

Student Employability/ Practice School



Research Opportunities after ME

After post-graduation one can continue to work in the field of Digital VLSI Design, Analog VLSI Design, Embedded systems, Device modelling, System on Chip. BITS Pilani has Collaborations with International Universities and Research Laboratories for doing dissertation work

Students Testimonials

"I really loved being under one roof in that beautiful campus and enjoyed the diversity of the campus. The professors were extremely passionate about what they do and wanted me to become better; the staff and student really cared about me, and I was respected and appreciated for my opinions."

Shyam Sumukh (2013-2015 Batch)
Field Applications Lead
-Micron US Business Unit



Azeem Mohammed (2015-2017 Batch)
Signal Integrity Engineer
-Qualcomm



Azhar Syed (2015-2017 Batch)
Senior Physical Design Engineer
-Media Tek



Contact us

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BITS Pilani
Dubai Campus

**Department of
Electrical & Electronics
Engineering**

Brochure for

Masters in Engineering

(ME) in Microelectronics

and

Doctor of Philosophy (PhD)



innovate

achieve

lead

Why BITS Pilani Dubai Campus ?

International campus of BITS Pilani, which ranked 351-400 in QS Top Universities world ranking and top 12th in India for Engineering Education. Excelling since year 2000 in Dubai Catering to the Engineering Education requirements of people in GCC. The Electrical and Electronics Department has expert faculty with PhD qualification, who empower the students with state-of-the-art teaching methodologies. The Department has very advanced Laboratories to cater to various courses in respective Fields of study. Regular classes and Laboratories for Masters in Engineering (ME) are conducted during evenings and holidays to facilitate working professionals

About the two programmes

- The microelectronics industry has achieved a phenomenal growth over the recent past, which lead to the design and development of high-performance computing machines with very low power consumption by the integration of large-scale transistors in an Integrated Circuit (IC).
- This ME programme aims to give an in-depth knowledge of study and design of state-of-the-art microelectronics-based systems using various Electronics Design Automation (EDA) tools. The curriculum is designed to meet the modern IC design industry standard.
- Part-time and Full-time PhD is offered in following thrust areas
 - * Instrumentation & Control
 - * Communication Engineering, Networks
 - * RF, Microwave, Antenna Design & Wireless Systems
 - * Power Systems & Electrical Engineering, Renewable Energy, Smart Grids
 - * Power Electronics and Drives

- * Embedded Systems
- * Micro/ Nano Electronics
- * Electronic Materials, Devices, And Technology
- * Digital Signal Processing
- Duration of the Programme: 4 Semesters (two years) for ME and Maximum of 5 years for PhD
- Course fee :
ME 15,500 AED per semester.
PhD 2,400 AED per semester (Full time) and 3,500AED per semester (part time).
- Merit based scholarship (upto 20%) is available) for ME programme.
- Eligibility :
 - *A minimum aggregate of 60% in the qualifying degree (B.E./ B.Tech/EEE/E&I/ECE /CS or M.Sc. Physics or its equivalent) for ME programme
 - *Post graduate degree in Electrical and Electronics Engineering related discipline with 60% aggregate marks or minimum 6 CGPA.

What do you study ?

Core Courses

- IC Fabrication Technology
- VLSI Design
- Physics & Modelling of Microelectronic Devices
- Analog IC Design
- CAD for IC Design

Elective Courses

- Introduction to MEMS
- Reconfigurable Computing
- Advanced Architecture and Performance Evaluation
- Fault Tolerant
- System Design
- Digital Signal Processing
- RF Microelectronics
- Embedded System Design

- Advanced Satellite Communication
- Advanced VLSI Devices Nanoelectronics and Nanophotonics
- Advanced Digital Signal Processing
- Hardware Software Co-Design
- Optoelectronic Devices Circuits and Systems
- Testable Design and Fault Tolerant Computing
- Integrated Electronics Design
- Introduction to Artificial Neural Networks with Lab
- Advanced VLSI Design
- Advanced VLSI Architectures
- Advanced Analog and Mixed Signal Design
- VLSI Test and Testability
- VLSI Architectures

Course Laboratories

EEE Department has well equipped laboratories to cater to lab-based courses. Students are given facilities to do their lab related activities, projects, assignments and dissertation. Following are the course related Labs

- VLSI Design Lab
- CAD for IC Design Lab
- Analog IC Design Lab
- MEMS Lab
- Embedded System Design Lab
- FPGA Design Lab
- ANN Lab

Department also equipped with software tools such as Cadence, Mentor Graphics, Altera Quartus , PSPICE and MATLAB. Also Labs are equipped with FPGA and Microcontroller Kits.