University of Pune

Faculty of Technology

Board of Studies in Electronics and Electrical Technology

Curriculum Structure

Sr. No	Course Title	Semester	Credits
1.	Core 1 – Embedded Systems and RTOS	I	5
2.	Core 2 – Advanced Digital Signal Processing	I	5
3.	Core 3 – Communication networks	I	5
4.	Core 4 – Power system modelling and Dynamics	II	5
5.	Core 5 – Analytical Instrumentation	II	5
6.	Elective I*	I	5
7.	Elective II*	II	5
8.	Elective III*	II	5
9.	Open Elective I**	I	5
10.	Open Elective II**	II	5
11.	Seminar 1 (Advanced Topic based on Sem I)	I	5
12.	Seminar 2 (Advanced Topic based on Sem II)	II	5
13.	Discrete Mathematics and Algorithms	III	5
14.	Advanced Topics in Electronics and Electrical Technology***	III	5
15.	Research Methodology	III	5
16.	Seminar III – Literature Review of Research Problem	III	5
17.	Research Progress Seminar I and Report	IV	20
18.	Research Progress Seminar II and Report	V	20
19.	Research Progress Seminar III and Report	VI	20
20.	Research Progress Seminar IV and Report	VII	20
21.	Thesis Submission	VIII	--

Note

Candidates are expected to perform minimum four (4) assignments for every core and elective course, and submit report as a bona fide document to supervisor/course instructor. The assignment may be in the form of modeling/ simulation/ programming/ experimental investigation/ fieldwork

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The candidates are expected to select three electives from the list provided in Table 1

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The candidates are expected to select two open electives from the list provided in Table 2

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The candidates are expected to select two open electives from the list provided in Table 3

TABLE 1

EEE1: Advanced Control systems
EEE2: Digital Signal Processing Architectures
EEE3: Reconfigurable Computing
EEE4: Image Processing
EEE5: Instrumentation communication protocols
EEE6: Power quality management
EEE7: CMOS IC Design
EEE8: Power System Protection
EEE9: Transducers and Designs
EEE10: Wave Theory and Microwave Circuits
EEE11: Multi-resolution Analysis
EEE12 : Audio and Video Coding Standards
EEE13: Mobile Communications
EEE14: Optical Communication and Networks
EEE15: VLSI in Signal Processing
EEE16: Statistical Signal Analysis & Stochastic Processes
EEE17: Optimal Control Systems
EEE18: High power Electronic Devices

TABLE 2

EEO1: Biomedical instrumentation and Bio-signal processing
EEO2: Nanotechnology
EEO3: Renewable Energy Sources and Opportunities
EEO4: Advanced Process Control
EEO5: Artificial Intelligence
EEO6:Power System Planning

TABLE 3

EEA1: Antenna & Radiating System
EEA2: Machine Vision & Pattern Analysis
EEA3: System on Chip
EEA4: Applied Linear Algebra