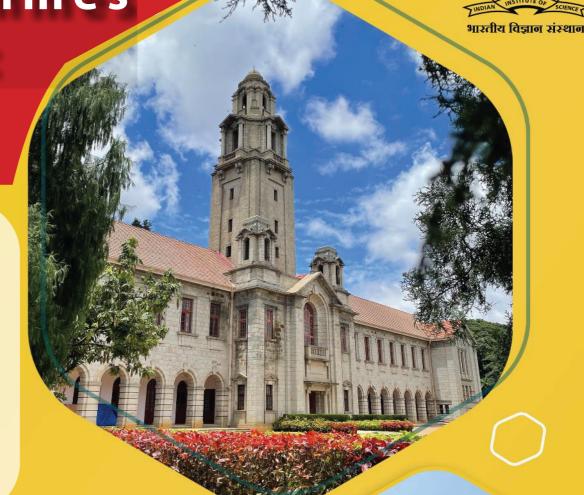
PhD and MTech
Research Programmes
at DESE, IISc

## PhD and MTech (Research) Programmes

The PhD and MTech (Research) programmes involve coursework and solving a substantial and novel research problem in a comprehensive and deep manner.



## **Research Facilities**

- Electronic packaging
- Class 1000/10000 cleanroom
- Advanced nanoelectronics characterisation
- MSME CoE
- 3D printing and design studio
- Mechanical workshop



## **Research Themes**

- Analog and digital chip design
- Neuromorphic computing
- Hardware security
- Hardware accelerators
- Digital and mixed signal VLSI
- Human-machine interface
- Neural network accelerators
- MEMS
- Biomedical instrumentation
- Sensors and transducers
- FPGA
- Processor architecture
- Power electronics and drives
- Networks and cyber physical systems
- Signal and information processing



## **Applications**

- Embedded systems
- Signal processing
- Biomedical systems
- Medical imaging
- Control systems
- Cybersecurity
- Wireless communication
- Sensor manufacturing
- Renewable energy
- Power electronics
- Internet of Things (IoT)
- Photonics







