

## Programme Background

The Master of Electronics and Systems Engineering (MESE) is the latest Master Degree programme offered by Universiti Tenaga Nasional (UNITEN). It has been approved by the Ministry of Higher Education on 16 March 2011 (reference number: KA11463). The MESE programme is offered to both full-time and part time students. It can be completed in 1 ½ (full time) to 3 years (part time). The programme structure consists of core courses, elective courses and a MESE project. The core courses provide students with a solid foundation in the functional area of electronics and systems engineering in preparing for more advanced studies at the elective level. At the elective level, students have the freedom to select courses in both electronics and communication systems engineering. For the MESE's project, students have the opportunity to apply what has been learned in the taught courses and conduct high level experiments in several ways such as surveys, simulations, creating models, programming, design and implementation of work models relevant to electronics systems engineering. The detail of the programme structure is shown in the following page, i.e., **Programme Structure**.

## Why should you join this MESE programme?

- Affordable tuition fees, RM16,000 for the whole programme or RM400 per Credit Hour.
- **25% discount** to the tuition fee for UNITEN's returning student.
- For self-sponsored students (non-UNITEN graduate), up to **20% discount** to the tuition fee (with Dean's Approval).
- The MESE comprises of subjects that have high industrial relevance. The main focus on IC design with the inclusion of embedded systems makes it suitable for Malaysian industries which pay a lot of emphasis on high tech services instead of manufacturing.
- Research Centres in UNITEN are equipped with the latest applications softwares for electronics devices modeling, structure simulators for high frequency applications and advanced circuit simulators.
- UNITEN is at the center of the Multimedia Supercorridor and has very good linkages with some of the government IPTs.
- Close proximity between UNITEN with other TNB's subsidiaries such as TNB (Research), ILSAS (Training Center) and TNB (ICT) – access to these centres may be possible for data collection if required in the Master's project.
- UNITEN is equipped with a comprehensive library that has the latest volumes of books and on-line journals such as IEEE explore.
- Staffs are well-qualified and most staffs are actively involved in research, consultancy works and joint projects with private companies and multinational companies such as Intel, Motorola, Agilent and Freescale.

## Who can apply?

- Bachelor Degree holders from a recognized university in relevant engineering programmes.
- Minimum CGPA is 2.5 or 2<sup>nd</sup> class lower (hons.), and fulfilled one of the following requirement for English Language:
  - SPM's English: Credit
  - MUET: Band 2 or 3
  - TOEFL: 550
  - IELTS: 6.0
- Eligible for **Malaysian only** for this 1<sup>st</sup> intake.

## Programme Structure

**Master of Electronics and Systems Engineering (40 Credit Hours)**  
This program consists of 4 core courses, 7 elective courses and 1 project.

| Core Courses<br>(12 Credit Hours)  | Elective Courses<br>(21 Credit Hours)  | Project and Continuous<br>Presentations<br>(7 Credit Hours) |
|--|--|---|
| <ul style="list-style-type: none"><li>Advanced Digital Signal Processing</li><li>Advanced Semiconductor Devices</li><li>Quality and Reliability Engineering</li><li>Research Methodology</li></ul> | <p><b>Choose 4 to 6 course from Group A.<br/>Choose 1 to 3 course from Group B.<br/>Total courses chosen from both groups must be 7 (21 Credit Hours).</b></p> <p><b>Group A (Electronics Systems Engineering)</b></p> <ul style="list-style-type: none"><li>Advanced System Level Design</li><li>Advanced Wafer Processing</li><li>Analog IC Design</li><li>Reconfigurable Computing</li><li>Object Oriented Programming for Engineers</li><li>Computer-Controlled Systems</li></ul> <p><b>Group B (Communication Systems Engineering)</b></p> <ul style="list-style-type: none"><li>Radio-Frequency Electronics and Circuit Design</li><li>Advanced Applied Telecommunication Systems</li><li>Laser Technology and Applications</li><li>Antenna Technology for Wireless Communications</li><li>Special Topics on Communications Network</li><li>Network Performance Analysis</li><li>Satellite and Wave Propagations</li></ul> |   |

### How to Apply?

Step 1: Application forms can be downloaded from

[http://www.uniten.edu.my/newhome/content\\_list.asp?ContentID=2400](http://www.uniten.edu.my/newhome/content_list.asp?ContentID=2400)

Step 2: Send the completed application form together with all necessary documents with non-refundable application fees to: College of Graduate Studies, Universiti Tenaga Nasional, Jalan IKRAM-UNITEN, 43009 Kajang, Selangor, Malaysia.

### For further information, please contact:

The programme head in Electronics and Communication (EC) Engineering department:

- Prof. Dr. Ibrahim Ahmad ([aibrahim@uniten.edu.my](mailto:aibrahim@uniten.edu.my)), 03-89287284

The Head of Department for EC department:

- Dr. Fazrena Azlee Hamid ([fazrena@uniten.edu.my](mailto:fazrena@uniten.edu.my)), 03-89212216

The Deputy Dean Postgraduate of College of Engineering (COE):

- Assoc. Prof. Ir. Dr. Norashidah Md Din ([norashidah@uniten.edu.my](mailto:norashidah@uniten.edu.my)), 03-89287293

Program Coordinator of College of Graduate Studies (COGS):

- Dr. Yap Keem Siah ([yapkeem@uniten.edu.my](mailto:yapkeem@uniten.edu.my)), 03-89287309