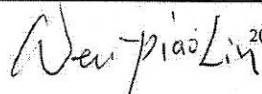


## Course List for international Master of Science (MS) Degree Program in Electrical Engineering Department, Chang Gung University

( For 2018 Calendar Year Admission), April 27th 2018

R: Required; E: Elective													
Fields	R/E	Course Title	Credits	Year of Class	1st Semester	2nd Semester	Fields	R/E	Course Title	Credits	Year of Class	1st Semester	2nd Semester
General Requirement	R	Seminar (Research Project) (1)(2)	2	1st	1	1	Biomedical Engineering and Circuit Systems	E	Biomedical Microsystem Engineering*	3	1st	3	
	R	Seminar (1)	1	1st	1			E	Optoelectronic experiments*	1	1st		1
	R	Seminar (2)	1	1st		1		E	Advanced Computer Architecture	3	1st		3
	R	Seminar (3)	1	2nd	1			E	Low-Power System Design*	3	1st		3
	R	Seminar (4)	1	2nd		1		E	Bio-photonics Techniques*	3	1st		3
	R	Master Thesis	6					E	Embedded System and Experiment*	3	1st		3
	E	Electronics Circuits Design*	3	1st	3			E	Pattern Recognition	3	1st		3
	E	English Technical Writing	2	1st		2		E	Biomedical Chip Design and Application	3	1st		3
	E	Advanced English Writing	4	2nd	2	2		E	Biomedical Signal Analysis	3	1st		3
	E	Practical Case Study*	3	1st		3		E	Medical Physics	3	1st		3
E	Algorithms*	3	1st		3	E	Design and Application of Mixed-Signal Integrated Circuits	3	1st		3		
Communications	E	Digital Communications*	3	1st	3		E	Nano Circuit Design	3	1st		3	
	E	Random Processes	3	1st	3		E	Design of Micro-Sensors and Sensing Circuit Systems*	3	1st		3	
	E	Digital Signal Processing*	3	1st	3		E	Medical Imaging	3	2nd	3		
	E	Optical Fiber Communications*	3	1st	3		E	VLSI Computer-Aided Design	3	2nd	3		
	E	Digital Image Processing*	3	1st	3		E	VLSI Digital Signal Processing Design	3	2nd	3		
	E	Error-Control Coding*	3	1st	3		E	Embedded System Programming	3	2nd	3		
	E	Number Theory	3	1st	3		E	Biomedical Imaging System	3	2nd	3		
	E	Communication Theory	3	1st		3	E	Biophotonic Engineering and Experiments	3	2nd	3		
	E	Optical Fiber Communications Laboratory*	1	1st		1	E	Biomedical Information Processing	3	2nd		3	
	E	Wireless Communication*	3	1st	3		E	Medical Instrumentation	3	2nd		3	
	E	Optoelectronics	3	1st	3		E	Power System Analysis*	3	1st	3		
	E	Detection and Estimation Theory	3	1st	3		E	Linear System Theory*	3	1st	3		
	E	Queueing Theory	3	1st	3		E	Fuzzy Control	3	1st	3		
	E	Advanced Digital Signal Processing	3	1st	3		E	Advanced Power Electronics	3	1st	3		
	E	Principle and Application of Computer Vision	3	1st	3		E	Power Electronics Laboratory*	3	1st	1		
	E	Advanced Error Control Coding and Applications	3	1st	3		E	Artificial Neural Network	3	1st		3	
	E	Wireless Network	3	2nd	3		E	Power System Stability and Control	3	1st		3	
	Biomedical Engineering and Circuit Systems	E	Cryptography	3	2nd	3		E	Electric Power Distribution Engineering*	3	1st		3
E		Network Security	3	2nd		3	E	Solid State Energy Conversion	3	1st		3	
E		Spread Spectrum Communications	3	2nd		3	E	Optimization Methods*	3	1st		3	
E		Adaptive Filter Theory	3	2nd		3	E	Digital Control*	3	1st		3	
E		Digital Signal Processing*	3	1st	3		E	Nonlinear Control	3	2nd	3		
E		Biomedical Electronics	3	1st	3		E	Renewable Energy Technologies	3	2nd	3		
E		VLSI System Design*	3	1st	3		E	Robust Control	3	2nd	3		
E		Software-Hardware Co-design	3	1st	3		E	Advanced Topics of Electric Machines and Drives	3	2nd	3		
E		Digital Silicon IP Design	3	1st	3		E	Power Quality	3	2nd	3		
E		Introduction to System-on-Chip Design	3	1st	3		E	Electrical Machine Control	3	2nd		3	
E	Digital Image Processing*	3	1st	3		E	Electromagnetic Transients Analysis	3	2nd		3		
E	Analog Integrated Circuits Design*	3	1st	3		E	Adaptive Control	3	2nd		3		
E	Introduction to Optoelectronics*	3	1st	3									
Comments	1. Graduation credits: 34 (including 6 credits of Master Thesis)												
	2. Credits of Required courses: 6 (excluding Master Thesis)												
	3. Credits of elective courses: 22 (at least 9 credits from your field of study)												
	4. ***, courses opened for MS students and Senior student in undergraduate program, the other courses are for students in MS and Ph.D. programs.												
	5. Others: A. Maximum of 9 credits from the field of Electrical Informatics (including Graduate Institute of CSIE, Electronic Engineering, and Electro-Optical Engineering) can be counted for graduation requirement credits.												
	B. The credits of elective courses in the General Requirement can be considered as the credits for either in- or out- of the field of study.												
	6. Seminar (3) and (4) are required before graduation. If you graduate within 2 years, those two courses can be waived but minimum of 34 credits are still required for the graduation.												
7. The professional courses (instructed in English) taken from other departments in the School of Engineering can be counted for required credits for graduation, but can not exceed 50% of the total required credits for graduation (excluding Master Thesis and Seminars). These taken courses have to be approved by your academic advisor and has to be approved by the Committee of graduate student affairs of the department to have these credits counted as the required credits for graduation. This policy is only applied for the international graduate students admitted from International Student Admission of CGU.													

Chair of Department :


 2018/04/27