EE6602 QUALITY AND RELIABILITY ENGINEERING

Acad Unit: 3
Prerequisite: Nil
Effective: Acad Year 2014/15
Last update: October 4, 2013

OBJECTIVE

This course aims to provide a basic coverage of theory and practices on methods of achieving high quality and reliability in products and processes that are necessary for technology and engineering management with examples from the electronic industry.

DESIRED OUTCOME

Students are expected to acquire working knowledge and essential techniques on the statistics for quality and reliability, statistical process control, and design of experiments.

OTHER RELEVANT INFORMATION

A basic course at undergraduate level in engineering statistics or equivalent is required.

CONTENT

Reliability Planning & Statistical Framework. Accelerated Testing. Statistical Process Control. Design of Experiments.

ASSESSMENT SCHEME

Continuous Assessment: 20%
Final Examination: 80%

REFERENCES

1. D.C. Montgomery, "Design and Analysis of Experiments", John Wiley, 8th Edition, 2009
2. D.C. Montgomery, "Introduction to Statistical Quality Control", John Wiley, 6th Edition, 2011
3. Paul A. Tobias, David Trindade, "Applied Reliability", Van Nostrand Reinhold, 2nd Edition, 1995.