



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(An Autonomous Institution since 2010)

Approved by AICTE, New Delhi and Permanently Affiliated to JNTUK, Kakinada

L.B. Reddy Nagar, Mylavaram, NTR District, Andhra Pradesh - 521230



DEPARTMENT OF MECHANICAL ENGINEERING

Dt: 13-10-2025

The board of studies (BoS) meeting of Mechanical Engineering is scheduled on 15-10-2025 at 10.00 AM through online mode in Microsoft Teams. All the BoS members are requested to attend the meeting and contribute their wisdom.

Agenda of BoS Meeting (Online) being held on 15-10-2025

1. Confirmation of minutes of 20th BoS meeting held on 11-02-2025.
2. Review of Action Taken Report (ATR) on the minutes of 20th BoS meeting held on 11-02-2025.
3. Discussion and Approval of Syllabi and Course Structure of M.Tech (R25) I-IV semesters, specification of COs and CO-PO articulation matrix.
4. Approval of changes in Syllabus of B.Tech (R23) V and VI Semester courses
5. Approval of SWAYAM courses for Minor/Honor program for the A.Y 2025-26
6. Information on Teaching Learning Process
7. Information and discussion on POs & PSOs attainment and ATR for 2021-25 batch
8. Information on Academic Performance of the students for the A.Y 2024-25 (Even Sem)
9. Information & Discussion on R&D and Training & Placement Activities for the A.Y.: 2024-25
10. Information on events organized & Attended for the A.Y.: 2024-25
11. Information on Calendar of events for the A.Y.: 2025-26
12. Any other matter with permission of chair.


Head of the Department

HEAD
Dept. of Mechanical Engineering
LAKIREDDY BALI REDDY COLLEGE OF ENGG.
MYLAVARAM-521 230. KRISHNA DT, A.P

Minutes of BoS meeting held on 15-10-2025

Dr.M.B.S.Sreekara Reddy, the Chairman, Board of Studies in Mechanical Engineering welcomed the members to the meeting and presented the items of the agenda as cited below for discussion, consideration and approval.

1. Confirmation of minutes of 20th BoS meeting held on 11-02-2025.

- The minutes of 20th Board of Studies meeting are confirmed with the consent of honorable members.

2. Review of Action Taken Report (ATR) on the minutes of 20th BoS meeting held on 11-02-2025.

Item No	Item	BoS Committee decision
1	Action Taken Reports on COs, POs & PSOs attainments for the batch 2020-24 in R20 regulation.	Modifications Incorporated and Approved
2	Discussion and Approval of Course Structure for R23 Regulation and Syllabi for B.Tech V & VI semesters (R23 Regulations)	Modifications Incorporated and Approved
3	Stakeholders feedback on R23 Regulation Curriculum.	Noted
4	Discussion and Approval of Syllabi and Course Structure of Minor/Honor program (R23 Regulations)	Modifications Incorporated and Approved
5	Approval of SWAYAM courses for Minor/Honor program for the A.Y 2024-25	Modifications Incorporated and Approved
6	Discussion and review of Department Mission statements.	Modifications Incorporated and Approved
7	Information on Teaching Learning Process and Achievements	Modifications Incorporated and Approved
8	Information on Academic Performance of the students for the A.Y 2024-25 (Odd Sem).	Noted

9	Information & Discussion on R&D and Training & Placement Activities for the A.Y.: 2024- 25.	Noted
10	Information on events organized & Attended for the A.Y 2024-25.	Noted

3. Discussion and Approval of Syllabi and Course Structure of M.Tech Thermal Power Engineering (R25) I-IV semesters, specification of COs.

- Academic Expert Dr.A.V.S.S.K.S.Gupta suggested to add “Electric and Hybrid Vehicles” course and “Solar Technology” courses as part of Program Electives.
- Academic Expert Dr.A.V.S.S.K.S.Gupta suggested to add additional advanced topics in “Advanced Heat Transfer” course like Nano Heat Transfer Multiphase flows.
- Academic Expert Dr.A.V.S.S.K.S.Gupta suggested to add additional advanced topics in all relevant courses and taking care of the syllabus.
- University Nominee Dr B.Balakrishna suggested to follow the R25 regulations for M.Tech Programme given by the JNTUK, Kakinada.

4. Approval of changes in Syllabus of B.Tech (R23) V and VI Semester courses.

- The BoS chairman put forward for the V and VI semester syllabus for discussion.
- The V and VI semester syllabus approved in previous BoS meeting. Now, BoS members are go through the syllabus again, and it is approved by the BoS members without any changes.

5. Approval of SWAYAM courses for Minor/Honor program for the A.Y 2025-26.

- The BoS chairman presented SWAYAM courses for Minor/Honor program for the A.Y 2025-26 for suggestions. All the honorable members accepted without modification.

6. Information on Teaching Learning Process.

- The teaching learning processes of the department is discussed and suggestions by the honorable members are noted.

7. Information and discussion on POs & PSOs attainment and ATR for 2021-25 batch.

- The BoS chairman presented the COs attainment and POs & PSOs attainment values and ATR of batch 2021-25 before the honorable members. The honorable

members are discussed, noted and approved the action taken reports on COs, POs & PSOs attainments.

8. Information on Academic Performance of the students for the A.Y 2024-25 (Even Sem).

- The BoS chairman informed about the academic performance of the students for the Even semester courses of the A.Y:2024-25. It was informed that the courses with poor pass percentage were identified and the honorable members are suggested to conduct remedial classes for the students having backlogs.

9. Information & Discussion on R&D and Training & Placement Activities for the A.Y.: 2024-25.

- The R&D activities of the department are presented and put forward for discussion. Honorable members appreciated research contributions of the faculty in terms of publications and suggested to work more on funded projects.
- Honorable members appreciated the Dr.V.Dhana Raju, for "Recognized as top 2% scientist by Stanford University for the years 2023 and 2024" and "receiving JNTUK research award based on h-Index and Citations".
- Honorable members suggested to increase the quality placements and also impart training to students by industry experts.

10.Information on events organized & Attended for the A.Y.: 2024-25.

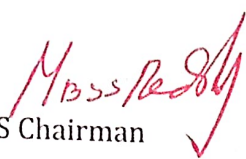
- The chairman presented the members about events organized by the department and put forward for discussion and suggestions are recorded.

11.Information on Calendar of events for the A.Y.: 2025-26.

- The HoD presented information on calendar of events for the A.Y 2025-26 for discussion and suggestions recorded.

12.Any other matter with permission of chair.

The chairman, BOS thanked all the members for their active participation, constructive suggestions and encouragement.


BoS Chairman

HEAD

Dept. of Mechanical Engineering
LAKIREDDY BALI REDDY COLLEGE OF ENGG.
MYLAVARAM-521 230. KRISHNA DT, A.P

Screenshots of BoS Meeting held on 15/10/2025

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LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING,MYLAVARAM-521230

I-SEMESTER										
S.No.	Course code	Course Title	Contact hours/week			Credits	Scheme of Valuation			
			L	T	P		CIE	SEE	Total	
Theory Courses										
1	2STE01	Advanced Thermodynamics	3	1	0	4	40	60	100	
2	2STE02	Advanced Fluid Mechanics	3	1	0	4	40	60	100	
3	2STE03	Advanced Heat Transfer	3	1	0	4	40	60	100	
4	PROGRAMME ELECTIVE - I		3	0	0	3	40	60	100	
5	PROGRAMME ELECTIVE - II		3	0	0	3	40	60	100	
Laboratory Courses										
6	2STE51	Thermal Systems Lab	0	1	2	2	40	60	100	
7	2STE52	Simulation - Lab	0	1	2	2	40	60	100	
8	2SP01	Seminar-I	0	0	2	1	100	-	100	
Total			15	5	6	23	380	420	800	

Pre-requisites: Thermodynamics

COURSE EDUCATIONAL OBJECTIVES (CEOs): The primary objective of this course is to provide student with an advanced understanding of thermodynamics and its applications. The present course on Advanced Thermodynamics deals with review on laws of thermodynamics, thermodynamics relations, exergy involvement in thermal systems, reactive mixtures, and propulsion systems.

COURSE OUTCOMES (COs):
At the end of the course, the student will be able to
CO1: Distinguish the laws of thermodynamics applied to thermal systems (Understanding Level - L2).
CO2: Apply the thermodynamics laws to solve various thermal system problems (Applying Level - L3).
CO3: **Analyze** the thermodynamic properties of various thermal systems (**Analyzing** Level - L4).
CO4: Compare the working and irreversibility of closed and open thermal systems (**Analyzing** Level - L4).
CO5: Classifies the energy of advanced power cycles (Understanding Level - L2).

UNIT - 1

THERMODYNAMICS – Introduction. Review of Zeroth, First, Second and Third law of thermodynamics
THERMODYNAMIC RELATIONS – Introduction – Reciprocity and cyclic relations – The Maxwell's relations –
 The Gibbs and Helmholtz relations – Relations involving enthalpy, internal energy, and entropy; Mayer relation
 Clausius-Clapeyron equation, Joule-Thompson experiment.

UNIT- II

ENTROPY: Concept of reversibility; change in entropy in various thermodynamic processes, entropy balance for closed and open systems, mechanism of entropy generation

UNIT- II

AVAILABILITY AND EXERGY: Introduction - Availability of heat - Availability of a closed system - Availability of open system - Applications. Irreversibility for closed and open system - Effectiveness - Applications

UNIT - I

REACTIVE GAS MIXTURES: Introduction- Fuels and Combustion-theoretical and actual combustion processes- Enthalpy of formation and Enthalpy of reaction- First and Second law analysis of reacting systems.Applications.

UNIT - 2



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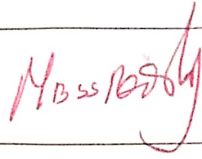
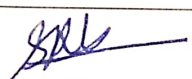
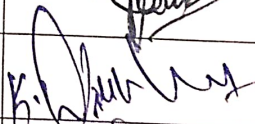
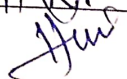
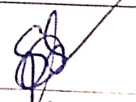
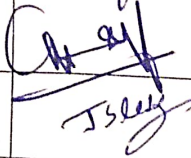
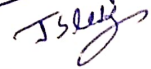
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Motls																														
Industry Visit																														
Professional Society/ Student Chapter Activities																														
Student Workshop/Certification Program/Hackathon																														
Dept. Club Activities																														
Value Added Course(Min.30Hrs Duration)																														
FDPs/STTPs(Min.5 Days)																														
Training Program for Supporting Staff																														
Deputing Faculty for Industry Training																														
Student Parent Meeting																														
Module Coordination Committee (MCC)Meeting																														
Program Assessment Committee(PAC) meeting																														
Department Academic Committee (DAC) Meeting																														
Any other (Specify) Guest Lectures																														

Head of the Department **Principal**

Place Tick (✓) mark in appropriate box

Signatures of BoS Members:

S. No.	BoS Hierarchy	Name & Designation	Signature
1.	Chairman	Dr.M.B.S.Sreekara Reddy, Professor & HoD LBR College of Engineering	
2.	University Nominee	Dr.B.Balakrishna, Professor Department of Mechanical Engineering JNTUK, Kakinada	Attended Online
3.	Subject Expert (Academic)	Dr.A.Kumar, Professor Department of Mechanical Engineering NITW, Warangal	Attended Online
4.	Subject Expert (Academic)	Dr.A.V.S.S.K.S.Gupta, Professor Department of Mechanical Engineering JNTUH, Hyderabad	Attended Online
5.	Subject Expert (Industry)	R.Yogananda Reddy, Scientist E-DRDO, Hyderabad	Not Attended
6.	Alumni Member	V.Sethu Ram, Lead Engineer Quest Global Pvt. Ltd., Bangalore	Not Attended
7.	Internal Faculty	Dr.S.Pichi Reddy, Professor	
8.	Internal Faculty	Dr.P.V.Chandra Sekhar Rao, Professor	
9.	Internal Faculty	Dr.P.Vijay Kumar, Professor	
10.	Internal Faculty	Dr.P.Ravindra Kumar, Professor	
11.	Internal Faculty	Dr.K.Dilip Kumar, Professor	
12.	Internal Faculty	Dr.K.Murahari, Associate Professor	
13.	Internal Faculty	Dr. V.Dhana Raju, Associate Professor	
14.	Internal Faculty	Dr.Ch.Siva Sankara Babu, Associate Professor	
15.	Internal Faculty	Mr. S.Srinivasa Reddy, Associate Professor	
16.	Internal Faculty	Mr.J.Subba Reddy, Associate Professor	
17.	Internal Faculty	Dr. B.Sudheer Kumar, Sr. Assistant Professor	
18.	Internal Faculty	Dr.A.Nageswara Rao Sr. Assistant Professor	
19.	Internal Faculty	Dr.S.Rami Reddy Sr. Assistant Professor	

20.	Internal Faculty	Dr.A.Dhanunjay Kumar Sr. Assistant Professor	A 12
21.	Internal Faculty	Mr.S.Srinivasa Reddy Sr. Assistant Professor	S.S.R
22.	Internal Faculty	Mr.K.V.Viswanadh Sr. Assistant Professor	K.V.
23.	Internal Faculty	Mr.K.Lakshmi Prasad Sr. Assistant Professor	K.L.P
24.	Internal Faculty	Mr.V.Sankara Rao Sr. Assistant Professor	V.S.R
25.	Internal Faculty	Mr.D.Mallikarjuna Rao Sr. Assistant Professor	D.M.R
26.	Internal Faculty	Mrs.B.Kamala Priya Sr. Assistant Professor	B.K.P
27.	Internal Faculty	Mr.K.Venkateswara Reddy Assistant Professor	K.V.R
28.	Internal Faculty	Mr.K.Sai Babu Assistant Professor	K.S.B
29.	Internal Faculty	Mr.S.Uma Maheswara Reddy Assistant Professor	S.U.M.R