# ME Microelectronics @ IISc
Master of Engineering in Microelectronic Systems
Indian Institute of Science, Bangalore

## The Program
ME Microelectronic Systems is a flagship 2-year program offered jointly by the ECE and ESE departments. It involves 64 credits, with 36 for course work and 28 for the final year project. At least 9 credits (3 courses) have to be taken from each of pool A (Materials, Process & Device Technology) and pool B (Circuits, CAD, Systems & Applications). The remaining 18 credits can be from any courses offered in IISc, and so a very flexible, customized program can be constructed for each student. State of the art laboratory facilities with industry standard EDA software, cutting edge test instrumentation and a world-class clean room and fabrication facility are available for lab work. Courses are taught by renowned faculty, with significant R&D experience.

### Pool A
- Semiconductor Devices & IC Technology
- Semiconductor Devices and Circuits
- Computational Electromagnetics
- Introduction to Photonics
- Microsensor technologies
- Power Semiconductor Device and Physics

### Pool B
- Analog VLSI Circuits (+ lab)
- Mathematical Methods in Signal Processing
- Embedded Systems I (+ lab)
- Reliability of Nanoscale Circuits and Systems
- Digital VLSI Circuits (+ lab)
- Art of Compact Modeling

### Pool C (Advanced ESD Devices, Circuits and Design Methods)
- Nanoelectronics Device Technology
- Non-Crystalline Semiconductor Devices & Circuits
- Microsensor technologies
- Power Semiconductor Device and Physics

### Pool D
- Photonic Integrated Circuits (+ lab)
- Digital System Design with FPGAs (+ lab)
- Integrated Circuits for Wireless Communications
- Advanced VLSI Circuits (+ lab)
- RF Integrated Circuits and Systems (+ lab)
- Signal Processing for Data Recording Channels

## ME Project
The final year project is a significant component of the ME program and is worth 28 credits. Each student is individually mentored to do high-end, innovative R&D work. A number of projects have won national awards and resulted in publications in international journals and conferences as well as patents.

## Future Prospects
With IISc being in the heart of India’s Silicon City, the graduates of this program have access to numerous high-tech companies for jobs with 100% placement. A few students also continue on for a PhD in some of the top universities around the world. The graduates will also be well placed to take advantage of the Indian government’s “Make in India” initiative for Electronics System Design and Manufacturing.

## Eligibility
Bachelor's degree in Engineering and a valid GATE score in EC, EE, IN
Selection is purely based on GATE score
http://ece.iisc.ernet.in/index.php/academics/degree-programs/me-microelectronics