SETHU INSTITUTE OF TECHNOLOGY

Pulloor, Kariapatti – 626 115

An Autonomous Institution | Accredited with 'A' grade by NAAC

EIGHTH

ACADEMIC COUNCIL MEETING

Estd : 1995

Board of Studies Meeting
Minutes of Various Departments

Pulloor, Kariapatti – 626 115, Virudhunagar District

Phone No. : **04566 – 229706**, Fax : **04566 – 308006**

Email id : **principal@sethu.ac.in**, website : **www.sethu.ac.in**

SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution)

Estd : 1995

MINUTES OF THE MEETING

Board of Studies of Mechanical Engg.

Pulloor, Kariapatti – 626 115, Virudhunagar District

Phone No. : **04566 – 308001**, 4 Fax : **04566 – 308006**

Email id : **principal@sethu.ac.in**, website : **www.sethu.ac.in**

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, Sethu Institute of Technology, Pulloor, Kariapatti.

The following members were present.

Sl. No	Name of the Members	Designation and Institution	Position	Signature
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		
8.	Dr. C. Kailasanathan	Professor		
9.	Dr. S. Mothilal	Professor		
10.	Dr. R. Murali Kannan	Professor		
11.	Dr. K. Arun Balasubramanian	Professor		
12.	Dr. C. Muthusamy	Professor		
13.	Dr. B. Raja Mohamed Rabi	Professor		
14.	Dr. V. Srinivasa Raman	Professor		
15.	Dr. G. Pitchayya Pillai	Professor		
16.	Dr. A. Anbarasu	Professor		
17.	Mr. G.K. ThamilSelvan	Associate Professor		
18.	Dr. I. Vijay Arasu	Associate Professor		
19.	Mr. S. Paramasamy	Associate Professor		
20.	Mr. G. Nagaraj	Associate Professor		
21.	Dr. K. Vinayagar	Associate Professor		

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

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

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. Assessment Questions and Assessment Pattern for Courses
6. Mapping of Curriculum with Programme Specific Criteria
7. External Examiners and Question setters
8. Employability/ Entrepreneurship/ Skill Development
9. 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 Objectifies 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	• Smart Manufacturing • Design and Product Development Project • Computational Analysis Laboratory (ANSYS & CFD) • Creative Thinking & Innovations
PO 6	• Seminar on Recent Advances in Mechanical Engineering • Creative Thinking & Innovations
PO 7	• Indian Constitution & Essence of Indian Traditional Knowledge
PO 8	• Gender Equality
PO 11	• Internship
PO 12	• 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. 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	**Manufacturing Technology** • 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	**Manufacturing Technology** • **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	**Engineering Thermodynamics** • 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.
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	**Fluid Mechanics and Machinery** • 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

S.No	STAKE HOLDER	NAME	FEEDBACK
		Engineering	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	**Materials Engineering** • 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	**Applied Thermal Engineering** • **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, GSHF, 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	**Strength of Materials** • 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 suggest 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.
- The BoS member Dr. D. Jebakani and Dr. U. Arunachalam suggested to include the content Perpetual-motion machines after the content second law of thermodynamics in Unit II.
- The BoS member Dr. U. Arunachalam suggested to include the content "steam formation" after the properties of pure substances in Unit III.
- The BoS member Dr. U. Arunachalam suggested to remove the content "dryness fraction, types of steam and internal energy of steam".
- The BoS member Dr. D. Jebakani appreciate to include the content "adiabatic saturation-Steam injection" based on Technology forecast of Pharmaceutical industries.

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 suggest to modify the lecture (L) as 45 and practical (P) as 30 hours.
- The BoS member Dr. U. Arunachalam suggested to include the content "accumulator and coupler" in Hydraulic pumps.

Materials Engineering

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

4.2 **Semester – IV:**

Kinematics of Machinery

- The BoS member Dr. U. Arunachalam suggested to modify the content as "velocity and acceleration of link" instead of angular velocity and angular acceleration of the link in UNIT II.
- The BoS member Dr. U. Arunachalam suggested to move the content "pressure angle and undercutting" after profile of cam in UNIT III.
- The BoS member Dr. U. Arunachalam suggested to modify the title as "Gears and Gear trains" in unit 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.
- 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 in UNIT II.
- The BoS member Dr. D. Jebakani and Dr. U. Arunachalam suggested to add the content GSHF ESHF RSHF calculations in UNIT V.

Manufacturing Technology

- The BoS member Dr. D. Jebakani suggest 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.

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
- The BoS member Dr. D. Jebakani appreciated for amalgamated the new technologies included in UNIT V smart vehicles.

5. 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.

6. 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
	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
	Strength 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

Programme Specific Criteria	Course Name
	Process Planning and Cost Estimation
	Maintenance Engineering

7. 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.

8. 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

8.1 Courses with focus on Employability

Sl. No.	Course code	Course Name
1.	19UCS110	Problem Solving and Python Programming Laboratory
2.	19UGS113	Basic Science Laboratory
3.	19UME211	Computer Aided Drafting and Modeling Laboratory.
4.	19UME302	Fundamentals of Manufacturing Processes
5.	19UME303	Engineering Thermodynamics
6.	19UME304	Fluid Mechanics and Machinery
7.	19UME305	Engineering Mechanics
8.	19UME306	Materials Engineering
9.	19UME307	Seminar on Recent Advances in Mechanical Engineering
10.	19UME401	Kinematics of Machinery
11.	19UME402	Applied Thermal Engineering
12.	19UME403	Manufacturing Technology
13.	19UME404	Strength of Materials
14.	19UME405	Automobile Engineering
15.	19UME505	Creative Thinking & Innovations
16.	19UME408	Thermal Engineering Laboratory - I
17.	19UME409	Design Laboratory
18.	19UME501	Heat and Mass Transfer
19.	19UME502	Design of Machine Elements
20.	19UME503	Dynamics of Machinery

Sl. No.	Course code	Course Name
21.	19UME504	Measurements and Instrumentation
22.	19UME508	CAD Laboratory
23.	19UME509	Interpersonal Skill Laboratory
24.	19UME601	Design of Transmission Systems
25.	19UME602	Finite Element Analysis
26.	19UME603	Operations Research
27.	19UME604	Mechatronics
28.	19UME608	Design and Product Development Project
29.	19UME609	Computational Analysis Laboratory (ANSYS & CFD)
30.	19UGS631	Soft Skill Laboratory
31.	19UME701	Project Management and Finance
32.	19UME702	Smart Manufacturing
33.	Mandatory	Professional Ethics & Human values (Mandatory)
34.	19UME708	Smart Manufacturing & Mechatronics Laboratory
35.	19UME709	Internship (Project -1)
36.	19UME801	Project Work
37.	19UME902	Gas Dynamics and Jet Propulsion
38.	19UME903	Applied Hydraulics and pneumatics
39.	19UME905	Computational Fluid Dynamics
40.	19UME906	Quality Control and Reliability Engineering
41.	19UME909	Power Plant Technology
42.	19UME910	Unconventional Machining Processes
43.	19UME912	Process Planning and Cost Estimation
44.	19UME915	Refrigeration and Air conditioning
45.	19UME918	Maintenance Engineering
46.	19UME919	Production Planning and Control
47.	19UME921	Advanced I.C. Engines
48.	19UME925	Industrial Robotics
49.	19UME926	Introduction to aircraft industry and aircraft systems
50.	19UME928	Non Destructive Testing (NDT)

8.2 Courses with focus on Entrepreneurship

Sl. No.	Course code	Course Name
1.	19UME111	Engineering Practice Laboratory
2.	19UEE226	Basic Electrical and Electronics Engineering (common to MECH, Civil, Chemical, Agri)
3.	19UME211	Computer Aided Drafting and Modeling Laboratory.
4.	19UME302	Fundamentals of Manufacturing Processes

5.	19UME403	Manufacturing Technology
6.	19UME405	Automobile Engineering
7.	19UME408	Thermal Engineering Laboratory- I
8.	19UME508	CAD Laboratory
9.	19UME608	Design and Product Development Project
10.	19UME609	Computational Analysis Laboratory (ANSYS & CFD)
11.	19UME708	Smart Manufacturing & Mechatronics Laboratory
12.	19UME709	Internship (Project -1)
13.	19UME801	Project Work

Courses with focus on Skill Development

Sl. No.	Course code	Course Name
1.	19UME109	Engineering Graphics (common to All branches)
2.	19UGM131	Induction Programme
3.	19UME111	Engineering Practice Laboratory
4.	19UEN201	Communication Skills for Professionals
5.	19UEE226	Basic Electrical and Electronics Engineering (common to MECH, Civil, Chemical, Agri)
6.	19UME211	Computer Aided Drafting and Modeling Laboratory.
7.	19UME302	Fundamentals of Manufacturing Processes
8.	19UME307	Seminar on Recent Advances in Mechanical Engineering
9.	19UME405	Automobile Engineering
10.	19UME408	Thermal Engineering Laboratory - I
11.	19UME409	Design Laboratory
12.	19UME502	Design of Machine Elements
13.	19UME508	CAD Laboratory
14.	19UGS531	Interpersonal Skill Laboratory
15.	19UME603	Operations Research
16.	19UME608	Design and Product Development Project
17.	19UME609	Computational Analysis Laboratory (ANSYS & CFD)
18.	19UGS631	Soft Skill Laboratory
19.	19UME708	Smart Manufacturing & Mechatronics Laboratory
20.	19UME709	Internship (Project -1)
21.	19UME801	Project Work
22.	19UME903	Applied Hydraulics and pneumatics
23.	19UME915	Refrigeration and Air conditioning
24.	19UME918	Maintenance Engineering

9. M.E.CAD/CAM

- The Members of BoS thoroughly discussed about the curriculum and Syllabi for M.E. CAD/CAM. They prescribed that there is no change in the curriculum 2019 and they recommended to follow the curriculum and syllabi of regulation 2019. The members of BoS has reviewed and accepted.

Chairman
Board of Studies
Mechanical Engineering