VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS)
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

11.08.2021

Minutes of 11th meeting of Board of Studies held on 11.08.2021

Members Present:

S.No	Name of the Member		
1	Dr.M.Chakravarthy	:	Chaiman BoS, HoD EEE
2	Dr. N.Viswanathan	:	Professor, Dept of EE, NIT Warangal
3	Dr.G.Yesuratnam	:	Professor , Osmaina Univeristy
4	Dr. Ravikumar Bhimasingu	:	Associate Professor, IIT Hyderabad
5	Mr.Srinath Topucharla	:	Senior Electronics Hardware Manager, ABB, Hyderabad
6	Mr.V.Vinay Babu	:	Audit Analytics Specialist Assistant, Deloitte, Hyderabad
7	Dr.K.Ravi Kumar	:	Professor
8	Dr..Ch.V.S.S.Sailaja	:	Associate Professor
9	Mrs.G. Sandhya Rani	:	Assistant Professor (Sr.)
10	Mr.M. Sreenivasulu	:	Assistant Professor (Sr.)
11	Mr.G.Mahesh	:	Assistant Professor
12	Mr.U.Elisha	:	Assistant Professor
13	Mr.N.Uday Kumar	:	Assistant Professor
14	Mr.P.Rajasekhar Reddy	:	Assistant Professor
15	Mr.P.Ravi	:	Assistant Professor
16	Dr.Ch.Kasi Ramakrishna Reddy	:	Assistant Professor
17	Dr.C.Srinivasaratnam	:	Assistant Professor

Dr.M.Chakravarthy , HoD EEE, Chaiman BoS, welcomed the members and presided over the meeting.

1. **Review the minutes and approve the Action Taken Report on the decisions taken in the 10th meeting of BoS held on 27-07-2020.**

Suggestions made	Action taken
1.Dr.Ravikumar Bhimasinghu suggested to check the feasibility of completing Professional Electives by VII semester for UG, so that they can prepare well for competitive	1. Dr.M.Chakravarthy, HOD, told that the students need to attend only one day for theory subjects in the VIII sem and the other days are allocated for project work.

exams and placements.	
2. Dr.N.Viswanathan suggested to rename the name of Professional Elective, "Pulse width modulation for power electronic converters " to "Advanced Modulation techniques for Power Converters", which will be offered for BE VII sem.	2. Modified the title accordingly.
3. Dr.Ravikumar Bhimasinghu, suggested to write 5 Course Outcomes instead of 4 in Circuit Theory subject of BE II Sem (R20).	3. Written 5 outcomes for the subject Circuit theory.
4.Dr.N.Viswanathan suggested (i) Add the device TRIAC in Unit I (ii) UNIT-II title to be renamed as Phase Controlled Rectifiers (iii) In Unit III add DC-DC buck-boost converter. (iv) In Unit V add AC voltage controller.	4. All the said modifications are incorporated
5. Dr.N.Viswanathan, suggested to consolidate the subjects in the following manner as they belong to the same family in the Professional Electives list of Power Electronics (i)Application of Micro controllers to Power Electronics (Application of Micro controllers to Power Electronics and Digital controllers in Power Electronics Applications) (ii) Power Electronic Control of DC Drives and Power Electronic Control of AC Drives (Power Electronic Control of DC Drives, Power Electronic Control of AC Drives and Electric Drive Systems) (iii) Switched Mode power conversion and PWM converters and applications (Switched Mode power conversion, PWM converters and applications and Advanced topics in Power Electronics)	5. These modifications are made for PG-2020-21 admitted batch scheme.
6. Mr.Vinay has asked to check the feasibility of completing Professional Electives by sixth semester, so that it will be helpful for students in placements, where they ask questions related to IOT and AI.	6. Dr.M.Chakravarthy told that Theme based project is carried out in BE VI semester, which includes projects related to IOT.

Action taken report on the suggestions made in 10th BoS meeting and minutes were approved.

2 **Review and Approve**

(i) Department Vision & Mission statements

Chairman BoS presented the Department Vision, Mission , PEOs and PSOs

Department Vision:
Excellence in quality education by keeping pace with rapidly changing technologies and to create man power of global standards in the field of Electrical and Electronics Engineering

Department Mission:
To impart in-depth knowledge to students through inductive teaching and learning practices, so that they acquire the skill to innovate, excel and lead in their profession with values and ethics that will benefit society.

(ii) Program Educational Objectives and Program Specific Outcomes

Program Educational Objectives
PEO 1: Graduates will acquire technical competence to analyze, design and solve engineering problems in the field of Electrical and Electronics engineering and use modern engineering tools, techniques and software.
PEO 2: Graduates will be able to acquire necessary skills and obtain employment and will be productive in the professional practice of Electrical and Electronics Engineering and related fields.
PEO 3: Graduates will be sensitive to professional and social contexts, committed to ethical action and engaged in lifelong learning skills.

Program Specific Outcomes.
EEE students will be able to design, analyze Power Systems & Electrical Machines to solve complex engineering problems.
EEE students will be able to design and analyze Electrical and Power Electronic Circuits.
EEE students will be able to use and apply modern software tools and techniques related to Electrical Engineering.

The members reviewed and approved the Department Vision, Mission statements and the PEOs and PSOs of the program.

(iii) Statements of Course Outcomes
Course Outcomes are presented in the respective syllabi of the course

Dr.N.Vishwantathan suggested to reframe the course outcomes of Electrical Machines Lab course to reflect the Blooms Taxanomy Levels.

Dr.Ravikumar Bhimsingh suggested that the minimum number of course outcomes should match with the number of Units.

3. **Institute & Department Achievements**

Chairman BoS presented the following points:

- The college is NAAC accredited with A++ grade.

- Autonomy of the college is extended for a period of 10 years i.e., up to Academic Year 2030-2031.
- Two students of the department secured All India GATE ranks less than 500 during the academic year 2020-21.
    - Vinay Paggala :460
    - Allani Saketh :456
- Placement details of EEE students till date are as follows
    - Gross Selection :57
    - Net Selection :37
    - % of Students Placed :65.45
- Department received a grant of Rs.1.00 lakh under ATAL scheme for organizing Faculty Development Program on "Artificial Intelligent Techniques Applied to Power Systems".
- Department is doing consultancy with Sri Gayatri Energy Services in the area of Arc Flash Analysis of Power Systems.
- Department has applied for following AICTE Scheme.
    - RPS : Smart Battery Energy System for Grid Support
- Two faculty of the department have applied for Central Revenue Grant Scheme (under DST)
    - Dr. Kasi Ramakrishna Reddy – Soft switched DC-DC Converter Configurations for LED Lighting Applications
    - Dr. C. Srinivasratnam -Design of Investigations on Robust Controllers for frequency stabilization in a renewable rich micro grid system with plug in Electric Vehicle.
- Department has signed two MoUs with
    - M/s.Solar Bull
    - M/s. Sri Gayatri Energy Services
- Department had a discussion with Central Power Training Institute on the possibility of
    - Offering Industrial Training to faculty & students
    - Conducting Technical Skill classes
- Department has developed the following working models to enhance the experiential learning of the students.
    - Demonstration of Y-Δ Starter
    - Demonstration of Traffic Light Control using PLC
    - Magnetic Field of a Coil
    - Magnetic Field of Solenoid
    - Display of Harmonics in linear and no-linear Loads
    - Power Monitoring & Power factor Correction
    - Demonstration of generating rotating magnetic field
    - Automatic Irrigation System
    - Automation of Speed Control of Dc Motor Using Plc
    - Online Energy Auditing

- Load Cell Application to Solar Dryer
- Color selection Algorithm Design for Smart Lighting Application

- Mr. C.Srinivasaratnam has been awarded with Ph.D degree from NIT Warangal in the area of "Optimal Scheduling of Micro Sources and Load Frequency Control in Multi-Microgrid System using Meta- heuristic Techniques".

Mr. P. Rajasekhar Reddy has registered for Ph.D with KLU in the area of "Electric Vehicles

Members noted and congratulated for the above mentioned achievements of college and department .

4. **Note and discuss the online pedagogical initiatives implemented by the department to enhance the quality of teaching-learning process**

Chairman BoS, explained the various innovative teaching methods incorporated in teaching and learning process implemented to the students. He also mentioned that the work is available in the college website and requested the members to go through and provide their valuable suggestion for improvement.

- Innovative teaching methodologies implemented in the department:
  - Microprocessors & Microcontrollers Applications------Projects Made Easy
  - Circuit Theory & Electrical Circuits Analysis ------Simulation of Electric Circuits using PSPICE
  - Power Electronics ------Simulation of Power Electronics using PSIM
  - Programmable Logic Controller ------Step by Step Procedure for the usage of Crouzet Millenium 3 PLC with Exercises
  - Programmable Logic Controller------ Speed Control of DC machine using PLC
  - Electromagnetic Field Theory ------Simulation of Electromagnetic Fields using MATLAB
  - Electrical Measurements and Instrumentation ------ Demonstration of Bridges using LabVIEW
  - Power System Operation & Control------ Simulation of Power Systems using Mi-Power
  - Electrical Circuits, Control Systems and Electrical Measurements------ Getting started with LabVIEW

Product Development:

- Department of EEE has spent an amount of Rs. 5,00,000 /- for the following product development activities.
- List of products developed by EEE department to:
  - Pendekanti Venkatasubbaiah Industrial Training Center , Banaganapalle, Kurnool Dist, AP:
    - DC Shunt generator Control Panel

- DC Shunt motor Control Panel
- AC Slip ring motor Control Panel
- DC Compound motor Control Panel
- AC Squirrel cage Control Panel
- DC Compound Generator Control Panel
- Motor Generator Set (DC-AC) Control Panel
- DC Series motor Control Panel
- Single phase Series and Capacitor Motor and Universal , Shaded Pole motor Control Panel

- EEE department
  - Digital Measurement box for measuring D.C Voltage, DC current and speed of DC motor.
  - Digital Measurement box for measuring power and speed of 3 Ø AC motor.
  - Digital Measurement box for measuring power and speed of 1Ø AC motor
- Vasavi College of Engineering

Design and Installation of Motion Sensor in class rooms as energy conservation initiative

Members noted and appreciated the department for the above activities.

5. **Discuss & review the following for the B.E. (EEE) students to be admitted during the academic year 2021-22 :**
   a. **Scheme of Instruction and Examinations from I to VIII semesters**
   b. **Syllabi for I & II semester courses**

BoS Chairman briefed on the following changes made in the curriculum for students to be admitted in the academic year 2021-22.

- Number of Courses on English Language and Communication Theory and Lab are reduced from two to one in the I Year.
- Number of Courses on Engineering Mechanics is reduced from two to one in the I year.
- Credits for Engineering Chemistry and Quantum Mechanics and Material Science are reduced from 4 to 3.
- The following new Courses are introduced in place of the above mentioned available credits.
  - Object Oriented Programming (3 Credits)
  - Object Oriented Programming Lab (1 Credit)
  - Data structures (3 Credits)
  - Data structures Lab(1 Credit)
  - Digital Electronics Lab (1 Credit)

Members of BoS reviewed the scheme and syllabi.

6. **Discuss & review the following for the B.E. (EEE) students admitted during the academic year 2020-21 :**

BoS Chairman presented

a. Scheme of instruction and examinations for III and IV semesters
b. Syllabi for III and IV semester courses

Members of BoS reviewed the scheme and syllabi

7. **Discuss & review the following for the B.E. (EEE) students admitted during the academic year 2019-20 :**

BoS Chairman presented

a. Scheme of instruction and examinations for V and VI semesters
b. Syllabi for V and VI semester courses

Members of BoS reviewed the scheme and syllabi.

8 **Discuss & review the following for the B.E. (EEE) students admitted during the academic year 2018-19 :**

BoS Chairman presented

a. Scheme of Instruction and Examinations for VII & VIII semesters
b. Syllabi for VII & VIII semester courses

Members of BoS reviewed the scheme and syllabi.

9 **Discuss & review the following for the M.E.(PSPE) students to be admitted during the academic year 2021-22 :**

a. Scheme of Instruction and Examinations from I to IV semesters
b. Syllabi for I & II semester courses

Members of BoS reviewed the scheme and syllabi.

10 **To discuss & review the following for the M.E.(PSPE) students admitted during the academic year 2020-21 :**

a. Scheme of Instruction and Examinations for III & IV semesters

b. Syllabi for III & IV semester courses

Members of BoS reviewed the scheme and syllabi.

Suggestions Given by BoS Members :

Dr.Ravikumar Bhimsingh

- Suggested to change the title of Electrical Machines-I course to " DC Machines and Transformers" and title of "Electrical Machines-II" course to "AC Machines" to get an idea about the course.
- suggested to change the title of Electrical Machines Lab -I course to " DC Machines and Transformers Lab" and title of "Electrical Machines Lab -II" course to "AC Machines Lab"
- Change the topic V curves to " V and Λ" curves in Electrical Machines –II Course.

Dr. Yesuratnam

- Suggested offering "Power System Operation & Control" course as a compulsory course in professional elective.

Dr. N. Vishwanatham

- Suggested to separate the Speed control and Swinburne's Experiment into two different experiments.
- Suggested to separate Dynamic braking and Retardation test into two different experiments.

Mr.Srinath Topucharla

- Suggested to offer projects on variable frequency drives and digital drives.

V.Vinay Babu

- Appreciated inclusion of Object Oriented Programming (Theory & lab), Data Structures (Theory & Lab) in the curriculum.
- Requested for the syllabus copy of Data Structures for reviewing.

The meeting concluded with a vote of thanks by the Chair.

M. Chakravarthy

Dr.M.Chakravarthy
BoS Chairman & HoD EEE

VASAVI COLLEGE OF ENGINEERING (AUTONOMOUS)
DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

13.08.2021

ACTION TAKEN REPORT FOR THE 11TH BOSMEETING(ONLINE) HELD ON 11-08-2021

S.No	Suggestions made	Action taken
1	Dr.N.Vishwantathan suggested reframing the course outcomes of Electrical Machines Lab course to reflect the Blooms Taxonomy Levels.	Modified Course Outcomes accordingly
2	Dr.Ravikumar Bhimsingh suggested that the minimum number of course outcomes should match with the number of Units	Number of outcomes are changed as per the suggestion
3	**Dr.Ravikumar Bhimsingh** ➢ Suggested to change the title of Electrical Machines-I course to " DC Machines and Transformers" and title of "Electrical Machines-II" course to "AC Machines" to get an idea about the course. ➢ suggested to change the title of Electrical Machines Lab -I course to " DC Machines and Transformers Lab" and title of "Electrical Machines Lab -II" course to "AC Machines Lab" ➢ Change the topic V curves to " V and Λ" curves in Electrical Machines –II Course.	➢ Title of Electrical Machines-I course is changed to "DC Machines and Transformers" and title of "Electrical Machines-II" course is renamed as "AC Machines" to get an idea about the course. ➢ Title of Electrical Machines Lab -I course is changed to " DC Machines and Transformers Lab" and title of "Electrical Machines Lab -II" course is changed to "AC Machines Lab" ➢ V curves topic is changed to " V and Λ" curves in Electrical Machines –II Course.
4	**Dr. Yesuratnam** ➢ Suggested offering "Power System Operation & Control" course as a compulsory course in professional elective.	Chairman BoS said that , this particular professional elective will be offered as a compulsory course to the students.
5	**Dr. N. Vishwanatham** ➢ Suggested to separate the Speed control and Swinburne's Experiment into two different experiments. ➢ Suggested to separate Dynamic braking and Retardation test into two different experiments.	All the said modifications are incorporated
6	**Mr.Srinath Topucharla** ➢ Suggested to offer projects on variable frequency drives and digital drives.	Incorporated in "Theme based Project Course"

M. Chakravarthy

HOD-EEE

Dr.M.Chakravarthy