## Rules of the qualification review in the Institute of Electronics Engineering, National Tsing Hua University

Approved on September 22, 2000 Revised on October 4, 2001 Revised on September 4, 2002 Revised on October 11, 2002 Revised on November 12, 2003 Revised on November 27, 2003 Revised on December 30, 2003 Revised on September 15, 2004 Revised on March 1, 2006 Revised on September 13, 2010 Revised on February 24, 2012 Revised on April 26, 2013 Revised on November 5, 2013 Revised on April 2, 2014 Revised on June 11, 2014 Revised on November 9, 2015 Revised on December 7, 2015 Revised on February 27, 2018 Revised on May 1, 2019

- A. The rules are set according to the regulations of qualification examination in the "Procedures for Ph.D. Degree Examinations" of National Tsing Hua University.
- B. The qualification is processed by reviewing the score of the courses taken by the Ph.D. students. The Ph.D. students are required to take one course from each of the three different subject areas listed in Item C.1 and regarded as qualified if the three courses meet the requirement of C.2.
- C. Ph.D. students are required to apply for a waiver of qualification examinations based on the courses offered by National Tsing Hua University. The details about applying for a waiver are:
  - C. 1 Subject areas and courses that can be waived:
    - a) Power Electronics: EE5850 Switching Mode Power Converters
    - b) Solid State Physics: ENE5110 Solid State Physics or ENE5125(former ENE 6130) Semiconductor Physics
    - c) Semiconductor Device: ENE5330 Semiconductor Devices for Integrated Circuits or ENE5341 Physics of Nanoscale CMOS Devices
    - d) Photonics: IPT5140 Photonics(I) or IPT5141 Photonics(II)
    - e) Electromagnetics: PHYS5310 Electrodynamics(I) or PHYS5320 Electrodynamics(II)
    - f) VLSI Design: EE5250 VLSI Design or ENE5210/EE5230 Analog Circuit Design or ENE5220 Digital Integrated Circuits
    - g) Microelectronic Engineering: ENE5310 Silicon Processing Technology

for Microelectronics

- h) Other relevant courses applied for the waiver are required to be evaluated by the ENE faculty committee meeting.
- C.2 The Ph.D. student must have a score higher than level B and is ranked within the top 40% of the class with at least 4 students.
- C.3 The qualification will be reviewed in the first month of each new semester. Courses taken in the 6<sup>th</sup> semester for qualification reviewing should be submitted no later than 2 weeks of the grade announcement.
- D. The regulations are activated by the Institutional Affair Meeting, so are the revisions of regulations.