. The question paper for the test will carry 70 objective type questions (70 marks) to be answered in two hours. There will be negative marking of 0.33 for every wrong answer. The question paper will have two sections I and II. The first section will be testing on numerical, verbal and logical aptitude (35 marks). The second section will be research subject-specific (35 marks).

Break up of weightages for M.Phil & Ph.D interviews

Weightage	Marks
Research Proposal and its defence	8
Having fellowship/M.Phil/NET/SET	2
Research Experience	5
Interview	15
Total	30

Faculty

Professors

Prof. Ramesh Kumar Mishra (**Head**)

Associate Professors

Dr.Sudipta Saraswati

Dr. Joby Joseph

Assistant Professor

Dr.Akash Gautam

SCHOOL OF ENGINEERING SCIENCES & TECHNOLOGY (SEST)

The School of Engineering Sciences and Technology (SEST) was established in 2008-09 with an objective to “impart research-oriented education and pursue high quality research in emerging multidisciplinary areas encompassing science, engineering and technology”. At present, SEST offers M.Tech. degree programmes in Materials Engineering and Nanoscience and Technology and, from this academic year, M.Tech in Manufacturing Science and Engineering is being started. SEST also offers Ph.D. programmes in Materials Engineering and Nanoscience and Technology. SEST provides an ideal environment to pursue cross-disciplinary research in engineering sciences and technology by taking advantage of the well-established facilities and expertise available within the School and on the University campus. SEST also collaborates with premier research institutions located in Hyderabad (namely DMRL, IICT, ARCI, NFC, NFTDC and RCI), most of which are also formally recognized as the School’s external research centres. The School has already been recognized for its excellence by the DST with funding to the tune of Rs. 240 Lakhs under its FIST programme. The School, since its inception, has been able to attract research grants of more than Rs. 1000 Lakhs from various external funding agencies.

Programmes of Study

The School admits students to the **M. Tech. (Materials Engineering)**, **M. Tech. (Nanoscience and Technology)**, **Ph.D. (Materials Engineering)**, and **Ph.D. (Nanoscience and Technology)** programmes and from this academic year the School will also admit students to **M. Tech (Manufacturing Science and Engineering)**.

The M.Tech. programmes are of two years duration, of which the first two semesters will be devoted to course work. The curriculum lays emphasis on giving a broad exposure to all aspects of the focal theme of the degree (i.e Materials Engineering, or Nanoscience and Technology or Manufacturing Science and Engineering), consistent with the interdisciplinary nature of the subjects involved. The third and fourth semesters will be spent on a research project leading to a dissertation, which will have to be defended in a viva voce exam. Details of the course structure can be found on the University’s website.

The Ph.D. programme involves carrying out research in the areas of interest to the faculty members of the School. The candidates have to undergo prescribed course work, the successful completion of which is a prerequisite for confirmation of Ph.D. registration. After completion of coursework, the student will undertake research under the guidance of a faculty member of the School. The progress of the student is reviewed periodically by a Research Advisory committee (RAC). Based on the recommendations of the RAC, research work can be carried out either within the University or at one of its formally recognized external research centres. The students are expected to actively participate in research seminars and submit progress reports of their research work. The Ph.D. requirements also include presentation of the research work in a comprehensive seminar prior to submission of the doctoral thesis and a subsequent oral examination in support of the thesis.

Course Work Requirements

Candidates admitted to the Ph.D. programme will be required to undergo a mandatory core course work, besides any additional courses that may be recommended by the doctoral committee to meet the demands of their research.

Entrance Examination

M.Tech. in Materials Engineering

Admission to the M.Tech. programme shall be based on a valid GATE score, in order of merit, in Aerospace Engineering, Ceramic Engineering/ Technology, Chemical Engineering, Industrial and Production Engineering, Manufacturing Engineering, Mechanical Engineering, Metallurgical Engineering, Chemistry, Physics, Engineering Sciences. The number of seats in this programme will be 18. The admission for this programme is through centralised counselling for M.Tech, i.e., CCMT.

The syllabus has the following core courses: Thermodynamics and Phase Equilibria of Materials; Material Characterization Methods; Processing of Engineering Materials; Mechanical Behavior of Materials; Functional Behavior of Materials; Material Processing & Characterization: Laboratory; Advanced Engineering Mathematics; Diffusion, Phase Transformation and Kinetics; Materials Modeling; Selection and Manufacturing of Engineering Materials; Seminar I and comprehensive viva. Apart from this, the student is permitted to opt for elective courses.

M.Tech. in Nanoscience and Technology

Admission to the M.Tech. programme shall be based on a valid GATE score, in order of merit, in Ceramic Engineering/ Technology, Chemical Engineering, Industrial and Production Engineering, Manufacturing Engineering, Mechanical Engineering, Metallurgical Engineering, Chemistry, Physics, Engineering Sciences. The number of seats in this programme will be 18. The admission for this programme is through centralised counselling for M.Tech, i.e., CCMT.

The syllabus has the following core courses: Elements of Nanoscience & Technology; Materials Characterization Methods; Synthesis and Processing of nanomaterials; Synthesis, Processing and Characterization Lab; Physical Behavior of Nanomaterials; Advanced Engineering Mathematics; Nanofabrication; Nanotechnology Infrastructure and Safety; Seminar and comprehensive viva. Apart from this, the student is permitted to opt for elective courses.

M.Tech. in Manufacturing Science and Engineering

Admission to the M.Tech. programme shall be based on a valid GATE score, in order of merit, Metallurgical Engineering, Mechanical Engineering, Manufacturing Engineering, Production and Industrial Engineering. The number of seats in this programme will be 18. The admission for this programme is through centralised counselling for M.Tech, i.e., CCMT.

The syllabus has the following core courses: Advanced Mathematics for Manufacturing (Stochastic Processes and Differential Equations); Design in Manufacturing; Machining: Theory and Practise; Plasticity and Metal Forming; Laboratory I and II; Additive Manufacturing; NDT of Manufacturing Defects ; AI for Manufacturing ; Manufacturing of Small and Ultra Small Systems ; Industrial Manufacturing Management; Micro and Nano machining of Engineering Materials. Apart from this, the student is permitted to opt for elective courses.

Ph.D. Programme in Materials Engineering

Admission shall be based on a written test followed by an interview for short-listed candidates. The written test will consist of objective type questions. As per UGC 2016 regulations, the syllabus of the entrance test shall consist of 50% of research methodology and 50% subject specific questions. The syllabus for the subject related questions will cover some or all of the following topics: Mechanical Engineering, Metallurgical Engineering, Ceramic Engineering, Physics, Engineering Sciences, Chemical Engineering, and Manufacturing, Production and Industrial Engineering of BE/B.Tech level and Physics, Chemistry and Mathematics of M.Sc./B.Sc. level.

JRF qualified candidates are **not exempted** from the written exam but they will be given weightage as specified.

Ph.D. Programme in Nanoscience and technology

Admission shall be based on a written test followed by an interview for short-listed candidates. The written test will consist of objective type questions. As per UGC 2016 regulations, the syllabus of the entrance test shall consist of 50% of research methodology and 50% subject specific questions. The syllabus for the subject related questions will cover some or all of the following topics: Mechanical Engineering; Metallurgical Engineering; Nanoscience and technology; Physics; Engineering Sciences, Chemical Engineering, of BE/B.Tech level and Physics, Chemistry and Mathematics of M.Sc./B.Sc. level;.

JRF qualified candidates are **not exempted** from the written exam but they will be given weightage as specified.

External Ph.D. Registration

The admission procedure shall be the same as that in the case of regular admissions to the Ph.D. programmes.

Candidates admitted under this category shall be free to work at one of the School's formally recognized external research centres under joint supervision of a faculty member from the University and an approved Ph.D. supervisor from the recognized institution.

Candidates admitted will be required to undergo a mandatory one-semester of core course work, besides any additional courses that may be recommended by the doctoral committee to meet the demands of their research. Admission under this category will be made only if there are interested faculty members.

Foreign Candidates

Foreign nationals seeking admission to the M.Tech./Ph.D. (Materials Engineering/ Nanoscience and Technology) programmes should also possess the requisite qualifications as in the case of regular students.

Candidates should have the ability to communicate in English and, in order to support this ability, a good score in TOEFL or a similar internationally recognized test is essential.

In addition, candidates should submit details of the course contents of the qualifying degree as well as letters of reference (along with contact information of the referees) along with their application. Admission under this category will be made only if there are interested faculty members.

Research Areas

There are **twelve (12) vacancies in Ph.D. (Materials Engineering)** in the following areas: Ferrites for Microwave Device Applications, Microstructure and Texture control in Automotive Sheet Steels, Development of new alloys, Waste biomass conversion to useful materials, High-entropy alloys, Graphene based nanostructured advanced materials, Corrosion fatigue of ship steels, High temperature resistant coatings, Structural health monitoring

There are **six (6) vacancies in Ph.D.(Nanoscience and Technology)** in the following areas: Surface modification and characterization of metals and alloys, Mineral beneficiation/utilisation of iron ore/coal fines, Synthesis of nano-agrochemicals and related nanomaterials, Nanomaterials incorporated smart materials, Electrochemical characterization of interfaces in composites, Spray coating of nano-composite coatings, thin film multilayers.

It may be noted that these are broad areas of interest of faculty members interested in taking PhD students and specific research problems may vary from these titles.

Faculty

Professors

M. Ghanashyam Krishna, Ph.D. (IISc, Bangalore) (**Dean-in-charge of the School**)

Dibakar Das, Ph.D. (IIT, Bombay)

Jai Prakash Gautam Ph.D. (TU-Delft, The Netherlands)

Vadali V. S. S. Srikanth, Ph.D. (University of Siegen, Germany)

Koteswararao Rajulapati, Ph.D. (North Carolina State University, USA)

Associate Professors

Raj Kishora Dash, Ph.D. (RPI, USA)

Swati Ghosh Acharyya, Ph.D. (HBNI, Mumbai, India)

Assistant Professors

Venkata Girish Kotnur, Ph.D. (TU-Delft, The Netherlands)

Guru Vidyathri Ph.D. (IIT- Madras, Chennai)

Pratt and Whitney Chair Professor

K. Bhanu Sankara Rao, Ph.D. (University of Madras)

Areas of Research for PhD (Materials Engineering) and Vacancies

Sl.No.	Faculty Name (Designation)	Areas of Research	Vacancies
1.	Dr. Dibakar Das (Professor)	Ferrites for Microwave Device Applications	2
2.	Dr.J.P. Gautam (Professor)	1) Microstructure and Texture control in Automotive Sheet Steels. 2) Development of new alloys	3
3.	Dr.-Ing. V.V.S.S.Srikanth (Professor)	Waste biomass conversion to useful materials	1
4.	Dr. K.V. Rajulapati (Professor)	High-entropy alloys	1
5.	Dr.R.K. Dash (Associate Professor)	Graphene based nanostructured advanced materials	1
6.	Dr.Swati Ghosh Acharyya (Associate Professor)	1) Corrosion fatigue of ship steels 2) High temperature resistant coatings 3) Structural health monitoring	3
7.	Dr. G. Vidyarthi (Assistant Professor)	1) Development of immiscible high-entropy alloys using computational thermodynamics 2) Phase evolution and phase stability studies of immiscible high-entropy alloys	1

Areas of Research for PhD (Nanoscience and Technology) and Vacancies

Sl.No.	Faculty Name (Designation)	Areas of Research	Vacancies
1.	Dr.J.P.Gautam (Professor)	1) Surface modification and characterization of metals and alloys 2) Mineral beneficiation/utilisation of iron ore/coal fines	1
2.	Dr. . -Ing. V.V.S.S. Srikanth (Professor)	Synthesis of nano-agrochemicals and related nanomaterials	1
3.	Dr.R.K. Dash (Associate Professor)	Nanomaterials incorporated smart materials	1
4.	Dr.Swati Ghosh Acharyya (Associate Professor)	1) Electrochemical characterization of interfaces in composites 2) Spray coating of nano-composite coatings	2
5.	Dr. V Girish Kotnur (Assistant Professor)	Thin film multilayers	1

COLLEGE FOR INTEGRATED STUDIES (CIS)

In the process of fulfilment of the set objectives of the University and for imparting specialized education to the students after their 10+2 level of education, a College for Integrated Studies (CIS) was established in the year 2006-07 to offer 5-year Integrated programmes in several disciplines leading to a Master's Degree.

Programmes of study

The College offers Master's Degree (5-year Integrated) courses in **Sciences, Humanities, Economics, and Social Sciences subjects.**

The medium of instruction is English for all the courses except the language programmes that are taught in the language concerned. The students admitted to language programmes are required to do some common courses, which are taught in the English medium. Therefore, proficiency in English is essential. The students admitted into the Science programme are required to have proficiency in Mathematics.

All courses are full-time regular courses. Students obtain a Master's degree after 5-years upon fulfillment of the relevant course curriculum. Bachelor's Degree may be awarded to students who fulfill the course requirement for Bachelor's degree.

Exit Option

An Exit option has been introduced for students admitted from academic year 2015-16. The salient features of the exit option are:

It is available at the end of three years in the case of M.A. (5-year Integrated) (Humanities / Economics / Social Sciences) / M.Sc. (5-year Integrated) (Sciences) students. Students who exercise the 'Exit option' at the end of three-years of M.A. (5-year Integrated) / M.Sc. (5-year Integrated) will be given B.A./B.Sc. Certificates.

In case of students admitted upto 2017-18 to M.Sc. (5-Year Integrated) in Earth Sciences, who opt for Exit option at the end of three years will get B.Sc. Earth Sciences and students admitted from 2019-20 will get B.Sc. Applied Geology on opting to Exit after 3 years.

Students not exercising 'Exit option' will be given two degree Certificates – B.A./B.Sc. and M.A./M.Sc at the end of five-years and B.Optom./M.Optom. at the end of six-years.

All eligible applicants will be called for the written test to be held at various centres across the country (see Chapter 2 of Prospectus). Proof of eligibility will be verified at the time of admission.

Written test for each of these programmes is of two hours duration. It will consist of multiple-choice (of four options) questions to be answered in the OMR sheet with black/ blue ballpoint /sketch pen. The level of questions shall be consistent with +2 level of education. There is negative marking; each wrong answer shall be given -0.33 marks. Specific instructions will be given in question papers.

The minimum eligibility requirements and the schedule of the written test for admission to the above courses are given in a tabular form elsewhere in this Prospectus.

M.Sc. (5-year Integrated) Programmes from the Science Schools

The four Science Schools – School of Mathematics and Statistics, School of Physics, School of Chemistry, and School of Life Sciences of the University offer Master of Science (5-year Integrated) programmes, in Chemical Sciences, Mathematical Sciences, Physics, Systems Biology and Applied Geology through the College for Integrated Studies (CIS). The programmes are open to all students who have completed/expect to complete +2 stage with at least three of the four subjects (Physics, Chemistry, Mathematics and Biology) as their optionals with a minimum of 60% at +2 level. The admission to M.Sc (5-Year Integrated) in Sciences (Mathematical Sciences, Physics, Chemical Sciences, Systems Biology and Applied Geology) will be through a common entrance examination. The entrance examination consists of a written test for 100 marks. The written test paper contains 25 objective questions each in Maths, Physics, Chemistry and Biology at +2 level.

The curriculum is common to all the disciplines for the first four semesters. Students with a biology background at the +2 stage and who had left mathematics after the 10th class are expected to put in the required efforts to learn mathematics. Similarly, students who left biology at the +2 stage are expected to learn biology. Please note that Systems Biology requires a significant amount of Mathematics and Computation throughout the 5-Year programme. The University offers Foundation courses in the first and second semesters to facilitate this process. The students spend first two years of their programmes at the CIS. The students are transferred to their parent Schools at the end of the fourth semester (if they clear all the regular courses at CIS).

The students are allocated the discipline (subject) of their choice at the time of admission based on their performance in the entrance examination and their preferences.

M.Sc. (5-Year Integrated) Programme in Health Psychology

The Centre for Health Psychology offers M.Sc. (5-Year Integrated) programme in Health Psychology through the CIS. Students who have completed or expect to complete the +2 stage with either Science or Arts subjects with a minimum of 60% marks are eligible to apply for the programme. The students spend two years at the CIS and are transferred to the parent centre at the end of fourth semester (if they clear all the regular courses at CIS).

The admission to the Health Psychology programme is through a written test (100 marks). It includes an aptitude test for Psychology at +2 level and test for proficiency in English.

M.A (5-Year Integrated) Programmes from the School of Humanities

The School of Humanities offers Master of Arts (5-Year Integrated) programmes in three disciplines: Hindi, Telugu and Language Science. All students with a minimum of 60% marks at +2 stage are eligible to apply. The students spend the first three years at the CIS where they are exposed to the basics of several disciplines to provide them a broad foundation. They are transferred to their parent departments/centre at the end of the sixth semester (if they clear all the regular courses at CIS).

There will be a common entrance test for admission to M.A (5-Year Integrated) in Humanities. The written test carries 100 marks. The question paper will be objective type consisting of three Parts: A, B, and C.

In Part A, there will be 40 questions of one mark each to test the competence in the concerned subject to which a candidate seeks admission.

Part-B will have 35 questions of one mark each to test competence in English.

Part C will have 25 questions of one mark each to test the competence in the current affairs and general knowledge. Candidates should choose concerned subjects (Hindi, Telugu and Language Science) in Part-A according to their options. Questions in Parts-B and C will be in English. The

questions in Part-A will be in English for Language Science candidates, in Hindi and in Telugu for those who opt for Hindi and Telugu respectively. Candidates will be eligible for admission, only to the subject that they choose for Part A of the written test.

M.A (5-Year Integrated) Programmes from School of Social Sciences and School of Economics

The School of Social Sciences offers Masters of Arts (5-Year Integrated) Programmes in four disciplines: Anthropology, History, Political Science, and Sociology. The School of Economics offers M.A (5-Year Integrated) in Economics. All students with a minimum of 60% at +2 level are eligible to apply for the Social Sciences or Economics programme. The students spend the first three years of their programme at the CIS. They are transferred to their parent schools and departments at the end of sixth semester (if they clear all the regular courses at CIS). The final two years of the M.A. (5-Year Integrated) in Economics programme are common with the M.A. Economics programme or with M.A. Financial Economics programmes allotted as per their choice at the end of three years.

There will be a common entrance test for admission to the M.A (5-Year Integrated) programme in Social Sciences and Economics. Written test carries 100 marks divided into four parts (of 25 marks each) consisting of the following: Part A: Social Studies and General Awareness; Part B: Language and Comprehension; Part C: Reasoning Ability; and Part D: Quantitative Aptitude.

The students are allocated the discipline (subject) of their choice at the time of admission based on their performance in the entrance examination and their preferences.

Scribe for Visually Challenged students of CIS Integrated programmes

A scribe for Visually Challenged Students (who joined CIS Integrated programmes) will be provided by CIS during mid-semester/end-semester examinations. The scribe should be a student of UoH; should not have opted the course for which he/she is writing the exam. An amount of Rs.300/- will be paid to the scribe for each exam. The scribe should not have been involved in any unfair means / cheating during examination. Allotment of suitable scribe rests with the Office of CIS.

Selection Procedure

The following procedure shall be followed for selecting the candidates for different Master's Degree (5-Year Integrated) courses:

All eligible applicants will be called for the written test to be held at 38 centers see Chapter 2.

The written test will be in the form of objective type questions of +2 standard; it will be for two hours duration to be answered in the OMR sheet with black/blue ballpoint /sketch pen. There is negative marking for wrong answers. Specific instructions will be given in the question paper/answer book.

The following criteria shall be followed, one after the other, to resolve the ties, when more than one candidates secure the same total marks in the entrance examination:

First criterion: Marks obtained in the entrance examination (written test).

Second criterion: Marks obtained by the candidates in the qualifying examination at (+2 level). If the final result is not available, then the marks upto the 1st year will be taken into consideration.

Third criterion: Marks obtained in the next lower public examination (SSC/Matriculation or equivalent). Candidates whose result of the qualifying examination (+2 stage) is not declared may also apply for admission, see Chapter 2.

Faculty

Professors

Sanjay Subodh, Ph.D (Chandigarh) – Medieval Indian Historiography, Science and Technology, Medieval Archaeology (**Director, College for Integrated Studies**).