

## SETHU INSTITUTE OF TECHNOLOGY (An Autonomous Institution) PULLOOR, KARIAPATTI – 626 115

## MINUTES OF SEVENTH BOARD OF STUDIES MEETING IN DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING HELD ON 30.08.2019

The Seventh Board of Studies (BoS) Meeting in Department of Electrical and Electronics Engineering was held on 30th August, 2019 in EEE Seminar Hall at Sethu Institute of Technology, Pulloor, Kariapatti.

The following members were present:

S.NO	FACULTY NAME	DESIGNATION	POSITION	SIGNATURE
	Dr.A.Srinivasan	Professor & Head	Chairman	Ann
1.	Dr.B.Meenakshi Sundaram	Professor	Member	B. mouten An
3.	Dr.J.Bastin Solai Nazaran	Professor	Member	Gin
4.	Mrs.G.Soundra Devi	Associate Professor	Member	N
5.	Mrs.J.Rahila	Associate Professor	Member	Sha
6.	Dr.S.Vijayarajan	Associate Professor	Member	v Ars.
7.	Dr.R.M.Sasi Raja	Associate Professor	Member	Razin
8.	Dr.A.Marikannan	Associate Professor	Member	t. em
9.	Dr.M.Abdul Kareem	Associate Professor	Member	05 duff
10.	Mr.J.Kumaresan	Assistant Professor (Sr.Grade)	Member	Bleman
11.	Mrs.J.Jeyashanthi	Assistant Professor (Sr.Grade)	Member	Here a
12.	Mr.V.Kannan	Assistant Professor (Sr.Grade)	Member	Why
13.	Mrs.V.Hema Maheshwari	Assistant Professor (Sr.Grade)	Member	Vhines.
14.	Mrs.P.Meenalochini	Assistant Professor (Sr.Grade)	Member	8ll.

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S.NO	FACULTY NAME	Assistant Professor	Member	Neve
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15.	Mrs.S.Rohini	(Sr.Grade)		opt
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10.	Mr.B.Karthikeyan	(Sr.Grade) Assistant Professor	Member	
	N A Delpondian		Ivience	MICE
17.	Mr.M.Palpandian	(Sr.Grade) Assistant Professor	Member	uman
	Mr.K.Mahesh Kumar		Ivicinioer	
18.	Mr.K.Manesh Ruma	(Sr.Grade) Assistant Professor	Member	Cl
	Dr.G.Narmadha		Weineer	and the
19.	Dr.G.Nannadha	(Sr.Grade)	Member	
	V V Mathung	Assistant Professor	Member	N. Noen
20.	Mr.V.Muthuvel	(Sr.Grade)	Manhon	Der
	Mr.S.Kannadasan	Assistant Professor	Member	Arread
21.		(Sr.Grade)		
		Assistant Professor	Member	V. South
22.	Mr.V.Dhayanithi	(Sr.Grade)		10.
	Mr.T.Murugan	Assistant Professor	Member	( Lubal
23.	Mr. I .Mulugan	(Sr.Grade)		Vac
		Assistant Professor	Member	5500
24.	Mr.S.Sugumar	(Sr.Grade)		
		Assistant Professor	Member	Mo bal
25.	Mr.M.Ramuvel	Assistant Trofessor		1 minut
26.	Mr.M.Muhammed Aladueen	Assistant Professor	Member	Manger
	Ashiq	Assistant Professor		- Charles
	-	Assistant Professor	Member	au
27.	Ms.C.Sonia	Assistant Protester		V
	Mr.T.Harish Babu	Assistant Professor	Member	- AL
28.	Mr. J. Harish Babu			
20	Ms.V.S.Chithra	Assistant Professor	Member	V.S. OF
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30.	Mr.S.Gopinath	Assistant Professor	Member	6 OX
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31.	Mr.K.Jeyakanth	Assistant Professor	Member	() 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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32.	Mr.S.Syed Abdul Haq	Assistant Professor	Member	Abom
		Assistant Professor	Member	O 1 but
33.	Mr.R.Mohammed Abdullah	Assistant Professor	Wember	Inshowed !!
	M. O.L.	Assistant Professor	Member	2
34.	Mr.C.Immanuvel	Assistant From Sol		
25	Mrs.R.S.Bharathi	Assistant Professor	Member	R.S.B.th
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36.	Mrs.K.Elavarasi	Assistant Professor	Member	Hamios
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37.	Mr.C.Shiva	Assistant Professor	Member	(Sh
57.				
38.	Mrs.V.Vaishnavi	Assistant Professor	Member	moh

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SL.NO	FACULTY NAME	DESIGNATION	POSITION	SIGNATURE
39.	DR.V.MALATHI	Professor & Dean Department of Electrical and Electronics Engineering, Anna University Regional Campus, Madurai – 625019 Tamil Nadu , India.	Member nominated by VC	120/2/19
40.	DR. RAJAN PRAKASH	Assistant Professor Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai, Tamilnadu	Member	R. hymne
41.	DR. G.Y. RAJAA VIKHRAM	Assistant Professor Department of Electronics and Instrumentation Engineering, Tech Park 14 <sup>th</sup> Floor, SRM Institute of Science and Technology, Potheri, Kattankulathur – 603203, Kancheepuram, Tamilnadu	Member 🤇	Here walk
42.	MR. A. EASWARAN (Expert from Industry Relating to Placement)	Proprietor Jothi Electrical Industries, No.2, RC Street, Pazhanganatham, Madurai – 625003.	Member	£801
43.	J. VIMALRAJ (Under Graduate Alumni)	R & D, Premier Evolvics Pvt. Ltd., SF No.79/6, Kulathur Road, Venkitapuram Post, Irugur, Coimbatore – 641062, Tamilnadu.	Member	Jung srik

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The Chairman welcomed all the members to the Seventh Board of Studies Meeting and presented the Curricula and Syllabi of First year courses which are being followed from the academic year 2019-2020 under Autonomous Regulations 2019 (R2019) for B.E. Electrical and Electronics Engineering. He also presented the proposed Curriculum structure of R2019. The Curricula and Syllabi of M.E. Power Electronics and Drives (Full time) has also been presented to the Board of Studies Members.

After the presentation, the following resolutions have been made by the Board of Studies Members.

### <u>B.E. Electrical and Electronics Engineering – 2019-20 under Autonomous Regulation</u> <u>R-2019</u>

### 1. Revised Department Vision, Mission, Program Educational Objectives (PEO), Program Outcomes (PO) and Program Specific Outcomes (PSO) of the UG Programme

- The Board of Studies Chairman presented the revised Vision, Mission, PEOs, POs and PSOs of the UG Programme.
- Dr.V.Malathi queried that the revised PSO of the UG Programme should match with the courses of R2019 Curriculum.
- Board of Studies Chairman clarified the query which has been raised byDr.V.Malathi by showing the evident courses of R2019 related to PSO.

Board of Studies resolved to approve and recommend the revised Vision, Mission, PEOs, POs and PSOs of the UG Programme to the Academic Council. The Vision, Mission, PEOs, POs and PSOs of the UG Programme are given in Annexure I.

### 2. Analysis of Stakeholders feedback regarding curriculum and syllabi

- The Board of Studies Chairman presented the stakeholders' feedback regarding curricula and syllabi of R2015. The reflections of the stakeholders' feedback in the R2019 Curriculum structure are given in Annexure II.
- Dr.G.Y.RajaaVikhraminsisted to get some more feedback from the eminent alumni who are working in core companies.

• Board of Studies Chairman accepted to get the feedback from eminent alumni who are working in core companies regarding curriculum and syllabi

Board of Studies resolved to approve the modifications based on the stakeholders' feedback in R2019 curriculum structure.

### 3. Multi/Inter disciplinary Theory courses

- The Board of StudiesChairmanpresented the Multi/Interdisciplinary theory courses which will be offered by the Department of Electrical and Electronics Engineering and is given in Annexure III.
- Mr.A.Easwaran suggested to offer project based Multi/Interdisciplinary courses for enhancing the project based learning through Product Development.
- Board of Studies Chairman clarified the suggestion given by Mr.A.Easwaran.

Board of Studies resolved to approve and recommend the presented Multi/Interdisciplinary theory courses in R2019 curriculum.

# 4. Classification of courses having focus on employability/ entrepreneurship/ skill development

- The Board of StudiesChairman presented the categorization of R2019 courses based on the employability/ entrepreneurship/ skill development as given in Annexure IV.
- Dr.G.Y.RajaaVikhram suggestedto identify some more courses under entrepreneurship/ skill development.
- Board of Studies Chairman accepted the suggestion given byDr.G.Y.RajaaVikhram.

Board of Studies resolved to approve the classification of R2019 courses which focus on employability/ entrepreneurship/ skill development

#### 5. List of New Courses under Regulation 2019

• Board of Studies Chairman presented the R2019 curriculum structure and also listed the new courses which have been proposed to include in new curriculum structure.

- Dr.V.Malathi suggested to shift the newly added Course "Smart Grid" from Seventh Semester to Professional Elective. She also suggested to include few IT related courses in Electives.
- Board of Studies members accepted the suggestions given by Dr.V.Malathi and the corresponding modifications are incorporated in R2019 model Curriculum.
- Dr.G.Y.RajaaVikhram suggested to include the course called "Advanced Control Theory" in the R2019 curriculum.
- Board of Studies chairman explained that the courses "Non-linear control systems" and "Digital Control Systems" which have been listed in the Professional Elective may be effective for the students instead of the course "Advanced Control Theory".

Board of Studies resolved to approve the following list of new courses that could be included in the R2019 Curriculum

	Newly Added Courses
SEMESTER	NAME OF THE COURSE
	1. Induction Programme
Ι	2. Problem solving and Python Programming
	3. Problem solving and Python Programming Lab
п	1. Introduction to Electrical and Electronics Engineering
<b>11</b>	2. Introduction to Electrical and Electronics Engineering Lab
Ш	1. Seminar
111	2. Biology for Engineers
TV/	1. Data Structures and Algorithm (Integrated Course)
IV	2. Gender Equality
<b>X</b> 7	1. Internet of Things for Electrical Automation
V	2. Creative Thinking and Innovation
	1. Product Development Project
X 7X	2. Interpersonal Skills Laboratory
VI	3. Indian Constitution and Essence of Indian Traditional
	Knowledge in Electrical Engineering
	1. Electric Vehicles
VII	2. Renewable Energy Laboratory
	3. Summer Internship

	1. Electrical Safety	
	2. Robotics and Automation	
	3. Solar and Wind Energy Systems	
	4. Application of Power Electronics to Power Systems	
	5. Modern optimization techniques for Electric Power	
	Systems	
	6. Non-Linear Control Systems	
	7. Digital Control Systems	
	8. Design with PIC Microcontrollers	
Professional	9. Machine Learning	
Elective	10.EHV AC and DC Transmission	
Courses	11. Fuzzy systems and Genetic Algorithms	
	12. Sensing Techniques and Sensor Systems	
	13. Intelligent Motor Controllers	
	14. Energy Efficient Motors	
	15. Advanced Microprocessor and Microcontroller	
	16. Consumer Electronics (Integrated Course)	
	17.PCB Design (Integrated Course)	
	18.PLC and SCADA Applications (Integrated Course)	
	19. Smart Grid	
	20. Analog and Mixed Mode VLSI Design	

## 6. Suggestions for improving the R2019 curriculum structure

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- Dr.V.Malathi suggested to include the topic "How to write Project Proposal" in the course "Project Management and Finance" which will be offered by the Department of Mechanical Engineering. She also suggested to rename the Course "Signal Processing" as "Digital Signal Processing for Electrical Engineers" which will be offered by the Department of Electronics and Communication Engineering.
- Board of Studies members accepted the above suggestions and the Chairman agreed to intimate the above suggestions to the respective Board of StudiesChairman.

- Dr.R.RajanPrakash suggested to reduce the number of domains which have been presented by the Board of Studies Chairman.
- Dr.R.RajanPrakash also suggested to offer a crash course at the end of each year in order to recollect the concepts studied in that year.
- Board of Studies Chairman has agreed to include the above suggestions given by Dr.R.RajanPrakash in near future.
- Mr.A.Easwaran suggested to offer more number of value added courses to enhance the practical knowledge.
- Board of Studies members have accepted the suggestion and the chairman acknowledged to offer Value added Course in every semester.

Board of Studies resolved to approve the above suggestions that could be incorporated in the R2019 curriculum of Electrical and Electronics Engineering.

## 7. Percentage if change in the Curriculum and for each course in Regulation 2019

- When discussing the First and Second semester courses, Dr.V.Malathi suggested to rearrange the topics of the Course "Basic Electrical and Electronics Engineering" which will be offered the Department of EEE to other departments as follows
  - UNIT I : DC and AC circuits
  - UNIT II : DC Machines and Transformers
  - UNIT III : AC Machines
  - UNIT IV : Special Machines
  - UNIT V : Introduction to Electronics
  - Board of Studies members accepted the suggestion given by Dr.V.Malathi and the Chairman acknowledged toincorporate the corresponding modifications in the course "Basic Electrical and Electronics Engineering".
  - Percentage change in Syllabus of First and Second Semester courses as follows

S.No.	Name of the Course	Percentage change in Syllabus
1	Basic Electrical and Electronics Engineering	47%
2	Basic Electrical and Electronics Engineering Laboratory	54%

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*Board of Studies resolved to approve and recommend the following Second Semester courses* to the Academic Council

Sl.No.	Department	Course Title	L	Т	Р	С
1	EEE	Introduction to Electrical and Electronics Engineering	3	0	0	3
2	EEE	Introduction to Electrical and Electronics Engineering Laboratory	0	0	3	1.5
3	Mech, Civil, Agri& Chemical	Basic Electrical and Electronics Engineering	3	0	0	3
4	Agri& Chemical	Basic Electrical and Electronics Engineering Laboratory	0	0	3	1.5

8. Approval for the list of examiners from other colleges who could be invited for conducting practical examination/Project Viva, Question Paper Setting, Paper evaluation, Exam invigilation duties.

- The Chairman presented the list of examiners from other colleges who could be invited for conducting practical examination/Project Viva, Question Paper Setting, Paper evaluation, Exam invigilation duties.
- Dr.V.Malathi suggested to consider the faculty competency and expertise for question paper setting.
- The Chairman explained the norms followed in the College for question paper setting in which faculty competency and expertise are also considered.

Board of Studies resolved to approve the list of examiners from other colleges invited for conducting practical examination/Project Viva, Question Paper Setting, Paper evaluation, Exam invigilation duties.

The Board of Studies of Department of Electrical & Electronics Engineering resolved to approve and recommend the Curriculum (R2019) of B.E. Electrical & Electronics Engineering which is being followed from the academic year 2019-2020 under autonomous regulations with the above modifications to the Academic council.

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The Board of Studies of Department of Electrical & Electronics Engineering resolved to approve and recommend the Syllabi of First year courses of B.E. Electrical & Electronics Engineering which is being followed from the academic year 2019-2020 under autonomous regulations with the above modifications to the Academic council.

### <u>M.E. Power Electronics and Drives (Full Time) – 2019-20 under Autonomous</u> Regulation R-2019

The members discussed thoroughly the new curriculum and Syllabi for M.E. Power Electronics and Drives (Full Time) which is being followed from the academic year 2019 - 2020 under autonomous regulation and offered useful suggestions.

1. Multi/Inter disciplinary Theory courses

- Dr. RajanPrakash suggested to include the IoT based course for improving the product development.
- Board of Studies Chairman confirmed that the IoT based course will be offered as open elective.
- 2. Percentage of change in the Curriculum and for each course in Regulation 2019 Board of Studies Chairman has listed the percentage of changes in the Core paper in second semester and elective syllabus of R2019 with reference to the syllabus of R2015.

	and the second se	S.No.	Course Code	Course Name	New Course / Old Course	Percentage change in Syllabus
		,	1000000001	Electric Drives System		
DC Drives and Control & AC		1 19PPE201	19PPE201 Electric Drives System	Drives and Con	trol of R2015	

Percentage change in Syllabus of courses as follows

### 3. List of New Courses under Regulation 2019

- Dr. V. Malathi suggested to rename the course "English for Research Paper Writing" as Research Paper Writing.
- Board of Studies Chairman replied that the Course name has been fixed as per the AICTE 2018 PG Model Curriculum.

	NEWLY ADDED COURSES
SEMESTER	NAME OF THE COURSE
Ι	1. Power Quality Laboratory
ĬĬ	<ol> <li>Digital Control of Power Electronic and Drive systems</li> </ol>
11	<ol> <li>Embedded Control of Power Electronics and Drives Laboratory</li> </ol>
	3. Mini project with seminar

Program Electives	<ol> <li>Advanced Power Electronic Circuits</li> <li>Optimal and Adaptive Control</li> <li>Dynamics of Electrical Machines</li> <li>Harmonics Filter Design</li> <li>Advanced Control Of Electric Drives</li> <li>Automotive Electronics</li> <li>Switched Mode and Resonant Converters</li> <li>Modern Industrial Drives</li> <li>Advanced Digital Signal Processing</li> <li>Advanced Microcontroller based Systems</li> <li>SCADA Systems and Applications</li> <li>FACTS and Custom Power Devices</li> </ol>
Open Elective	Bio Energy From Waste

Board of Studies resolved to approve the list of new coursesthat could be included in the R2019 Curriculum

## 3. Suggestions for improving the R2019 curriculum structure

- Mr. A. Easwaran suggested to include the consultancy activity in the Power Quality Laboratory course.
- Board of Studies Chairman accepted and acknowledged to include the consultancy activity in the Power Quality Laboratory course.

The Board of Studies of Department of Electrical and Electronics Engineering resolved to approve and recommend the Curriculum and Syllabi of M.E. Power Electronics and Drives (Full Time) which is being followed from the academic year 2019-20 under autonomous regulations with the above modifications to the Academic Council.

The Chairman thanked the members for their contribution and suggestions in framing the curriculum and syllabi for B.E. Electrical and Electronics Engineering and M.E. Power Electronics and Drives (Full Time) which is being followed from the academic year 2019-20 under Autonomous regulations.

Chairman

**Board of Studies** 

Electrical and Electronics Engineering Dr. A. SRINIVASAN M.E., Ph.D., PROFESSOR & HEAD DEPARTMENT OF ELECTRICALAND ELECTRONICS ENGINEERING SETHU INSTITUTE OF TECHNOLOGY PULLOOR, KARIYAPATTI - 626 115



### **SETHU INSTITUTE OF TECHNOLOGY**



## DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

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### MINUTES OF THE BOARD OF STUDIES MEETING – 30.08.2019 Annexure IV

### COURSE CATEGORIZATION - EMPLOYABILITY / ENTREPRENEURSHIP / SKILL DEVELOPMENT

S.No	Course Code	Course Name	Category
1	19UEE302	Electrical Circuit Analysis	Employability
2	19UEE303	Electrical Machines - I	Employability
3	19UEE304	Analog Electronics	Employability
4	19UEE305	Electromagnetic Fields	Employability
5	19UEE306	Electrical Measurements and Instrumentation	Employability
6	19UEE308	Electric circuits Laboratory	Employability
7	19UEE309	Electrical Machines Laboratory - I	Employability
8	19UEE310	Analog Electronics Laboratory	Employability
9	19UEE307	Seminar	Employability, Entrepreneurship & Skill development
10	19UEE401	Electrical Machines - II	Employability
11	19UEE402	Control Systems	Employability
12	19UEE403	Principles of Digital Electronics	Employability
13	19UEE404	Electric Power Transmission and Distribution	Employability
14	19UEE406	Electrical Machines Laboratory - II	Employability
15	19UEE407	Control and Instrumentation Laboratory	Employability
16	19UEE408	Digital Electronics Laboratory	Employability
17	19UEE501	Power Electronics	Employability
18	19UEE502	Internet of Things for Electrical Automation	Employability / Entrepreneurship / Skill Development
19	19UEE503	Microprocessors and Microcontroller Programming	Employability

S.No	Course Code	Course Name	Category
20	19UEE909	Energy Audit	Employability
21	19UEE912	Robotics and Automation	Employability & Skill Development
22	19UEE507	Creative Thinking and Innovation	Employability / Entrepreneurship / Skill Development
23	19UEE508	Power Electronics Laboratory	Employability & Skill Development
24	19UEE509	Microprocessors and Microcontroller Programming Laboratory	Employability & Skill Development
25	19UEE601	Electric Drives and Control	Employability
26	19UEE602	Power System Analysis	Employability
27	19UEE902	High Voltage Engineering	Employability
28	19UEE904	Special Electrical Machines	Employability
29	19UEE607	Product Development Project	Employability & Skill Development
30	19UEE608	Electric Drives and Control Laboratory	Employability

Chairman Board of Studies Electrical and Electronics Engineering