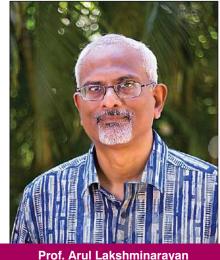


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The Department of Physics is amongst the largest physics departments in the country in terms of quality research output, number of faculty, students and programs. The research spans many frontier areas from experimental solid state physics, optical and laser physics to high-energy particle physics. Theoretical and computational physics research ranges from condensed matter, quantum information theory and dynamics to string theory and cosmology.

The Department offers programs at the Bachelor's, Master's as well as at the Doctoral Research levels. There is a vibrant undergraduate 4 year program -- Bachelor of Technology (B.Tech.) in 'Engineering Physics'-- in conjunction with the Department of Electrical Engineering. Students with a good academic record in this program have an option to upgrade to an M. Tech. in various interdisciplinary areas (IDDD) as well as in Electrical Engineering.

We offer three types of Master's programs: a 5 year Dual Degree (BS-MS), a 2-year Master of Science (M.Sc.), and a Master of



Prof. Arul Lakshminarayan Head of the Department



Technology (M.Tech.) in Functional Materials and Nanotechnology. At the apex is the prestigious Doctoral (Ph.D.) program with more than 200 research scholars at any given time. They spend about 5 years interacting with our expert faculty and typically publish their research in reputed international journals with high impact factors.

Programmes (M.Tech.)

Functional Materials and Nanotechnology

Programmes (Ph.D.)

Physics

Research areas

Theoretical Condensed Matter Physics

- Electronic Structure
- Quantum Magnetism
- Strongly Correlated Systems

Dynamical Systems

- Quantum Chaos
- Complex systems

Gravitation and Cosmology

- Gravitational Waves
- Classical and Quantum Gravity
- Early Universe

Theoretical High Energy Physics, Nuclear Physics and Strings

- Quantum Field Theory
- Black Holes
- Nuclear Structure

Quantum Information and Quantum Optics

- Quantum Information and computing
- Photonics
- Quantum Sensing





Soft Matter and Biological Physics

- Active Matter
- Complex Fluids
- Polymer Physics
- High resolution imaging & optical tweezer

Experimental High Energy Physics

- Particle Detectors
- Relativistic Heavy Ion Collisions
- Quark Interactions

Optics and Photonics

- Nanophotonic Materials
- Ultrafast Spectroscopy
- Photonic Crystals

Atomic and Molecular Phyiscs

- Intermolecular Coulombic Decay
- Trapped lons

Energy Materials

- Solar Cells
- Batteries

Experimental Condensed Matter Physics

- Multiferroic and magnetoelectric oxides
- Low Temperature Physics, Superconductivity
- Quantum Materials and Devices
- Weyltronics
- Microwave Materials, Meta Materials
- Spintronics

Placements









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Faculty

- Dr. Abhishek Misra
- Dr. Anbarasu M
- Dr. Aravind, G
- Dr. Arul Lakshminarayan
- Dr. Ashwin Joy
- Dr. Ayan Mukhopadhyay
- Dr. Basudev Roy
- Dr. Birabar Ranjit Kumar Nanda
- Dr. C. V. Krishnamurthy
- Dr. Chandra Kant Mishra
- Dr. Dawood Kothawala
- Dr. Dillip K. Satapathy
- Dr. Ganesan, AR
- Dr. Harish Kumar, N
- Dr. James Libby
- Dr. Jatin Rath
- Dr. Jayeeta Bhattacharyya
- Dr. K Lakshmi Ganapathi
- Dr. Kasiviswanathan, S
- Dr. Lakshmi Bala, S

- Dr. Mahaveer Kumar Jain
- Dr. Manoj Gopalakrishnan
- Dr. Manu Jaiswal
- Dr. Markandeyulu, G
- Dr. Murugavel, P
- Dr. Neelima M. Gupte
- Dr. Nirmala R
- Dr. Panchanana Khuntia
- Dr. Parvendra Kumar
- Dr. Pattabiraman, M
- Dr. Prabha Mandayam
- Dr. Prabhat R Pujahari
- Dr. Prafulla Kumar Behera
- Dr. Prahallad Padhan
- Dr. Pramoda Kumar Nayak
- Dr. Prasanta Kumar Tripathy
- Dr. Prasanta Kumar Muduli
- Dr. Prem B. Bisht
- Dr. Rajesh Singh
- Dr. Rajesh Narayanan
- Dr. Ramachandra Rao, MS
- Dr. Ramaprabhu, S

Dr. Ravichandran Shivanna Dr. Samir Choudhuri Dr. Santhosh, PN Dr. Satyanarayana, MV Dr. Sethupathi, K Dr. Shantanu Mukherjee Dr. Siddharth Dhomkar Dr. Siyarama Krishnan Dr. Somnath Chanda Roy Dr. Srinivas. V Dr. Sriramkumar, L Dr. Sudakar Chandran Dr. Sunethra Ramanan Dr. Sunil Kumar, P. B Dr. Suresh Govindarajan Dr. Vaibhav Madhok Dr. Venkatachalam Subramanian Dr. Vidya Praveen Bhallamudi Dr. Vijayan, C Dr. Yasir Iqbal