Manipal Academy of Higher Education, Manipal

<u>PhD Research Areas available for candidates already having a fellowship</u>

<u>Manipal Institute of Technology</u>

- Advanced Materials Engineering
- Algorithms
- Analog Circuit Design
- Analog VLSI Signal Processing
- Artificial Intelligence and Soft Computing
- Automobile Engineering
- Bioinformatics
- Biomaterials and Drug Delivery
- Biomedical Instrumentation & Signal Processing
- Biomedical signal and image processing
- Biosensors
- Cipher System
- Cloud Computing,
- Composites & manufacturing
- Computational Fluid Dynamics
- Computer Networks
- Computer Vision
- Concrete technology
- Control Systems
- Corrosion Engineering
- Data Mining & Data Analytics
- Digital Image Processing
- Distributed Generation
- DNA conformation and Photocontrol
- Educational management
- Electromagnetic Field Enhancement Structures
- Electronic nose Technology
- Embedded Control System
- Embedded System Design
- Environment Management in Printing
- Environmental Biotechnology
- Fatigue and fracture
- Finite element method
- Finite Element Methods for Engineering problems
- Flexible electronics and soft lithography
- Fluid Mechanics
- Fractional order signal processing
- Geochemistry.
- Geology
- Geotechnical & Transportation Engineering
- Heat Treatment
- Human Resource management
- Information/Network security
- Knowledge Management
- Lighting & Energy Studies
- Linguistics
- Machine Dynamics & Control
- Machine Learning
- Machining of metals & composites
- Medical Image Processing & compression
- MEMS
- Multimedia Computing and Communication
- Nanocarbon thin film synthesis and devices
- Network Coding
- OFC & Coding theory
- Offset Printing Technology
- Operations management
- Organic synthesis
- Paper-based fluidics
- Pattern Recognition
- Pattern recognition through ANN and data analysis
- Photonic Crystal structures
- Power Electronics & Drives
- Printing Materials
- Process Optimization
- Refrigeration & Air Conditioning
- Renewable Energy
- RF and Microwave Engineering
- Sensor networks
- Speech Signal Processing
- Structural Dynamics
- Structural integrity evaluation through NDT & E
- Structures
- Supply Chain Management
- Surface Plasmon waveguides
- System Dynamics
- Technology Management
- Tribology
- Turbomachinery
- Vibration, Biofuels
- VLSI design
- Water resources & Environmental Engineering
- Web Mining
- Wireless Sensor Network
- Wireless Communication

Department of Physics

- Condensed Matter Physics
- Crystal growth
- Magnetic and thermoelectric materials
- Nonlinear optics
- Nuclear and Radiation Physics
- Radiation – matter interaction
- Theoretical high energy physics.
- Thin film devices

Department of Chemistry

- Bio organic & medicinal chemistry
- Chemistry of natural products
- Composite materials
- Corrosion studies
- Green approach for material conservation
- Liquid crystals
- Materials chemistry and polymer electrolytes
- Polymer chemistry
- Synthetic chemistry

Department of Mathematics

- Algebra
- Bio Mechanics
- Complex Analysis
- Computational Methods
- Fluid Mechanics and Functional Analysis
- Fuzzy Topology
- Graph Theory
- Numerical Methods
- Number Theory
- Special functions
- Statistical inference
- Topology