



# SATHYABAMA

INSTITUTE OF SCIENCE AND TECHNOLOGY

(DEEMED TO BE UNIVERSITY)

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## Minutes of Board of Studies Meeting held on 19-01-2019

- Dr.N.M.Nandhitha, Prof. & Dean School of Electrical and Electronics started the meeting by welcoming both the external and the internal numbers to the Board of Studies meeting
- 1. Dr.V.Sivachidambaranathan, Prof.& Head, Dept. of Electrical and Electronics Engineering put forth about the Breakup of credits (15) for Project and Professional Training before the board of members.
- 2. Professional Training 1, which is to be taken up at the end of 4th semester and before commencement of 5th semester would be allotted 2 credits. This credit would be reflected in 5th sem mark sheet.
- 3. The Professional Training 2 as per Regulations 2015 would be modified as Minor Project, should be carried out during 6th semester. This would carry a credit of 3, which would be reflected in 6th semester mark sheet.
- 4. The Project would be split into two: Phase 1 and Phase 2.
- 5. The credit for Phase 1 would be 3; the project work should be carried out during 7th semester, which would be reflected in 7th semester mark sheet.
- 6. The Phase 2 would be carried out in 8th semester, allotted a credit of 7, to be reflected in 8th semester marks sheet.
- 7. The students would have to take seminar on a turn basis every week. The seminar would be evaluated and added with CAE1 and CAE2 marks. No credits for Placement training

The board of members appreciated the breakup credits given for professional training and Project phase

- Dr.V.Sivachidambaranathan, Prof.& Head, Dept. of Electrical and Electronics Engineering requested Mr.Barnabas, Faculty/EEE to put revision of the course

Circuit Theory. The new syllabus presented before the board and discussed the valid additions made in the syllabus.

- Dr.V.Sivachidambaranathan, Prof.& Head, Dept. of Electrical and Electronics Engineering requested Dr.Rameshbabu, Faculty/EEE to put forth the syllabus of the new courses, 'Embedded Systems and IoT' for the approval of the board. Dr. A. Amalin Prince approved the Syllabus for this new course.

Unit	Content	Inclusion / Deletion	Reason
I	<b>D.C.Circuits</b> Electrical quantities, Ohm's Law, Resistors - Series and parallel combinations, Current Division rule, Voltage Division rule, Source transformation - Kirchoff's laws, Nodal and Mesh Analysis, Star Delta Transformation.	Included	To have through understanding of series and parallel circuits
II	<b>MAGNETIC CIRCUITS</b> Definition of MMF, Flux and Reluctance - Leakage Factor - Reluctances in Series and Parallel (Series and Parallel Magnetic Circuits) - Analogy of Electric and Magnetic Circuits. <b>Single Phase AC Circuits</b> Sinusoidal Functions - RMS(effective) and Average Values - Phasor Representation - J operator - Sinusoidal Excitation Applied to Purely Resistive - Inductive and Capacitive Circuits - RL - RC and RLC Series and Parallel Circuits- Power and Power Factor.	Deletion  Shifted from Unit III	Magnetic circuits are introduced in DC machines and transformers Course as the basics of machines
III	<b>Three Phase AC circuits</b> Analysis of three phase 3-wire and 4-wire circuits with star and delta connected loads, balanced & unbalanced - Phasor diagram of voltages and currents - power measurement in three phase circuits.	Included	Better understanding of three phase is needed for Electrical Engineers
IV	<b>TRANSIENTS</b> Time Domain Analysis - Transient response of RL, RC & RLC Networks with DC Input and Sinusoidal AC input- Series and Parallel resonance -	Shifted to Unit V	Detailed study of transients in both D.C and A.C is dealt

	Quality Factor and Bandwidth.		
V	<b>NETWORK TOPOLOGY</b> Network Topology - Basic concepts of Graph Theory, Network Graph, Tree, Incidence & Reduced Incidence Matrices, Cut sets, Tie sets, Cut Set Schedule, Tie set Schedule - Duality and Dual Networks. <b>RESONANCE AND COUPLED CIRCUITS</b> Series and Parallel resonance - Quality factor and Bandwidth - Self and mutual inductance – Coefficient of coupling – Tuned circuits – Single tuned circuits.	Deletion  Included	Network Topology concepts are moved to Circuit theory and Network Analysis Course  Study of Tuned circuits is introduced

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