



SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution | Accredited 'A' Grade by NAAC)

PULLOOR, KARIAPATTI – 626 115

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING BOARD OF STUDIES

MINUTES OF THE MEETING

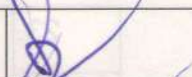
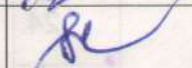
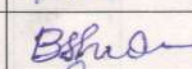
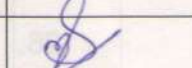
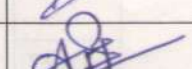
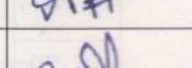
The seventh meeting of the Board of Studies of Department of Computer Science and Engineering was held on 13.09.2019 in the CSE Seminar Hall, Sethu Institute of Technology, Pulloor, Kariapatti at 10.00 A.M.

The following members were present,

S.No	Members	Name	Designation	Signature
1.	Chairman	Dr. C. Callins Christiyana	Professor & Head, Department of CSE, Sethu Institute of Technology, Pulloor.	
2.	University Nominee	Dr.D. Manjula	Professor, Department of CSE, CEG Campus, Anna University, Chennai	
3.	Academic Expert	Dr.P. Deepalakshmi	Dean, School of Computing, Kalasalingam University, Krishnankoil	
4.	Academic Expert	Dr. P. Subathra	Professor & Head, Department of Information Technology, Kamaraj College of Engineering and Technology, SPGC Nagar, Virudhunagar	

5.	Industry Nominee	Mr.C.Rajkumar	Director (Chief Architect), Cognizant Technology Solutions, Chennai, India	<i>C. Rajkumar</i>
6.	Alumni Nominee	Mr.V.Muneeswaran	Associate Professor, Department of Computer Science and Engineering, Sri Krishna College of Engineering & Technology, Coimbatore.	<i>V. Muneeswaran</i>
7.	Faculty Members	Dr.S.Subashini	Professor	<i>S. Subashini</i> 13/9/19
8.		Dr.M.Parvathy	Professor	<i>M. Parvathy</i> 13/9/19
9.		Dr.M.M.Gowthul Alam	Professor	<i>M. M. Gowthul Alam</i> 13/9/19
10.		Mr.P.Suresh	Associate Professor	<i>P. Suresh</i> 13/9/19
11.		Mr.N.AlangudiBalaji	Associate Professor	<i>N. Alangudi Balaji</i>
12.		Mr.K.Sathish Kumar	Associate Professor	<i>K. Sathish Kumar</i>
13.		Ms.D.Abithakumari	Associate Professor	<i>D. Abithakumari</i> 13/9/19
14.		Mr.R.Rajaguru	Associate Professor	<i>R. Rajaguru</i> 13/9/19
15.		Dr.M.Malathi	Associate Professor	<i>M. Malathi</i> 13/9/19
16.		Dr.T.Sampradeepraj	Associate Professor	<i>T. Sampradeepraj</i> 13/9/19
17.		Dr.C.Yesubai Rubavathi	Associate Professor	<i>C. Yesubai Rubavathi</i> 13/9/19
18.		Dr.P.Ithayarani	Associate Professor	<i>P. Ithayarani</i>
19.		Dr.P.Senthil Pandian	Associate Professor	<i>P. Senthil Pandian</i> 13/9/19
20.		Dr.R.Rubesh Selvakumar	Associate Professor	<i>R. Rubesh Selvakumar</i>
21.	Dr.A.R.Rajeswari	Associate Professor	<i>A. R. Rajeswari</i> 13/9/19	
22.	Dr.E.Sivajothi	Associate Professor	<i>E. Sivajothi</i> 13/9/19	

23.	Ms.M.Mathinakani	Asst. Professor (S.G)	M. Mathi
24.	Ms.B.Pandeeswari	Asst. Professor (S.G)	B. Pandeeswari
25.	Ms.G.Vairasuganthi	Asst. Professor (S.G)	G. Vairasuganthi
26.	Ms.M.Poomani@Punitha	Asst. Professor (S.G)	P. Poomani
27.	Ms.C.Jeyalakshmi	Asst. Professor (S.G)	J. C. Jeyalakshmi
28.	Ms.S.Meenakshi	Asst. Professor (S.G)	S. Meenakshi
29.	Ms.S.Selvi	Asst. Professor (S.G)	S. Selvi
30.	Mr.B.Guruprakash	Asst. Professor (S.G)	B. Guruprakash
31.	Ms.K.Nagalakshmi	Asst. Professor (S.G)	K. Nagalakshmi
32.	Mr.R.Umesh	Asst. Professor (S.G)	R. Umesh
33.	Ms.B.Lalitha	Asst. Professor (S.G)	B. Lalitha
34.	Mr.G.Karpaga Kannan	Asst. Professor (S.G)	G. Karpaga Kannan
35.	Mr.T.Siva	Asst. Professor	T. Siva
36.	Ms.S.Priyadharsini	Asst. Professor	S. Priyadharsini
37.	Mrs.S.Gospelina Christiana	Asst. Professor	S. Gospelina Christiana
38.	Ms.S.Sangeetha	Asst. Professor	S. Sangeetha
39.	Mr.K.Peer Mohamed	Asst. Professor	K. Peer Mohamed
40.	Mr.H.Mathew Joel Arulanandhan	Asst. Professor	H. Mathew Joel Arulanandhan
41.	Mr.K.A. Mohammed Faiz	Asst. Professor	K.A. Mohammed Faiz
42.	Mr.S.Sathish Kumar	Asst. Professor	S. Sathish Kumar
43.	Ms.K.Nithya	Asst. Professor	K. Nithya
44.	Ms.V.VijayaPriya	Asst. Professor	V. VijayaPriya

45.	Mr.I.Noor Mohamed	Asst. Professor	
46.	Mr.S.DuraiPandi	Asst. Professor	
47.	Mr.B.Sivananthan	Asst. Professor	
48.	Ms.M.Sanmugapriya	Asst. Professor	
49.	Ms.C.Abinaya Devi	Asst. Professor	
50.	Ms.S.Madhu Sangeetha	Asst. Professor	

The BoS meeting was started with the warm welcome from the Chairman of the Board.

The Chairman gave a brief presentation on autonomous status conferred to the Institution and NAAC accreditation with 'A' grade. She then highlighted the University ranks, programs organized, performance of students and faculty in NPTEL online courses, grants received and SITWARE, the student association of the Department of Computer Science and Engineering.

1.0 B.E Computer Science and Engineering

Agenda 1: Revision of Department Vision, Mission, PEOs, POs and PSOs

Vision and Mission statements of the Institution and the Department were presented to the members of the Board. The Chairman demonstrated the alignment of vision and mission statements of the Department to the Institutional vision and mission statements.

Dr.D.Manjula, suggested to modify the Mission statement 3 into **"Cultivating interpersonal traits, problem solving skills, critical and rationale thinking capabilities for the development of students leading to innovators, leaders and entrepreneurs"** since the term "comprehensive personality development" in the early statement was more general. The BoS resolved to accept the Vision and Mission statements of the Department with the changes proposed by Dr.D.Manjula.

The Programme Educational Objectives (PEO), Programme Outcome (PO) aligned with Graduate Attributes, and Programme Specific Outcome (PSO) were presented by the Chairman of the Board.

Dr.D.Manjula, suggested to implement slight modification to the PEO 3 on Lifelong Learning by changing the terms "by engaged" into "engaging" since the early term gave a meaning in past tense. The updated PEO 3 on Lifelong Learning is ,

PEO 3: Graduates will hone their professional expertise engaging in research and sustained learning activities.

The BoS resolved to accept modification in PEO 3. The modified statements are given in Annexure.I.

Agenda 2: Analysis of the stakeholders' feedback on curriculum and syllabi

The Chairman put forth draft curriculum for the regulation R-2019. She pointed out that the AICTE model curriculum, NASSCOM technology forecast, CII technology forecast, Programme Specific Criteria by ABET, SIT CSE R-2015 curriculum and stake holders feedback were utilized as the design references for drafting the R-2019 curriculum.

The feedback from the stakeholders, viz. employers, alumni, faculty from other Institutions, parent, internal faculty, and students and the corresponding resolutions made in the Programme Assessment Committee (PAC) meetings were presented by the Chairman of the Board. The same has been given in Annexure II. After a brief discussion on the feedback and PAC resolutions, the BoS resolved to accept the PAC resolutions.

- Either one of C++ and Java can be given as a programming course in object oriented programming principles.
- Mobile Applications Development can be conducted as Lab course.

Agenda 3: Approval of improvements made in the syllabi under R-2015

The Chairman sought for the improvements to be made in the syllabi under the regulation R-2015. The BoS resolved to revise the syllabus for the course **15UCS927 - Machine Learning Algorithms** since the current syllabus does not have sequence in the topics.

Agenda 4: Mapping of curriculum and syllabi with PSC

Mapping of the curriculum and syllabus of the proposed regulation R-2019 with the Programme Specific Criteria (PSC) was presented to the Board of members by the Chairman and the Board resolved to accept the mapping.

Agenda 5: Classification of courses

The classification of the courses under regulation R-2019 based on having focus to one or more of the categories of employability, entrepreneurship and skill development was presented to the Board by the Chairman. The BoS resolved to accept the classification. The Classification of courses is given in annexure III.

Agenda 6: Approval of value added courses

The Chairman requested the BoS members to suggest suitable courses that will impart transferable and life skills to the students.

Dr. Subathra P, Academic Expert, suggested Personal Finance Management and Mr. Rajkumar Chandrasekar, Industry Nominee, suggested Robot Process Automation as suitable value added courses imparting transferable and life skills. The BoS resolved to include them as value added courses with 30 contact hours. The BoS resolved to accept the courses Ethical Hacking and Server Installation and Configuration which were suggested by the students as the value added courses.

Agenda 7: Approval of list of examiners from other colleges

A list of faculty from other colleges to act as examiners for practical and project viva-voce, question paper setters, external evaluators of answer scripts, and invigilators for end semester examinations was submitted to the BoS by the Chairman. The BoS resolved to approve the list of examiners.

Agenda 8: Approval of curriculum and syllabi under R-2019

The Board members reviewed and recommended the Program Articulation Matrix of R2019 and Course Articulation Matrices framed for first year

course of R2019. The Board members conducted discussions on the proposed curriculum under regulation R—2019 and syllabi of the first two semesters.

The Board members suggested the following:

• Dr. Manjula D, University Nominee, suggested to:

- Introduce C language as a first programming language instead of Python. *BoS resolved to have Python as introductory programming language course.*
- Reduce the number of programming language courses. *BoS resolved to offer one or two programming language courses with comprehensive coverage core principles of programming languages.*
- Include a course on security in the core. *BoS resolved to include a course on Cryptography and Network Security in the core.*

• Dr. Deepalakshmi P, Academic Expert, suggested to:

- Offer the course Mobile Applications Development as pure lab component with full stack programming. *BoS resolved to offer the course as a 1.5 credit laboratory course.*
- Introduce Cloud Virtualization as an elective that will help to enhance placement opportunities in network engineering domain to the students. *BoS resolved to update the syllabus of the course Cloud Computing.*
- Include a course on basic electrical and electronics in the first year. *BoS resolved to include basics electrical and electronics as units of study in Digital Electronics course.*

• Dr. Subathra P, Academic Expert, suggested to:

- Introduce object oriented programming through Java programming language rather than having both C++ and Java as separate courses. *BoS resolved to exclude C++ and have Java as a programming language for Object Oriented Programming concepts.*

➤ Increase the lecture hours allocated to the course Operating Systems. *BoS resolved to increase the contact hours for the course.*

• Mr.Rajkumar Chandrasekar, Industry Nominee, suggested to:

➤ Change the title of the course Agile Software Methodologies in to Software Engineering Principles and to include the topics of standard Agile and devops. *BoS resolved to modify the title and include topics of standard Agile and devops.*

➤ Enforce the students to implement the concepts of data structures in any one of the programming languages. *BoS resolved to implement data structures either in C or Python.*

Based on the suggestions by the members, BoS resolved to include the following new courses for **B.E(CSE) under regulation R-2019.**

- Problem Solving and Python Programming
- Problem solving and Python Programming Laboratory
- Introduction to Computer Science and Engineering
- Basics of Biology for Engineers
- Seminar
- Gender Equality
- Software Engineering Principles
- Creative Thinking and Innovation
- Internet of Things Laboratory
- Graph Theory
- Parallel and Distributed Algorithms
- Information theory and Coding
- Fault Tolerant Computing
- Ad Hoc and Sensor Networks
- Neural Networks and Deep Learning
- Speech and Natural Language Processing
- Expert Systems
- Image Processing

- Digital Signal Processing
- Blockchain Technology
- Cyber Security
- Mobile and Pervasive Computing
- Mixed Reality
- Advanced Java Programming

Agenda 9: Percentage of changes in the Syllabi of R2019 of B.E(CSE):

The BoS resolved to accept the changes in the following courses:

S.No.	Course Code & Name	Changes made in the Syllabi	Percentage of Changes
1	19UCS112 – Engineering Fundamentals Laboratory	Installation of Linux operating system and Installation of software in Linux	33%
2	19UCS206 – Programming using C	File concepts are included in the syllabi at the weightage of one unit	20%

The Board of Department of Computer Science and Engineering approves and recommends the Curriculum and Syllabi of B.E. Computer Science and Engineering under autonomous regulations 2019 with the above modifications. The B.E(CSE) curriculum is given in Annexure IV.

Agenda 10: Review of CO and PO attainment:

- The direct and indirect tools for the assessment of COs and POs are reviewed and recommended.
- The target of CO attainment of theory and Lab courses for R2015 courses are reviewed and recommended.
- The target of PO attainment for each PO is reviewed and recommended.
- Course Outcome attainment of the courses and corresponding PO attainment in the academic year 2018-2019 Even and the corresponding resolutions in the PAC meeting dated 04.09.2019 are reviewed by the members. The members recommended the suggestions in PAC.

- PO/PSO attainment of the batch 2015-2019 is analyzed. The observations on the attainment and the corresponding action taken to improve the attainment are reviewed and recommended.

2.0 M.E Computer Science and Engineering

The members thoroughly discussed the curriculum and Syllabi for **M.E. Computer Science and Engineering** followed under autonomous regulations 2019 and suggested the following

- Dr. Deepalakshmi P, Academic Expert, suggested to
 - Combine Advanced Data Structures and Advanced Algorithms into a single course and include one more core course in place of the vacant. The BOS resolved to include Advanced Database Technology as the theory and Lab by combining Advanced Data structures and Advanced Algorithms.
- Dr. Manjula D, University Nominee, suggested to:
 - Shift the Soft computing course from core to elective and to include Cloud computing course as theory and lab. The BOS resolved to accept the changes.
- Mr. Rajkumar Chandrasekar, Industry Nominee, suggested to:
 - Include graph concepts in Advanced Data Structures and Advanced Algorithms
 - Give "Blockchain" course as value added courses.

Based on the suggestions by the members, BoS resolved to include the following new courses for **M.E(CSE) under regulation R-2019**.

- Research Methodology and IPR
- Data Storage Technologies and Networks
- Web Analytics and Development
- Digital Forensics
- Biometrics
- Soft Computing
- Security in Computing
- Deep Learning Techniques

- Introduction to Intelligent Systems
- Essential of HCI
- Optimization Techniques
- Compiler for HPC
- Cluster and Grid Computing
- Parallel Algorithms
- Wireless Access Technologies
- Embedded Software Development
- Business Analytics

The BoS resolved to accept the changes in the following courses in

M.E(CSE) Syllabus:

S.No.	Course Code & Name	Changes made in the Syllabi	Percentage of Changes
1	19PCS101- Advanced Data Structures and Algorithms	Fundamentals, Geometric Algorithms are removed. Advanced Concurrent Structures, Graph Algorithms, Advanced Algorithms are added	50%
2	19UCS201- Image processing and Analysis	Edge Detection, Morphology are removed. Basic Relationship between Pixels, Feature Extraction, Texture Pattern and Classes are added	35%
3	19PCS103-Advanced Data Structures Laboratory	Convex Hull , Implementation of segment Trees , Parallel Algorithm for Array Max ,Parallel Algorithm for Matrix Multiplication are removed. hashing and concurrent hashing Flow-network algorithms Approximation algorithms / randomized algorithms. Parallel sorting algorithms are	80%

	added	
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- The Chairman thanked the members for their contribution and suggestions in framing the curriculum and syllabi for B.E. Computer Science and Engineering and M.E Computer Science and Engineering under Autonomous regulations. She thanked the members of the Board on behalf of the Department of Computer Science and Engineering for their wonderful suggestions and contribution to frame the curriculum and syllabi.

Percentage of Changes	Changes made in the Syllabi	
50%	<p>Algorithms are removed</p> <p>Advanced Concurrent Structures</p> <p>Graph Algorithms</p> <p>Advanced Algorithms are added</p>	<p>Chairman Board of Studies</p> <p>Computer Science and Engineering</p>
35%	<p>Edge Detection Morphology are removed</p> <p>Basic Relationship between Pixel Feature</p> <p>Extractor Texture Pattern and Classes are added</p>	<p>Chairperson Board of Studies Computer Science & Engineering Sethu Institute of Technology Kariapatti - 626 115</p>
60%	<p>Conver Hull, Implementation of segment Trees, Parallel Algorithm for Array Max, Parallel Algorithm for Matrix Multiplication are removed</p> <p>hashing and concurrent hashing Flow network algorithms</p> <p>Approximation algorithms</p> <p>randomized algorithms</p> <p>Parallel sorting algorithms are</p>	<p>19P25103-Advanced Data Structures Laboratory</p>



**SETHU INSTITUTE OF TECHNOLOGY, PULLOOR,
KARIAPATTI – 626 115**

**MINUTES OF EIGHTH MEETING FOR THE BOARD OF STUDIES IN THE
DEPARTMENT OF MECHANICAL ENGINEERING HELD ON 05/09/2020.**

The Eighth Meeting of the Board of Studies in the Department of Mechanical Engineering was held at 10.45 AM on **05/09/2020** at Seminar Hall of Mechanical Engineering Department through Google meet , Sethu Institute of Technology, Pulloor, Kariapatti.

The following members were present through ONLINE mode.

Sl. No.	Name of the Members	Designation and Institution	Position
1.	Dr. G. D. Sivakumar	Vice Principal / HOD Mechanical, Sethu Institute of Technology.	Chairman
2.	Dr. D. Jebakani	Associate Professor(CAS), Department of Mechanical Engineering, Government College of Engineering, Tirunelveli, Tamil Nadu - 627007. Ph: 9944253810 Email : jebakani@gcetly.ac.in	University Nominee
3.	Dr. U. Arunachalam	Assistant Professor, University College of Engineering, Anna university Constituent College, Konam, Nagercoil – 629004. Ph: 9443279233 Email : arunachalam_u@yahoo.com	Member- External

4.	Dr. B. Stalin	Assistant Professor & Head I/C, Department of Mechanical Engineering, Anna university Regional campus, Keelakuilkudi, Madurai – 625 019. Ph: 9865264158 Email : stalin1312@gmail.com	Member- External
5.	Mr. G. Rajamurthy	Managing Director, Singai Coirs Pvt. Ltd., Singampunari, Sivaganga District. Ph: 9047093311 Email : globalrajamurthy@gmail.com	Industrial Expert
6.	Mr. A. Kosalram	Senior Design Engineer, Auro Lab, Madurai. Ph: 9962750063 Email :kosalram@aurolab.com	Alumni
7.	Dr. A. Senthil Kumar	Professor	Faculty Member
8.	Dr. C. Kailasanathan	Professor	Faculty Member
9.	Dr. S. Mothilal	Professor	Faculty Member
10.	Dr. R. Murali Kannan	Professor	Faculty Member
11.	Dr. K. Arun Balasubramanian	Professor	Faculty Member
12.	Dr. C. Muthusamy	Professor	Faculty Member
13.	Dr. B. Raja Mohamed Rabi	Professor	Faculty Member
14.	Dr. V. Srinivasa Raman	Professor	Faculty Member
15.	Dr. G. Pitchayya Pillai	Professor	Faculty Member
16.	Dr. A. Anbarasu	Professor	Faculty Member
17.	Mr. G.K. TamilSelvan	Associate Professor	Faculty Member
18.	Dr. I. Vijay Arasu	Associate Professor	Faculty Member
19.	Mr. S. Paramasamy	Associate Professor	Faculty Member
20.	Mr. G. Nagaraj	Associate Professor	Faculty Member
21.	Dr. K. Vinayagar	Associate Professor	Faculty Member

22.	Mr. S. Shaik Mohamed Ferozdheen	Associate Professor	Faculty Member
23.	Dr. N. Premalatha	Associate Professor	Faculty Member
24.	Dr. G. Venkatesan	Associate Professor	Faculty Member
25.	Dr. P. Ganeshan	Associate Professor	Faculty Member
26.	Mr. T. Gangadharan	Assistant Professor (Sr. Gr.)	Faculty Member
27.	Mr. P. R. Rajkumar	Assistant Professor (Sr. Gr.)	Faculty Member
28.	Mr. K.M. Ahamed Sheriff	Assistant Professor (Sr. Gr.)	Faculty Member
29.	Dr. R. Sridhar	Assistant Professor (Sr. Gr.)	Faculty Member
30.	Mr. A. Saravana Kumaar	Assistant Professor (Sr. Gr.)	Faculty Member
31.	Mr. A. Syed Ibrahim	Assistant Professor (Sr. Gr.)	Faculty Member
32.	Mr. S. Shanmugam	Assistant Professor	Faculty Member
33.	Mr. P. Meenatchisundaram	Assistant Professor	Faculty Member
34.	Mr. T.P. Balaji	Assistant Professor	Faculty Member
35.	Dr. R. SelvaBharathi	Assistant Professor	Faculty Member
36.	Mr. V. Ramachandran	Assistant Professor	Faculty Member
37.	Mr. C. Tamilarasan	Assistant Professor	Faculty Member
38.	Dr. B. Muthu Chozha Rajan	Assistant Professor	Faculty Member
39.	Mr. S. Devanand	Assistant Professor	Faculty Member
40.	Mr. A. Shyam Sundar	Assistant Professor	Faculty Member
41.	Mr. K. Sarbudeen	Assistant Professor	Faculty Member
42.	Mr. K. Amirtharaj	Assistant Professor	Faculty Member
43.	Mr. R. Jayaprakash	Assistant Professor	Faculty Member
44.	Mr. M. Jeyaram	Assistant Professor	Faculty Member
45.	Mr. P. Karuppasamy	Assistant Professor	Faculty Member
46.	Mr. R. Balaji	Assistant Professor	Faculty Member
47.	Mr. M. Pasumpon	Assistant Professor	Faculty Member

48.	Mr. S. Saravanan	Assistant Professor	Faculty Member
49.	Mr. R. Seenivasan	Assistant Professor	Faculty Member
50.	Mr. M. Elavarasan	Assistant Professor	Faculty Member
51.	Mr. A. Perumal	Assistant Professor	Faculty Member
52.	Mr. S.A. Sethu Raaman	Assistant Professor	Faculty Member
53.	Mr. J. David Gnanaraj	Assistant Professor	Faculty Member
54.	Mr. R. Kathirvel	Assistant Professor	Faculty Member
55.	Dr. V. Vignesh	Assistant Professor	Faculty Member
56.	Mr. B. Mohmed Fazil	Assistant Professor	Faculty Member
57.	Mr. J. Vairamuthu	Assistant Professor	Faculty Member
58.	Mr. C. Shravan Kumar	Assistant Professor	Faculty Member
59.	Mr. J. Arun Jeeva Nijanthan	Assistant Professor	Faculty Member
60.	Mr. V. Ananda Natarajan	Assistant Professor	Faculty Member

The Chairman welcomed the members and presented the Curriculum and Syllabi of Regulation 2019 for the students admitted from the academic year 2019-20, under Autonomous Regulations for B.E. Mechanical Engineering and M.E.CAD/CAM.

The following points were discussed in the meeting

1. Vision, Mission Statements, Program Educational Objectives, Program Outcomes and Program Specific Outcomes
2. Attainment of POs and PSOs and Gap analysis.
3. Curriculum and Syllabi of Regulation 2019
4. Syllabus updation in core courses of III and IV Semester
5. Percentage of Revision in Syllabus
6. Assessment Questions and Assessment Pattern for Courses
7. Mapping of Curriculum with Programme Specific Criteria
8. External Examiners and Question setters
9. Employability/ Entrepreneurship/ Skill Development
10. M.E.CAD/CAM

1. Vision, Mission Statements, Program Outcomes and Program Specific Outcomes

1.1. The board of studies chairman presented the Department Vision, Mission, PEOs, POs and PSOs of the U.G Programme.

1.2. The BoS member approved the existing vision and mission statement as follows

Department Vision statement

- To promote excellence in education and research in mechanical engineering for the benefits of industry and society.

Mission Statement

1. To provide quality technical educational experience to enable the graduates to become leaders in their chosen profession
2. To educate through modern teaching tools and experiential learning to produce proficient engineer
3. To develop skills in recent technological trends and design software and to facilitate various co-curricular activities to enhance employability and entrepreneurship
4. To establish collaboration with industries for transfer of technical knowledge
5. To promote research activities among faculty members and students
6. To offer beneficial services to the society

1.3. The BoS member approved to modify the PEOs, POs and PSOs as follows

Program Educational Objectives PEOs

After few years of graduation our Mechanical Engineering graduates are expected to:	
PEO I (Core Competency)	Develop technical competency to become professionals with expertise in core areas of mechanical engineering.
PEO II (Life Long Learning)	Practice Life Long Learning to solve real time problems and for career development.
PEO III (Professional and Ethical Skills)	Develop professional skills to meet the global standards with ethical and social responsibility.

Program Outcomes POs

1.	Apply knowledge of mathematics, science, basic engineering, manufacturing, design, thermal and industrial engineering to the solution of complex engineering problems. [Engineering knowledge]
2.	Identify, formulate, research through relevant literature review, and analyze complex mechanical engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and mechanical engineering. [Problem analysis]
3.	Design solutions for complex mechanical engineering problem and design system components that meet the specified needs with appropriate considerations for public health and safety, cultural, societal, and environmental constraints. [Design/ development of solutions]
4.	Conduct investigations of complex mechanical problems in design and analysis of machine elements, mechanisms, thermal systems and to manufacture components and systems using research based knowledge and methods including design of experiments, analysis and interpretation of data and synthesis of information to provide valid conclusions. [Conduct investigations of complex problems]
5.	Select and apply the latest CAD/CAM/CAE software and sophisticated equipment for modeling and analyzing to predict and solve mechanical engineering problems. [Modern tool usage]
6.	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, cultural issues and consequent responsibilities relevant to professional engineering practice. [The Engineer and Society]
7.	Understand the impact of solutions for mechanical engineering problems in the context of society and environments, and demonstrate the knowledge of and need for sustainable development. [Environment and Sustainability]
8.	Apply ethical principles, and commit to professional ethics and responsibilities and norms of the engineering practice. [Ethics]
9.	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. [Individual and team work]
10.	Communicate effectively on mechanical engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentation, and give and receive clear instructions. [Communication]

11.	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. [Project management and finance]
12.	Recognise the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. [Lifelong learning]

Program Specific Outcomes PSOs

- ❖ Apply the concepts of design and manufacturing to solve industrial problems.
- ❖ Apply the knowledge of Mechanical engineering to design solutions, systems and components to meet the needs of Automobile Industry.

2. Attainment of POs and PSOs and Gap analysis

2.1. The board of studies chairman presented the POs and PSOs attainment for the batch 2014-2018, 2015-2019 and 2016-2020 and gap analysis of Program Outcomes.

2.2. The BoS member approved to introduce the course to enhance the PO4, PO6, PO7, PO8, PO11 and PO12 attainment as follows

POs	Course Name
PO 4	<ul style="list-style-type: none"> • Smart Manufacturing • Design and Product Development Project • Computational Analysis Laboratory (ANSYS & CFD) • Creative Thinking & Innovations
PO 6	<ul style="list-style-type: none"> • Seminar on Recent Advances in Mechanical Engineering • Creative Thinking & Innovations
PO 7	<ul style="list-style-type: none"> • Indian Constitution & Essence of Indian Traditional Knowledge
PO 8	<ul style="list-style-type: none"> • Gender Equality
PO 11	<ul style="list-style-type: none"> • Internship
PO 12	<ul style="list-style-type: none"> • Statistical Quality Control (SQC) • Smart Manufacturing & Mechatronics Laboratory

3. Curriculum and Syllabi of Regulation 2019

The Board analyzed the stake holder's feedback regarding curriculum and syllabi under 2019 regulation

3.1. New Course Introduced :

The Board of study member approved the newly introduced courses in V semester

• 19UME302 - Fundamentals of Manufacturing Processes	3 0 2 4
• 19UME401 – Theory of Machines	3 1 0 4

3.2. Stakeholders Feedback

S.No	STAKE HOLDER	NAME	FEEDBACK
1.	International Faculty	Dr.G.Sivakumar,Ph.D., Faculty in Mechanical Engineering University of Technology and Applied Sciences, Ibra Sultanate of Oman	<p>Manufacturing Technology</p> <ul style="list-style-type: none"> • The following topics shall be included to meet the industrial needs. • In Module V: Maintenance of various machines in general and lathe machine in detail need to be added. This shall be added in the last module. • Theory portion related to CNC machines and codes shall be added to enhance CNC practical exercises.
2.	International Faculty	Dr. P. Sivakumar Senior Lecture MAHSA University Selangor Malaysia	<p>Manufacturing Technology</p> <ul style="list-style-type: none"> • In Module I: Thermal aspects of machining, cutting fluids, machinability shall be added • CNC machine basic concept and codes must be included as theory content to cultivate the practical skill in CNC exercises
3.	Faculty Member	Dr.A. VALAN ARASU, B.E. (Distn.); M.E.(Distn.); Ph.D.; Postdoc (NUS, Singapore), BOYSCAST Fellow, Professor, Mechanical Engineering, Thiagarajar College of Engineering	<p>Engineering Thermodynamics</p> <ul style="list-style-type: none"> • Add the content in objective Introduction to fluid machineries needs to be added. • In Module II : Content absolute entropy Replace it with Third Law of Thermodynamics • In Module III: Heading May be replaced by Rankine Cycle • In Module IV: Check Is it T-dS relations? • In Module V Psychometric charts, Properties of Atmospheric air are discussed prior to the chart.

S.No	STAKE HOLDER	NAME	FEEDBACK
4.	Faculty Member	Dr.A. VALAN ARASU, B.E. (Distn.); M.E.(Distn.); Ph.D.; Postdoc (NUS, Singapore), BOYSCAST Fellow, Professor, Mechanical Engineering, Thiagarajar College of Engineering	<p>Fluid Mechanics and Machinery</p> <ul style="list-style-type: none"> Compressible fluid flow is not included in the syllabus and hence gas tables are not required and shall be removed. In Module IV: Title shall be modified as Hydraulic machines as roto-dynamics machine is a generic term which included both hydraulic and thermal turbo machines. This section shall be revised and divided into two sub sections: first section on centrifugal pump and second section on hydraulic turbines
5.	Faculty Member	Dr. S.C. Vettivel,. (Metallurgy), Department of Mechanical Engineering, Chandigarh College of Engineering & Technology (Degree Wing), Sector 26. (Govt. Institute under Chandigarh	<p>Materials Engineering</p> <ul style="list-style-type: none"> The Course contents are well organized Iron carbon equilibrium diagram, invariant reactions, TTT diagram, CCT diagram, phase transformation, homogeneous and heterogeneous nucleation topics may be considered.
6.	Faculty Member	Dr. S. Suresh, Associate Professor, Department Mechanical Engineering National Institute of Technology, Tiruchirappalli	<p>Applied Thermal Engineering</p> <ul style="list-style-type: none"> In Module I : The following cycles/portions may be added Vapour power cycles - Rankine cycle - Effect of pressure and temperature on Rankine cycle - Reheat cycle - Regenerative cycle, Stirling and Brayton cycles. In Module V: The following cycles may be added Working principles and concept of RSHF, GS HF, ESHF- Cooling Load calculations.
7.	Faculty Member	Dr. S.C. Vettivel,. (Metallurgy), Department of Mechanical Engineering, Chandigarh College of Engineering & Technology (Degree Wing), Sector 26. (Govt. Institute under Chandigarh	<p>Strength of Materials</p> <ul style="list-style-type: none"> The Course contents are well organized 2. Statically Indeterminate Problems, Differential Equation Approach to Torsion Problems may be considered in Torsion

3.2. The BoS member approved to modify the course content based on stakeholder's feedback.

4. Syllabus updation in core courses of III and IV Semester

4.1 Semester – III:

Fundamentals of Manufacturing Processes:

- The BoS member Dr. D. Jebakani suggested to modify the lecture (L) as 45 and practical (P) as 30 hours. Total periods for integrated courses as 75.

Engineering Thermodynamics

- The BoS member Dr. D. Jebakani and Dr. U. Arunachalam suggested to Remove the content “Concept of ideal and real gases” from unit I (Basic Concepts and First Law) because it repeated in UNIT IV (Ideal and Real Gases and Thermodynamic Relations).
- The BoS member Dr. D. Jebakani and Dr. U. Arunachalam suggested to move the content Perpetual-motion machines after the content second law of thermodynamics in Unit II (Second law and Entropy)
- The BoS member Dr. U. Arunachalam suggested to include the content “steam formation” after the properties of pure substances in Unit III (Properties of Steam and Steam Power Cycles)
- The BoS member Dr. U. Arunachalam Suggested to remove the content “dryness fraction, types of steam and internal energy of steam”, is comes under the topic “Properties of steam in unit III” (Properties of Steam and Steam Power Cycles) hence the content may be removed.
- The BoS member Dr. D. Jebakani and Dr. U. Arunachalam appreciated for including the content “Compressibility chart and compressibility factor” in UNIT IV (Ideal and Real gases and Thermodynamic relations), these topics are used to analyze the behavior of real gas.
- The BoS member Dr. D. Jebakani appreciated for including the content “adiabatic saturation- Steam injection” in UNIT V (Psychrometry), based on Technology forecast from the magazine “Steam Humidification in Pharmaceutical Facilities”

Fluid Mechanics and Machinery

- The BoS member Dr. D. Jebakani and Dr. U. Arunachalam suggested to modify the UNIT IV and V as Hydraulic turbine and Hydraulic pumps and include the content based on it.
- The BoS member Dr. D. Jebakani suggested to modify the lecture (L) as 45 and practical (P) as 30 hours.
- The BoS member Dr. U. Arunachalam suggested to include the content “Hydraulic Accumulator” in UNIT V (Hydraulic pumps).

Materials Engineering

- The BoS member Dr. D. Jebakani appreciated the content in material engineering course.

4.2 Semester – IV:

Applied Thermal Engineering

- The BoS member Dr. D. Jebakani and Dr. U. Arunachalam Suggested to add the content “Brayton with Reheat and Regenerative cycle” and remove the content “ Rankine cycle” in UNIT I (Gas Power Cycles) because it already cover in the course “Engineering Thermodynamics” UNIT III (Properties of Steam and Steam power cycles)
- The BoS member Dr. D. Jebakani and Dr. U. Arunachalam Suggested to add the content “Performance and Heat balance Analysis” and remove the content “Cetane number, Octane Number, Knocking and Detonation, Scavenging”, are fuel properties which are not relevant to the content in UNIT II (Internal Combustion Engines).
- The BoS member Dr. D. Jebakani and Dr. U. Arunachalam suggested to add the content “GSHF ESHF RSHF calculations” in UNIT V (Refrigeration and Air Conditioning)

Manufacturing Technology

- The BoS member Dr. D. Jebakani suggested to modify the lecture (L) as 45 and practical (P) as 30 hours since it is a integrated course.
- The BoS member Dr. U. Arunachalam suggested to modify the content as “jigs and Fixture” instead of Fixture and Jigs in UNIT III (Reciprocating Machines, Drilling Machines)

Automobile Engineering

- The BoS member Dr. U. Arunachalam suggested to include the content “recent advances in Automobile Engineering, emission norms and emission control techniques” in UNIT IV (Alternate Fuels and Emission Control)
- The BoS member Dr. D. Jebakani appreciated for including the new technologies Smart Vehicles in UNIT V (Smart Vehicles).

5. Percentage of Revision in Syllabus

Academic Year 2020-21			Details of Change in Syllabus		
S. No.	Course Code	Course Name	Changes		Percentage of change
			Removed (if Any unitwise)	Added (if Any unitwise)	
1.	19UME303	Engineering Thermodynamics	10%	15%	25%
2.	19UME304	Fluid Mechanics and Machinery	10%	15%	25%
3.	19UME306	Materials Engineering	-	5%	5%
4.	19UME402	Applied Thermal Engineering	5%	15%	20%
5.	19UME403	Manufacturing Technology		5%	5%
6.	19UME405	Automobile Engineering		5%	5%
Total Percentage of change					Sum of % of Change = 85%
Percentage of revision in syllabus = Total Percentage of change / Total No of courses in which the syllabus revision is made					= 85 / 6 = 14.17%

6. Assessment Questions and Assessment Pattern for Courses

- The Faculty members presented the assessment questions and assessment pattern for 3rd and 4th semester core course to all the members of BOS and the board approved the same.

7. Mapping of Curriculum with Programme Specific Criteria

- The Chairperson presented the Mapping of curriculum and syllabi of Regulation 2019 with programme specific criteria to all the members of BOS and the board approved the same.

Programme Specific Criteria	Course Name
To apply principles of engineering, basic science, and mathematics. (including multivariate calculus and differential equations)	Engineering Graphics
	Engineering Physics
	Engineering Chemistry
	Engineering Mathematics I
	Calculus, Fourier Series and Numerical Methods for Mechanical Engineering
	Material Physics
	Environmental Science
	Probability, Statistics and Partial Differential Equations for Mechanical Engineering
	Fundamentals of Manufacturing Processes

Programme Specific Criteria	Course Name
	Materials Engineering
	Engineering Mechanics
	Introduction to Mechanical Engineering
	Manufacturing Technology
	Measurements and Instrumentation
To model, analyze, design, and realize physical systems, components or processes	Fluid Mechanics and Machinery
	Kinematics of Machinery
	Mechanics of Materials
	Dynamics of Machinery
	Design of Machine Elements
	Design of Transmission Systems
	Finite Element Analysis
To prepare students to work professionally in either thermal or mechanical systems while requiring topics in each area.	Engineering Thermodynamics
	Applied Thermal Engineering
	Automobile Engineering
	Applied Hydraulics and Pneumatics
	Heat and Mass Transfer
	Operations Research
	Design and Product Development Project
	Project Management and Finance
	Mechatronics
	Project Work
	Gas Dynamics and Jet Propulsion
	Unconventional Machining Processes
	Process Planning and Cost Estimation
	Maintenance Engineering

8. External Examiners and Scrutiny Members

- The Chairperson presented the Panel of Evaluators and Question Paper Setters for Valuation for approval.
- The BoS members reviewed and approved the end semester External Examiners and Scrutiny Members for R2019.

9. Employability/ Entrepreneurship/ Skill Development

- The BoS members reviewed and approved the courses with focus on Employability, Entrepreneurship/ Skill Development in R2019 Curriculum and syllabus as follows

9.1 Courses with focus on **Employability**

Sl. No.	Course code	Course Name
1.	19UME302	Fundamentals of Manufacturing Processes
2.	19UME304	Fluid Mechanics and Machinery
3.	19UME306	Materials Engineering
4.	19UME401	Theory of Machines
5.	19UME402	Applied Thermal Engineering
6.	19UME403	Manufacturing Technology
7.	19UME404	Mechanics of Materials
8.	19UME405	Automobile Engineering
9.	19UME501	Heat and Mass Transfer
10.	19UME502	Design of Machine Elements
11.	19UME504	Measurements and Instrumentation
12.	19UME508	CAD Laboratory
13.	19UME601	Design of Transmission Systems
14.	19UME602	Finite Element Analysis
15.	19UME603	Operations Research
16.	19UME604	Mechatronics
17.	19UME702	Smart Manufacturing
18.	19UME902	Gas Dynamics and Jet Propulsion
19.	19UME903	Applied Hydraulics and pneumatics
20.	19UME906	Quality Control and Reliability Engineering
21.	19UME909	Power Plant Technology
22.	19UME910	Unconventional Machining Processes
23.	19UME915	Refrigeration and Air conditioning
24.	19UME918	Maintenance Engineering
25.	19UME919	Production Planning and Control
26.	19UME921	Advanced I.C. Engines
27.	19UME925	Industrial Robotics
28.	19UME926	Introduction to aircraft industry and aircraft systems
29.	19UME928	Non Destructive Testing (NDT)

9.2 Courses with focus on **Entrepreneurship**

Sl. No.	Course code	Course Name
1.	19UME508	CAD Laboratory
2.	19UME607	Product Development Project
3.	19UME608	Computational Analysis Laboratory (ANSYS & CFD)
4.	19UME701	Project Management and Finance
5.	19UME707	Summer Internship

6.	19UME801	Project Work
7.	19UME917	Entrepreneurship Development

Courses with focus on Skill Development

Sl. No.	Course code	Course Name
1.	19UME109	Engineering Graphics
2.	19UME111	Engineering Practice Laboratory
3.	19UME211	Computer Aided Drafting and Modeling Laboratory.
4.	19UME307	Seminar
5.	19UME407	Thermal Engineering Laboratory - I
6.	19UME408	Design Laboratory
7.	19UME504	Measurements and Instrumentation
8.	19UME508	Thermal Engineering Laboratory - II
9.	19UME603	Operation Research
10.	19UME607	Product Development Project
11.	19UME608	CAD/CAM Laboratory
12.	19UME609	Smart Manufacturing & Mechatronics Laboratory
13.	19UME707	Summer Internship
14.	19UME708	Computational Analysis Laboratory (ANSYS & CFD)
15.	19UME801	Project Work
16.	19UME905	Computational Fluid Dynamics

Chairman

Chairperson
Board of Studies
Mechanical Engineering
Sethu Institute of Technology
Kariapatti - 626 115



SETHU INSTITUTE OF TECHNOLOGY
(An Autonomous Institution | Accredited with 'A' Grade by NAAC)
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
B.E. ECE accredited by NBA, New Delhi under Washington Accord (Tier-I)



**MINUTES OF 8th MEETING OF BOARD OF STUDIES IN DEPARTMENT OF
ELECTRONICS AND COMMUNICATION ENGINEERING HELD ON 11.09.2020**

Board of Studies meeting was held on 11.09.2020. The Chair person welcomed all the Board of Studies members and requested the members to consider for approval the changes made in the syllabi of **Regulation 2019 for B.E. Electronics and Communication Engineering** Programme:

The members discussed thoroughly the curriculum and Syllabi for **B.E. Electronics and Communication Engineering to be followed from 2020-21** under autonomous **regulation 2019** and offered useful suggestions.

I. To present the analysis of the Stakeholders' feedback regarding curriculum and syllabi

The analysis of Stakeholders' feedback regarding curriculum and syllabi was presented before the members and the same is approved by the members.

II. To present Mapping of Curriculum and syllabi with Programme Specific Criteria

Mapping of Curriculum and syllabi with Programme Specific Criteria was presented before the members and was approved by the BOS members.

IV. To consider and approve the improvements (addition or deletion of Courses/Topics) to be made in the syllabi under 2019 regulation

R2019 UG Curriculum and syllabi of II year courses of B.E. Electronics and Communication Engineering were presented before the members. It is resolved to approve the syllabi of II Year Courses with the following modifications.

1. **Dr.Sivakumar, Dean/Academics, Kalasalingam Academy of Research and education** suggested including practical session using MATLAB in signals and systems course.

2. **Dr.Sivakumar, Dean/Academics, Kalasalingam Academy of Research and education** suggested including Block chain and cyber physical systems as professional electives.
3. **Dr.Rajaram, HoD/ECE, Thiagarajar College of Engineering** suggested increasing the number of Integrated Courses.
4. **It is resolved to approve the syllabi of the courses:**
 - a. 19UEC425 – Microprocessors and Microcontrollers and 19UEC426 - Microprocessors and Microcontrollers Lab for IV Semester B.E. Computer Science and Engineering
 - b. 19UEC225 – Principles of Electronics Engineering and 19UEC227 - Principles of Electronics Engineering Lab for II Semester B.Tech. Computer Science and Business Systems.
 - c. 19UGM431 – Gender Equality Mandatory Course for all branches.

V. To consider and recommend the Curriculum and Syllabi for the Proposed New Course, B.E Medical Electronics

The curriculum and syllabi for B.E. Medical Electronics was presented before the members and it was recommended to be approved by the appropriate forums after affiliation by AICTE approval

VI. To consider and approve the employability/ entrepreneurship/skill development courses

In R2019 UG Curriculum of B.E. Electronics and Communication Engineering, the chair person presented the classification of courses having focus on employability/ entrepreneurship/skill development.

S.No	Subject Code	Subject Name	Date of Introduction
Name of the UG Program: Electronics and Communication Engineering			
1.	19UEC302	Digital Electronics and Design	12.09.2019
2.	19UIT326	Fundamentals of C Programming	12.09.2019
3.	19UEC403	Signals and Systems	12.09.2019
4.	19UEC405	Analog and Digital Communication	12.09.2019
5.	19UIT429	Introduction to data structures and algorithms	12.09.2019
6.	19UGS433	Interpersonal Skills laboratory	12.09.2019
Name of the PG Program: M.E. Communication Systems			
7.	19PCM101	Adaptive Signal Processing	12.09.2019
8.	19PCM103	Antennas and Radiating Systems lab	12.09.2019
9.	19PCM201	Advanced Communication Networks	12.09.2019
10.	19PCM202	Wireless and Mobile Communication	12.09.2019
11.	19PCM203	Advanced Communication Networks Lab	12.09.2019
12.	19PCM104	Adaptive Signal Processing Lab	12.09.2019

VII. To consider and approve the new elective courses added

In R2019 UG Curriculum of B.E. Electronics and Communication Engineering, the chair person presented the newly added courses in R2019 curriculum.

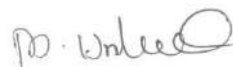
S.No	Subject Code	Subject Name	Date of Introduction
Name of the UG Program: Electronics and Communication Engineering			
1.	19UGM332	Biology for Engineering Applications	12.09.2019
2.	19UEC304	Basic Electrical and Instrumentation Engineering	12.09.2019
3.	19UGS433	Interpersonal Skills laboratory	12.09.2019
4.	19UGM431	Gender Equality	12.09.2019
5.	19PCM101	Adaptive Signal Processing	12.09.2019
Name of the PG Program: M.E. Communication Systems			
6.	19PCM103	Antennas and Radiating Systems lab	12.09.2019
7.	19PCM201	Advanced Communication Networks	12.09.2019
8.	19PCM202	Wireless and Mobile Communication	12.09.2019
9.	19PCM203	Advanced Communication Networks Lab	12.09.2019
10.	19PCM104	Adaptive Signal Processing Lab	12.09.2019
11.	19PCM204	Wireless and Mobile Communication Lab	12.09.2019
12.	19PCS205	Mini Project with Seminar	12.09.2019
13.	19PCM505	Communication Network Security	12.09.2019

VII. Details of Change in Syllabus

S.No	Course Code	Course Name	Percentage of change
Name of the UG Program: Electronics and Communication Engineering			
1.	19UEC302	Digital Electronics And Design	20%
2.	19UEC303	Circuit Theory	60%
3.	19UEC305	Analog Circuits	100%
4.	19UEC403	Signals and Systems	20%
Name of the PG Program: M.E. Communication Systems			
5.	19PCM101	Adaptive Signal Processing	40%
6.	19PCM102	Advanced Radiation Systems	10%
7.	19PCM202	Wireless and Mobile Communication	15%
8.	19PCM501	Wireless Sensor Networks	40%
9.	19PCM502	Optical Networks	10%
10.	19PCM503	Cognitive Radio	40%
11.	19PCM506	Satellite Communication	40%
12.	19PCM507	Communication Protocol Engineering	40%
13.	19PCM509	MIMO SYSTEMS	20%
14.	19PCM511	Pattern Recognition	5%
15.	19PCM514	Network Management System	100%

16.	19PCM516	DSP Processor Architecture and Programming	20%
17.	19PCM519	Medical Imaging Techniques	40%

The Board of Studies of Electronics and Communication approves and recommends the syllabi of B.E. Electronics and Communication Engineering to be followed from 2019-20 batch under autonomous regulations 2019 with the above modifications



**Chairperson
Board of Studies
Electronics and Communication Engineering**



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

**MINUTES OF EIGHTH BOARD OF STUDIES MEETING IN DEPARTMENT OF
ELECTRICAL AND ELECTRONICS ENGINEERING HELD ON 28.08.2020**

The Eighth Board of Studies (BoS) Meeting in Department of Electrical and Electronics Engineering was held on 28th August, 2020 at 2PM through “Google Meet – online Platform” in Sethu Institute of Technology, Pulloor, Kariapatti.

The following members were present:

S.NO	NAME OF THE FACULTY	DESIGNATION	POSITION
1.	Dr.A.Srinivasan	Professor&Head	Chairman
2.	Dr.B.MeenakshiSundaram	Professor	Member
3.	Dr.J.BastinSolaiNazaran	Professor	Member
4.	Dr.G.Soundra Devi	Associate Professor	Member
5.	Mrs.J.Rahila	Associate Professor	Member
6.	Dr.S.Vijayarajan	Associate Professor	Member
7.	Dr.R.M.Sasi Raja	Associate Professor	Member
8.	Dr.M.Abdul Kareem	Associate Professor	Member
9.	Dr .J.Jeyashanthi	Assistant Professor(Sr.Grade)	Member
10.	Mr.V.Kannan	Assistant Professor(Sr.Grade)	Member
11.	Mrs.V.HemaMaheshwari	Assistant Professor(Sr.Grade)	Member
12.	Mrs.P.Meenalochini	Assistant Professor(Sr.Grade)	Member
13.	Mrs.S.Rohini	Assistant Professor(Sr.Grade)	Member
14.	Dr.M.Palpandian	Assistant Professor(Sr.Grade)	Member
15.	Mr.K.Mahesh Kumar	Assistant Professor(Sr.Grade)	Member

S.NO	NAME OF THE FACULTY	DESIGNATION	POSITION
16.	Dr.G.Narmadha	Assistant Professor(Sr.Grade)	Member
17.	Mr.V.Muthuvel	Assistant Professor(Sr.Grade)	Member
18.	Mr.S.Kannadasan	Assistant Professor(Sr.Grade)	Member
19.	Mr.V.Dhayanithi	Assistant Professor (Sr.Grade)	Member
20.	Mr.T.Murugan	Assistant Professor(Sr.Grade)	Member
21.	Mr.S.Sugumar	Assistant Professor (Sr.Grade)	Member
22.	Mr.M.Ramuvel	Assistant Professor	Member
23.	Mr.M.MuhammedAladueenAshiq	Assistant Professor	Member
24.	Ms.C.Sonia	Assistant Professor	Member
25.	Mr.T.HarishBabu	Assistant Professor	Member
26.	Ms.V.S.Chithra	Assistant Professor	Member
27.	Mr.K.Jeyakanth	Assistant Professor	Member
28.	Mr.S.Syed Abdul Haq	Assistant Professor	Member
29.	Mr.C.Immanuvel	Assistant Professor	Member
30.	Mrs.R.S.Bharathi	Assistant Professor	Member
31.	Mrs.K.Elavarasi	Assistant Professor	Member
32.	Mr.C.Shiva	Assistant Professor	Member
33.	Mrs.V.Vaishnavi	Assistant Professor	Member

S.NO	FACULTY NAME	DESIGNATION	POSITION
34.	Dr.V.MALATHI	Professor & Dean Department of EEE, Anna University Regional Campus, Madurai. Tamil Nadu, India -625019	Member nominated by VC
35.	Dr. RAJAN PRAKASH	Assistant Professor Department of Electrical and Electronics Engineering, Thiagarajar College of Engineering, Madurai, Tamilnadu	Member
36.	Dr. G.Y. RAJAA VIKHRAM	Assistant Professor Department of Electronics and Instrumentation Engineering, SRM Institute of Science and Technology, Potheri, Kattankulathur – 603203, Tamilnadu	Member
37.	Mr. A. EASWARAN (Expert from Industry Relating to Placement)	Proprietor Jothi Electrical Industries, No.2, RC Street, Pazhanganatham, Madurai – 625003.	Member
38.	J. Vimalraj (Under Graduate Alumni)	R & D, Premier Evolvics Pvt. Ltd., SF No.79/6, Kulathur Road, Venkitapuram Post, Irugur, Coimbatore – 641062, Tamilnadu.	Member

39.	Dr. K. Hemalatha	Dean / Academics, Sethu Institute of Technology	Member
40.	Mrs. S.M. Nazia Fathima	Director (R & D), Sethu Institute of Technology	Member

The Chairman welcomed all the members to the Eighth Board of Studies Meeting and presented the Curricula and Syllabi of Second year courses which are being followed from the academic year 2020-2021 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 – 2020-21 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.

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.

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 Studies Chairman presented 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 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 Studies Chairman presented the categorization of R2019 courses based on the employability/ entrepreneurship/ skill development as given in Annexure IV.
- Mr. J. Vimalraj suggested to offer more practical oriented courses in order to improve the employability.
- Board of Studies Chairman has agreed to offer the practical oriented course as Value added course in each semester.

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

5. Suggestions for improving the R2019 curriculum structure

- Dr.V.Malathi suggested to represent the specific course name instead of Power System I, Power System II and Power System III. She also suggested to split the topics related to Protection and Switch Gear from the course Power System I and suggested to offer that topics in higher semesters.
- Dr. V. Malathi suggested to refer GATE syllabus while integrating the new courses to ensure that all the basic topics are covered.

- Dr. V. Malathi suggested to prove the novelty in Curriculum and Syllabus of R2019 apart from the regulation based novelty.
- Board of Studies members accepted the above suggestions and the Chairman agreed to modify and rename the courses Power System I, Power system II and Power system III. Board of Studies Chairman has also explained the novelty in curriculum and syllabus of R2019 which has been framed on the basis of GATE syllabus.
- 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. He suggested to add Design thinking and system thinking as one credit course.
- Board of Studies Chairman has agreed to include the above suggestion given by Dr.R.RajanPrakash in near future and also represented the course “Creative Thinking and Innovation” which is already offered with one credit in fifth semester of R2019 Curriculum.
- Dr. K. Hemalatha suggested to offer more number of integrated courses in Program Electives.
- Board of Studies Chairman has pointed that already three courses namely, Consumer Electronics, PCB Design and PLC and SCADA Applications are offered as Program Elective in R2019.
- Mrs. Nazia Fatima suggested to offer courses based on the research thrust areas like biosystems, intelligent systems, design automation and photonics.
- Board of Studies Chairman has agreed to offer the courses related to research thrust areas in the Program Elective Sources.
- *Board of Studies resolved to approve the above suggestions that could be incorporated in the R2019 curriculum and syllabus of Electrical and Electronics Engineering.*

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

Board of Studies Chairman has listed the percentage of changes in the third and fourth semester syllabus of R2019 with reference to the syllabus of R2015.

- Percentage change in Syllabus of Third and Fourth Semester courses as follows

SEMESTER III

S.No.	Course Code	Course Name	New Course / Old Course	Percentage change in Syllabus
1	19UEE302	Electrical Circuit Analysis	Old	25%
2	19UEE303	Electrical Machines - I	Old	25%
3	19UEE304	Analog Electronics	Semiconductor devices and circuits and Analog Integrated Circuits of R2015	
4	19UEE305	Electromagnetic Fields	Old	16%
5	19UEE306	Electrical Measurements and Instrumentation	Old	29%
6	19UEE308	Electric circuits Laboratory	Old	8%
7	19UEE309	Electrical Machines Laboratory - I	Old	7%
8	19UEE310	Analog Electronics Laboratory	Old	8 %

SEMESTER IV

S.No.	Course Code	Course Name	New Course / Old Course	Percentage change in Syllabus
1	19UEE401	Electrical Machines - II	Old	36%
2	19UEE402	Control Systems	Old	26%
3	19UEE403	Digital Electronics	Old	42%
4	19UEE404	Electric Power Transmission and Distribution	Old	20 %
5	19UEE406	Electrical Machines Laboratory - II	Old	10%
7	19UEE408	Digital Electronics Laboratory	Old	9 %

Board of Studies resolved to approve and recommend the above changes in Third and Fourth Semester courses of R2019 curriculum and syllabus of Electrical and Electronics Engineering

7. List of New Courses under Regulation 2019

Board of Studies Chairman presented the list of new courses in Third and Fourth Semester of R2019 curriculum of B.E - EEE and also listed the new courses which have been proposed to include in new curriculum structure of B.Tech (Computer Science and Business Systems).

List of New Courses in B.E (EEE) - R2019 Curriculum

Sl.No.	Course Code	Course Title	L	T	P	C
1	19UIT426	Data Structure using C (Integrated Course)	3	0	3	4.5
2	19UEE307	Seminar	1	0	0	1
3	19UGM332	Biology for Engineering Applications	2	0	0	P/F
4	19UGM431	Gender Equality	1	0	0	P/F

List of New Courses in B.Tech (Computer Science and Business Systems) – R2019

Sl.No.	Course Code	Course Title	L	T	P	C
1	19UEE125	Principles of Electrical Engineering	3	0	0	3
2	19UEE128	Electrical Engineering Laboratory	0	0	3	1.5

Board of Studies resolved to approve the above list of new courses that could be included in the R2019 Curriculum of B.E (Electrical and Electronics Engineering) and B.Tech (Computer Science and Business Systems).

8. Assessment Plan and Methodology

Board of Studies Chairman has presented the Assessment plan and methodology to be carried out for assessing the outcome of third and fourth semester Courses.

Board of Studies resolved to approve the proposed assessment plan and methodology for assessing the outcome of third and fourth semester Courses with or without modifications if necessary subject to the practical considerations.

9. 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.
- 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 2020-2021 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 Second year courses of B.E. Electrical & Electronics Engineering which is being followed from the academic year 2020-2021 under autonomous regulations with the above modifications to the Academic council.

M.E. Power Electronics and Drives (Full Time) – 2020-21 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 2020 - 2021 under autonomous regulation.

Percentage if 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

S.No.	Course Code	Course Name	New Course / Old Course	Percentage change in Syllabus
1	19PPE201	Electric Drives System	New	20%
3	19PPE519	Electric Power Quality	Old	20%

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 2020-21 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 2020-21 under Autonomous regulations.



Chairman

Board of Studies

Electrical and Electronics Engineering

Chairperson
Board of Studies
Electrical & Electronics Engineering
Sethu Institute of Technology
Kariapatti - 626 115



SETHU INSTITUTE OF TECHNOLOGY

AN AUTONOMOUS INSTITUTION | ACCREDITED WITH 'A' GRADE BY NAAC

Pulloor-626115, Kariapatti Taluk, Virudhunagar District.

DEPARTMENT OF INFORMATION TECHNOLOGY

MINUTES OF 8th BOARD OF STUDIES (BOS) MEETING HELD ON 28.08.2020

The meeting of the 8th Board of Studies in the Department of Information Technology was held on 28.08.2020 @03.00 PM in the IT Seminar Hall at Sethu Institute of Technology, Pulloor, Kariapatti through Online Platform. The Chairperson Dr.S.SivaRanjani initiated the meeting with a welcome address and presented the following Agenda of the meeting. The resources available in the department and the progress of the department were highlighted to the members of the BOS. A detailed presentation was also made.

- Presentation on Department Profile
- Approval of
 - Department Vision, Mission, PEOs, POs and PSOs of the department.
 - Analysis of the Stakeholders feedback regarding curriculum and syllabi.
 - Discussion made in PAC meetings.
 - Presentation of the Program Articulation Matrix, PO, PSO attainment and Gap Analysis.
 - Mapping of Curriculum and syllabi with Program Specific Criteria.
 - Classification of courses having focus on employability/ entrepreneurship/Skill Development.
 - New Courses Under R2019
 - Approval of External Examiners.
- Any Other

9. Dr. R. Agila

10. Mr. S. Rajananda

11. Mrs. C. Parvathidevi

12. Mrs. D. Raja Manjani

The following members were present.

S.No.	NAME OF THE MEMBERS	DESIGNATION	POSITION
1.	Dr.S.SivaRanjani	Professor & HEAD Department of IT	Chairman
2.	Dr.P.Latha <i>University Nominee</i>	Professor and Head, Department of CSE, Government College of Engineering, Tirunelveli.	External Member
3.	Dr. S.Mary Saira Banu <i>External Academic Expert</i>	Professor, Department of CSE, National Institute of Technology, Thiruchirappalli-6200158	External Member
4.	Dr.P.Karthikeyan <i>External Academic Expert</i>	Associate Professor, Department of IT, Thiagarajar College of Engineering, Madurai.	External Member
5.	Mr.G.Rameshkumar <i>External Industry Expert</i>	Lead Developer, ZakApps Software Pvt Ltd, Chennai.	External Member
6.	Mr.B.Arjunbala <i>Alumni</i>	Chief Executive Officer, Anu Foods, Madurai.	External Member
7.	Dr.S.Sridevi	Professor / IT	Member
8.	Dr.S.Jenicka	Associate Professor / IT	Member
9.	Dr.R.Aghila	Associate Professor / IT	Member
10.	Mrs.S.Rathnamala	Assistant Professor(SG) / IT	CPEC Overall Coordinator
11.	Mrs.C.Parameswari	Assistant Professor(SG) / IT	Member
12.	Mrs.D.RojaRamani	Assistant Professor(SG) / IT	Member

13.	Mrs.M.M.Yamuna Devi	Assistant Professor (SG) / IT	Member
14.	Mr.G.Sivakumar	Assistant Professor(SG) / IT	Member
15.	Mrs.G.Rajalakshmi	Assistant Professor / IT	Member
16.	Mr.S.V.K.Muthukumar	Assistant Professor / IT	Member
17.	Mr.S.ArunInigo	Assistant Professor / IT	Member
18.	Mr.D.Nagendra Kumar	Assistant Professor / IT	Member
19.	Mrs.P.PabithaMuthu	Assistant Professor / IT	Member
20.	Mrs.K.Krishnaveni	Assistant Professor / IT	Member
21.	Mr.P.Manoj Kumar	Assistant Professor / IT	Member
22.	Ms.P.Swapna	Assistant Professor / IT	Member
23.	Mrs.G.Susan Shiny	Assistant Professor / IT	Member
24.	Mrs.R.T.Subhalakshmi	Assistant Professor / IT	Member

1. Department Vision, Mission, PEOs, POs and PSOs of the department

The Institute Vision, Mission and department Vision, Mission statements were presented. The consistencies between both statements were elaborated to the members. PEOs, POs and PSOs were presented. The same is attached in Annexure: I. It is resolved to approve the same with no modifications.

2. Analysis of the Stakeholders feedbacks regarding curriculum and syllabi.

The Stakeholders' feedback and action taken report for the curriculum and syllabi of R2019 were presented by Ms.P.PabithaMuthu, Assistant professor/IT, BoS Member. The same is attached in Annexure: II. It is resolved to approve the same with no modifications.

3. Discussions made in PAC meetings.

Discussions, observations and action taken which are made in various PAC meetings were presented by Mrs.G.Susan Shiny, Assistant professor/IT, BoS Member. The same is attached in Annexure: III.

- The External Academic Expert (Dr.S.Mary Saira Banu) suggested to change the course name titled Biology as Biology for Engineering Applications.
- The University Nominee (Dr.P.Latha) enquired about the total credits and suggested to have the total credits as a whole number.
- The External Academic Expert (Dr.S.Mary Saira Banu) enquired about the industry offered courses and suggested to mention that courses as industry courses in the curriculum book.
- The External Academic Expert (Dr.P.Karthikeyan) enquired about the Course Attainment Analysis and Integrated Courses. It is resolved to approve the same with no modifications.
- The External Industry Expert (Mr.G.Rameshkumar) suggested to increase the number of hours for lab courses.
- It is discussed about to offer the course titled 'Elements of Machine Learning for Engineers'. The External Academic Expert (Dr.S.Mary Saira Banu) told that it is very emerging technology and she suggested to offer the course. It is offered in Professional Electives.

After a detailed discussion it is resolved to address the changes in the draft curriculum of R2019 based on above suggestions.

4. Presentation of the Program Articulation Matrix, PO, PSO attainment and Gap Analysis.

The Program Articulation Matrix of R2015, POs and PSOs attainment of the batch 2015-2019 were presented by Ms.S.Rathnamala, Assistant professor/IT, BoS Member. The same is attached in Annexure: IV. The Gap Analysis based on articulation matrix and attainment analyses were discussed and the course identified to fulfill the gap is presented and the same was approved by the BOS members.

5. Mapping of Curriculum and syllabi with Program Specific Criteria.

The revised program specific criteria based on ABET guidelines were presented by Ms.K.Krishnaveni, Assistant professor/IT, BoS Member. The same is attached in Annexure: V. Mapping of the draft Curriculum with the revised Program Specific Criteria was reviewed by the members and the same has been approved.

6. Classification of courses having focus on employability / entrepreneurship / Skill Development.

The courses having focused on employability / entrepreneurship / Skill Development under Regulations 2019 were presented and the same was approved by the members of the Board of Studies.

7. New Courses Under R2019

The following new courses which are introduced in R2019 were presented by the ChairPerson. The draft curriculum is attached in Annexure: VI.

- i. Introduction to Information Technology
- ii. Programming Fundamentals using Python(Theory and Lab)
- iii. Biology
- iv. Seminar
- v. Gender Equality
- vi. Object Oriented Programming using Python (Theory and Lab)
- vii. Cyber Security
- viii. Mining and Analysis of Big Data (Theory and Lab)
- ix. Microprocessor Based System Design (Theory and Lab)
- x. Artificial Intelligence (Theory and Lab)
- xi. Interpersonal Skills Lab
- xii. Product Development Project
- xiii. Creative Thinking and Innovation
- xiv. Indian Constitution and Essence of Indian Traditional Knowledge

xv. Internet of Things(Theory and Lab)

xvi. Machine Learning

The revised curriculum is attached in Annexure: VII.

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

Semester III

Course Code	Course Title	New Course / Old Course	Percentage Change in Syllabus
19UIT302	Data Structures and Algorithms	Old	20%
19UIT303	C Programming(Integrated Course)	New	-
19UIT304	Digital Principles and System Design	Old	20%
19UIT305	Principles of Operating Systems (Integrated Course)	Old	30%
19UIT306	Software Engineering Methodology	Old	15%
19UIT307	Data Structures and Algorithms Laboratory	Old	5%

Semester IV

Course Code	Course Title	New Course / Old Course	Percentage Change in Syllabus
19UIT402	Design Methods and Analysis of Algorithms	Old	0%
19UIT403	Object Oriented Programming in C++ (Integrated Course)	Old	40%
19UIT404	Database Management Systems (Integrated Course)	Old	40%
19UIT405	Computer Organization and Architecture	Old	40%
19UIT406	Computer Networks (Integrated Course)	Old	50%
19UIT407	Seminar	New	-

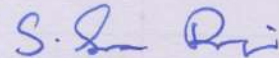
8. Approval of External Examiners

The list of External Examiners for practical examinations, theory examinations, question paper setting and Scrutiny members were presented to the members of the Board of Studies for approval. The same was approved by the BoS members

The Chairperson thanked the members of the BOS for their contributions and suggestions to enhance the quality progress of the department.

Attachments:

- | | |
|---------------|---|
| Annexure: I | Institute & Department VISION, MISSION, PEOs, POs AND PSOs |
| Annexure: II | Stake Holders Feed Back and Suggestions |
| Annexure: III | Details and Observations of PAC Meetings |
| Annexure: IV | Program Articulation Matrix, POs, PSOs Attainment and Gap Analysis |
| Annexure: V | Classification & Mapping of Curriculum with Program Specific Criteria |
| Annexure: VI | Draft Curriculum which was submitted to the BoS |
| Annexure: VII | Revised Curriculum after BoS |



Chairperson

Board of Studies / Information Technology

Chairperson
Board of Studies
Information Technology
Sethu Institute of Technology
Kariapatti - 626 115