

**DEPARTMENT OF ELECTRICAL ENGINEERING, NATIONAL TAIPEI
UNIVERSITY OF TECHNOLOGY**

Implementation Regulations for Postgraduate Qualification Examination

Approved by the Department Affairs Meeting on the 10 June 2008
 First amendment approved by the Academic Review Committee Meeting on 10 August 2009
 Second amendment approved by the Academic Review Committee Meeting on 29 June 2010
 Third amendment approved by the Academic Review Committee Meeting on 14 October 2010
 Fourth amendment approved by the Department Affairs Meeting on the 19 January 2011
 Fifth amendment approved by the Department Affairs Meeting on the 4 October 2011
 Sixth amendment approved by the Department Affairs Meeting on the 1 July 2015

- I. The present regulations are established based on Article VII of the “National Taipei University of Technology Policies for Ph.D. Candidate Qualifying Examination.”
- II. Each postgraduate student must select one advanced subject (graduate) from his/her corresponding major and one basic subject (undergraduate) from a discipline other than his/her major (refer to Table 1).

Table 1. Subject list for qualification examination

	Electricity and Energy Discipline	Power Electronics Discipline	Control Systems Discipline	Communications Discipline	Computer System Discipline
Basic Subjects	1. Power Electronics	1. Electrical Power Systems	1. Electrical Power Systems	1. Electrical Power Systems	1. Electrical Power Systems
	2. Control Systems	2. Control Systems	2. Power Electronics	2. Power Electronics	2. Power Electronics
	3. Communication Systems	3. Communication Systems	3. Communication Systems	3. Control Systems	3. Control Systems
	4. Introduction to Computer	4. Introduction to Computer	4. Introduction to Computer	4. Introduction to Computer	4. Communication Systems
	5. Probability	5. Probability	5. Probability	5. Probability	5. Probability
	6. Linear Algebra	6. Linear Algebra	6. Linear Algebra	6. Linear Algebra	6. Linear Algebra
	(One of six)	(One of six)	(One of six)	(One of six)	(One of six)

Advanced Subject (Graduate)	1. Power System Operation and Control 2. Power System Quality 3. Power System Protection and Coordination 4. Power System Fault Analysis 5. AC Motor Control (One of five)	1. Special Project on Inverter 2. Theory and Control of Permanent-Magnet Synchronous Motor 3. Power Electronic Devices 4. Analysis and Design of Power Electronics Circuit 5. Design of Switching Mode Power Supply (One of five)	1. Fuzzy Control 2. Modern Control Theory 3. Optimal Control (One of three)	1. Stochastic Processes 2. Digital Communication Theory 3. Advance Digital Signal Processing (One of three)	1. Database 2. Design Algorithm of Integrated Circuits 3. Advanced Analog Integrated Circuit Designs 4. Internet Engineering 5. Pattern Recognition (One of five)
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- III. Postgraduate students must pass their qualification examinations of two subjects within three years. Failed exams may be re-taken for a maximum of two times. Students may choose to change one subject they have failed with another subject in their major. Students may re-take the qualification examination of the changed subject once if he/she failed the initial qualification examination. Students who fail to pass the required qualification examinations within the specified period may request to use SCI journal papers to exempt them from the qualification examinations. The submitted papers must comply with the Department's scoring regulation of three points or greater. One paper may exempt one subject. The student must be the first author of the submitted paper, excluding his/her advisor/co-advisor. Papers may only be submitted once. Submitted papers do not count towards graduation points.
- IV. Students who completed an advanced subject in the Department during their graduate or postgraduate program and attained a grade among the top 20% of their class may be exempted from taking the qualification examination for the subject. However, the class must comprise a minimum of 10 students, and the candidate must have participated in midterm and final exams for the subject.
- V. Students may be exempted from a maximum of one subject from the exemption criteria presented in Article III and Article IV.
- VI. Postgraduate students' requests for the exemption of qualification examinations must be approved by their advisor. Requests must be submitted to relevant Department personnel.
- VII. The present regulations are applicable to postgraduate students of 2015 and onwards. They are not applicable to postgraduate students of 2014 and prior.
- VIII. The present regulations shall be implemented following the approval of Department Affairs. The same procedure shall be carried out when amendments are made.