Malla Reddy Engineering College
(AUTONOMOUS)

(An UGC Autonomous Institution approved by AICTE and affiliated to JNTU Hyderabad, Accredited by NAAC with 'A' Grade (II - cycle)
NBA Accredited Programmes - UG (CE, EEE, ME, ECE & CSE) PG (CE - Structural Engg., EEE-Electrical Power Systems, ME - Thermal Engg.).

ORDER

Date: 29/06/2018

The ECE UG-Board of Studies for the Academic year 2018-19 have been reconstituted as per the UGC guidelines.

S. No.	Name of the Member	Designation & Official Address	Subject Specialization	Contact No.	Email ID	Status
1	Dr. S. Sudhakara Reddy	Principal, MREC(A)	Mechanical Engineering	9348161125	principal@mrec.ac.in	Special Invitee
2	P.S.Indrani	Associate Professor, Head, Dept. of ECE, MREC	Digital Systems and Computer Electronics	9490224344	ecehod@mrec.ac.in	Chairman - BOS
3	Dr. D.Srinivasa Rao,	Professor, Dept. of ECE, JNTUH CEH, Hyderabad.	Computer Networks	9441189228	dsraoece@jntuh.ac.in	University Nominee
4	Dr. B. Rajendra Naik	Professor, Dept. of ECE, OU Hyderabad.	VLSI & Image Processing	9441222226	rajendranaikb@osmania.ac.in	Subject Expert Member (External)
5	Dr J Ravi Kumar	Professor, Dept. of ECE, NITW	Signal processing	8332969363	ravikumar@nitw.ac.in	Subject Expert Member
6	Mrs. N Mangala Gouri	Associate Professor, Dept. of ECE, JNTUHCEH, HYD	Optical communications	9866502396	gourimangala@jntuh.ac.in	Subject Expert Member (External)
7	Dr G.Mallikarjun Rao	Scientist F, RCI	Image processing	9490166665	mallikarjun_rci@yahoo.com	Industry Expert
8	Dr. S. Madhu Babu	Associate Professor Dept. of ECE, MREC	Communication Systems	9042857114	sikha.madhu@gmail.com	Faculty Member (Internal)
9	Dr N.Subbu Lakshmi	Associate Professor Dept. of ECE, MREC	VLSI	9843910092	lakshu.125@gmail.com	Faculty Member (Internal)
10	C.Silpa	Associate Professor Dept. of ECE, MREC	Communication	9490421721	srsilpavasu@gmail.com	Faculty Member (Internal)
11	Dr T.Srinivas reddy	Associate Professor Dept. of ECE, MREC	Image processing	9492571803	srimrec.2014@gmail.com	Faculty Member (Internal)
12	P.Sowjanya	Faculty,MREC	DSCE	9701519851	sowjan_13@yahoo.co.in	Alumni (R08)

Principal

PRINCIPAL
Malla Reddy Engineering College
(Autonomous)
...guda, Dhulapally,

Maisammaguda, Dhulapally (Post. Via. Kompally), Medchal - Malkajgiri - 500 100.
Ph: 093481 61125, 08885542037
www.mrec.ac.in
email: principal@mrec.ac.in

MALLA REDDY ENGINEERING COLLEGE
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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

The following is the agenda for the Meeting of the Board of Studies for ECE – UG for the academic year 2018-19

AGENDA:

1. Discussion and approval of the scheme and Syllabus of B.Tech. –ECE (CBCS) for MR18 Regulations (for Batches starting from Academic Year 2018-19 onwards).
2. Discussion and approval of the syllabus for offering subjects to other Departments.
   - Analog Electronics (EEE)
   - Analog Electronics Lab (EEE)
   - Digital Electronics (EEE)
   - Digital Electronics Lab (EEE)
   - Signals and Systems (EEE)
   - Signals and Systems Lab (EEE)
   - Microprocessor & Microcontrollers (EEE)
   - Microprocessor & Microcontrollers Lab (EEE)
   - Digital Signal Processing (EEE)
   - Principles of Communications (CE, EEE, ME, ,CSE, IT and Mi.E)
   - Embedded System Design (CE, EEE, ME, ,CSE, IT and Mi.E)
   - VLSI Design (CE, EEE, ME, CSE, IT and Mi.E)
3. Suggestion and approval of Open Source Software's for suitable lab experiments
4. Suggestion and approval of panel for Paper setters, Valuers for both theory and practical examinations.
5. Delegation of power to the Chairman, BOS for inclusion and exclusion of any item as per the requirements.
6. Approval of any other item with the permission of the Chairman.
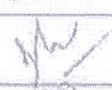
CHAIRMAN BOS

Mrs. P.S. INDRANI

(HOD ECE)

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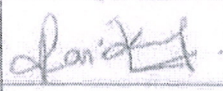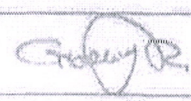
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Maisammaguda, Dhulapally, Secunderabad-100

DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

Date: 03/07/2018

The 9th Board of Studies meeting for ECE (UG) was conducted on 03.07.2018 at 10.00AM in the conference hall. The following members were present.

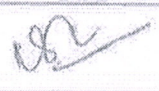| S. No.	Name of the Member	Designation & Official Address	
1	Dr. S. Sudhakara Reddy	Principal, MREC(A)	
2	P.S.Indrani	Chairman- BOS Associate Professor, Dept. of ECE, MREC	
3	Dr. D.Srinivasa Rao,	Professor, Dept. of ECE, JNTUH CEH, Hyderabad.	
4	Dr. B. Rajendra Naik	Professor, Dept. of ECE, Osmania University, Hyderabad.	
5	Dr J Ravi Kumar	Asso. Professor, Dept. of ECE, National Institute of Technology, Warangal	
6	Mrs. N Mangala Gouri	Associate Professor, Dept. of ECE, JNTUHCEH, Hyderabad	
7	Dr G.Mallikarjun Rao	Scientist F, RCI	
8	Dr. S. Madhu Babu	Associate Professor Dept. of ECE, MREC	
9	Dr N.Subbu Lakshmi	Associate Professor Dept. of ECE, MREC	
10	C.Silpa	Associate Professor Dept. of ECE, MREC	
11	Dr T.Srinivas reddy	Associate Professor, ECE Department MREC	
12	P.Sowjanya	Faculty, MREC	

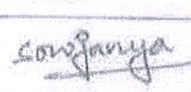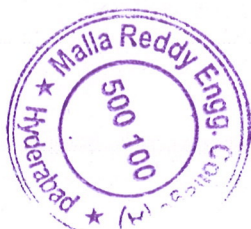P.S.INDRANI
Chairman – BOS

Principal
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(Post Via Kompally), Sec'bad-500100

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Department of Electronics and Communication Engineering

Minutes of the meeting - UG - B.Tech.(ECE) Board of Studies

July 3nd, 2018

The 9th Board of studies meeting for the UG – B.Tech.(ECE) for MR18 is conducted on 03-07-2018 at 10:00 AM in the conference hall, Malla Reddy Engineering College (Autonomous), Hyderabad.

The following BOS Members have attended the Meeting:

1.	Dr. S. Sudhakara Reddy	Principal, MREC(A)	Special Invitee
2.	P.S.Indrani	Chairman- BoS Associte Professor, Dept. of ECE, MREC	Chairman- BOS -
3.	Dr. D.Srinivasa Rao	Professor, Dept. of ECE, JNTUH CEH, Hyderabad	University Nominee
4.	Dr. B. Rajendra Naik	Professor, Dept. of ECE, Osmania University, Hyderabad	Subject Expert Member
5.	Dr.J. Ravi Kumar	Asst Professor, Dept. of ECE, National Institute of Technology, Warangal	Subject Expert Member
6.	Mrs. N. Mangala Gouri	Associate Professor, Dept. of ECE, JNTUH CEH, Hyderabad	Subject Expert Member
7.	Dr.G.Mallikarjun Rao	Scientist F, RCI	Industry Expert
8.	Dr. S. Madhu Babu	Associate Professor Dept. of ECE, MREC	Faculty Member
9.	Dr N.Subbu Lakshmi	Associate Professor , Dept. of ECE, MREC	Faculty Member
10.	C.Silpa	Associate Professor, Dept. of ECE, MREC	Faculty Member
11.	Dr T.Srinivas reddy	Associate Professor, ECE Department, MREC	Faculty Member
12.	P.Sowjanya	Faculty, MREC	Alumni (R08 Batch)

The following is the agenda for the meeting.

1. Discussion and approval of the scheme and Syllabus of B.Tech. –ECE (CBCS) for MR18 Regulations (for Batches starting from Academic Year 2018-19 onwards).

2. Discussion and approval of the syllabus for offering subjects to other Departments.
   - Analog Electronics (EEE)
   - Analog Electronics Lab (EEE)

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Analog Electronics
Network Theory and Transmission lines
Advanced Digital Communication
Bio-Medical Electronics
JAVA Programming
Fundamentals Of Artificial Intelligence
Internet of Things(IOT) and Applications
ADHOC Wireless Sensor Networks
System on Chip Architecture
Wavelets & Its Applications
Principles Of Communication Engineering
Basics Of VLSI Design
Embedded System Design

2. Suggestion and approval of open source softwares'
3. Suggestion and approval of list of additional topics beyond the syllabus approved in the BOS and Academic council, to be covered in the class room for both theory and practical courses, that can be taught in about 3 to 5 hours / semester / course.
4. Delegation of power to the Chairman-BoS for inclusion and exclusion of any item as per requirements.
5. Approval of any other item with the permission of the Chairman.

At the outset, P.S Indrani , Assoc. Professor, ECE Department and Chairman of the B. Tech (ECE) - Board of Studies, welcomed the members to the Board of Studies meeting and appraised the purpose of the meeting. He also briefed about the previous BOS meeting, resolutions and placed on record, the existing syllabus of MR 17 regulations and also proposed modifications for MR18 regulations syllabus (Batches admitted from 2018-19 onwards).

The following resolutions are made after careful discussion and observations.

1. The BOS Members have thoroughly reviewed and discussed the Scheme of instructions, periods per week, and number of credits for all 4 years of B. Tech (ECE) course as per the guide lines of the AICTE and JNTUH, Hyderabad.

2 A After formulation of scheme of Instructions, the BOS members has reviewed and approved New courses , the following subjects are introduced for the academic year 2018-19 (MR 18).
Advanced Digital Communication
Bio-Medical Electronics
JAVA Programming
Fundamentals Of Artificial Intelligence
Internet of Things(IOT) and Applications
ADHOC Wireless Sensor Networks
System on Chip Architecture
Wavelets & Its Applications
Principles Of Communication Engineering
Basics Of VLSI Design.
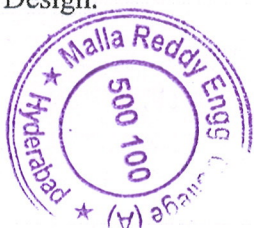
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2 B The Structure and Syllabus for B.Tech MR18 batch have been approved with the following suggestions

Year	Semester	Name of the Subject	Modifications Suggested
II	I	Analog Electronics lab	The following Experiments are added 1.Voltage Shunt Feedback Amplifier 2. Common Drain Amplifier 3. Voltage Series Amplifier. 4. Current Series Amplifier
III	I	Computer Organization and Operating Systems	New Modules are added MODULE IV: Operating Systems Overview MODULE V: File System Interface
III	I	Data Communications and Computer Networks	New Modules are added MODULE I: Basics of Networking and Physical layer MODULE V: Application layer
III	I	Digital Signal Processing Lab	The following Experiments are added 1.Verification of linearity and Time Invariance Properties of a given Discrete-Time System 2.Computation of Unit Sample, Unit Step and Sinusoidal responses of the given LTI Discrete-Time System
III	II	VLSI Design Lab	The following Experiments are added 1. Design and Implementation of SISO shift registers on FPGA Board. 2. Design of Sequence Detector using Melay Machines on FPGA Board. 3. Design and Implementation of SIPO shift registers on FPGA Board 4. Design of Sequence Detector using Moore Machines on FPGA Board. 5. Design of Barrel shifter. 6. Design of Carry select adder 7. Design of Serial Multiplier 8. Design of Booth Multiplier
IV	I	Microwave Engineering and Radar Systems	New Modules are added MODULE IV: Basics of Radar MODULE V: CW Modulated Radar
IV	I	WIRELESS COMMUNICATIONS	New Modules are added MODULE IV: Capacity of Wireless Channels MODULE V: : Equalization and Diversity Techniques
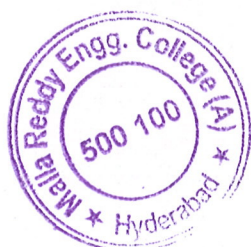
3 All the BOS members have unanimously approved the department vision, department mission & programme educational objectives (PEOs) which are given below.

Item Name	Old	Modified
Department vision	Attempting to develop innovative, competent and quality electronic engineers. To impart state of art technology and to foster a climate of professionalism and ethical values.	To produce innovative, globally competent and ethical Electronics and communication Engineers to cater socio-economic needs.
Department mission	To enrich the knowledge of students through value based education and organize various effective training programs in order to compete the advanced technology and produce employable under graduates and post graduates.	To impart quality education in Electronics and Communication Engineering discipline and produce employable graduates To improve the thought process of students by exposing them to advanced technologies and make them innovative in their career To provide ethical and value-based education by encouraging activities addressing the societal needs.
programme educational objectives (PEOs)	PEO I: Graduates should emphasize their insight in mathematics, sciences, computing and fundamentals of engineering including breadth to meet global demand and competitiveness in terms of technological aspects. PEO II: Our graduates should excel in the best post graduate schools, reaching advanced degrees in engineering and related disciplines; should have skills for continued independent, learning to become experts in their professions. PEO III: Graduates should succeed with effective communicative skills and work efficiently on team based projects in electronics, communication, computational, or manufacturing firms with a sense of social responsibility	PEO1: Graduates acquire insights into mathematics, sciences, computing and fundamentals of electronics and communication engineering including breadth to meet global demand and competitiveness in terms of technological aspects. PEO2: Graduates excel in best postgraduate schools, reaching advanced degrees in engineering and related disciplines; will have skills for continued independent, lifelong learning to become experts in their profession. PEO3: Graduates possess best communicative skills and work efficiently on team-based projects in electronics, communication, computational and manufacturing firms with a sense of social responsibility.

4 The BOS Members unanimously approved to use the following Open Source software for execution of programmes in the respective laboratories.

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S No.	Lab Name	Software Required
1	Analog Electronics Lab	TINA/Multisim/ Any Equivalent Open Source Software
2	Signals and Stochastic Process Lab	Matlab/Octave/Any Equivalent Open Source Software
3	Analog and Digital Communications Lab	Octave/ Any Equivalent Open Source Software
4	Microprocessors and Microcontroller Lab	MASM, KEIL & Flash magic / Any Equivalent Open Source Software
5	Digital Signal Processing Lab	Matlab/Octave/ Any Equivalent Open Source Software
6	VLSI Design lab	Cadence/XILINX / Any Equivalent Open Source Software
7	Digital Image Processing Lab	Matlab/Octave/ Any Equivalent Open Source Software
8	Computer Networks Lab	Packet Tracer/NS-2 & NS-3/Wireshark / Any Equivalent Open Source Software

5. The BOS members have agreed to suggest a panel for paper setters and valuers /examiners for both theory and practical of all the subjects of B.Tech.(ECE) Course.

6. If any item need to be modified /added/ deleted, the same may be circulated by E-mail to all members and after taking electronic/E-mail approval the modification may be made operational.

**The following approvals were made by the members of the Board of studies.**

- Committee's approved
  - Implementing B.Tech(ECE) Schema with 160 credits for MR18 Regulations.

The following suggestions were made by the members of the Board of studies.

- Basic Electrical and Electronics Engineering(BEEE) to be made mandatory for circuit branches but not for non-circuit branches.
- Data structure and BEEE to be separated for circuit and non-circuit branches.
- Mathematics I, II and III course titles to be modified according to the course content.
- In syllabus of MPMC(Microprocessors and Microcontrollers), ARM processors to be introduced.
- IN PE-V CPLD/FPGA to be replaced with SoC(System on Chip).
- ANN to be replaced with Artificial Intelligence.
- IOT/Speech Processing/Network Security and Cryptography to be introduced in the electives.
- In the syllabus of Digital Image processing, one module of video processing to be included.
- Computer Network course content to be modified.

Finally, P.S.indrani, Chairman – ECE(UG) Board of Studies has expressed her sincere thanks to all the Members of the Board of studies for their active participation and contribution. The meeting concluded at 01:30 PM.

P.S.Indrani
Chairman, ECE(UG) - BOS

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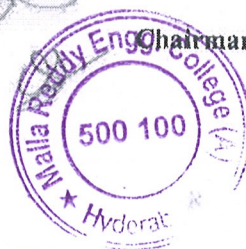
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Department of Electronics & Communication Engineering

Action Taken Report (ATR) on previous BoS Meeting held in AY 2018-19

Date: 08.12.2018

The previous Board of studies (UG) meeting for AY 2018-19 was held on dated 3rd July 2018. The following are the resolutions made in the meeting and corresponding actions taken:
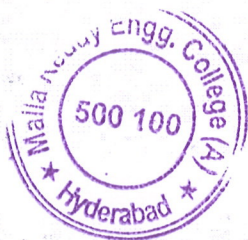
1	Resolution	To include failures in each subject where remedial classes were taken up.
	Action Taken	The BOS chairman has presented the information about the failures in each subject where remedial classes were taken up.
2	Resolution	After formulation of scheme of Instructions, the BOS has reviewed and devised the syllabus for B.Tech. (ECE) Course and approved as per the guide lines of the UGC, AICTE and JNTUH, Hyderabad with 160 credits.
	Action Taken	The devised syllabus is implemented as MR18 regulation B.Tech. (ECE) course syllabus with 160 credits is implemented from the academic year 2018-19 onwards.
3	Resolution	The BOS has discussed and framed the syllabus of the B.Tech. subjects offered to the other Engineering branches namely B.Tech.(EEE), B.Tech.(CSE) as per the guide lines of the UGC, AICTE & JNTUH, Hyderabad and approved & resolved to implement from the academic year 2018-19 onwards.
	Action Taken	Syllabus of the B.Tech. Subjects offered to the other Engineering branches namely B.Tech. (EEE), B.Tech.(CSE) is implemented from the academic year 2018-19 onwards.
4	Resolution	The BOS Members unanimously approved to use the Open Source software for execution of programs in the respective laboratories.
	Action Taken	The approved Open Source software will be used for execution of programs in the respective laboratories devised in MR18 UG-B.Tech. (ECE).
5	Resolution	The BOS members have agreed to suggest a panel for paper setters and valuers /examiners for both theory and practical examinations of B.Tech. (ECE) Course.
	Action Taken	The panel of paper setters and valuers/examiners are implemented for both theory and practical of all the subjects of B.Tech. (ECE) Course.
6	Resolution	If any item needs to be modified /added/ deleted, the same may be circulated by E-mail to all members and after taking electronic/E-mail approval, the modification may be made operational.
	Action Taken	Implemented from the academic year 2018-19.
7	Resolution	Suggestions were made by the members of the Board of studies; to modify the tittles Mathematics-I, II and III courses
	Action Taken	Implemented.
8	Resolution	Suggestions were made by the members of the Board of Studies to include ARM processors in the syllabus of MPMC
	Action Taken	ARM Processors are introduced in PE-IV: Advanced Microcontrollers course
9	Resolution	Suggestions were made by the members of the Board of studies; In professional Elective V, CPLD/FPGA to be replaced with SOC (System on Chip)

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	Action Taken	System on Chip course is introduced instead of CPLD/FPGA as PE-V.	
10	**Resolution**	To prepare Student Innovation projects	
	Action Taken	Principal has informed that Funding is provided for UG and PG Projects under college fund and submission of Innovation projects.	
11	**Resolution**	Suggestions were made by the members of the Board of studies; IOT/Speech Processing/Network Security and Cryptography to be introduced in the electives.	
	Action Taken	IoT and Applications course is introduced as PE-V.	
12	**Resolution**	Suggestions were made by the members of the Board of Studies; Computer Networks course content to be modified.	
	Action Taken	Data Communications and Computer Networks course and lab contents are modified according to the suggestions.	

P.S.Indrani
Chairman, ECE (UG) - BOS

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