## LAKIREDDY BALIREDDY COLLEGE OF ENGINEERING DEPARTMENT OF ELECTRICAL AND ELECTRONICS **ENGINEERING**

# Minutes of BOS Online meeting Held on 2<sup>nd</sup> July 2020. FOR UG Program

### **Members Present:**

**External BoS Members** 

Dr. S.Sivanaga Raju

Er. Ch. Sri Prakash

Mr.Y.Naresh

**Internal BoS Members** 

Dr. M.S.Giridhar

Dr. K.Harinadha Reddy

Dr. M.Uma Vani

Dr. P. Sobha Rani

Dr.K.R.L.Prasad

Dr.G.Nageswara Rao

Dr.J.Sivavara Prasad

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1. Finalization of course structure for UG Program (EEE) under R-20 regulation- Suggested/Approved

- 2. Course content (syllabus) of semesters I-IV for UG under R20 Regulation along with Course Outcomes (COs)- Discussed/Suggested
- 3. List of Core & Elective courses, Open Electives of R20 course structure-Suggested/Approved
- 4. Stake holder's feedback-Suggested/Approved
- 5. Course content and evaluation procedure of integrated Discussed/Suggested

Note: Detailed resolutions are enclosed as Annexure-I.



# LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING (Autonomous)

L.B. Reddy Nagar, Mylavaram-521 230. Andhra Pradesh, INDIA Affiliated to JNTUK, Kakinada & Approved by AICTE New Delhi New Delhi & Certified by ISO 9001:2015, http://www.lbrce.ac.in

# DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

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### Minutes of meeting held on 02/07/2020

### B.Tech EEE

After thorough discussions and deliberations, following resolutions are arrived in the proposed R20 Course Structure:

# I. Suggestions in course structure:

- It is suggested to have two credits for "Universal Human Values" course (II semester) instead of three credits.
- It is suggested to have two credits for "Programming for Problem Solving Using C Lab" (II Semester) instead of one credit.
- It is suggested to have two credits for "Professional Communication Lab" (II semester) instead of one credit by keeping one credit for "Computer Aided Engineering Drawing".
- 4. It is recommended to swap "Electrical Measurements" (III semester) course with "Electric and Magnetic Fields" (IV semester) course.
- 5. It is suggested to change "Electrical Circuits & Measurements lab" as "Electrical Circuits & Simulation lab" in III Semester.
- 6. It is suggested to combine Control systems lab with Measurements lab and new lab title is "Control Systems and Measurements Lab" in IV semester.

# II. Changes in course content are suggested for the following courses:

- "Electrical Circuits-II", 'Millman's theorem' concept may be introduced in Theorems.
- 2. "Electrical Workshop lab", course content may be reframed as follows:
  - 'Study of tools and meters' experiment may be included as first experiment
  - Introduce one experiment on 'starter circuit with NO and NC concept
- 3. "Power Systems-I", the content may be reframed as follows:
  - In Unit IV, 'micro grid', 'cogenearion', 'distributed generation'
    concepts are to be removed and unit IV & V may be
    combined and treated as unit III

- Unit III 'Economics of power generation' may be treated as unit V.
- In Unit IV, 'Substation' concepts may be introduced.
- 4. "Electric and Magnetic Fields", the following changes are to be made:
  - Unit II, mention 'Laplace in one dimension/ two dimensions'.
  - Unit III, include the concept 'Application of Biot Savart Law, Ampere Law'
  - Unit IV, remove the concepts 'magnetic circuits, inductances and mutual inductances'
  - Unit V, remove 'simple problems' topic.
- 5. "Electrical Measurements", the following changes are to be made:
  - Unit I: remove the concept of 'static and dynamic characteristics'
  - Unit V: remove the concept of 'application to non electrical quantities'
  - "Instrumentation" may be selected as program elective.
- 6. "Electrical Machines-I", the content may be reframed as follows:
  - D.C machines' concept (units I,II,III)may be made as two units
  - Unit IV may be splitted as two units
  - 'Auto transformers' concept in unit-V may be combined with 'single phase transformer'
- 7. "Control Systems", remove the concept of 'Canonical State space models' and 'eigen values and stability analysis' in unit V.
  - Unit-I must rewritten in proper order like 'open loop, closed loop, Industrial Control examples, Feedback Control - Feed-Back Characteristics'
- 8. "Basic Electrical Engineering", unit V is to be reframed by keeping working principle and e.m.f equation of D.C.machines, transformer, induction motor only. Only O.C and S.C test on single phase transformer is to be included in chapter1.
- 9. "Basic Electrical Engineering Lab", the experiments may be reframed as:
  - First experiment may be removed.
  - Experiment 4 title may be changed as 'verification of resonant frequency, band width and Q factor for an RLC series and parallel network'.
  - Experiments 10, 11 may be changed based on the theory content

- Experiment 12 must be 'to perform OC and SC test on 1-phase transformer'.
- 10. "Basic Electrical and Electronics Engineering", the content may be reframed as follows:
  - Unit I: remove 'numerical problems' topic
  - Unit III: elementary concepts of D.C machines only to be introduced
  - Unit V: remove 'Digital Logic Circuits' chapter.
- 11. "Basic Electrical and Electronics Engineering lab", sixth experiment in cycle-II are to be replaced with other experiments relevant to theory content.

### III. Other Suggestions:

1. Practical aspects relevant to industry are to be covered while teaching theory courses.

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# LAKIREDDY BALIREDDY COLLEGE OF ENGINEERING DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

# Minutes of BOS Online meeting Held on 2<sup>nd</sup> July 2020. FOR PG Program

### **Members Present:**

**External BoS Members** 

Dr. S.Sivanaga Raju

Dr Y.S.Kishore Babu

Mr T.Sesha Sai Babu

**Internal BoS Members** 

Dr. M.S.Giridhar

Dr. K.Harinadha Reddy

Dr. M.Uma Vani

Dr. P. Sobha Rani

Dr.K.R.L.Prasad

Dr.G.Nageswara Rao

Dr.J.Sivavara Prasad

Signature

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- 1. Finalization of course structure for PG Program (PED) under R20 regulation- Suggested/Approved
- 2. Course content (syllabus) of semesters I-II for PG under R20 Regulation along with Course Outcomes (COs)- Discussed/Suggested
- 3. List of Core & Elective courses, Open Electives of R20 course structure-Suggested/Approved
- 4. Stake holder's feedback-Suggested/Approved
- Research and consultancy works to be taken up by EEE Department - Discussed/Suggested

Note: Detailed resolutions are enclosed as Annexure-II.

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### DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING hodee@lbroe.sc.in, eee lbroe@gmail.com

# Minutes of meeting held on 02/07/2020

### M.Tech (PED)

> The course structure of M.Tech (Power Electronics & Drives) program of R20regulation is approved as per AICTE model curriculum with the following program core, program elective and open elective courses:

Program Core 1: Analysis Of Power Converters

Program Core 2: Control of Motor Drives-I

### **Program Electives-I**

- **Power Quality** 1.
- **FACTS** 2.
- **HVDC Systems** 3.

### **Program Electives-II**

- 1. Modern Control Theory
- Artificial Intelligent Techniques & Applications 2.
- Meta Heuristics Optimization Techniques 3.

Program Core 3: Switched Mode Power Converters

Program Core 4: Control of Motor Drives-II

### **Program Electives-III**

- Machine Modelling and Analysis 1.
- **Emerging Trends in Power Converter Technologies** 2.
- Micro and Smart Grid Technologies 3.

### **Program Electives- IV**

- 1. Hybrid Electrical Vehicles
- Wind Energy Conversion Technologies 2.
- Electro Magnetic Interference and Compatibility 3.

### Program Electives-V

- DSP & FPGA Controllers 1.
- Advanced Microprocessors & Microcontrollers 2.
- Advanced Power Semiconductor Devices & their protection

### **Open Electives**

- 1. Industrial Safety
- 2. Operations Research

- Add the Modular Multilevel Converter (MMC) in the last unit of "Analysis of Power Converters" course.
- Add the Bimal K.Bose book in the reference list of "Control of Motor Drives-I" course.
- > Write the relevant topics as prerequisite instead of mentioning complete course titles.
- > Remove underscores in the second unit of "Power Quality "Course.
- ➤ In the 5<sup>th</sup> unit of "**Power Quality** "Course, remove the wiring and grounding topics or add the grounding issues related to Power Quality problems.
- > Remove the applications topic in the 3<sup>rd</sup> unit of "FACTS" course.
- Add 12 pulse converters in the 2<sup>nd</sup> unit of "HVDC" course.
- Modify the Conversion in the unit titles of 1 and 2 with Converters in the course of "Switched Mode Power Conversion".
- Add soft starters in any of the drive course.
- Add v/f control of induction motor drive experiment in "Simulation of Power Converters & Drives-I Lab" course.
- Add SVPWM technique for controlling induction motor drive as an experiment in addition to SVPWM technique in "Simulation of Power Converters & Drives- I Lab" course.
- Make unit 5 as DFIG in the "Wind Energy Conversion Technologies" course and add on shore and off shore related topics.

HEAD OF THE DEPARTMENT