6th BOARD OF STUDIES MEETINGS

ACADEMIC YEAR 2015-16

MECHANICAL ENGINEERING

DEPARTMENT

Malla Reddy Engineering College

(AUTONOMOUS)

(Sponsored by CMR Educational Society)
Approved by AICTE & Affiliated to JNTUH

Dr. S. SUDHAKARA REDDY
M.Tech., M.B.A., Ph.D., LMISTE., M.I.E., M.I.S.M.E.
Principal

Date: 10-10-2015

ANNEXURE-III

Reconstituted Board Of Studies (BOS) – MECHANICAL ENGINEERING

S.No	Name of the Member	Designation & Official Address	Subject Specialization	Contact No.	Remarks
1	Dr. S. Sudhakara Reddy	Special Invitee (Principal & Prof. ME,MREC)	Mechanical Engineering	9348161125	Existing
2	Sri V Narasimha Reddy	Chairman (HOD & Assoc. Prof. ME)	Fluid Mechanics	9490806006	Existing
3	Dr. J. Suresh Kumar	Member (Prof. MED, JNTUHCEH-Hyd) JNTUH Nominee	Machine Design.	9848349839	New
4	Dr M Manzoor Hussain	Member (Prof. MED, JNTUHCEH - Hyd) Subject Expert	Production Engg.	9848211005	Existing
5	Dr. Narsimhulu Sanke	Member (Assoc. Prof. MED, Osmania University College of Engineering, Hyd) Subject Expert	Thermal Engg.	9885415325	Existing
6	Sri M. Dakshina Murty	Member (AGM, BHEL-R&D,Hyd) Expert from Industry	Industry	9849457064	New
7	Dr R Satyanarayana Reddy	Member (Prof. MED, MREC)	Thermal Engg.	9985306620	Existing
8	Sri A Raveendra	Member (Assoc. Prof. MED,MREC)	Production Engg.	9502294258	Existing
9	Sri. K.Srinivasa Rao	Member (Assoc.Prof. MED, MREC)	Machine Design	9502997013	Existing
10	Sri Shaik Hussain	Member (Assoc. Prof. MED,MREC)	Thermal Engg.	9966874496	Existing

Malla Reddy Engg. College (A) 500 100 * Hyderabad *

PRINCIPAL
Malla Reddy Engineering College
(Autonomous)
Maisammaguda, Dhulapally
(Post Via Kompally), Sec'bad- 50.

MALLA REDDY ENGINEERING COLLEGE
(AUTONOMOUS)

Maisammaguda, Dhulapally, (Post via Kompally), Secunderabad – 500100

DEPARTMENT OF MECHANICAL ENGINEERING

The BOS meeting is held on 17/10/2015 and the following members have attended for finalization of Schema and Syllabus for MR15 Admitted Students (Under UGC Autonomous-CBCS) for both B.Tech and M.Tech programmes

S. No.	Name of the Member	Designation	Status of BOS	Signature
1	Dr. S. Sudhakara Reddy	Principal	Special Invitee	
2	Dr R Satyanarayana Reddy	HOD & Prof. MED, MREC	Chairman- BoS	
3	Dr. J. Suresh Kumar	Prof. MED, JNTUHCEH-Hyderabad	University Nominee	
4	Dr M Manzoor Hussain	Prof. MED, JNTUHCEH - Hyderabad	Subject Expert	
5	Dr. Narsimhulu Sanke	Assoc. Prof. MED, Osmania University College of Engineering, Hyderabad	Subject Expert	
6	Dr. G. Madhusudhan Reddy	Scientist 'G', DMRL, Hyderabad	Industry Expert	
7	Sri M. Dakshina Murty	AGM, BHEL-R&D, Hyderabad	Industry Expert	
8	Sri V Narasimha Reddy	Assoc. Prof. MED,MREC	Member	
9	Sri A Raveendra	Assoc. Prof. MED,MREC	Member	
10	Sri. K.Srinivasa Rao	Assoc.Prof. MED, MREC	Member	
11	Sri Shaik Hussain	Assoc. Prof. MED,MREC	Member	
12	Sri. K. Venubhupal Reddy	Maintenance Engineer, VIRCHOUS Drugs Pvt Ltd Hyderabad.	Alumni	

AGENDA

1. Formation of Scheme of Instructions, Periods per week and the number of credits allotted to each course of B.Tech and M.Tech Programmes (MR15 Regulations).
2. Syllabi of the following Programmes

   B.Tech:

   a) I, II, III & IV Year syllabi of MR15 Regulations

   M.Tech:

   a) Thermal Engineering.

   b) Machine Design
3. Scheme of Instructions and Syllabi of courses offered by Mechanical Engineering Department to the students of other Engineering branches
   a) Engineering Graphics and Engineering Workshop for All Branches
   b) Engineering Mechanics and Engineering Mechanics & AutoCAD Lab for CE and Mining Engg.
   c) Fluid Mechanics & Hydraulic Machines (Both Theory & Laboratory) for EEE and Mining Engg.
   d) Machine Drawing and Mechanical Technology (Theory only) for Mining Engg.
   e) Mechanics of Solids (Both Theory & Laboratory) for Mining Engg.
4. Suggestion of panel for Paper setters, Valuers for both theory and Laboratory
5. Delegation of power to the Chairman, BOS for inclusion and exclusion of the names of the panel for paper setters and valuers of both theory and Practicals.
6. Any other item with the permission of the chair.

The Board of Studies Chairman invited all the BOS members and expressed his thanks for attending the meeting. He briefed about the Malla Reddy Engineering College and Department of Mechanical Engineering. The chairman requested the members to proceed further with the proposed agenda. Later each item in the agenda has been discussed in detail and finally the meeting convened with the following points unanimously by all the members of BOS for implementation from the Academic Year 2015-16.

1. The members thoroughly discussed entire syllabi of both UG and PG Courses and suggested the minor modifications as given in **Annexure-I**.

UG

a) Suggested to change the computer programming (Theory and Lab) course name as Computer Programming using 'C'.

b) Suggested to change the Law for Engineers course name as Legal aspects for Engineers.

c) **Introduce Thermodynamics Lab in III Semester and Kinematics & Dynamics Lab in V Semester**

d) **Heat Transfer and Thermal Engineering – II (Both Theory and Laboratory) are mutually interchanged from V and VI semesters.**

MALLA REDDY ENGINEERING COLLEGE
(AUTONOMOUS)

Maisammaguda, Dhulapally (Post Via Kompally) Secunderabad – 500 100

Department of Mechanical Engineering

17-10-2015

MINUTES OF BOARD OF STUDIES MEETING

The Sixth Board of Studies (BOS) of Mechanical Engineering Department meeting was held on 17.10.2015 at 10-00 AM in the Department of Mechanical Engineering, Malla Reddy Engineering College, Maisammaguda, Secunderabad-100.

The following BOS members were presented:

S.N	Name	Designation & Official Address
1	Dr. S. Sudhakara Reddy	Special Invitee (Principal & Prof. ME,MREC)
2.	Dr. R.Satyanarayana Reddy	Chairman (HOD & Prof. ME)
3	Dr. J. Suresh Kumar	Member (Prof. MED, JNTUHCEH-Hyd) JNTUH Nominee
4	Dr. M. Manzoor Hussain	Member (Assoc. Prof. MED, JNTUHCEH - Hyd) Subject Expert
5	Dr. Narsimhulu Sanke	Member (Asst. Prof. MED, Osmania University College of Engineering, Hyd) Subject Expert
6	Sri M. Dakshina Murty	Member, (AGM, BHEL-R&D, Hyd) Expert from Industry
7	Sri V. Narasimha Reddy	Member (Assoc. Prof. MED, MREC)
8	Sri A. Raveendra	Member (Assoc. Prof. MED, MREC)
9	K. Srinivas Rao	Member (Assoc. Prof. MED, MREC)
10	Sri Shaik Hussain	Member (Assoc. Prof. MED, MREC)

e) Add the additional courses in VII semester – Foreign language/ Music/ Dance/ Photography/ short film etc.
f) Technical Communication & Presentation skills lab title needs to be modified (Discuss with English Dept)

PG

a) Follow the equal Credits for Project work Review 1 & 2 in III & IV Semesters respectively
b) Suggested 3 credits for each course instead of 4 credits.

2. Text Books and Reference Books are clearly specified for all courses of Mechanical Engineering (Both UG & PG) with their Title, Author Name, Publisher Name and Year of publication.
3. Pre-requisite, Objectives and Outcomes of the each course are added to the syllabus.

Finally the Board of Studies meeting was concluded with vote of thanks by the chairman of the Board of Studies committee.

Date: 17th October 2015

Chairman, BOS

Copy to:

The Chairman of Academic Council & Principal, MREC
All the Members of BOS

MALLAREDDY ENGINEERING COLLEGE (Autonomous)

Academic Year 2015-16 (Choice Based Credit System)

COURSE STRUCTURE- B.Tech. MECHANICAL ENGINEERING (ME)

(MR15 Regulations)

I SEMESTER

S. No.	Category	Course Code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	BS	50B01	Engineering Mathematics	3	2	-	4	40	60	100
2	BS	50B02	Applied Physics - I	2	2	-	3	40	60	100
3	BS	50B03	Applied Chemistry	2	2	-	3	40	60	100
4	ES	50501	Computer Programming	2	2	-	3	40	60	100
5	ES	50301	Engineering Graphics	1	1	3	3	40	60	100
6	BS	50B05	Applied Chemistry Lab	-	-	4	2	40	60	100
7	ES	50502	Computer Programming Lab	-	-	4	2	40	60	100
8	ES	50302	Engineering Workshop	-	-	4	2	40	60	100
9	AC	50A01	NSS & Sports	-	-	2	-	-	-	-
			Total	**10**	**9**	**17**	**22**	**Contact Hours:36**		

II-SEMESTER

S. No.	Category	Course Code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	HS	50H01	English	2	-	-	2	40	60	100
2	BS	50B06	Computational Mathematics	3	2	-	4	40	60	100
3	BS	50B07	Applied Physics - II	2	2	-	3	40	60	100
4	ES	50303	Engineering Mechanics	2	2	-	3	40	60	100
5	ES	50202	Basic Electrical & Electronics Engineering	3	2	-	4	40	60	100
6	HS	50H02	English language Lab	-	-	4	2	40	60	100
7	BS	50B04	Applied Physics Lab	-	-	4	2	40	60	100
8	ES	50304	Engineering Mechanics & AutoCAD Lab	-	-	4	2	40	60	100
9	AC	50A02	Computational Mathematics Lab	-	-	4	-	-	-	-
			Total	**12**	**8**	**16**	**22**	**Contact Hours:36**		

III SEMESTER

S. No.	Category	Course code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	ES	50305	Mechanics of Solids	2	2	-	3	40	60	100
2	PC	50306	Thermodynamics	2	2	-	3	40	60	100
3	ES	50307	Metallurgy and Material Science	2	2	-	3	40	60	100
4	PC	50308	Machine Drawing	2	-	4	2	40	60	100
5	PC	50309	Kinematics of Machines	2	2	-	3	40	60	100
6	BS	50B08	Elementary Calculus And Transforms	3	2	-	4	40	60	100
7	ES	50310	Metallurgy and Mechanics of Solids Lab	-	-	4	2	40	60	100
8	PC	50311	Thermodynamics Lab	-	-	4	2	40	60	100
9	MC	50H11	Human Values and Professional Ethics	-	2	-	-	40	60	100
Total				**13**	**12**	**12**	**22**	**Contact Periods : 37**		

IV SEMESTER

S. No.	Category	Course code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	PC	50312	Dynamics of Machines	2	2	-	3	40	60	100
2	PC	50313	Thermal Engineering – I	2	2	-	3	40	60	100
3	PC	50314	Production Technology	2	2	-	3	40	60	100
4	ES	50315	Fluid Mechanics and Hydraulic Machines	2	2	-	3	40	60	100
5	BS	50B09	Probability and Statistics	3	2	-	4	40	60	100
6	HS	50H16	Environmental Sciences	2	-	-	2	40	60	100
7	PC	50316	Production Technology Lab	-	-	4	2	40	60	100
8	ES	50317	Fluid Mechanics and Hydraulic Machines Lab	-	-	4	2	40	60	100
9	HS	50H17	Gender Sensitization	-	-	4	2	50	-	50
10	AC	50A03	Law for Engineers	-	2	-	-	-	-	-
Total				**13**	**12**	**12**	**24**	**Contact Periods :37**		

V SEMESTER

S. No.	Category	Course code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	HS	50H12	Engineering Economics and Accountancy	2	2	-	3	40	60	100
2	PC	50318	Heat Transfer	2	2	-	3	40	60	100
3	PC	50319	Metal Cutting & Machine Tools	3	2	-	4	40	60	100
4	PC	50320	Design of Machine Members-I	3	2	-	4	40	60	100
5	PE-I	50321	Automobile Engineering	2	2	-	3	40	60	100
		50322	Foundry Technology							
		50323	Mechanics of Composite Materials							
6	PC	50324	Heat Transfer Lab	-	-	4	2	40	60	100
7	PC	50325	Kinematics & Dynamics Lab	-	-	4	2	40	60	100
8	PC	50326	Machine Tools Lab	-	-	4	2	40	60	100
9	HS	50H05	Soft Skills	-	-	2	1	40	60	100
Total				**12**	**10**	**14**	**24**	**Contact Periods :36**		

VIII SEMESTER

S. No.	Category	Course code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	PE-VI	50348	Nano Technology	2	2	-	3	40	60	100
		50349	Plant Layout and Material Handling.							
		50350	Automation in Manufacturing							
2	OE		**Open Elective-2**	2	2	-	3	40	60	100
3			**Open Elective-3**	2	2	-	3	40	60	100
4	PR	50351	Major Project	-	-	20	10	40	160	200
5	PR	50352	Comprehensive Viva Voce	-	-	4	2	100	-	100
6	HS	50H15	Entrepreneurship Skills	-	2	-	1	40	60	100
7	AC	50A04	Foreign Language/ Fine arts	-	2	-	-			
Total				**6**	**10**	**24**	**22**	**Contact Periods : 40**		

OPEN ELECTIVES

S. No.	Branch	Course Code	Name of the course
1	CE	50102	Surveying
2		50123	Air Pollution and Control
3		50124	Disaster Management
4		50150	Green Buildings
5	EEE	50243	Network Theory
6		50208	Control Systems
7		50229	Energy Auditing & Conservation
8		50241	Principles of Electrical Engineering
9	ECE	50414	Micro Processors and Interfacing
10		50448	Principles of Communication Engineering
11		50449	Embedded System Design
12	CSE	50503	Data Structures
13		50511	Database Management Systems
14		50571	Computer Graphics
15		50512	Operating Systems
16		50564	Artificial Intelligence
17	MINING ENGG.	52501	Fundamentals of Geology
18		52511	Mine Construction Engineering
19		52528	Introduction to Mineral Processing
20		52543	Tunneling Engineering
21	ENGLISH	50H08	Introduction to Interpretation of Literature and Analytical Writing
22		50H09	Business Communication
23		50H10	World Literatures
24	MATHEMATICS	50B23	Advanced Optimization Techniques
25		50B24	Mathematical Modeling
26		50B25	Differential Equations and Dynamical Systems
27	PHYSICS	50B20	Advanced Physics for Engineers
28		50B21	Nano Materials
29		50B22	NDT and Vacuum Technology
30	CHEMISTRY	50B17	Chemistry of Engineering Materials
31		50B18	Nano Chemistry
32		50B19	Photochemistry and Spectroscopy

MALLAREDDY ENGINEERING COLLEGE (Autonomous)

Academic Year 2015-16 (Choice Based Credit System)

COURSE STRUCTURE – M.TECH THERMAL ENGINEERING(TE)

(MR15 Regulations)

I SEMESTER

S. No.	Category	Course Code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	CC I	53101	Advanced Thermodynamics	4	--	--	4	40	60	100
2	CC II	53102	Advanced I.C Engines	4	--	--	4	40	60	100
3	CC III	53103	Advanced Fluid Mechanics	4	--	--	4	40	60	100
4	PE I	53104	Non-Conventional Energy Sources	4	--	--	4	40	60	100
		53105	Refrigeration & Air Conditioning							
		53106	Turbo- Machines							
5	PE II	53107	Thermal and Nuclear Power Plants	4	--	--	4	40	60	100
		53108	Thermal Measurements and Process Controls							
		53109	Advanced materials for thermal systems							
6	OE I	50B16	Advanced Optimization Techniques & Applications	4	--	--	4	40	60	100
		53110	Solar Energy Technology							
		53111	Nano Technology							
7	Laboratory I	53112	Thermal Engineering Lab	--	--	4	2	40	60	100
8	Seminar I	53113	Seminar - I	--	--	4	2	100	--	100
			Total	24	--	8	28	Contact Periods: 32		

II SEMESTER

S. No.	Category	Course Code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	CC IV	53114	Fuel Combustion & Environment	4	--	--	4	40	60	100
2	CC V	53115	Advanced Heat & Mass Transfer	4	--	--	4	40	60	100
3	CC VI	53116	Computational Fluid Dynamics	4	--	--	4	40	60	100
4	PE III	53117	Alternate fuels.	4	--	--	4	40	60	100
		53118	Cryogenic Engineering							
		53119	Jet Propulsion & Rocket Engineering							
5	PE IV	53120	Convective Heat Transfer	4	--	--	4	40	60	100
		53121	Equipment design for thermal systems.							
		53122	Computer Simulation of SI & CI Engine							
6	OE II	53123	Advanced Finite Element Analysis	4	--	--	4	40	60	100
		53124	Energy Management							
		53125	Nano fluids							
7	Laboratory II	53126	Computational Methods Lab	--	--	4	2	40	60	100
8	Seminar II	53127	Seminar - II	--	--	4	2	100	--	100
			Total	24	--	8	28	Contact Periods: 32		

III Semester

S. No.	Category	Course Code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	CV	53128	Comprehensive Viva-Voce	--	--	--	4	--	100	100
2	PR I	53129	Project work Part I	--	--	16	8	50	--	50
			Total	--	--	16	12	Contact Periods: 16		

IV Semester

S. No.	Category	Course Code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	PR II	53130	Project work PartII	--	--	16	8	50	--	50
2	PR III	53131	Project Viva-Voce	--	--	--	12	--	150	150
			Total	--	--	16	20	Contact Periods: 16		

*** CC – Core Course, PE – Professional Elective, CV – Comprehensive Viva – Voce,PR – Project Work**

MALLAREDDY ENGINEERING COLLEGE (Autonomous)

Academic Year 2015-16 (Choice Based Credit System)

COURSE STRUCTURE – M.TECH MACHINE DESIGN(MD)

(MR15 Regulations)

I SEMESTER

S. No.	Category	Course Code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	CC I	53301	Advanced Mechanics of Solids	4	--	--	4	40	60	100
2	CC II	53302	Advanced Mechanics of Machinery	4	--	--	4	40	60	100
3	CC III	53303	Industrial Robotics	4	--	--	4	40	60	100
4	PE I	53304	Computer Simulation of Machines	4	--	--	4	40	60	100
		53305	Applied Tribology							
		53306	Vibration Analysis of Mechanical Systems.							
5	PE II	53307	Advanced Mechanics of Composite Materials	4	--	--	4	40	60	100
		53308	Mechanics of Metal Forming							
		53309	Design For Manufacturing & Assembly							
6	OE I	53310	Geometric Modeling	4	--	--	4	40	60	100
		53311	Mechatronics							
		53111	Nano Technology							
7	Laboratory I	53312	Kinematics and Dynamics Lab	--	--	4	2	40	60	100
8	Seminar I	53313	Seminar - I	--	--	4	2	100	--	100
			Total	24	--	8	28	Contact Periods: 32		

II SEMESTER

S. No.	Category	Course Code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	CC IV	53123	Advanced Finite Element Analysis	4	--	--	4	40	60	100
2	CC V	53314	Experimental Stress Analysis	4	--	--	4	40	60	100
3	CC VI	53315	Advanced Mechanical Engineering Design	4	--	--	4	40	60	100
4	PE III	53316	Design Optimization	4	--	--	4	40	60	100
		53317	Theory of Plates and Shells							
		53318	Advanced Engineering Design							
5	PE IV	53319	Fracture Mechanics	4	--	--	4	40	60	100
		53320	Vehicle Dynamics							
		53321	Design and Analysis of Experiments							
6	OE II	50B16	Advanced Optimization Techniques and Applications	4	--	--	4	40	60	100
		53116	Computational Fluid Dynamics							
		53124	Energy Management							
7	Laboratory II	53322	Computer Aided testing, Analysis and Modeling Lab	--	--	4	2	40	60	100
8	Seminar II	53323	Seminar - II	--	--	4	2	100	--	100
			Total	24	--	8	28	Contact Periods: 32		

III SEMESTER

S. No.	Category	Course Code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	CV	53324	Comprehensive Viva-Voce	--	--	--	4	--	100	100
2	PR I	53325	Project work Part I	--	--	16	8	50	--	50
			Total	--	--	16	12	Contact Periods: 16		

IV SEMESTER

S. No.	Category	Course Code	Name of the course	Contact hours/week			Credits	Scheme of Valuation		Total Marks
				L	T	P		Internal (CIE)	External (SEE)	
1	PR II	53326	Project work Part II	--	--	16	8	50	--	50
2	PR III	53327	Project Viva-Voce	--	--	--	12	--	150	150
			Total	--	--	16	20	Contact Periods: 16		

*** CC – Core Course, PE – Professional Elective, CV – Comprehensive Viva – Voce,PR – Project Work**