

SAGI RAMAKRISHNAM RAJU ENGINEERING COLLEGE (A)

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

(AFFILIATED TO JNTUK, KAKINADA (RECOGNISED BY ALL INDIA COUNCIL FOR TECH. EDN., NEW DELHI))

(Accredited by NACC, NBA NEW DELHI)

CHINNA AMIRAM (P.O):: BHIMAVARAM :: W.G.DU., A.P., INDIA :: PIN: 534 204

Offi:08816-229373, 223332 Ext.224

Mobile No : 98493 35863

E-mail: bhrkvarma@gmail.com

GSTIN:37AABTS9402K3Z4

Dr. B.R.K.Varma,
M.E.,Ph.D.
Professor &Head



20-06-2022

CIRCULAR

This is to inform all the members that the 8th Board of Studies (BOS) meeting of the Department of EEE, SRKR Engineering College, Bhimavaram will be held on 02-07-2022 (Saturday) at 10:00 AM in Digital Learning Centre of the department. All the BOS members are invited to attend the meeting.

Agenda:

1. To discuss and finalize the scheme and syllabi for the final year of R19 B.Tech (EEE) course curriculum.
2. To discuss and finalize the scheme and syllabi for the third year of R20 B.Tech (EEE) course curriculum.
3. Addition of Open Elective courses to R19 B.Tech (EEE) Regulations list.
4. Any other item with the permission of the chairman.

Copy to

1. The members of BOS
2. The Principal, SRKREC
3. The Dean, Academics
4. Office file



Head of the Department &
BOS Chairman

Head of EEE Department
S.R.K.R. Engg. College
BHIMAVARAM -534 204

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Dr. B.R.K.Varma,
M.E.,Ph.D.
Professor &Head



Date: 20.06.2022

To
Dr. K. Venkata Reddy
Professor of EEE,
UCEK, JNTU Kakinada
Kakinada-533 003.

Dear Sir,


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

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as an Expert Nominated by Vice-Chancellor. It is proposed to discuss about Schemes for B.Tech (R20) 3rd & 4th Years; Syllabus for B.Tech (R20) 3rd Year, Schemes for B.Tech (R19) 4th Year and Syllabus for B.Tech (R19) 4th Year.

In this regard, you are requested to attend the meeting scheduled to be held on 02.07.2022 at 10.00 AM.

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

Yours Sincerely,


Dr. B.R.K.Varma
Head of the Department
Head of EEE Department
S.R.K.R. Engg. College
BHIMAVARAM -534 204



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Dr. B.R.K.Varma,
M.E.,Ph.D.
Professor &Head



Date: 20.06.2022

To
Dr. M. Damodara Reddy
Professor
Department of EEE,
College of Engineering,
Sri Venkateswara University,
Tirupati-517502.

Dear Sir,


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

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as Subject Expert from outside Parent University. It is proposed to discuss about Schemes for B.Tech (R20) 3rd & 4th Years; Syllabus for B.Tech (R20) 3rd Year, Schemes for B.Tech (R19) 4th Year and Syllabus for B.Tech (R19) 4th Year.

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Head of EEE Department
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Dr. B.R.K.Varma,
M.E.,Ph.D.
Professor &Head



Date: 20.06.2022

To
Dr. Ch. V.V.S. Bhaskara Reddy
Professor, Department of Electrical Engineering,
College of Engineering
Andhra University,
Visakhapatnam-530003.

Dear Sir,


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

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as Subject Expert from outside Parent University. It is proposed to discuss about Schemes for B.Tech (R20) 3rd & 4th Years; Syllabus for B.Tech (R20) 3rd Year, Schemes for B.Tech (R19) 4th Year and Syllabus for B.Tech (R19) 4th Year.

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Yours Sincerely,


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Head of the Department
Head of EEE Department
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Dr. B.R.K.Varma,
M.E.,Ph.D.
Professor &Head



Date: 20.06.2022

To
Dr P.Sankar
Assistant Professor
Department of Electrical Engineering
National Institute of Technology AP,
Tadepalligudem, -534102.

Dear Sir,


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

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as Subject Expert from outside Parent University. It is proposed to discuss about Schemes for B.Tech (R20) 3rd & 4th Years; Syllabus for B.Tech (R20) 3rd Year, Schemes for B.Tech (R19) 4th Year and Syllabus for B.Tech (R19) 4th Year.

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

Yours Sincerely,


Dr. B.R.K. Varma
Head of the Department
Head of EEE Department
S.R.K.R. Engg. College
BHIMAVARAM -534 204



SAGI RAMAKRISHNAM RAJU ENGINEERING COLLEGE (A)

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GSTIN:37AABTS9402K3Z4

Date: 20.06.2022

To
Akula Ramesh
Principal Engineer,
Mercedes Benz Research and Development India,
Bangalore.

Dear Sir,


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

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as Representative from Industry/Corporate Sector/Allied Area Relating to Placement. It is proposed to discuss about Schemes for B.Tech (R20) 3rd & 4th Years; Syllabus for B.Tech (R20) 3rd Year, Schemes for B.Tech (R19) 4th Year and Syllabus for B.Tech (R19) 4th Year.

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Dr. B.R.K.Varma,
M.E.,Ph.D.
Professor &Head



Date: 20.06.2022

To
Dr.G.Kasi Viswanadha Raju
Lead Specialist,
Power System Consulting,
Vestas Technology R&D
Chennai-600119.

Dear Sir,


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

We take the privilege in inviting you for the Board of Studies Meeting of Department of Electrical and Electronics Engineering, SRKR Engineering College as Postgraduate Meritorious Alumni. It is proposed to discuss about Schemes for B.Tech (R20) 3rd & 4th Years; Syllabus for B.Tech (R20) 3rd Year, Schemes for B.Tech (R19) 4th Year and Syllabus for B.Tech (R19) 4th Year.

In this regard, you are requested to attend the meeting scheduled to be held on 02.07.2022 at 10.00 AM.

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

Yours Sincerely,


Dr. B.R.K.Varma
Head of the Department
Head of EEE Department
S.R.K.R. Engg.College
BHIMAVARAM -534 204





SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JNTUK, Kakinada), (Recognised by AICTE, New Delhi)




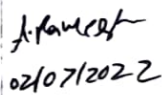

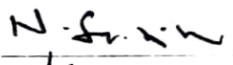
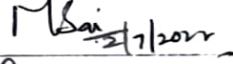
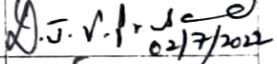

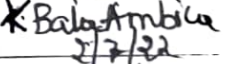
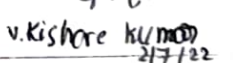
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CHINNA AMIRAM (P.O):: BHIMAVARAM :: W.G.DL, A.P., INDIA :: PIN: 534 204


Date: 02-07-2022

Members of Board of Studies

S. No	Category	Name	Position	Signature
1	Chairman	Dr. B.R.K.Varma	Professor & Head Dept. of EEE SRKR Engineering College China Amiram, Bhimavaram-534204	
2	Expert Nominated by Vice-Chancellor	Dr. K.Venkata Reddy	Professor of EEE, UCEK JNTUK, Kakinada-533003	Attended in ONLINE MODE
3	Subject Experts from outside Parent Universities	Dr. M. Damodara Reddy	Professor, Department of EEE College of Engineering, Sri Venkateswara University Tirupati-517502	Attended in ONLINE MODE
4		Dr. Ch. V.V.S. Bhaskara Reddy	Professor, Dept. of EEE, College of Engineering, Andhra University, Visakhapatnam-530003.	
5		Dr P.Sankar	Assistant Professor Dept. of EEE, NIT AP, Tadepalligudem, -534102.AP	
6	Representative from Industry/Corporate Sector/Allied Area Relating to Placement	Akula Ramesh	Principal Engineer, Mercedes Benz Research and Development India, Bangalore.	
7	Postgraduate Meritorious Alumnus	Dr.G.Kasi Viswanadha Raju	Lead Specialist, Power System Consulting, Vestas Technology R&D, Chennai-600119	Attended in ONLINE MODE
8	Faculty of each specialization	Dr. P.Kanta Rao	Professor, Dept. of EEE SRKR Engineering College	
9		Prof. N.Srinivasu	Professor, Dept. of EEE SRKR Engineering College	
10		Dr. M.Sai Veerraju	Professor, Dept. of EEE SRKR Engineering College	
11		Sri D.J.V.Prasad	Associate Professor, Dept. of EEE SRKR Engineering College	
12		Dr. M.Siva Rama Krishna	Associate Professor, Dept. of EEE SRKR Engineering College	
13	Student Members	Ms. Katuri Baalambica	19B91A0291 B.Tech., EEE, 2019-2023 Batch	
14		Mr. V. Kishore Kumar	20B91A02H2 B.Tech., EEE, 2020-2024 Batch	

Agenda:

1. To discuss and finalize the scheme and syllabi for the final year of R19 B.Tech (EEE) course curriculum.
2. To discuss and finalize the scheme and syllabi for the third year of R20 B.Tech (EEE) course curriculum.
3. Addition of open elective courses to R19 B.Tech (EEE) Regulations list.
4. Any other item with the permission of the chairman.


Head of EEE Department
S.R.K.R. Engg. College
BHIMAVARAM - 534 204

R19 – IV/IV B. Tech

Sl.no	Suggestion	BOS Member	Resolution
1	Change the project titles as Project Phase -1 and Project Phase -2	Dr. M. Damodara Reddy	Resolved to change the titles as Project Work – 1 and Project Work – 2. The change in word 'work' instead of 'Phase' as suggested by Dean of academics.
2	Change "PSOC" subject as Core Course and "HVE" subject as Elective Course	Dr. K. Venkata Reddy	Resolved to approve the suggestion.
3	Add Wind experiments in the Solar Energy Systems Laboratory and modify the title as "Solar and Wind Energy Systems" laboratory.	Dr P. Sankar Sri Akula Ramesh	Resolve to include experiments on wind energy and change the title.
4	Switchgear & Protection: <ul style="list-style-type: none"> ▪ Add isolators, contactors, types of switches in Unit – 1 ▪ Add 3 – Zone protection ▪ Add S.S. Rao, Y.G Paithankar textbooks. 	Dr. Ch. V.V.S. Bhaskara Reddy Dr. K. Venkata Reddy	Resolved add suggested topics
5	Solar and Wind Energy Systems: <ul style="list-style-type: none"> ▪ Add recent trends in solar technologies in Unit – 1. ▪ Rearrange the contents in Unit -1 and Unit – 2 ▪ Move "Data sheet study" topic into Unit – 2 from Unit -1 	Dr P. Sankar Sri Akula Ramesh	Resolve to make changes as per the suggestions.
6	Electric Vehicles: <ul style="list-style-type: none"> ▪ Revise Unit – 1 ▪ Add battery sizing topic in Unit – 2 ▪ Add V2V technology on Unit – 5 	Dr P. Sankar Sri Akula Ramesh	Resolved to include suggested topics and topics and revise unit structure.
7	Soft Computing Techniques: <ul style="list-style-type: none"> ▪ Add necessity of soft computing in Unit – 1 ▪ Elaborate case studies in Unit – 2 and Unit – 3 ▪ Change titles of Unit – 4 as Evolution Algorithm – 1 or Genetic algorithm and Unit – 5 as Evolution Algorithm – 2 or Particle Swarm Optimization 	Dr. G. Kasi Viswanadha Raju Dr. Ch. V.V.S. Bhaskara Reddy Dr P. Sankar Sri Akula Ramesh	Resolved to include suggested changes. Case studies on load forecasting and DC Motor control included in the syllabus.

B. Reddy

Head of EEE Department
S.R.K.R. Engg. College
BHIMAVARAM - 534 204

R20 – III/IV B. Tech


Sl.no	Suggestion	BOS Member	Resolution
1	Change "PSOC" subject as Elective Course and "HVE" subject as Honor degree Course	Dr P. Sankar Dr. Ch. V.V.S. Bhaskara Reddy	Resolved to include suggestion change
2	Swap the Soft computing techniques and Optimization techniques courses	Sri Akula Ramesh	Resolved to keep the soft computing techniques in 3-year 2 semester as it is useful for campus placement
3	Design the syllabus of MEFA course in such way that it is more relevant to "start-up technologies"	Dr P. Sankar Dr. K. Venkata Reddy	will be considered while preparing 4-year 1 semester syllabus.
4	Change the title of the course "Control system design" to "Advanced control systems"	Dr P. Sankar Dr. Ch. V.V.S. Bhaskara Reddy	Resolved to make suggested change.
5	Revise the Honor degree courses	Dr. M. Damodara Reddy Dr. K. Venkata Reddy Dr. Ch. V.V.S. Bhaskara Reddy	Resolved to offer only a single honor pool of subjects.
6	Power Electronics <ul style="list-style-type: none"> ▪ Add Introduction in Unit – 1 ▪ Change semi converter topic in Unit – 2 in to semi converter with RL load ▪ Add R-load to full wave-controlled bridge rectifiers topic in Unit-2 ▪ Remove the "Three phase full wave controllers with R load" in Unit – 4 ▪ Remove the "Full bridge inverters with RLC load" and numerical problems on harmonics. 	Dr P. Sankar Dr. K. Venkata Reddy K.S.S Prasad raju G. Harish kumar varma Y. Bhanu chandar	Resolved to include suggested changes.
7	Solar and Wind Energy Systems: <ul style="list-style-type: none"> ▪ Add recent trends in solar technologies in Unit – 1. ▪ Rearrange the contents in Unit -1 and Unit – 2 ▪ Move "Data sheet study" topic into Unit – 2 from Unit -1 	Dr P. Sankar Sri Akula Ramesh Dr. G. Harish kumar varma Dr. B.R.K Varma V. Srinivas	Resolved to add topics recent trends in solar technologies in unit – 1 and data sheet study in unit – 2. Added applications concept in unit – 3.
8	Sensors and Transducers <ul style="list-style-type: none"> ▪ Add "Electrical, Mechanical and Thermal Characterizations" in Unit -1 ▪ Revise Unit -2 ▪ Add "Introduction" to Unit – III & IV 	Sri Akula Ramesh Dr. G. Kasi Viswanadha Raju M. Azahar Ahmad M. K. Patan	Resolved to add suggested topics.


 Head of EEE Department
 S.R.K.R. Engg. College
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9	Special Electrical Machines <ul style="list-style-type: none"> ▪ Add Introduction, BLDC Motor contents in Unit – 2 	Dr. M. Damodara Reddy Dr. P. Kanta Rao V. Srinivas Dr. G. Syam Naresh	Resolved to add introduction and BLDC concepts in chapter – 2.
10	Power Electronics Laboratory <ul style="list-style-type: none"> ▪ Move ➤ Three phase Inverter using IGBT with R-load ➤ DC-DC (Buck and Boost) converter using MOSFET with R-load to main experiments from Add – on.	Dr P. Sankar Dr. B.R.K Varma Dr. G. Veeranna Dr. G. Harish kumar varma	Resolve to shift add on experiments to main list.
11	Logic design and Microprocessors <ul style="list-style-type: none"> ▪ Add Complements, Binary Codes in Unit – 1 ▪ Rearrange the contents in Unit -1 and Unit - 2 ▪ Move Design of sequential logic circuits into Unit - 3 	Dr. Ch. V.V.S. Bhaskara Reddy Dr. B.R.K Varma A. Kumar raja E. Suresh	Resolved to add suggestions topics and rearrange the topics in unit 1,2 and 3.
12	Power Electronic Drives <ul style="list-style-type: none"> ▪ Remove 'sensors' topic in Unit – 1 ▪ Title changes of Unit – 3 & 4 to 'Controlled Rectifier Fed DC Drives' and 'Controlled Chopper Fed DC Drives' ▪ Remove 'classification of choppers' topic in Unit – 4 	Sri Akula Ramesh Dr P. Sankar A. Hemanth kumar rajju Dr. G. Harish kumar varma	Resolved to include suggested changes.
13	Electrical Distribution Systems <ul style="list-style-type: none"> ▪ Added AC Three Phase Distribution in Unit – 3 ▪ Title change of Unit – 4 to 'Substation and Cables' Added topics related to cables in Unit 4 ▪ Unit – 5 title changed to Distribution system protection' 	Dr. K. Venkata Reddy Dr. M. Damodara Reddy Dr. B.R.K Varma Dr. P. Kanta Rao B. Venkata krishna	Resolved to add ac 3-phase distribution and make suggested in unit 4 and unit 5.
14	Soft Computing Techniques: <ul style="list-style-type: none"> ▪ Add necessity of soft computing in Unit – 1 ▪ Elaborate case studies in Unit – 2 and Unit – 3 ▪ Change titles of Unit – 4 as Evolution Algorithm – 1 or Genetic algorithm and Unit – 5 as Evolution Algorithm – 2 or Particle Swarm Optimization 	Dr. G. Kasi Viswanadha Raju Dr. Ch. V.V.S. Bhaskara Reddy Dr P. Sankar Sri Akula Ramesh	Resolved to include suggested changes. Case studies on load forecasting and DC Motor control included in the syllabus.
15	Control Systems Laboratory <ul style="list-style-type: none"> ▪ Revise the experiment -5 as 'System analysis in state space' from 'Solution of state equation' 	Dr. Ch. V.V.S. Bhaskara Reddy	Resolve to move mention experiments to add on list.


Head of EEE Department
S.R.K.R. Engg. College
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	<ul style="list-style-type: none"> ▪ Two experiments are moved into add-on category are, <ol style="list-style-type: none"> 1. Speed control of DC Motor (MATLAB Simulation) 2. Lag Lead Compensation (Experimentation) 	Dr. M. Damodara Reddy Dr. B.R.K Varma D.A.K Rao	
16	<p>Logic design and Microprocessors Laboratory</p> <ul style="list-style-type: none"> ▪ Addition of experiments 1. Verify the functioning of Shift Register using Digital Trainer Kit 2. Implementation of Encoder & Decoder using Digital Trainer Kit in Part – A. ▪ ‘Design of Ring Counter’ and ‘Stepper Motor Interfacing’ are moved to add – on category. 	Dr. Ch. V.V.S. Bhaskara Reddy Dr. B.R.K Varma A. Kumar Raja E. Suresh	Resolved to include suggested experiments.
17	<p>Electrical Systems Simulation Laboratory</p> <ul style="list-style-type: none"> ▪ Combine 4 and 5 experiments Use ETAP, PSCAD software in experiments 	Dr. Ch. V.V.S. Bhaskara Reddy Dr. G. Kasi Viswanadha Raju	Resolved to include topics as given in suggested text books and revise unit-5.
HONOR COURSES			
1	<p>Semiconductor Devices</p> <ul style="list-style-type: none"> ▪ Added ‘Positive Intrinsic Negative (PIN)’ in Unit – 4 ▪ Unit – 5 changed completely along with title to ‘Light Emitting Devices’ 	Dr. K. Venkata Reddy Dr. Ch. V.V.S. Bhaskara Reddy Dr. G. Harish Kumar Varma	Resolve to add suggested topics and unit -5.
2	<p>EHVAC Transmission</p> <ul style="list-style-type: none"> ▪ Added ‘Role of EHV AC transmission – Standard Transmission Voltages’, ‘Bundle spacing and bundle radius - Simple Problems. Line and ground reactive parameters: Line inductance and capacitances’ topics in Unit – 1 ▪ Added ‘Simple Problems’ in Unit – 2 ▪ Added topics ‘Charge voltage diagram’, Relation between 1-phase and 3-phase AN Levels. Radio interference (RI) – corona pulses, Generation and Properties, Frequency spectrum – Limits in Unit – 3 ▪ Unit – 4 completely changed to ‘Theory of Travelling Waves’ along with syllabus. ▪ Unit – 5 completely changed to ‘Lightning And Lightning Protection’ along with syllabus. 	Dr. M. Damodara Reddy Dr. B.R.K Varma Dr. G. Kasi Viswanadha Raju	Resolved to include EHV AC transmission Voltages, bundle spacing, line and ground reactive parameters concepts in unit – 1 and revise the unit – 4 and unit – 5.
3	<p>POWER QUALITY ENHANCEMENT</p> <ul style="list-style-type: none"> ▪ ‘Simple Numerical Problems’ were added in Unit – 2 	Dr. Ch. V.V.S. Bhaskara Reddy Dr. B.R.K Varma	Resolved to include suggested changes.


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 S.R.K.R. Engg. College
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	<ul style="list-style-type: none"> ▪ 'Two-wire DSTACOM, A three-leg VSC based three-phase three-wire DSTATCOM' were added in Unit – 3 ▪ Topics 'single-phase PQ and DQ theory-based control algorithms' were added in Unit – 3. ▪ Topics 'Synchronous reference frame theory-based control' were added in Unit – 4 ▪ Topic 'Synchronous reference frame theory-based control' is added in Unit - 5 	Dr. G. Harish Kumar Varma	
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Minor subjects


1	Electrical Power Generation <ul style="list-style-type: none"> ▪ Revised the topic 'types of alternators' from 'types of generators' are added in Unit – 1 ▪ Revised the topics 'Solar cell principle, photovoltaic system for power generation' and 'Components of Wind energy conversion system' were added in Unit – 4. ▪ 'Simple problems' were added in Unit - 5 	Dr. K. Venkata Reddy Dr. M. Damodara Reddy N. Srinivasu Dr. B.R.K Varma M.E.C.V Sagar	Resolved to add types of alternators concept in unit – 1 and solar cell principle, Components of Wind energy conversion system in unit – 4.
2	Electrical And Electronic Measurements <ul style="list-style-type: none"> ▪ Unit -1 titled changed to 'Introduction to Measurements and Instrumentation.' ▪ Unit - 2 titled changed to 'Measurement of Current, Voltage & Resistance.' ▪ Unit - 3 titled changed to 'Measurement of Power & Energy.' ▪ Remove the topic 'Types of Energy Meter' in Unit -3. 	Dr. K. Venkata Reddy Dr. Ch. V.V.S. Bhaskara Reddy N. Srinivasu M. Azahar Ahmad	Resolved to include suggested changes.
3	Power Transmission and Distribution <ul style="list-style-type: none"> ▪ Unit – 1 title changed to 'Electrical Supply Systems' and the topic 'Introduction' is added. ▪ Topics 'D.C. distributor fed at one end (concentrated loading)', 'Distributor fed at both ends (concentrated loading)'. Were added in Unit – 4. 	Dr. M. Damodara Reddy Dr. K. Venkata Reddy N. Srinivasu S. Rajasekhar Reddy	Resolved to add Electrical Supply Systems and D.C. distributor fed at one end (concentrated loading), Distributor fed at both ends (concentrated loading) concepts in unit – 1 and unit – 4.
4	Basic Power Electronics <ul style="list-style-type: none"> ▪ Topics 'Power MOSFET and its V-I characteristics, IGBT and its V-I characteristics' were added in Unit – 2. ▪ Removed the topic 'Gate drivers' in Unit – 2. ▪ Topic 'single phase half wave rectifiers' and 'output performance parameters' were added in Unit – 3 	Dr. K. Venkata Reddy Dr. G. Harish Kumar varma	Resolved to add suggested changes in unit 2, unit 3, unit 4, and unit 5.


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	<ul style="list-style-type: none"> Topics 'Introduction' and 'types of choppers and their operation' were introduced in Unit – 4. Removed the topics Critical values of L & C, Duty cycle control strategies in Unit - 4 Topic 'Performance Parameters-Three phase Inverter with 180⁰ mode, Introduction to Pulse Width Modulation (PWM)' is introduced in Unit – 5 and 120⁰ mode of operation is removed. 		
OPEN ELECTIVES			
1	<p>Elements of Electrical Engineering</p> <ul style="list-style-type: none"> Unit – 1 title is changed to 'Dc Circuit Fundamentals.' Removed 'Nodal analysis' in Unit - 1 The title of Unit – 3 is changed to 'Electrical Energy Conversion & Utilization' and the contents 'Construction of D.C machine - D.C Generator Working principle – EMF Equation – Types - D.C Motor Working principle - Torque equation – Types – Applications' were introduced. Removed 'battery pack' topic in Unit - 4 	<p>Dr. M. Damodara Reddy Dr. B.R.K Varma Dr. P.Kanra Rao</p>	<p>Resolved to change the Unit – 1 and Unit – 3 titles as DC Circuit Fundamentals and Electrical Energy Conversion & Utilization.</p>
2	<p>Introduction To Sensors and Transducers</p> <ul style="list-style-type: none"> The topics 'Electrical, Mechanical and Thermal Characterizations' were introduced in Unit – 1. The syllabus of Unit – 2 is changed to 'Introduction, Inductive Sensors- Sensitivity and Linearity of the Sensor, Ferromagnetic Plunger Type Transducers, Capacitive Sensors- The Parallel Plate Capacitive Sensor, Ultrasonic Sensors. Basic Characteristics of radiation sensors, Types of Photosensistors/Photodetectors, Photoconductive Cell-The LDR.' The topic 'Introduction' is introduced in Unit – 3. The topic 'Introduction' is introduced in Unit – 4. The topic 'Introduction' is introduced in Unit – 5. Remove the topics 'Micro Elector Mechanical Systems (MEMS), Nano – sensors in Unit – 4 and on – board automotive sensors in Unit – 5. 	<p>Sri Akula Ramesh Dr. G. Kasi Viswanadha Raju M. Azahar Ahmad M. K. Patan</p>	<p>Resolved to add suggested topics.</p>
3	<p>Fundamentals Of Electric Vehicles</p> <ul style="list-style-type: none"> The topics 'Vehicle Dynamics modeling with constant tractive effort, Overview of Basic electrical quantities and Systems: 	<p>Dr. K. Venkata Reddy P. Sankar Sri Akula Ramesh</p>	<p>Resolved to revise the concepts in unit – 1 and unit – 5 and title of unit –</p>



	<p>Electric Generator, Motor, Power Converters.’ were introduced in Unit – 1.</p> <ul style="list-style-type: none"> ▪ The title of Unit – 3 is changed to ‘Energy Storage Systems for EV.’ ▪ The topic ‘Principle and Operation of PMSM’ is introduced in Unit – 4. ▪ The title of Unit – 5 is changed to ‘EV Charging Technology’ and the syllabus is changed to ‘Overview of the EV battery charging system, Basic Requirements for Charging System, Infrastructure Needed for Charging Electric Vehicles, Charger Architectures, Charger Functions, EV Charging Standards, Schematics of V2G and V2V Technologies.’ 	<p>Dr. G. Kasi Viswanadha Raju K. Pavan kumar</p>	<p>3 is changed to Energy Storage Systems for EV.</p>
4	<p>Renewable Energy Sources</p> <ul style="list-style-type: none"> ▪ The title of Unit – 2 is changed to ‘Solar Energy.’ ▪ The title of Unit – 4 is changed to ‘Ocean Energy.’ ▪ The title of Unit – 5 is changed to ‘Geo-Thermal Energy and Fuel Cells.’ 	<p>Dr. M. Damodara Reddy Dr. B.R.K Varma Dr.M. Saiveeraju K. Kiran Kumar</p>	<p>Resolved to change the title of unit – 2, unit – 4 and unit -5.</p>


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SCHEME OF INSTRUCTION & EXAMINATION

(Regulation R19)

IV/IV B.TECH

I-SEMESTER

(With effect from 2019-2020 Admitted Batch onwards)

Course Code	Name of the Course	Category	Cr.	L	T	P	Internal Marks	External Marks	Total Marks
B19EE4101	Switchgear and Protection	PC	3	3	--	--	25	75	100
B19EE4102	Solar and Wind Energy Systems	PC	3	3	--	--	25	75	100
B19EE4103	Digital Signal Processing	PC	3	3	--	--	25	75	100
B19EE4104	Electric Vehicles	PC	3	3	--	--	25	75	100
#PE-IV	Professional Elective-IV	PE	3	3	--	--	25	75	100
B19EE4109	Electrical System Simulation Laboratory	PC	1.5	--	--	3	20	30	50
B19EE4110	Solar and Wind Energy Systems Laboratory	PC	1	--	--	2	20	30	50
B19EE4111	Smart Systems Laboratory (Skill development Program)	PR	1	--	--	2	--	50	50
B19EE4112	Project Work-I	PR	2	--	--	4	20	30	50
TOTAL			20.5	15	0	11	185	515	700

#PE-IV	Course Code	Course
	B19EE4105	Computer Architecture and Organization
	B19EE4106	Power Quality
	B19EE4107	Soft Computing Techniques
	B19EE4108	MOOCS – IV

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(Regulation R19)

IV/IV B.TECH

II-SEMESTER

(With effect from 2019-2020 Admitted Batch onwards)

Course Code	Name of the Course	Category	Cr.	L	T	P	Internal Marks	External Marks	Total Marks
B19EE4201	Power System Operation and Control	PC	3	3	--	--	25	75	100
#PE-V	Professional Elective-V	PE	3	3	--	--	25	75	100
#OE-II	Open Elective-II	OE	3	3	--	--	25	75	100
B19EE4206	Project Phase -II	PR	8	--	--	16	60	90	150
TOTAL			17	9	--	16	135	315	450

	Course Code	Course
#PE-V	B19EE4202	High Voltage Engineering
	B19EE4203	Power Electronics for Renewable Energy
	B19EE4204	HVDC Transmission
	B19EE4205	MOOCS - V
#OE-II	Student has to study one Open Elective offered by CE or CSE or ECE or IT or ME or S&H from the list enclose	

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Regulation: R20		III / IV - B.Tech. I - Semester							
ELECTRICAL AND ELECTRONICS ENGINEERING									
SCHEME OF INSTRUCTION & EXAMINATION (For 2020-21 Admitted Batch)									
Course Code	Course Name	Category	Cr	L	T	P	Int. Marks	Ext. Marks	Total Marks
B20EE3101	Signals and Systems	ES	3	3	0	0	30	70	100
B20EE3102	Power Systems Analysis and Stability	PC	3	3	0	0	30	70	100
B20EE3103	Power Electronics	PC	3	3	0	0	30	70	100
#PE-I	Professional Elective -I	PE	3	3	0	0	30	70	100
#OE-I	Open Elective-I	OE	3	3	0	0	30	70	100
B20EE3108	Electrical Machines-II Laboratory	PC	1.5	0	0	3	15	35	50
B20EE3109	Power Electronics Laboratory	PC	1.5	0	0	3	15	35	50
B20EE3110	Python Programming Laboratory (Skill Oriented Course)	SOC	2	1	0	2	--	50	50
B20MC3101	Employability Skills	MC	0	3	0	0	--	--	--
B20EE3111	Summer Internship	PR	1.5	--	--	--	--	50	50
B20EE3112	Community Service Project	PR	4	--	--	--	--	100	100
TOTAL			25.5	19	0	8	180	620	800

	Course Code	Course
#PE-I	B20EE3104	Solar and Wind Energy Systems
	B20EE3105	Sensors and Transducers
	B20EE3106	Special Electrical Machines
	B20EE3107	Power Quality
#OE-I	Student has to study one Open Elective offered by AIDS or CE or CSBS or CSE or ECE or IT or ME or S&H from the list enclosed.	

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Regulation: R20		III / IV - B.Tech. II - Semester							
ELECTRICAL AND ELECTRONICS ENGINEERING									
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
B20EE3201	Logic Design and Microprocessors	PC	3	3	0	0	30	70	100
B20EE3202	Control Systems	PC	3	3	0	0	30	70	100
B20HS3202	Universal Human Values-2 : Understanding Harmony	HS	3	3	0	0	30	70	100
#PE-II	Professional Elective -II	PE	3	3	0	0	30	70	100
#OE-II	Open Elective-II	OE	3	3	0	0	30	70	100
B20EE3207	Control Systems Laboratory	PC	1.5	0	0	3	15	35	50
B20EE3208	Logic Design and Microprocessors Laboratory	PC	1.5	0	0	3	15	35	50
B20EE3209	Electrical System Simulation Laboratory	PC	1.5	0	0	3	15	35	50
B20HS3203	Soft Skills (Skill Oriented Course)	SOC	2	1	0	2	--	50	50
B20HS3204	*Gender Sensitization	HS	0	2	0	0	--	--	--
TOTAL			21.5	18	0	11	195	505	700

	Course Code	Course
#PE-II	B20EE3203	Power Electronic Drives
	B20EE3204	Electrical Distribution Systems
	B20EE3205	Digital Signal Processing
	B20EE3206	Soft Computing Techniques
#OE-II	Student has to study one Open Elective offered by AIDS or CE or CSBS or CSE or ECE or IT or ME or S&H from the list enclosed.	

***Note:** Gender Sensitization is a Self-Learning noncredit Audit Course

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