

# DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

### **BOARD OF STUDIES MEETING**

**DATE** : 11.05.2019

**VENUE**: ECT Lab, Department of EEE

**TIME** : 10.00 am – 1.00pm

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#### AGENDA FOR THE MEETING

**Agenda 1:** Approval of BEE Scheme & Syllabus of I Year-2019-20 Batch

Agenda 2: Approval of Scheme & Syllabus of II Year-2018-19 Batch (III & IV semesters)

Approval of Scheme for 2018-19 Batch (V-VIII semesters)

**Agenda 3**: Approval of III year (2017-18 Batch) & IV Year (2016-17 Batch) revised scheme and syllabus

### LIST OF MEMBERS

Sl. No	Category	Nomination of the Committee	Name of the Person
1	Head of the Department	Chairperson	Dr. Ramkumar S
		Member	
		1	Dr.Ganesh C
	Faculty members at different	2	Dr.Sujitha S
2	level with different	3	Mr.Inbasakaran S
	specialization	4	Mr. Joshua Daniel Raj
		5	Mr.Satish Kumar D
		6	Ms.Karthika M
		Member	
3	Subject expert from outside the college nominated by Academic	1	Dr.Geetha R S BMS college of Engineering
	Council	2	Dr.Venkateshappa MS Engineering College
	Experts from outside the	Member	
4	college nominated by Vice Chancellor	1	Dr.Karthikeyan A NITK, Suratkal.
		Member	
5	Representative from Industry / Corporate sector / allied area related to placements,	1	Dr.Chandrasekhar B Technical Lead Automotive Business Division,TCS,Bangalore
	nominated by Academic Council	2	Dr.Karthikeyan K ABB India Ltd., LV Capacitors - R&D, Bangalore-560058
		Member	
6	Post Graduate meritorious alumni nominated by Principal	1	Mr.Vishwambhar Kulkarni Project Engineer Wipro Technologies Bangalore-560037
		1	Mr.Muniprakash T
7	Co-opted members	2	Ms.Kavitha C. Reddy
		3	Mr.Lithesh J
8	Training & Placement Officer	1	Mr.Binod Kumar Singh NHCE
9	R&D Coordinator	1	Dr S.Sujitha NHCE

### LIST OF MEMBERS PRESENT

Sl. No.	Name	Signature
1	Dr.Ramkumar S(Chairman)	\$
2	Dr.Karthikeyan, Assistant Professor, Dept. Of EEE,NITK, Suratkal (VTU nominee)	Alathilleyan
3	Dr.Geetha R S, Associate Professor, Dept. Of EEE,BMS college of Engineering (Subject Expert)	Ryudze
4	Dr.Venkateshappa, Professor, MS Engineering College(Subject Expert)	Ull
5	Dr.Karthikeyan K ABB India Ltd., LV Capacitors - R&D, Bangalore-560058 (Industry Representation)	K. Farmiley
_6	Dr.Ganesh C (Faculty member)	Lgant
7	Dr.Sujitha S (Faculty member & R&D Coordinator)	Bummm
8	Mr.Inbasakaran S (Faculty member)	8
9	Ms.Karthika M (Faculty member)	
10	Mr. Joshua Daniel Raj(Faculty member)	
11	Mr.Satish Kumar D (Faculty member)	D. Sitishla
12	Mr.VishwambharKulkarni (Meritorious Alumni)	Jan Jan
13	Mrs.Kavitha C. Reddy(Co-opted member)	Eh-kuite
14	Mr.Muniprakash T (Co-opted member)	TWS
15	Mr.Lithesh J (Co-opted member)	LILLY
16	Mr.Binod Kumar Singh NHCE (Training & Placement Officer)	BAIN

#### WELCOME ADDRESS BY THE CHAIRMAN OF BOS AND INTRODUCTION OF MEMBERS

#### Minutes

Dr.Ramkumar S, Chairman of BOS, welcomed the BoS members and introduced the significance of autonomy in the context of engineering education from industry perspective. The chairman briefed the gathering about the various regulations being followed in the department and emphasized the need for revision in curriculum and syllabi based on the inputs from various stake holders.

#### AGENDA -1 Approval of BEE Scheme & Syllabus of I Year-2019-20 Batch

#### *Minutes*

- Scheme & Syllabus of I year (Batch 2019-20) Basic Electrical Engineering has been reviewed.
- Suggestions from BoS members have been acknowledged and discussed in detail.
- The Scheme & Syllabus has been unanimously approved by all the members.

## AGENDA -2 Approval of Scheme & Syllabus of II Year-2018-19 Batch (III & IV semesters)

#### Approval of Scheme for 2018-19 Batch (V-VIII semesters)

#### **Minutes**

- Schemes and syllabi of II year/ III & IV semesters (2018-2019 Batch) and schemes for (V-VIII semesters) have been reviewed.
- Suggestions from BoS members have been acknowledged and discussed in detail
- The Scheme & Syllabus has been unanimously approved by all the members.

#### III semester

S.No	Course	Course Name
	Code	
1	19EEE33	Data structure and Algorithms
2	19EEE34	Electronic Devices And Circuits
3	19EEE35	Digital System Design
4	19EEE36	Electric Circuit Theory
5	19EEL37	Analog and Digital Electronics
		Laboratory
6	19EEL38	Electric Circuit
		Theory Laboratory
7	19EEL39	Mini Project I

#### **IV** semester

S.No	Course	Course Name
	Code	
1	19EEE43	Electromagnetic Theory
2	19EEE44	Microcontroller and Embedded Systems
3	19EEE45	DC Machines and Transformers
4	19EEL46	Microcontroller and Embedded Systems Laboratory
5	19EEL47	DC Machines and Transformers Laboratory
6	19EEL48	Mini Project II

#### V semester

S.No	Course	Course Name
	Code	
1	19EEE51	Transmission and Distribution
2	19EEE52	Control Systems
3	19EEE53	Synchronous and Induction Machines
4	19EEE54	Object Oriented Programming with C++
5	19EEE55	Linear Integrated Circuits
6	19EEE56X	Professional Elective-I
7	19EEL57	Control Systems Laboratory
8	19EEL58	Synchronous and Induction Machines Laboratory
9	19EEL59	Mini Project III

#### **Professional Elective-I**

S.No	Course	Course Name
	Code	
1	EEE561	MEMS & Applications
2	EEE562	Modern Communication Systems
3	EEE563	Advanced Micro Controller & Applications
4	EEE564	Industrial Automation

#### VI semester:

S.No	Course	Course Name
	Code	
1	19EEE61	Power System Analysis
2	19EEE62	Power Electronics
3	19EEE63	Power system Protection
4	19EEE64X	Professional Elective-II
5	19EEE65X	Professional Elective-III
6	19NHOPX	Open Elective -I
7	19EEL67	Power System Analysis Laboratory
8	19EEL68	Power Electronics Laboratory
9	19EEL69	Mini Project IV

#### **Professional Elective-II**

S.No	Course	Course Name
	Code	
1	EEE641	Signals and Systems
2	EEE642	Logic and Distributed Control Systems
3	EEE643	Robotics and Automation
4	EEE644	Virtual Instrumentation

#### **Professional Elective-III**

S.No	Course Code	Course Name
1	EEE651	Operation Research
2	EEE652	VLSI Design
3	EEE653	Advanced Industrial and Building Automation
4	EEE654	Advanced Control Systems

#### VII semester:

S.No	Course	Course Name
	Code	
1	19EEE71	Special Electrical Machines
2	19EEE72	Relay and High voltage Engineering
3	19EEE73	Electrical Drives and vehicles
4	19EEE74X	Professional Elective -IV
5	19EEE75X	Professional Elective –V
6	19NHOPX	Open Elective II
7	19EEL76	Relay and High voltage Engineering laboratory
8	19EEL77	Simulation tools for Electrical Engineering laboratory
9	19EEE78	Project Phase I

#### **Professional Elective-IV**

S.No	Course Code	Course Name
1	EEE741	Digital Signal Processing
2	EEE742	FACTS & HVDC transmission
3	EEE743	Testing & Commissioning
4	EEE744	Energy Auditing and Demand side Management

#### **Professional Elective-V**

S.No	Course	Course Name
	Code	
1	EEE751	Utilization of Electrical Energy
2	EEE752	Power System Operation and Control
3	EEE 753	Solar Electric Systems
4	EEE 754	Artificial Neural network and Fuzzy logic

#### VIII semester:

S.No	Course Code	Course Name
1	19EEE 81X	Professional Elective –VI
2	19EEE 82X	Professional Elective -VII
3	19EEE 83	Internship
4	19EEE 84	Project Phase II

#### **Professional Elective-VI**

S.No	Course	Course Name
	Code	
1	EEE811	Estimation & Costing of electrical systems
2	EEE812	Smart Grid
3	EEE813	Power Quality
4	EEE814	Integration of distributed generation

#### **Professional Elective-VII**

S.No	Course	Course Name
	Code	
1	EEE821	Solar Photo Voltaic Fundamentals, Technologies and Applications
2	EEE822	Simulation of Power Electronics
3	EEE823	Biomedical Instrumentation
4	EEE824	Applications of IOT in Electrical Engineering

#### **AGENDA -3**

## Approval of III year (2017-18 Batch) & IV Year (2016-17 Batch) revised scheme and syllabus

#### **Minutes**

- Syllabus of III year (2017-18 Batch) & IV Year (2016-17 Batch) scheme and syllabus has been reviewed.
- Suggestions from BoS members have been acknowledged and discussed in detail
- In III year V semester the course Electrical Machine Design and Drawing EEE54) has been removed and Linear Integrated Circuits (EEE54A) has been introduced based on the feedback from subject experts and industry requirements.
- The Syllabus has been unanimously approved by all the members.

#### RECOMMENDATIONS OF THE BOARD

The agenda for the meeting was already circulated among the committee members and the following discussions were made based on the agenda.

Members of BoS interacted very well and expressed the following observations and suggestions.

#### Subject 1: Usage of Virtual lab and Open source software

Dr.Karthikeyan A, Assistant Professor, Dept. of EEE,NITK, Suratkal (VTU Nominee)suggested that virtual laboratories setup as open sources by premier institutions may be explored by the faculty members to impart knowledge for students. He also mentioned that lot of open source software is available for learning circuit theory.

#### Subject 2: Including Signals and Systems as a core subject

Dr.Karthikeyan A, VTU Nominee emphasized that the course signal and systems has to be studied as a core course in second year. He highlighted the importance of this course from the point of understanding more courses and facilitating the students to take up competitive examination for pursuing higher studies and securing placement in core companies.

#### Subject 3: Including linear integrated circuits lab as a core subject

Dr.Venkateshappa, Professor, MS Engineering College pointed out that linear integrated circuits lab has to be included in the curriculum and stressed that the practical knowledge gained from this lab will be useful to conduct experiments in control systems lab. All the members have expressed that some experiments in linear integrated circuit can be included in control systems lab so as to facilitate understanding of applications of integrated circuits.

#### Subject 4: Removal of Simulation tools in electrical engineering from the curriculum

Dr.Geetha R S, Associate Professor, Dept. Of EEE, BMS college of Engineering, Subject Expert has recommended that the course Simulation tools in electrical engineering may be removed from the curriculum since the simulation tools are being used in other laboratories. This was seconded by our alumnus Mr.Vishwambhar Kulkarni. Other members have also stated that a separate course on simulation tools is not required.

Suggestion was made to include a course on IoT(Internet of Things) in Electrical Engineering replacing the course on simulation.

#### **Subject 5: No. of Mini Projects**

Members have felt that four mini projects may be reduced to three. Mr.Binod Kumar Singh, NHCE (Training & Placement Officer) recorded this observation and mentioned that he will represent this in appropriate forum for necessary approval.

#### **Subject 6: GATE coaching**

Members have expressed the need for spreading awareness on GATE among the students since it is essential to secure placement in Public Sector Units and pursue higher studies in the domain of interest. They have also suggested conducting GATE coaching for the interested students.

#### **Subject 7: Replacement of Simulation of Power Electronics**

Dr.Karthikeyan K, ABB India Ltd. and Mr.Vishwambhar Kulkarni (Meritorious Alumni) have pointed out that course Simulation of Power Electronics may be replaced with some other course.

#### Subject 8: Copy of answer booklets in SEE to failed students

Dr.Geetha and Dr.Karthikeyan, VTU Nominee have suggested that failed students in SEE may be supplied with copies of their answer books.

#### Subject 9: Merging Special Electrical Machines with Electrical Drives and Control

Members have mentioned that courses special electrical machines and electrical drives and control may be combined as a single course since special machines are dealt in both the courses. It was suggested to include a course on Renewable Energy Sources.

## <u>Subject 10: Sequencing the Professional Elective Courses and avoiding the</u> redundancy

Members have stated that professional elective courses have to be arranged in a sequence keeping in mind the prerequisites. They have also emphasized that redundancy in elective courses have to be avoided and appropriate content and course title are essential to avoid redundancy. Dr.Karthikeyan, Dept. Of EEE,NITK, Suratkal suggested to include a course on Biosignal processing a professional elective.

#### Subject 11: Course on Digital Signal Processing with laboratory component

Dr.Karthikeyan K, ABB India Ltd. has expressed that digital signal processing with laboratory component may be explored considering the need of the industry.

#### **VOTE OF THANKS BY THE CHAIRMAN-BOS**

The BoS-Chairman thanked the members for having participated in the meeting and suggested to enhance the contents of the curriculum and syllabi of various batches.





