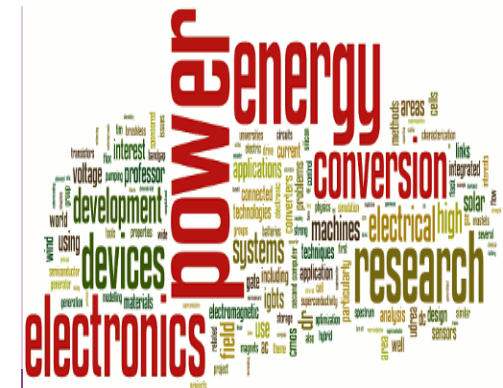
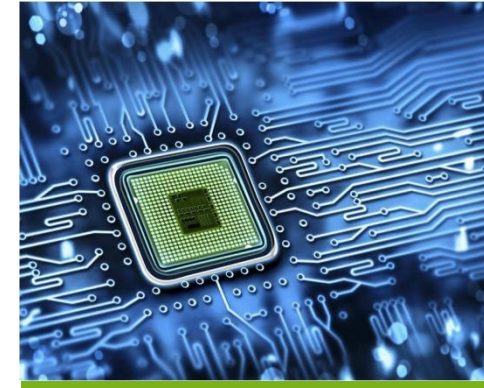




Dr. Vishwanath Karad
MIT WORLD PEACE
UNIVERSITY | PUNE
TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS

Bachelor of Technology (B. Tech.) Electrical Engineering

Course Structure Academic Year: 2018 - 19



How will this program be taught?



Duration

- Four Years, Full Time Residential Program

Pattern

- Trimester System
- Twelve Trimester

Credit System

- Choice based Credit Systems
- 166 Credits



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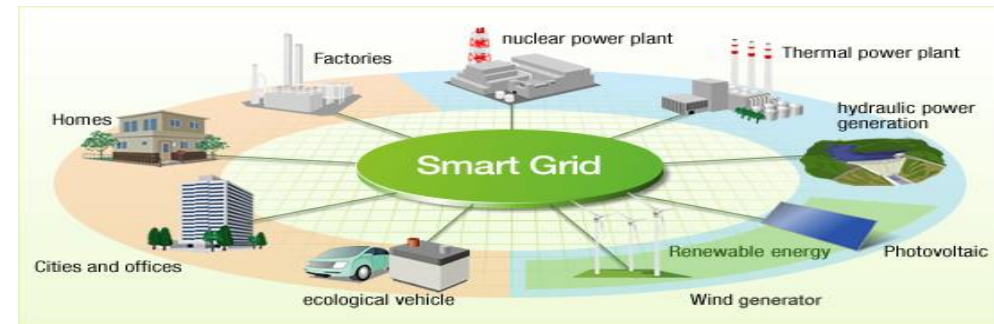
Tracks: B. Tech. (Electrical Engineering)



Energy Systems



Smart Grid Technology

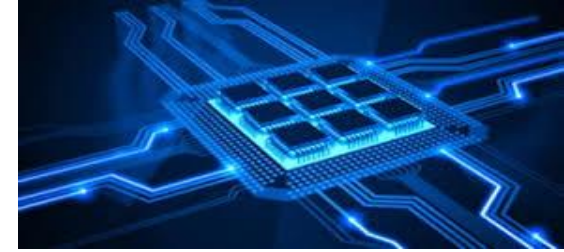


Embedded Controls and Systems



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Program Structure



First Year B. Tech.

Trimester - I	Trimester - II	Trimester - III
Mathematics -I	Mathematics II	Chemistry
Physics	Biology	Engineering Design Principles
Applied Mechanics	Material Science For Engineers	Engineering Science Elective Course I*
Workshop Practices	Engineering Graphics	Engineering Science Elective Course II*
Effective Communication	Computer Programming	Philosophers, Great Kings & Dynasties
Practicing Yoga and Meditation	Indian Culture and Heritage	Practicing Yoga and Meditation
	Rural Immersion Programme	
	Practicing Yoga and Meditation	
Credits: Theory: 10 Practical: 4 Total: 14	Credits: Theory: 12 Practical: 3 Total: 15	Credits: Theory: 10 Practical: 4 Total: 14



Program Structure



Engineering Science Elective Courses

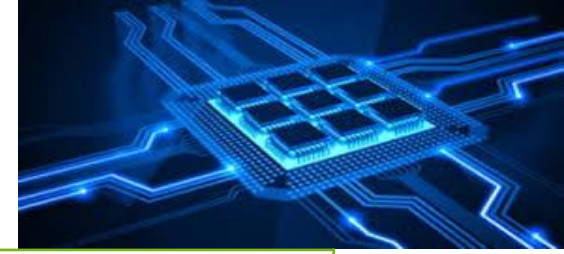
Any two courses other than parent/ home discipline can be chosen from the list given below:

Sr. No.	Title of Course
1	Introduction to Civil Engineering
2	Introduction to Mechanical Engineering
3	Introduction to Computer Science and Engineering
4	Introduction to Electrical Engineering
5	Introduction to Electronics Engineering
6	Introduction to Polymer Engineering
7	Introduction to Petroleum Engineering
8	Introduction to Chemical Engineering



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Program Structure



Second Year B. Tech. (Electrical Engineering)

Trimester - I	Trimester - II	Trimester - III
Mathematics - III	Signals and Systems	Computer Organisation and Microprocessors
Electronic Circuits	Digital Electronics	Power System Generation and Transmission
Electrical Circuits and Machines	Linear Integrated Circuits	Electromagnetics and Transmission Lines
Electrical and Electronics Measurements	Control Systems	Data Communication
Programming Techniques	Hardware/Software Tools for Electrical Engineering	Indian Constitution/ Environmental Science
Environmental Science/ Indian Constitution	Science and Spirituality	
	National Study Tour	
Credits: Theory: 10 Practical: 5 Total : 15	Credits: Theory: 11 Practical: 4 Total : 15	Credits: Theory: 9 Practical: 4 Total : 13



Program Structure

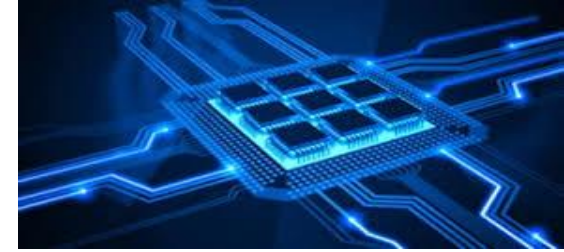


Third Year B. Tech. (Electrical Engineering)

Trimester - I	Trimester - II	Trimester - III
Digital Signal Processing	Microcontrollers	Advanced Electrical Machines
Power Electronics	Advanced Control Systems	Power System Operation and Control
Professional Elective - I	Professional Elective - II	Professional Elective - III
Open Elective - I	Open Elective - II	Open Elective - III
Human Values & Professional Ethics	Finance and Accounting	Seminar/ Mini Project
	Spirit and Mind	Gandhian Philosophy
		International Study Tour
Credits: Theory: 10 Practical: 4 Total: 14	Credits: Theory: 13 Practical: 4 Total: 17	Credits: Theory: 10 Practical: 5 Total: 15



Program Structure



Final Year B. Tech. (Electrical Engineering)

Trimester - I	Trimester - II	Trimester - III
Professional Elective - IV	Professional Elective - VI	Capstone Project with/without Internship: Stage II
Professional Elective - V	Open Elective - V	
Open Elective - IV	Open Elective - VI	
Mini Project/Interdisciplinary Project	Capstone Project: Stage I	
Strategic Planning & Leadership		
Credits: Theory: 8 Practical: 5 Total: 13	Credits: Theory: 6 Practical: 5 Total: 11	Credits: Practical: 10 Total: 10



Program Structure



Professional Elective Courses

Any one course can be chosen for each professional elective.

Professional Elective	Name of Course
PE - I	Switchgear and Protection, Communication Protocols
PE - II	High Power Converters, Electrical Machine Design
PE - III	Power Quality, Energy Management and Audit,
PE - IV	Robotics and Automation, HVDC and FACTS, High Voltage Engineering
PE - V	Artificial Neural Networks, Illumination Engineering, Electrical Transportation Systems
PE - VI	Internet of Things, Advances in Renewable Energy Systems



Program Structure



Open Elective Courses

Any one course can be chosen for each open elective. Currently, the below list has only the open electives offered by EE/ECE. Additional options for each open elective option would be provided by other schools.

Open Elective	Name of Course
OE - I	Automotive Electronics
OE - II	Smart Grid Systems
OE - III	Mechatronics
OE - IV	PLC and SCADA Systems
OE - V	Renewable Energy Systems
OE - VI	Optimization Techniques

