CURRICULUM STRUCTURE (2010/2011)

Year 1
HW001 - English Proficiency
FE0001 - Foundation Physics
EE2004 - Digital Electronics
EE2006 - Engineering Mathematics I
EE2008 - Data Structures & Algorithms
HW210 - Technical Communication
EE2090 - Basic Engineering Mathematics

Year 2
EE2001 - Circuit Analysis
EE2002 - Analog Electronics
EE2003 - Semiconductor Fundamentals
EE2005 - AC Circuits & Machines
EE2010 - Signals & Systems
EE2071 - Laboratory 2A
EE2072 - Laboratory 2B
EE2091 - Engineering Physic

Year 3
EE2007 - Engineering Mathematics II
EE3001 - Engineering Electromagnetics
EE3002 - Microprocessors
EE3003 - Integrated Electronics
EE3071 - Laboratory 3
EE3072 - Project

Choose 2
EE3011 - Modelling and Control
EE3012 - Communication Principles
EE3013 - Semiconductor Devices & Processing
EE3014 - Digital Signal Processing
EE3015 - Power Systems & Conversion
EE3017 - Computer Communications

Year 4
EE4001 - Software Engineering *
EE4079 - Final Year Project

Design Elective 1
Technical Elective 1
Technical Elective 2

EE4040 - Engineers & Society
HW310 - Professional Communication

* Compulsory core course for Option C
Technical Elective course for Option A & B
Year 5
EE4079 - Final Year Project

Design Elective 2
Technical Elective 3
Technical Elective 4/5

EE4041 - Human Resource Management

OPTION GROUP A - ELECTRICAL AND SYSTEMS ENGINEERING

Design Elective Courses (Select any 2)

EE4503 - Power Engineering Design
EE4504 - Design of Clean Energy Systems
EE4207 - Control Engineering Design
EE4208 - Intelligent System Design

Technical Elective Courses (Select at least 4)

EE4001 - Software Engineering
EE4532 - Power Electronics & Drives
EE4533 - Power Apparatus and Protection System
EE4534 - Modern Distribution Systems with Renewable Resources
EE4265 - Process Control Systems
EE4266 - Computer Vision
EE4268 - Robotics & Automation

OPTION GROUP B - ELECTRONIC ENGINEERING

Design Elective Courses (Select any 2)

EE4303 - Mixed-Signal IC Design
EE4305 - Digital Design with HDL
EE4613 - CMOS Process & Device Simulation By Technology CAD

Technical Elective Courses (Select at least 4)

EE4001 - Software Engineering
EE4340 - VLSI System
EE4341 - Advanced Analog Circuits
EE4344 - Analysis and Design of Integrated Circuits
EE4645 - Microfabrication Engineering
EE4646 - VLSI Technology
EE4647 - Microelectronic Devices

OPTION GROUP C - INFOCOMMUNICATION ENGINEERING

Design Elective Courses (Select any 2)

EE4105 - Cellular Communication System Design
EE4110 - Optical Communication System Design
EE4706 - Object Oriented Software Engineering Design
EE4717 - Web Application Programming
EE4718 - Enterprise Network Design
Technical Elective Courses (Select at least 3)

EE4152 - Digital Communications
EE4153 - Telecommunication Systems
EE4188 - Wireless Communications
EE4758 - Computer Security
EE4761 - Computer Networking
EE4791 - Database Systems

Note:
Students in Option A and B are required to take 2 DESIGN elective courses and 5 TECHNICAL elective courses.
Students in Option C are required to take 2 DESIGN elective courses and 4 TECHNICAL elective courses but are to take one more core course of EE4001 Software Engineering than option A and B.

Students must choose all except 1(one) technical elective from their chosen option group. The 1(one) technical elective course may be chosen from the technical elective courses offered under any option group (including the student’s chosen option group).