UCD SCHOOL OF ELECTRONIC, ELECTRICAL AND MECHANICAL ENGINEERING

MASTER OF ENGINEERING (Electronic and Computer) DEGREE PROGRAMME MTEMP006, T163

Duration: 2 Years

Schedule: Full Time

Commencing: 13 September 2010

Programme Co-ordinator & Contact Details: Prof. Anthony Fagan
School of Electrical, Electronic and Mechanical Engineering
UCD Engineering and Materials Science Centre
University College Dublin
Belfield
Dublin 4
Ireland

Application Details: Applications for this programme are through Online Applications
www.ucd.ie/apply

Entry Requirements: Candidates holding a Bachelors Degree in Engineering (with a minimum of 2H2 honours level) or an equivalent engineering qualification will be considered.

Closing Date: Applications still being taken.

Fees (2010-11): €6,000.00 (EU) per annum, €10,000.00 (Non-EU) per annum
http://www.ucd.ie/registry/adminservices/fees/2010/index.html

---

OVERVIEW

The Master of Engineering (ME) in Electronics and Computer Engineering Programme prepares graduates to work in the electronic design and computer hardware/software industries. Modern communications and information systems consist of a mix of analog and digital hardware with software being an essential ingredient. The programme allows students to take advanced modules across a range of hardware and software topics. Module choices allow the student to tailor the programme to personal interests. There is an array of optional subjects that permit the student to put the emphasis more on the hardware or on the software side as they wish. On the electronics side there is a particular emphasis on communications engineering and signal processing while on the computer side the focus is on software engineering and hardware/software integration. In general the hardware topics are taught by engineers while the software topics are taught by computer scientists.

The programme is designed for students seeking to obtain a professionally recognised qualification in Energy Systems Engineering and is structured to provide an engineering qualification fully compliant with the latest Masters level accreditation requirements of Engineers Ireland (http://www.iei.ie/services/programme-accreditaton/). Graduates from this programme will be capable of working anywhere in the world at an advanced technical level or as a professional engineering manager.

COURSE CONTENT

The ME in Electronic and Computer Engineering Programme involves lectures, tutorials, assignments, laboratory work as well as a period of work placement. A critical component of the programme is a significant research project carried out during the second year. A wide range of core and optional modules are included in this programme.

MODULES

UCD Code	Module Title	Core Credits	Option Credits	Sem-ester
EEEN40140	Research Project and Thesis	20		1/2
EEEN40390	Professional Work Experience (Full Semester)	30		2
EEEN40380	Professional Work Experience (Part Semester)	10		2
EEEN40020	Digital System design	5		1
EEEN40010	Control Theory	5		1
COMP30040	Networks and Internet systems		5	1
COMP30010	Foundations of computing		5	1
EEME30040	Professional Engineering (Finance)		5	1
EEEN30030	Electromagnetic Waves		5	1
EEEN40050	Wireless Systems		5	1
EEEN40030	Photonic Engineering		5	1
EEEN40040	Analogue and RF Electronics		5	1
COMP40010	Performance of Computer Systems		5	1
COMP40660	Advanced Wireless Networking		5	1
EEME4020	Research Skills and Techniques	5		1
EEEN40140	Professional Engineering (Management)	5		2
COMP30330	Compiler Construction		5	2
COMP30050	Software Engineering Project III		5	2
EEEN30050	Signal Processing		5	2
EEEN40130	Advanced Signal processing		5	2
EEEN30060	Communication Theory I		5	2
EEEN40060	Communication Theory II		5	2
EEEN20040	Electronic Circuits		5	2
STAT20100	Inferential Statistics		5	2
COMP30160	Object oriented design		5	2

COMP30080	Processor design		5	2
COMP30090	Operating Systems I		5	2
EEEN30100	Solid State Electronics II		5	2
EEEN30120	Analog Electronics		5	2
EEEN40070	Neural Engineering		5	2

Please note that final selection of modules is subject to consultation with and prior approval by the Programme Co-ordinator.

TEACHING AND ASSESSMENT
Teaching
Teaching will be by means of lectures, supervised laboratories, tutorials, assignments and self directed learning. An individual Research Project (20 credits) will be assigned to each student, supervised by a member of academic staff and undertaken during the second year of the programme.

Assessment
Assessment will be by means of continuous assessment of assignments, laboratory and project work. There will be substantial written examination of course material. The Research Project module will require submission of a substantial final report / thesis. Assessment of this module will also involve participation in seminar / poster presentations and oral examination.

Timetable / Hours
The programme is modular and semesterised with full-time hours and runs over two years. In each year there are two teaching semesters, i.e. Semester 1 (Autumn) and Semester 2 (Spring). Details of the official University calendar for 2010/2011 are as follows:

Academic Year 2010/2011
Semester 1
Teaching term Monday, Monday, 13 Sep – Friday, 3 Dec 2010 [1]   12 weeks
Revision Saturday, 4 Dec – Friday, 10 Dec 2010   1 week
Exams Saturday, 11 Dec – Wednesday, 22 Dec 2010   10 working days

Semester 2
Teaching term Monday, 17 Jan – Friday, 4 Mar 2011   7 weeks
Fieldwork/Study period Monday, 7 March – Sunday, 20 Mar 2011 [2]   2 weeks
Teaching term Monday, 21 March – Friday, 22 Apr 2011 [3]   5 weeks
Revision, Tuesday, 26 April – Sunday, 1 May 2011   1 week
Exams Tuesday, 3 May [4] – Saturday, 14 May 2011   11 working days

Summer term/Research period
Term Monday, 16 May 2011 – Friday, 26 August 2011   15 weeks

[1] October Bank Holiday: Monday, 25 October 2010
[2] St Patrick's Day: Thursday, 17 March 2011
[3] Good Friday, 22 April 2011; Easter Sunday, 24 April 2011; Easter Monday, 25 April 2011
[4] May Bank Holiday: Monday, 2 May 2011

AWARD
Graduates are eligible for the award of Masters of Engineering (ME) in Electronic and Computer Engineering from University College Dublin.

FURTHER INFORMATION
For further information in relation to this programme, please contact the UCD Engineering and Architecture Programme Office Tel: (+353) 1 716 1868 or Email: eng.arch@ucd.ie