

S.R.K.R. Engineering College-Department of Mechanical Engineering-Board of Studies Meeting on 12.08.2020 at 2 PM-Online Mode-Reg.

SRKR Principal <principal@srkrec.ac.in>

Tue 8/11/2020 4:10 PM

To: grksastry@nitandhra.ac.in <grksastry@nitandhra.ac.in>

Cc: brahmaraju@yahoo.com <brahmaraju@yahoo.com>

To

Prof. G. Ravi Kiran Sastry

Professor

Dept. of Mechanical Engineering

National Institute of Technology Andhra Pradesh

Tadepalligudem, Andhra Pradesh

Dear Sir,

Sub: S.R.K.R. Engineering College- Department of Mechanical Engineering-Board of Studies Meeting-Reg.

We take the privilege in inviting you for the Board of Studies Meeting of Department of Mechanical Engineering, SRKR Engineering College as an Expert Member from other University.

You are requested to attend the online meeting scheduled on 12.08.2020 at 2.00 PM. The online meeting link will be provided to you shortly.

Kindly accept our invitation and make it convenient to attend the Board of Studies meeting.

Thanking you,

Yours Sincerely,

Dr. M. Jagapathi Raju

PRINCIPAL

S.R.K.R. Engineering College

China Amiram, Bhimavaram,

West Godavari District

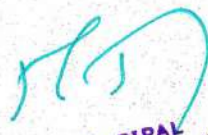
Andhra Pradesh-534204

Landline: 08816-223332

Mobile No. : 9848773515, 9848381818

Email: principal@srkrec.ac.in

principalsrkrec@gmail.com


PRINCIPAL
S.R.K.R. Engg. College
BHIMAVARAM-534 204

S.R.K.R. Engineering College- Department of Mechanical Engineering-Board of Studies Meeting on 12.08.2020 at 2 PM-Online Mode-Reg.

SRKR Principal <principal@srkrec.ac.in>

Tue 8/11/2020 4:05 PM

To: kvsubbaiah.mech@auvsp.edu.in <kvsubbaiah.mech@auvsp.edu.in>; drkvsau@yahoo.co.in <drkvsau@yahoo.co.in>

Cc: brahmaraju@yahoo.com <brahmaraju@yahoo.com>

To

Prof. K. Venkata Subbaiah

Professor & Head

Dept. of Mechanical Engineering

College of Engineering (A), Andhra University

Visakhapatnam.

Dear Sir,

Sub: S.R.K.R. Engineering College- Department of Mechanical Engineering-Board of Studies Meeting-Reg.

We take the privilege in inviting you for the Board of Studies Meeting of Department of Mechanical Engineering, SRKR Engineering College as a University Nominee.

You are requested to attend the online meeting scheduled on 12.08.2020 at 2.00 PM. The online meeting link will be provided to you shortly.

Kindly accept our invitation and make it convenient to attend the Board of Studies meeting.

Thanking you,

Yours Sincerely,

Dr. M. Jagapathi Raju

PRINCIPAL

S.R.K.R. Engineering College

China Amiram, Bhimavaram,

West Godavari District

Andhra Pradesh-534204

Landline: 08816-223332

Mobile No. : 9848773515, 9848381818

Email: principal@srkrec.ac.in

principalsrkrec@gmail.com


PRINCIPAL
S.R.K.R. Engg. College
BHIMAVARAM-534 204.

S.R.K.R. Engineering College-Department of Mechanical Engineering-Board of Studies Meeting on 12.08.2020 at 2 PM-Online Mode-Reg.

SRKR Principal <principal@srkrec.ac.in>

Tue 8/11/2020 4:13 PM

To: dr.a.gopalakrishna@gmail.com <dr.a.gopalakrishna@gmail.com>

Cc: brahmaraju@yahoo.com <brahmaraju@yahoo.com>

To

Dr. A. Gopala Krishna

Professor

Department of Mechanical Engineering

University College of Engineering (A), JNTUK

Kakinada-533 003.

Dear Sir,

Sub: S.R.K.R. Engineering College- Department of Mechanical Engineering-Board of Studies Meeting-Reg.

We take the privilege in inviting you for the Board of Studies Meeting of Department of Mechanical Engineering, SRKR Engineering College as a University Nominee.

You are requested to attend the online meeting scheduled on 12.08.2020 at 2.00 PM. The online meeting link will be provided to you shortly.

Kindly accept our invitation and make it convenient to attend the Board of Studies meeting.

Thanking you,

Yours Sincerely,

Dr. M. Jagapathi Raju

PRINCIPAL

S.R.K.R. Engineering College

China Amiram, Bhimavaram,

West Godavari District

Andhra Pradesh-534204

Landline: 08816-223332

Mobile No. : 9848773515, 9848381818

Email: principal@srkrec.ac.in

principalsrkrec@gmail.com


PRINCIPAL
S.R.K.R. Engg. College
BHIMAVARAM-534 204



Mechanical Department <hodmechsrkr@gmail.com>

S.R.K.R. Engineering College-Department of Mechanical Engineering-Board of Studies Meeting on 12.08.2020 at 2 PM-Online Mode-Reg.

1 message

Mechanical Department <hodmechsrkr@gmail.com>
To: dr.a.gopalakrishna@gmail.com
Bcc: kalidindi brahmaraju <brahmaraju@yahoo.com>

Tue, Aug 11, 2020 at 4:22 PM

Dear Sir,

Sub: S.R.K.R. Engineering College- Department of Mechanical Engineering-Board of Studies Meeting-Reg.

We take the privilege in inviting you for the Board of Studies Meeting of the Department of Mechanical Engineering, SRKR Engineering College as a University Nominee.

You are requested to attend the online meeting scheduled on 12.08.2020 at 2.00 PM. The online meeting link will be provided to you shortly.

Kindly accept our invitation and make it convenient to attend the Board of Studies meeting.

R19 Course Structure for all Four Years, R19 Course Syllabus for Second Year and R17 Course Syllabus for Final Year are enclosed for your reference.

Thanking you,

Yours Sincerely,

Dr. K. BRAHMA RAJU

Professor & Head,
Department of Mechanical Engineering
S.R.K.R. Engineering College (A)
China Amiram, Bhimavaram,
West Godavari District
Andhra Pradesh-534204
Mobile No. : 9849503522



PRINCIPAL
S.R.K.R. Engg. College
BHIMAVARAM-534 204

3 attachments

Proposed R19-ME-4-YEARS-Course Structure-SRKREC.docx
57K



Proposed R19-ME-II-YEAR-Syllabus-SRKREC.docx
119K



Proposed IV-Mech-R17-SYLLABUS-SRKREC.docx
1887K



Mechanical Department <hodmechsrkr@gmail.com>

Regarding Online Mech BOS Meeting Zoom Link

1 message

Mechanical Department <hodmechsrkr@gmail.com>

Tue, Aug 11, 2020 at 8:22 PM

To: dr.a.gopalakrishna@gmail.com

Dear Sir,

Please kindly Join the Online Mech BOS meeting by clicking the ZOOM link below.

Rajesh Siriyala is inviting you to a scheduled Zoom meeting.

Topic: Mech BOS Meeting

Time: Aug 12, 2020 02:00 PM India

Join Zoom Meeting

<https://us04web.zoom.us/j/78515177700?pwd=K0VKZIVCTIBRejhBSWtXOGJDdTdOQT09>

Meeting ID: 785 1517 7700

Passcode: 5Cs14a

Thanking you,

Yours Sincerely,

Dr. K. BRAHMA RAJU

Professor & Head,

Department of Mechanical Engineering

S.R.K.R. Engineering College (A)

China Amiram, Bhimavaram,

West Godavari District

Andhra Pradesh-534204

Mobile No. : 9849503522


PRINCIPAL
S.R.K.R. Engg. College
BHIMAVARAM-534 204



Mechanical Department <hodmechsrkr@gmail.com>

Regarding Finalized 2/4 B.Tech (R19) & 4/4 B.Tech (R17) Syllabus

1 message

Mechanical Department <hodmechsrkr@gmail.com>

Mon, Aug 31, 2020 at 9:16 PM

To: dr.a.gopalakrishna@gmail.com

Dear Sir,

Good Evening. Please kindly go through the following attachments which contains the finalized 2/4 B.Tech (R19) & 4/4 B.Tech (R17) Syllabus which were framed as per the discussions made in Department of Mechanical Engineering Board of Studies meeting held on 12-08-2020 at 2:00 PM for your kind information.

Thanking you,

Yours Sincerely,

Dr. K. BRAHMA RAJU

Professor & Head,

Department of Mechanical Engineering

S.R.K.R. Engineering College (A)

China Amiram, Bhimavaram,

West Godavari District

Andhra Pradesh-534204

Mobile No. : 9849503522

PRINCIPAL
S.R.K.R. Engg. College
BHIMAVARAM-534 204

2 attachments**2By4-BTech-Mech-R19-Syllabus for AY 2020-21.docx**
127K**4By4-BTech-Mech-R17-Syllabus for AY 2020-21.docx**
1890K



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE(A)
CHINNA AMIRAM :: BHIMAVARAM-534204
DEPARTMENT OF MECHANICAL ENGINEERING

Dt: 11-08-2020

CIRCULAR

This is to inform you that the Department of Mechanical Engineering will hold a meeting on 12-08-2020 at 2.00 PM in Room No. M-109 (HOD Room) virtually (using zoom virtual meeting platform). In this connection, all the members of the Board of Studies are requested to attend the same.

Agenda:

1. To discuss and finalize course structure and syllabus for 1/4 - B.tech & 2/4 – B.Tech Mechanical Engineering program under R-20 regulations and R-19 regulations respectively.
2. To discuss and finalize course structure and syllabus for 4/4 – B.Tech Mechanical Engineering program , under R-17 regulations.
3. To discuss and finalize course structure and syllabus for 2/2 – M.Tech 3rd&4th semester of CAD/CAM program , under R-19 regulations.

C.C to:

1. The Members of Board of studies
2. Office file



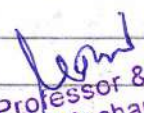

Head of the Department
Professor & Head
Dept. of Mechanical Engg.
S.R.K.R. Engineering College
CHINNAAMIRAM (P.O.)
BHIMAVARAM-534 204.

MINUTES OF THE MEETING

29

EIGHTH Board of Studies meeting in Virtual Mode (using ZOOM Platform) was held on 12-08-2020 in M 109 (Head Room) of Mechanical Engineering Department at 2:00 PM in order to discuss the following items:

- (1) Discussion & Finalization of Course Structure and Syllabus of $1/4$ B.Tech^(Mech) under R20 Regulations
- (2) Discussion & Finalization of Course structure and Syllabus of $3/4$ B.Tech Mechanical Engg. program under R19 Regulations
- (3) Discussion & Finalization of Course Structure and Syllabus for $4/4$ B.Tech Mechanical Engineering program under R17 Regulations
- (4) Discussion & Finalization of Course structure and Syllabus for $2/2$ M.Tech Third & Fourth Semester CAD/CAM program under R19 Regulations.

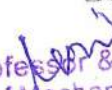

Professor & Head
Dept. of Mechanical Engg.
S.R.K.R. Engineering College
CHINNA MIRAM (P.O.)
BHIMAVARAM-534 204.

30

MINUTES OF THE MEETING ~~RESO~~ RESOLUTIONS

- (1) Resolved to offer Engineering Drawing Course for Mech Engg, Civil Engg, & E.E.E programs in the First Semester & for ECE programs in the Second Semester Under R20 Regulations. Discussed and also finalized the syllabus for Engineering Drawing Course (1/4 B.Tech)
- (2) Resolved to offer Workshop practice for Mech. Engg. & E.E.E program in the First Semester under R20 Regulation. Also discussed & finalized the syllabus for workshop practice course for 1/4 B.Tech.
- (3) Resolved to offer Prime Movers & pumps Course for the E.E.E program in the second semester for 1/4 B.Tech Under R20 Regulations. Also discussed and finalized the syllabus for the same.
- (4) Resolved to incorporate "Engineering Mechanics" & "Material science and Metallurgy" courses for Mech. Engg (1/4 B.Tech) program in second semester under R20 Regulation.
- (5) One of the BOS Members DR. A. GOPALA KRISHNA, Professor, Dept of Mech. Engg. JNTUK, suggested to add a topic 'Extraction of metals' in unit-IV of Material Science and Metallurgy Course.
- (6) Finalized the course structure and syllabus for the 1/4 B.Tech (R20) for the Mechanical Engineering program.
- (7) One of the BOS Members DR. G. RAVI KIRAN SASTRY, Professor, Dept. of Mech. Engg., NITAP, suggested to change the course name for "Thermodynamics" as "Engineering Thermodynamics" and Thermal Engineering as "Applied Thermal Engineering" of 2/4 B.Tech (R19) Mech. Engg. program.
- (8) Resolved to offer the following Courses in addition to Regular Curriculum for 2/4 B.Tech (R19) Mech. Engg. Program.

S.NO.	Course Name	Semester
1	Professional Ethics & Human values	First
2	Introduction to Machine Learning using Python	First
3	Constitution of India	Second

Prof.  & Head
Dept. of Mechanical Engg.
S.R.K.R. Engineering College
CHINAAMIRAM (P.O.)
CHENNAI-534 204.

- (9) Finalized the course structure and syllabus for the $2\frac{1}{4}$ B.Tech (R19) for the Mech. Engg. program.
 - (10) Resolved to offer 3 Electives [Elective-I, Elective-II, & Elective-III] with 3 Courses in Each Elective for $4\frac{1}{4}$ B.Tech Mechanical Engineering program under R17 Regulations.
 - (11) One of the BOS Members, Dr. G. RAVI KIRAN SASTRY, Professor, Dept. of Mech. Engg., NITAP, suggested to change the course name for "Automobile Engineering" as "Automobile Engineering and Hybrid Vehicles" and also suggested to add the syllabus related to Hybrid vehicles in unit-V for $4\frac{1}{4}$ B.Tech (R17) Mech. Engg. program.
 - (12) Finalized the course structure and syllabus for the $4\frac{1}{4}$ B.Tech Mechanical Engineering program under R17 Regulations.
 - (13) Resolved to offer 1 program Elective (Program Elective-IV) with 3 Courses in Each elective along with MOOCs-I for $2\frac{1}{2}$ M.Tech CAD/CAM Third Semester program under R19 Regulation.
 - (14) Resolved to offer the following Courses under open Elective Category (offered to other programs) for $2\frac{1}{2}$ M.Tech CAD/CAM Third Semester program under R19 Regulation.
- | S.NO. | Open Elective Course Name |
|-------|--------------------------------|
| 1 | Operations Research |
| 2 | Nano Technology |
| 3 | product Design & Manufacturing |
| 4 | MOOCs-II |
- (15) Finalized the course structure and syllabus for the $2\frac{1}{2}$ M.Tech CAD/CAM Third & Fourth Semester Program under R19 Regulations.
 - (16) Feed Backs collected from various Stake holders has been discussed while designing the Course structure and syllabus.

32

MEMBERS PRESENT

S.NO.	NAME OF THE MEMBER	DESIGNATION
01	Dr. G. Ravi Kiran Sastry	Professor in Dept of Mech. Engg. NITAP, Tadepalligudem
02	Dr. K. Venkata Subbaiah	Prof. & Head, Dept. of Mech. Engg. AUCE, Andhra University
03	Dr. A. Gopala Krishna	Prof. & Director R & D, VCE JNTUK, Kakinada
04	Dr. K. Brahma Raju (Chairman)	Professor & Head, DME
05	Prof. N.V. Subba Raju	Professor
06	Prof. K. Satyanarayana	Professor
07	Dr. A. Bala Krishna	Professor
08	Dr. V. Durga Prasada Rao	Professor
09	Dr. P. Rama Murthy Raju	Professor
10	Dr. K. Suresh Babu	Professor
11	Dr. K.V. Murali Krishnam Raju	Professor
12	Sri. P.V. Gopala Raju	Associate professor
13	Sri. C. Srinivas	Associate professor
14	Sri. V.K. Viswanadha Raju	Associate professor
15	Sri. C.R.K. Raju	Associate professor
16	Sri. Ch. Gopala Raju	Associate professor
17	Sri. P.V.R.S. Padma Raju	Associate professor
18	Sri. G. Chatapathi Raju	Associate professor
19	Dr. S. Rajesh	Associate professor
20	Dr. K. Sita Rama Raju	Associate professor
21	M.S.S. Kiran Varma	Student (M.Tech)
22	M. Rahamath Ansari	Student (M.Tech)
23	S. Vivek Varma	Student (3/4 B.Tech-Mech)
24	B.S. Subbaraju	Student (3/4 B.Tech-Mech)

Peri
 Professor & Head
 Dept. of Mechanical Engg.
 S.R.K.R. Engineering College
 CHINAMIRAM (P.O.)
 DISTRICT APURAM-506 204.

RESOLUTIONS FOR THE MEETING DATED 12-08-2020

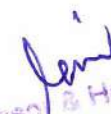
1) Resolved to offer Engineering Drawing Course for Mech Engg, Civil Engg, & E.E.E programs in the First Semester & for ECE programs in the Second Semester under R20 Regulations Discussed and also finalized the Syllabus for Engineering Drawing Course (1/4 B.Tech)

Regulation: R20				I/IV - B.Tech. I - Semester						
ELECTRICAL & ELECTRONICS ENGINEERING (under Choice Based Credit System Elective Course System)										
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2020-21 admitted Batch onwards)										
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks	
B20 HS1101	English	HS	3	3	0	0	30	70	100	
B20 BS1101	Mathematics-I	BS	3	3	0	0	30	70	100	
B20 BS1102	Applied Physics	BS	3	3	0	0	30	70	100	
B20 ME1101	Engineering Drawing	ES	3	2	0	2	30	70	100	
B20 EE1101	Introduction to Electrical Systems	ES	3	3	0	0	30	70	100	
B20 EE1104	Basic Electrical Systems Lab	ES	1.5	0	0	3	15	35	50	
B20 BS1107	Applied Physics Lab	BS	1.5	0	0	3	15	35	50	
B20 ME1102	Workshop Practice	ES	1.5	0	0	3	15	35	50	
TOTAL				19.5	14	0	11	195	455	650

Regulation: R20				I/IV - B.Tech. I - Semester					
MECHANICAL ENGINEERING (under Choice Based Credit System / Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2020-21 admitted Batch onwards)									
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks
B20 HS1101	English	HS	3	3	0	0	30	70	100
B20 BS1101	Mathematics-I	BS	3	3	0	0	30	70	100
B20 BS1102	Applied Physics	BS	3	3	0	0	30	70	100
B20 ME1101	Engineering Drawing	ES	3	2	0	2	30	70	100

Regulation: R20					I/IV - B. Tech. I- Semester				
CIVIL ENGINEERING									
(under Choice Based Credit System / Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION									
(With effect from 2020-21 admitted Batch onwards)									
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks
B20 HS1101	English	HS	3	3	0	0	30	70	100
B20 BS1101	Mathematics-I	BS	3	3	0	0	30	70	100
B20 BS1102	Applied Physics	BS	3	3	0	0	30	70	100
B20 ME1101	Engineering Drawing	ES	3	2	0	0	30	70	100
B20 CE1101	Engineering Geology	ES	3	3	0	0	30	70	100
B20 CE1102	Engineering Geology Lab	ES	1.5	0	0	3	15	35	50
B20 BS1107	Applied Physics Lab	BS	1.5	0	0	3	15	35	50
B20 CE1103	Basics of Civil Engineering Workshop	ES	1.5	0	0	3	15	35	50
TOTAL			19.5	14	0	9	195	455	650

Regulation: R20			I / IV - B.Tech. I - Semester						
ELECTRONICS & COMMUNICATION ENGINEERING (under Choice Based Credit System Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2020-21 admitted Batch onwards)									
Course Code	Course Name	Category	Cr.	L	T	P	Int. Mar ks	Ext. Mark s	Total Mark s
B20 HS1101	English	HS	3	3	0	0	30	70	100
B20 BS1101	Mathematics-I	BS	3	3	0	0	30	70	100
B20 BS1103	Applied Chemistry	BS	3	3	0	0	30	70	100
B20 CS1101	Programming for Problem Solving Using C	ES	3	3	0	0	30	70	100
B20 EC1101	Basic Electronics	ES	3	3	0	0	30	70	100
B20 CS1103	Programming for Problem Solving Using C Lab	ES	1.5	0	0	3	15	35	50
B20 BS1108	Applied Chemistry Lab	BS	1.5	0	0	3	15	35	50
B20 EC1102	Electronics Workshop	ES	1.5	0	0	3	15	35	50
TOTAL			19.5	15	0	9	195	455	650


 Professor & Head
 Dept. of Mechanical Engg.
 S.R.K.R. Engineering College
 CHINNA MURAM (P.O.)
 HYDRABAD-534 204.

(2) Resolved to offer workshop practice for Mech. Engrs. & E.E.E program in the First semester under R20 Regulations. Also discussed & finalized the syllabus for workshop practice course for 1/4 B.Tech.

Regulation: R20				I/IV - B.Tech. I - Semester							
ELECTRICAL & ELECTRONICS ENGINEERING (under Choice Based Credit System Elective Course System)											
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2020-21 admitted Batch onwards)											
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks		
B20 HS1101	English	HS	3	3	0	0	30	70	100		
B20 BS1101	Mathematics-I	BS	3	3	0	0	30	70	100		
B20 BS1102	Applied Physics	BS	3	3	0	0	30	70	100		
B20 ME1101	Engineering Drawing	ES	3	2	0	2	30	70	100		
B20 EE1101	Introduction to Electrical Systems	ES	3	3	0	0	30	70	100		
B20 EE1104	Basic Electrical Systems Lab	ES	1.5	0	0	3	15	35	50		
B20 BS1107	Applied Physics Lab	BS	1.5	0	0	3	15	35	50		
B20 ME1102	Workshop Practice	ES	1.5	0	0	3	15	35	50		
TOTAL				19.5	14	0	11	195	455	650	

Regulation: R20			I / IV - B.Tech. I - Semester						
MECHANICAL ENGINEERING (under Choice Based Credit System / Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2020-21 admitted Batch onwards)									
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks
B20 HS1101	English	HS	3	3	0	0	30	70	100
B20 BS1101	Mathematics-I	BS	3	3	0	0	30	70	100
B20 BS1102	Applied Physics	BS	3	3	0	0	30	70	100
B20 ME1101	Engineering Drawing	ES	3	2	0	2	30	70	100

(3) Resolved to offer Prime Movers & pumps Course for the E.E.E program in the second semester for 1/4 B.Tech under R20 Regulations. Also discussed and finalized the syllabus for the same.

Regulation: R20			I / IV - B.Tech. II - Semester							
MECHANICAL ENGINEERING (under Choice Based Credit System / Elective Course System)										
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2020-21 admitted Batch onwards)										
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks	
B20 BS1201	Mathematics-II	BS	3	3	0	0	30	70	100	
B20 BS1203	Applied Chemistry	BS	3	3	0	0	30	70	100	
B20 CS1201	Programming for Problem Solving Using C	ES	3	3	0	0	30	70	100	
B20 ME1201	Engineering Mechanics	ES	3	3	0	0	30	70	100	
B20 ME1202	Material Science and Metallurgy	ES	3	3	0	0	30	70	100	
B20 BS1208	Applied Chemistry Lab	BS	1.5	0	0	3	15	35	50	
B20 HS1202	Communication Skills Lab	HS	1.5	0	0	3	15	35	50	
B20 CS1205	Programming for Problem Solving Using C Lab	ES	1.5	0	0	3	15	35	50	
B20 MC1201	Environmental Science	MC	0	2	0	0	--	--	--	
B20 MC1203	National Service Scheme(NSS)	MC	0	0	0	2	--	--	--	
TOTAL				19.5	17	0	11	195	455	650

Regulation: R20				I / IV - B.Tech. II - Semester						
ELECTRICAL & ELECTRONICS ENGINEERING (under Choice Based Credit System Elective Course System)										
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2020-21 admitted Batch onward.)										
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks	
B20 BS1201	Mathematics-II	BS	3	3	0	0	30	70	100	
B20 BS1203	Applied Chemistry	BS	3	3	0	0	30	70	100	
B20 CS1201	Programming for Problem Solving Using C	ES	3	3	0	0	30	70	100	
B20 CS1204	Digital Computer Fundamentals	ES	3	3	0	0	30	70	100	
B20 ME1204	Prime Movers and Pumps	ES	3	3	0	0	30	70	100	
B20 BS1208	Applied Chemistry Lab	BS	1.5	0	0	3	15	35	50	
B20 HS1202	Communication Skills Lab	HS	1.5	0	0	3	15	35	50	
B20 CS1205	Programming for Problem Solving Using C Lab	ES	1.5	0	0	3	15	35	50	
B20 MC1201	Environmental Science	MC	0	2	0	0	—	—	—	
B20 MC1203	National Service Scheme(NSS)	MC	0	0	0	2	—	—	—	
TOTAL				19.5	17	0	11	195	455	650

Professor & Head
Dept. of Mechanical Engg.
S.R.K.R. Engineering College
CHINAMIRAM (P.O.)
BHIMAVARAM-534 204.

(4) Resolved to incorporate "Engineering Mechanics" & "Material Science and Metallurgy" courses for Mech. Engg. (1st B.Tech) program in second semester under R20 Regulation

Regulation: R20				I / IV - B.Tech. II - Semester					
MECHANICAL ENGINEERING (under Choice Based Credit System / Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2020-21 admitted Batch onwards)									
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks
B20 BS1201	Mathematics-II	BS	3	3	0	0	30	70	100
B20 BS1203	Applied Chemistry	BS	3	3	0	0	30	70	100
B20 CS1201	Programming for Problem Solving Using C	ES	3	3	0	0	30	70	100
B20 ME1201	Engineering Mechanics	ES	3	3	0	0	30	70	100
B20 ME1202	Material Science and Metallurgy	ES	3	3	0	0	30	70	100
B20 BS1208	Applied Chemistry Lab	BS	1.5	0	0	3	15	35	50
B20 HS1202	Communication Skills Lab	HS	1.5	0	0	3	15	35	50

(5) One of the BOS Members Dr. A. GOPALAKRISHNA, Professor, Dept of Mech. Engg. JNTUK, suggested to add a topic 'Extraction of metals' in unit-IV of Material Science and Metallurgy Course.

SYLLABUS: MATERIAL SCIENCE AND METALLURGY (B20ME1202)

(For ME)

UNIT-I: Structure of crystalline solids: Atomic structure & bonding in solids- Unit cell, Space lattice, Crystal structures and its types-calculations of radius, Coordination Number and Atomic Packing Factor for different

17


Professor & Head
Dept. of Mechanical Engg.
S.R.K.R. Engineering College
CHINAMIRAM (P.O.)
BHIMAVARAM-534 204.

cubic structures, Indices for planes and directions-

Imperfection in solids, point defects, Line defects, planar defects and Volume defects- Concept of Slip & twinning.

UNIT-II: Phase diagrams: Basic terms-Solid solutions - Gibbs phase rule- Lever rule - cooling curves- Phase diagrams - construction of phase diagrams- binary phase diagrams - Al-Cu and Al-Si phase diagrams- Invariant reactions, eutectic, peritectic, eutectoid, peritectoid reactions, metatectic & monotectic reactions, Iron carbon phase diagram -Heat treatment of steel- Annealing, and its types, normalizing, hardening, tempering, martempering, austempering.

UNIT-III: TTT diagrams, Construction of TTT diagram, TTT diagram for hypoeutectoid and alloy steels, CCT diagram- Martensitic transformation, nature of martensitic transformation-

Surface hardening processes like case hardening, carburizing, cyaniding, nitriding, Induction hardening, Flame hardening, hardenability, Jominy end-quench test.

UNIT-IV: Extraction of metals, Engineering Alloys: Effect of alloying elements of steel -Properties, composition, and uses of Plain carbon, low carbon, medium & high carbon steels, stainless steels, high speed steels, Hadfield steels, tool steels - Cast irons, gray CI, white CI, malleable CI, SG Cast iron-The light alloys- Al & Mg & Titanium alloys- Copper & its

Alloys: brasses & bronzes, Shape Memory Alloys.

UNIT-V: Composites: Introduction, classification, Manufacturing using Stir Casting, Powder Metallurgy, Spray Layup, Filament Winding, Resin Transfer Moulding & Chemical Vapour

Deposition Methods & applications of composites

(6) Finalized the course structure and syllabus for the 1st B.Tech (R20) for the Mechanical Engineering program.

Regulation: R20			I / IV - B.Tech. I - Semester						
MECHANICAL ENGINEERING (under Choice Based Credit System / Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2020-21 admitted Batch onwards)									
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks
B20 HS1101	English	HS	3	3	0	0	30	70	100
B20 BS1101	Mathematics-I	BS	3	3	0	0	30	70	100
B20 BS1102	Applied Physics	BS	3	3	0	0	30	70	100
B20 ME1101	Engineering Drawing	ES	3	2	0	2	30	70	100
B20 EE1102	Basic Electrical and Electronics Engineering	ES	3	3	0	0	30	70	100
B20 EE1105	Basic Electrical and Electronics Engineering Lab	ES	1.5	0	0	3	15	35	50
B20 BS1107	Applied Physics Lab	BS	1.5	0	0	3	15	35	50
B20 ME1102	Workshop Practice	ES	1.5	0	0	3	15	35	50
TOTAL			19.5	14	0	11	195	455	650

Regulation: R20				I / IV - B.Tech. II - Semester						
MECHANICAL ENGINEERING (under Choice Based Credit System / Elective Course System)										
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2020-21 admitted Batch onwards)										
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks	
B20 BS1201	Mathematics-II	BS	3	3	0	0	30	70	100	
B20 BS1203	Applied Chemistry	BS	3	3	0	0	30	70	100	
B20 CS1201	Programming for Problem Solving Using C	ES	3	3	0	0	30	70	100	
B20 ME1201	Engineering Mechanics	ES	3	3	0	0	30	70	100	
B20 ME1202	Material Science and Metallurgy	ES	3	3	0	0	30	70	100	
B20 BS1208	Applied Chemistry Lab	BS	1.5	0	0	3	15	35	50	
B20 HS1202	Communication Skills Lab	HS	1.5	0	0	3	15	35	50	
B20 CS1205	Programming for Problem Solving Using C Lab	ES	1.5	0	0	3	15	35	50	
B20 MC1201	Environmental Science	MC	0	2	0	0	--	--	--	
B20 MC1203	National Service Scheme(NSS)	MC	0	0	0	2	--	--	--	
TOTAL			19.5	17	0	11	195	455	650	

Professor & Head
Dept. of Mechanical Engg.
S.R.K.R. Engineering College
CHINAMIRAM (P.O.)
CHINAMIRAM 524 204.

(7) One of the BOS Members DR. G. RAVI KIRAN SASTRY, Professor, Dept. of Mech. Engg., NITAP, suggested to change the Course Name for "Thermodynamics" as "Engineering Thermodynamics" and Thermal Engineering as "Applied Thermal Engineering" of 2/4 B.Tech (R17) Mech. Engg. program.

Regulation: R17				II / IV - B.Tech. I- Semester					
MECHANICAL ENGINEERING (under Choice Based Credit System / Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2017-18 admitted Batch onwards)									
Code No.	Course	Cate- gory	Credi- tts	Lecture Hrs	Tutorial Hrs	Lab Hrs	Internal Marks	Exam Marks	Total Marks
B17 BS2101	Mathematics-IV		3	3	1	--	30	70	100
B17ME2101	Strength of Materials		3	3	1	--	30	70	100
B17ME2102	Thermodynamics		3	3	1	--	30	70	100
B17ME2103	Manufacturing Process		3	3	1	--	30	70	100
B17ME2104	Metallurgy &Materials Science		3	3	1	--	30	70	100
B17ME2105	Advanced Engineering Drawing		3	2	--	4	30	70	100
B17ME2106	Mechanical Engineering Lab		0	--	--	3	50	50	100
B17EE2107	Basic Electrical &Electronics Engineering Lab		2	--	--	3	50	50	100
B17ME2107	AutoCAD		1	--	--	2	50	--	50
B17 BS2107	English Proficiency-I		--	1	1	--	--	--	--
B17 BS2108	Professional Ethics &Human Values		--	2	--	--	--	--	--
Total			23	20	6	12	330	820	850

Regulation: R17				II / IV - B.Tech. II- Semester					
MECHANICAL ENGINEERING (under Choice Based Credit System / Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2017-18 admitted Batch onwards)									
Code No.	Course	Category	Credits	Lecture Hrs	Tutorial Hrs	Lab Hrs	Sessional Marks	Exam Marks	Total Marks
B17ME2201	Advanced Strength of Materials	ES	3	3	1	--	30	70	100
B17ME2202	Thermal Engineering	ES	3	3	1	--	30	70	100
B17ME2203	Metal Cutting & Machine Tools	ES	3	3	1	--	30	70	100
B17ME2204	Fluid Mechanics	ES	3	3	1	--	30	70	100
B17ME2205	Mechanical Engineering Drawing	ES	3	--	--	4	30	70	100
B17BS2203	Engineering Economics	BS	3	3	1	--	30	70	100
B17ME2208	Manufacturing Process Lab	ES	2	--	--	3	50	50	100
B17CE2210	Strength of Materials Lab	ES	2	--	--	3	50	50	100
B17ME2209	Industry Oriented Technology Lab	ES	1	--	--	2	50	--	50
B17BS2206	English Proficiency-II	BS	--	1	1	--	--	--	-
Total			23	16	6	12	330	820	850

(8) Resolved to offer the following Courses in addition to Regular Curriculum for 2/4 B.Tech (B19) Mech. Engg. Program

S.NO.	Course Name	Semester
1	Professional Ethics & Human values	First
2	Introduction to Machine Learning using Python	First
3	Constitution of India	Second

Regulation: R19				II / IV - B.Tech. I - Semester					
MECHANICAL ENGINEERING (Under Choice Based Credit System / Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2019-20 admitted Batch onwards)									
Course Code	Course Name	Category	Cr.	L	T	P	Int. Mark s	Ext. Mark s	Total Mark s
B19 BS 2101	Mathematics-III	BS	3	3	--	--	25	75	100
B19 ME 2101	Strength of Materials	PC	3	3	--	--	25	75	100
B19 ME 2102	Engineering Thermodynamics	PC	3	3	--	--	25	75	100
B19 ME 2103	Manufacturing Processes	PC	3	3	--	--	25	75	100
B19 ME 2104	Metallurgy and Materials Science	PC	3	3	--	--	25	75	100
B19 ME 2105	Mechanical Engineering Drawing	PC	3	2	--	2	25	75	100
B19 ME 2106	Mechanical Engineering Lab	PC	1.5	--	--	3	20	30	50
B19 ME 2107	Manufacturing Processes Lab	PC	1.5	--	--	3	20	30	50
B19 MC 2101	Professional Ethics and Human Values	MC	--	3	--	--	--	--	--
B19 MC 2104	Introduction to Machine Learning using Python	MC	--	2	--	2	--	--	--
TOTAL			21	22	--	10	190	510	700

Regulation: R19				II / IV - B.Tech. II - Semester					
MECHANICAL ENGINEERING (Under Choice Based Credit System / Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2019-20 admitted Batch onwards)									
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks
B19 BS 2201	Mathematics-IV	BS	3	3	-	-	25	75	100
B19 ME2201	Advanced Strength of Materials	PC	3	3	-	-	25	75	100
B19 ME2202	Applied Thermal Engineering	PC	3	3	-	-	25	75	100
B19 ME2203	Metal Cutting and Machine Tools	PC	3	3	-	-	25	75	100
B19 ME2204	Fluid Mechanics	PC	3	3	-	-	25	75	100
B19 HS2202	Managerial Economics and Financial Accountancy	HS	3	3	-	-	25	75	100
B19 ME2205	Strength of Materials Lab	PC	1.5	-	-	3	20	30	50
B19ME 2206	Machine Tools Lab	PC	1.5	-	-	3	20	30	50
B19 MC 2202	Constitution of India	MC	0	3	-	-	-	-	-
TOTAL			21	21	-	6	190	510	700

Professor & Head
Dept. of Mechanical Engg.
S.R.K.R. Engineering College
CHINAMIRAM (P.O.)

(9) Finalized the course structure and syllabus for the 2nd B.Tech (R19) for the Mech. Engg. program.

Regulation: R19				II / IV - B.Tech. I - Semester						
MECHANICAL ENGINEERING (Under Choice Based Credit System / Elective Course System)										
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2019-20 admitted Batch onwards)										
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks	
B19 BS 2101	Mathematics-III	BS	3	3	--	--	25	75	100	
B19 ME 2101	Strength of Materials	PC	3	3	--	--	25	75	100	
B19 ME 2102	Engineering Thermodynamics	PC	3	3	--	--	25	75	100	
B19 ME 2103	Manufacturing Processes	PC	3	3	--	--	25	75	100	
B19 ME 2104	Metallurgy and Materials Science	PC	3	3	--	--	25	75	100	
B19 ME 2105	Mechanical Engineering Drawing	PC	3	2	--	2	25	75	100	
B19 ME 2106	Mechanical Engineering Lab	PC	1.5	--	--	3	20	30	50	
B19 ME 2107	Manufacturing Processes Lab	PC	1.5	--	--	3	20	30	50	
B19 MC 2101	Professional Ethics and Human Values	MC	--	3	--	--	--	--	--	
B19 MC 2104	Introduction to Machine Learning using Python	MC	--	2	--	2	--	--	--	
TOTAL			21	22	--	10	190	510	700	

Regulation: R19				II / IV - B.Tech. II - Semester						
MECHANICAL ENGINEERING (Under Choice Based Credit System / Elective Course System)										
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2019-20 admitted Batch onwards)										
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks	
B19 BS 2201	Mathematics-IV	BS	3	3	-	-	25	75	100	
B19 ME2201	Advanced Strength of Materials	PC	3	3	-	-	25	75	100	
B19 ME2202	Applied Thermal Engineering	PC	3	3	-	-	25	75	100	
B19 ME2203	Metal Cutting and Machine Tools	PC	3	3	--	--	25	75	100	
B19 ME2204	Fluid Mechanics	PC	3	3	--	--	25	75	100	
B19 HS2202	Managerial Economics and Financial Accountancy	HS	3	3	--	--	25	75	100	
B19 ME2205	Strength of Materials Lab	PC	1.5	--	--	3	20	30	50	
B19ME 2206	Machine Tools Lab	PC	1.5	--	--	3	20	30	50	
B19 MC 2202	Constitution of India	MC	0	3	--	--	--	--	--	
TOTAL			21	21	--	6	190	510	700	

(10) Resolved to offer 3 Electives [Elective-I, Elective-II, & Elective-III] with 3 Courses in Each Elective for 4th B.Tech Mechanical Engineering program under R17 Regulations.

Regulation: R17			IV / IV - B.Tech. I - Semester						
MECHANICAL ENGINEERING (under Choice Based Credit System / Elective Course System)									
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2017-18 admitted Batch onwards)									
Code No.	Name of the Subject	Category	Credit	Lecture Hrs	Tutorial Hrs	Lab Hrs	Internal Marks	External Marks	Total Marks
B17ME4101	Heat Transfer	ES	3	3	1	--	30	70	100
B17ME4102	Computer Aided Manufacturing	ES	3	3	1	--	30	70	100
B17ME4103	Mechatronics	ES	3	3	1	--	30	70	100
#ELE-I	Elective-I	ES	3	3	1	--	30	70	100
#ELE-II	Elective-II	ES	3	3	1	--	30	70	100
B17ME4110	Heat Transfer Lab	ES	2	--	--	3	50	50	100
B17ME4111	CAD Lab	ES	2	--	--	3	50	50	100
Total			19	15	5	6	250	450	700

	Code No.	Course
#ELE-I	B17ME4104	Finite Element Analysis
	B17ME4105	Automation in Manufacturing
	B17ME4106	Quality Control and Assurance
#ELE-II	B17ME4107	Project Management
	B17ME4108	Tool Design
	B17ME4109	Refrigeration & Air Conditioning

Regulation: R17			IV / IV - B.Tech. II- Semester							
MECHANICAL ENGINEERING (under Choice Based Credit System / Elective Course System)										
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2017-18 admitted Batch onwards)										
Code No.	Name of the Subject	Category	Credits	Lecture Hrs	Tutorial Hrs	Lab Hrs	Internal Marks	External Marks	Total Marks	
B17ME4201	Production Planning & Control	ES	3	3	1	--	30	70	100	
# ELE-III	Elective-III	ES	3	3	1	--	30	70	100	
B17ME4205	CAM Lab	ES	2	--	--	3	50	50	100	
B17ME4206	Seminar	ES	2	--	--	--	50	--	50	
B17ME4207	Project Work	ES	10	--	--	3	60	140	200	
Total			20	6	2	6	220	330	550	

	Code No.	Course
#ELE-III	B17ME4202	Power Plant Engineering
	B17ME4203	Automobile Engineering and Hybrid Vehicles
	B17ME4204	Additive Manufacturing

Professor & Head
Dept. of Mechanical Engg.
S.R.K.R. Engineering College
CHINAMIRAM (P.O.)
BHIMAVARAM-534 204.

- (ii) One of the BOS Members, Dr. S. RAVI KIRAN SASTRY, Professor, Dept. of Mech. Engrg., NITAP, suggested to change the course name for "Automobile Engineering" as "Automobile Engineering and Hybrid Vehicles" and also suggested to add the syllabus related to Hybrid vehicles in unit-V for 4th B.Tech (BIT) Mech. Engrg. program.

SYLLABUS: AUTOMOBILE ENGINEERING (B16 ME 3208)

(Elective-II)

Introduction: Definition of automobile, Automobile Layout, Chassis and Transmission: Introduction to Drive Train: Clutch, Gearbox, Hook's Joint, Propeller / Drive Shaft, Slip Joint, Final Drive and Differential, Front and Rear Axles, Wheels and Tires, Control systems: Introduction to Steering, and Brakes. Electrical system: Introduction to Starting System, Ignition, dynamo/alternator, cut-out and wiring. Automobile Body: Parts and Stream lining, Automobile types: Front, Rear and Four wheel drive and Automotive materials

Engine (Power Plant): Multi cylinder engine parts, Classification: 'In-line' and 'V' type, Multi-Valve Engines, Super Charging/Turbo charging, Air filters, Fuel Systems: Petrol Engines: Carburetted and MPFI, Ignition Systems: Conventional and Electronic, Diesel Engines: Conventional, CRDI, and Dual Fuel engines., Performance, Combustion and Exhaust Emissions, Air pollution and their control: EGR and Catalytic Converters, EURO/Bharat Stage Norms: I, II, III, IV and V., Manifolds and Mufflers, Engine Cooling and Lubrication.

Clutch: Necessity, Clutch Assembly: Construction and Working Principle, Types: Single and Multiple Plates, Free-Play, Fluid coupling/Torque converter, Clutch Troubles and Remedies.

Gearbox: Necessity of Transmission, Construction and Working Principle, Selector Mechanism, Types: Sliding mesh, Constant mesh, Synchromesh, and Epicyclical. Three, Four and Five- Speed Gearbox, Overdrive, Automatic Gearbox, Gearbox Troubles and remedies.

Drive shaft and Final Drive: Drive Shaft: Constructional Features: Universal/Hooke's Joints, Slip Joint, and Working Principle., Types of Propeller shafts, Final drive and Differential: Necessity, Constructional Features and Working Principle., Front/Rear Axles: Constructional Features and Types of Rear Axle Floating, Wheels: Disc and Drum type, Tires: Tire Construction, Tube and Tubeless Tires, Radial Tires, Tire specification, Tire rotation and Tire Maintenance.

Suspension System and Vehicle Control: Coil and Leaf Springs, Shock absorbers, Wheel alignment: Kingpin angle, Caster, Camber, Toe-in, and Toe-out, Necessity of vehicle control, Steering Mechanism and its Elements: Steering gear box and its types, Steering gear ratio, Constant Velocity Joints and linkages. Power Steering, Brakes system: Necessity, Parking and Power Brakes, Parts and Working Principle of Mechanical, Air and Hydraulic Brakes: Master and Wheel cylinder, Properties of Brake Fluids, Brake Diagnostics and Service: Brake Bleeding, Anti-lock Braking System, Automobile Accessories and Tips for Safe Driving.

Electrical and Electronic Systems: Battery, Starting system, ECU/ECM.

Trouble shooting and Maintenance: Engine and Vehicle Troubles: Diagnostic Information: Symptom descriptions and their Causes and Remedies, Periodic, Preventive and Break down Maintenance: Engine tuning, Fuel and Air filters, Lubricants, Maintenance of Battery and Electrical/Electronic System, and Tires. The Motor Vehicle Act (India).

SYLLABUS: AUTOMOBILE ENGINEERING AND HYBRID VEHICLES (B17ME4103) (Elective-III)

UNIT-I

Introduction to Automobile, Automobile Layout, Chassis and body, Power unit-types of automobile engines, engine parts, Classification: 'In-line' and 'V' type, Multi-Valve Engines, Super Charging/Turbo charging, Air filters, Fuel Systems: Petrol Engines: Carburetted and MPFI, Ignition systems: Conventional and Electronic, Diesel Engines: Conventional, CRDI and Dual fuel Engines, Engine Cooling and Lubrication

UNIT-II

Clutches: principle, Types: cone clutch, single plate clutch, diaphragm clutch, multi plate clutch, centrifugal clutches and fluid coupling. Gearbox: Construction and Working Principle, Selector Mechanism, Types: Sliding mesh, Constant mesh, Synchromesh, and Epicyclical, Overdrive, Automatic Gearbox-CVT, Torque converter. Drive shaft and Final Drive: Drive Shaft, Types of Propeller shafts, Final drive and Differential, Power transmission: Front, Rear and Four wheel drive.

UNIT-III

Suspension System: Leaf springs coil springs, torsion bar, shock absorber, Independent suspension system. Steering System: Steering geometry: camber, caster, Kingpin angle, Toe-in, and Toe-out. Steering Mechanism and its Elements: Steering gear box and its types, Steering gear ratio, Power-Steering Wheels: Disc and Drum type, Tires: Tire Construction, Tube and Tubeless Tires, Radial Tires, Tire specification, Tire rotation and Tire Maintenance.

UNIT-IV

Braking System: Necessity, Parking and Power Brakes, Parts and Working Principle of Mechanical, Air and Hydraulic Brakes: Master and Wheel cylinder, Properties of Brake Fluids, Brake Diagnostics and Service: Brake Bleeding, Anti-lock Braking System. Air pollution and their control: EGR and Catalytic Converters, EURO/Bharat Stage Norms, Mufflers. Electrical and Electronic system: Starting System, Ignition system, battery, ECU/ECM.

UNIT-V

Hybrid Vehicles: History and Introduction of Hybrid Vehicles, Components in hybrid vehicles, Classification of hybrid topologies: Drivetrain structure, Degree of hybridization, Nature of the power source, Advantages and Disadvantages, Applications. Trouble shooting and Maintenance: Engine and Vehicle Troubles: Diagnostic Information, Symptom descriptions and their Causes and Remedies, Maintenance - Periodic, Preventive and Break down.

Professor & Head
Dept. of Mechanical Engrg.
S.R.K.R. Engineering College
CHINAMIRAM (P.O.)

(13) Resolved to offer 1 program Elective (Program Elective -V) with 3 Courses in Each elective along with MOOCS-I for 2½ M.Tech CAD/CAM Third Semester, program under R19 Regulation

MECHANICAL ENGINEERING(CAD/CAM)
(Under Choice Based Credit System / Elective Course System)

SCHEME OF INSTRUCTION & EXAMINATION

(With effect from 2019-20 admitted Batch onwards)

Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks
#PE-V/ MOOCS	Program Elective-V	PE	3	3	0	0	25	75	100
#OE/MOOCS	Open Elective	OE	3	3	0	0	25	75	100
M19CAD2106	Dissertation-I / Industrial Project	PR	10	0	0	20	50	50	100
TOTAL			16	6	0	20	100	200	300

	Course Code	Course
#PE-V/ MOOCS	M19CAD 2101	Non Destructive Evaluation
	M19CAD 2102	Quality Engineering
	M19CAD 2103	Green Manufacturing
	M19CAD 2104 (MOOCS-I)	Students Going for Industrial Project / Thesis will complete these courses through MOOCS. Students can also choose SWAYAM or NPTEL with a 12 weeks' course duration in PG level with 3 credits, but the chosen subject should not be covered in their M. Tech Course
#OE/ MOOCS	#OE	Students have to choose one open elective course offered by departments other than the parent department. List of open Electives offered by other departments are enclosed.
	M19CAD 2105 (MOOCS-II)	Students Going for Industrial Project / Thesis will complete these courses through MOOCS. Students can also choose SWAYAM or NPTEL with a 12 weeks' course duration in PG level with 3 credits, but the chosen subject should not be covered in their M. Tech Course

OPEN ELECTIVES OFFERED TO OTHER DEPARTMENTS

M19CAD 2107	Operations Research
M19CAD 2108	Nano Technology
M19CAD 2109	Product Design & Manufacturing

(14) Resolved to offer the following Courses under open Elective Category (offered to other programs) for 2½ M.Tech CAD/CAM Third Semester program under R19 Regula

S.NO. Open Elective Course Name

- 1 Operations Research
- 2 Nano Technology
- 3 product Design & Manufacturing
- 4 MOOCS-II

OPEN ELECTIVES OFFERED TO OTHER DEPARTMENTS

M19CAD 2107	Operations Research
M19CAD 2108	Nano Technology
M19CAD 2109	Product Design & Manufacturing

[Signature]
Professor & Head
Dept. of Mechanical Engg.
S.R.K.R. Engineering College
CHINAMIRAM (P.O.)
BHIMAVARAM-534 204.

(15) Finalized the course structure and syllabus for the 2 1/2 M.Tech CAD/CAM Third & Fourth semester Program under R19 Regulations.

Regulation: R19		II / IV - M.Tech. I - Semester								
MECHANICAL ENGINEERING(CAD/CAM) (Under Choice Based Credit System / Elective Course System)										
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2019-20 admitted Batch onwards)										
Course Code	Course Name	Category	Cr.	L	T	P	Int. Marks	Ext. Marks	Total Marks	
#PE-V/ MOOCS	Program Elective-V	PE	3	3	0	0	25	75	100	
#OE/MOOCs	Open Elective	OE	3	3	0	0	25	75	100	
M19CAD2106	Dissertation-I / Industrial Project	PR	10	0	0	20	50	50	100	
TOTAL			16	6	0	20	100	200	300	

Regulation: R19		II / IV - B.Tech. II - Semester								
MECHANICAL ENGINEERING (CAD/CAM) (Under Choice Based Credit System / Elective Course System)										
SCHEME OF INSTRUCTION & EXAMINATION (With effect from 2019-20 admitted Batch onwards)										
Course Code	Course Name	Category	Cr.	L	T	P	Int. Mark \$	Ext. Mark \$	Total Mark \$	
M19CAD2201	Dissertation-II /Industrial Project	PR	16	0	0	32	-	100	100	


Professor & Head
Dept. of Mechanical Engg.
S.R.K.R. Engineering College
CHINAMIRAM (P.O.)
BHIMAVARAM-534 204.

