

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 |
|------|---------------------------|-----------------------------------|----------|--------------|
| 1. | Dr.A.Srinivasan | Professor & Head | Chairman | Den m. |
| 2. | Dr.B.Meenakshi Sundaram | Professor | Member | B. moderi Ar |
| 3. | Dr.J.Bastin Solai Nazaran | Professor | Member | 5 m |
| 4. | Mrs.G.Soundra Devi | Associate Professor | Member | ~ |
| 5. | Mrs.J.Rahila | Associate Professor | Member | JR2 |
| 6. | Dr.S.Vijayarajan | Associate Professor | Member | V9/5 |
| 7. | Dr.R.M.Sasi Raja | Associate Professor | Member | P23~ |
| 8. | Dr.A.Marikannan | Associate Professor | Member | 7ten |
| 9. | Dr.M.Abdul Kareem | Associate Professor | Member | Bouth |
| 10. | Mr.J.Kumaresan | Assistant Professor (Sr.Grade) | Member | Blemes |
| 11. | Mrs.J.Jeyashanthi | Assistant Professor (Sr.Grade) | Member | HILL WAR |
| 12. | Mr.V.Kannan | Assistant Professor (Sr.Grade) | Member | Mys |
| 13. | Mrs.V.Hema Maheshwari | Assistant Professor (Sr.Grade) | Member | There. |
| 14. | Mrs.P.Meenalochini | Assistant Professor (Sr.Grade) | Member | 8cl. |

| | | DESIGNATION | POSITION | SIGNATURE |
|------|---|----------------------|---|--------------|
| S.NO | FACULTY NAME | Assistant Professor | Member | Open . |
| | Mrs.S.Rohini | (Sr.Grade) | 1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | |
| 15. | Mrs.5.Rollin | Assistant Professor | Member | B |
| 16. | Mr.B.Karthikeyan | (Sr.Grade) | Member | 100 |
| | Wit.D.Real ettinop | Assistant Professor | Member | 40// |
| 17. | Mr.M.Palpandian | (Sr.Grade) | | Mili |
| 17. | | Assistant Professor | Member | nman |
| 18. | Mr.K.Mahesh Kumar | (Sr.Grade) | | 20 |
| | | Assistant Professor | Member | Offe |
| 19. | Dr.G.Narmadha | (Sr.Grade) | | 1 |
| | | Assistant Professor | Member | N. House |
| 20. | Mr.V.Muthuvel | (Sr.Grade) | | · Sur |
| | Mr.S.Kannadasan | Assistant Professor | Member | Acros |
| 21. | WII.S.Kamadae | (Sr.Grade) | | 0 11. |
| | 11.1 | Assistant Professor | Member | 1. Doubly |
| 22. | Mr.V.Dhayanithi | (Sr.Grade) | - 1 | 10 |
| | Mr.T.Murugan | Assistant Professor | Member | (Xulpe) |
| 23. | T. D. T. T. T. C. | (Sr.Grade) |) (| |
| | M. C. Cummer | Assistant Professor | Member | Show |
| 24. | Mr.S.Sugumar | (Sr.Grade) | Member | 1,100 |
| 25. | Mr.M.Ramuvel Assista | Assistant Professor | Wiemoci | Mooney. |
| 25. | | N | Member | 1. Maring |
| 26. | Mr.M.Muhammed Aladueen Assistant Profes | Assistant Professor | | Par O |
| | Ashiq | A day A Drofossor | Member | au |
| 27. | Ms.C.Sonia | Assistant Professor | TVIOMICOI | |
| | V T.H. isk Dohu | Assistant Professor | Member | 40 |
| 28. | Mr.T.Harish Babu | | - | - A A- |
| 29. | Ms.V.S.Chithra | Assistant Professor | Member | V.S. 0 |
| | | D C | Member | 002 |
| 30. | Mr.S.Gopinath | Assistant Professor | Member | 800 |
| | | Assistant Professor | Member | 1 Jan |
| 31. | Mr.K.Jeyakanth | Assistant i foresser | | 1 Com |
| 22 | Mr.S.Syed Abdul Haq | Assistant Professor | Member | JA Soluthin |
| 32. | 1411.5.590471544 | | | |
| 33. | Mr.R.Mohammed Abdullah | Assistant Professor | Member | 2 mehanety |
| | | A Comment | Member | |
| 34. | Mr.C.Immanuvel | Assistant Professor | INTELLIBET | - |
| 25 | Mrs.R.S.Bharathi | Assistant Professor | Member | R. S. B-460° |
| 35. | INDS.N.S.Dilatatiii | | | |
| 36. | Mrs.K.Elavarasi Assistant Professor | | Member | Hamos |
| 50. | | | | 71.1 |
| 37. | Mr.C.Shiva | Assistant Professor | Member | (800 |
| | | A D . C | Marshari | 1.0. |
| 38. | Mrs.V.Vaishnavi | Assistant Professor | Member | more |

| 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 | 30/2/19 |
| 40. | DR. RAJAN PRAKASH | Assistant Professor Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai, Tamilnadu | Member | R. Murne |
| 41. | DR. G.Y. RAJAA VIKHRAM | Assistant Professor Department of Electronics and Instrumentation Engineering, Tech Park 14 th Floor, SRM Institute of Science and Technology, Potheri, Kattankulathur – 603203, Kancheepuram, Tamilnadu | Member | Hispinalin. |
| 42. | MR. A. EASWARAN (Expert from Industry Relating to Placement) | Proprietor Jothi Electrical Industries, No.2, RC Street, Pazhanganatham, Madurai – 625003. | Member | 180 |
| 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 | marrie |

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.

B.E. Electrical and Electronics Engineering – 2019-20 under Autonomous Regulation R-2019

- 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 by Dr. 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 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 by Dr.G.Y.Rajaa Vikhram.

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 | | |
| I | 2. Problem solving and Python Programming | | |
| | 3. Problem solving and Python Programming Lab | | |
| T | 1. Introduction to Electrical and Electronics Engineering | | |
| <u>II</u> | 2. Introduction to Electrical and Electronics Engineering Lab | | |
| TIT | 1. Seminar | | |
| Ш | 2. Biology for Engineers | | |
| TYZ | 1. Data Structures and Algorithm (Integrated Course) | | |
| IV | 2. Gender Equality | | |
| ** | 1. Internet of Things for Electrical Automation | | |
| V | 2. Creative Thinking and Innovation | | |
| | 1. Product Development Project | | |
| *** | 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

- 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% |

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

| Sl.No. | Department | Course Title | | Т | P | C |
|--------|--------------------------------|---|---|---|---|-----|
| 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.

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.

M.E. Power Electronics and Drives (Full Time) – 2019-20 under Autonomous 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.
- 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.

Percentage change in Syllabus of courses as follows

| | | | New Course | Percentage | | |
|-------|-------------|-------------------------------|----------------|----------------------------|--|--|
| S.No. | Course Code | Course Name | / Old | change in | | |
| | | | Course | Syllabus | | |
| | 1 19PPE201 | | · | DC Drives and Control & AC | | |
| 1 | | PPE201 Electric Drives System | Drives and Con | trol of R2015 | | |

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 | | | |
| I | Power Quality Laboratory | | |
| II | Digital Control of Power Electronic and Drive systems | | |
| 11 | Embedded Control of Power Electronics and Drives Laboratory | | |
| | 3. Mini project with seminar | | |

| Program Electives | Advanced Power Electronic Circuits Optimal and Adaptive Control Dynamics of Electrical Machines Harmonics Filter Design Advanced Control Of Electric Drives Automotive Electronics Switched Mode and Resonant Converters Modern Industrial Drives Advanced Digital Signal Processing Advanced Microcontroller based Systems SCADA Systems and Applications FACTS and Custom Power Devices |
|----------------------|--|
| 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.

Board of Studies

Electrical and Electronics Engineering Dr. A. SRINIVASAN M.E., Ph.D.,

PROFESSOR & HEAD

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING SETHU INSTITUTE OF TECHNOLOGY

PULLOOR, KARIYAPATTI - 626 115



SETHU INSTITUTE OF TECHNOLOGY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



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 |

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Chairman
Board of Studies
Electrical and Electronics Engineering