KAKATIYA INSTITUTE OF TECHNOLOGY & SCIENCE, WARANGAL-15
(An Autonomous Institute under Kakatiya University, Warangal)
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

MINUTES OF THE MEETING OF BOARD OF STUDIES (BoS) Held at 2.00 pm on 12.11.2020 (Thursday)

(Virtual Meeting)

Date: 12.11.2020
Time: 02:00 pm

Agenda:

1. Review of Programme Educational Objectives (PEOs) and Programme Specific Outcomes (PSOs) of M.Tech. PE
2. Approval of Scheme of M.Tech. PE
3. Approval of Syllabus of M.Tech. PE
4. Any other item with the permission of chair

Members Present:

S. No.	Name of the Member	Designation	Position in BoS
1.	Dr. C. Venkatesh	Professor & HoD, EEED, KITSW	Chairperson, BoS
2.	Sri V. Ramaiah	Professor of EEED, KITSW	Member
3.	Dr. V. Rajagopal	Professor of EEED, KITSW	Member
4.	Sri M. Narasimha Rao	Assoc. Professor of EEED, KITSW	Member
5.	Dr. G. Rajender	Assoc. Professor of EEED, KITSW	Member
6.	Dr. D. M. Vinod Kumar	Professor, Dept. of EEE, NIT, Warangal	External Member (from renowned Academic Institute)
7.	Dr. V. T. Somasekhar	Professor, Dept. of EEE, NIT, Warangal	External Member (from renowned Academic Institute)
8.	Dr. M. Shailaja Kumari	Professor, Dept. of EEE, NIT, Warangal	External Member (University Nominee)
9.	Sri T. Srimannarayana Murthy	Chief Engineer (Elecl), KTPS, Kothagudem	External Member (from Industry)
10.	Sri E. Ram Mohan Rao	Associate Consultant, TCS, Hyderabad	External Member (from Industry)
11.	Sri Ch. Ramesh	Engineer, R&D, Medha Servo Drives Pvt. Ltd., Hyderabad	External Member (from Industry)

12.	Sri Balajose Goli	Software Development Manager, Oracle India Pvt. Ltd., Hyderabad	External Member (Post Graduate Meritorious Alumnus –Academia/Industry)
13.	Dr. B. Jagadish Kumar	Assoc. Professor of EEED, KITSW	Co-OptedMember-1
14.	Dr. G. Rajender Naik	Assoc. Professor of EEED, KITSW	Co-OptedMember-2
15.	Dr. P. Nagarjuna Reddy	Asst. Professor of EEED, KITSW	Co-OptedMember-3

1. Virtual BoS meeting of Electrical & Electronics Engineering Department was conducted on 12.11.2020, from 2:00 pm to 6:30 pm through Google Meet platform. 2. The above BoS members were present and offered their valuable suggestions.

Details of the meeting

The meeting commenced at 2.00 pm and was presided over by the Chairman, BoS. At the outset, the Chairman, BoS welcomed the members to the meeting to discuss the pre notified items on the agenda and approval.

At the onset, the Chairman expressed his views that the engineering programmes are required to impart required knowledge (K), skills (S) and qualities (Q) (values and attitude) and facilitate students to acquire the characteristics of good engineer. He opined that the Knowledge and Skills imparted to students at PG level of PRR-14 have not reached to the levels of the knowledge and skill demanded / expected by the industry / higher education Institutes of National Importance. In this regard, the knowledge (K) areas and skills (S) required to make the PG students industry ready and capable of entering into Institutes of National Importance for conducting research and make innovations are identified and the scheme and syllabus are prepared based on the identified KSQ.

The knowledge areas and skills identified for preparation of PG curriculum are listed below and are presented to the BoS members.

Knowledge area (K)	Details of identified knowledge area (Students who have completed the PG program of Power Electronics must have profound knowledge on …)
K1	Power electronic switches and converters
K2	Applications of power electronics in Renewable Energy generation &

	Electric power transmission
K3	Machine modeling & Industrial Drives
K4	Control systems for power electronic systems
K5	Simulation tools like MATLAB, PSpice for modeling power electronic applications

Skills required (S)	Details of identified skills (Students after completion of post-graduation program in Power Electronics should have the skill to …)
S1	Analyse power electronic converters and drives
S2	Model and design power electronic converters and their controllers for applications in electric vehicles
S3	Select suitable renewable energy sources and advanced technologies for electric power transmission and distribution
S4	Simulate different power electronic circuits and test their performance and efficiency

Qualities(Q) (Values & Attitudes)	Details of identified qualities (Every engineer must have the qualities of …)
Q1	Creativity & Innovation
Q2	Problem solving &Lifelong learning
Q3	Logical thinking & Reasoning
Q4	Working as an Individual and in a team
Q5	Oral & Written Communication, Professional Ethics

RESOLUTIONS:

BOS-EEE-November2020-RES1:

1. Resolution on Agenda1: Review of Programme Educational Objectives (PEOs) and Programme Specific Outcomes (PSOs) of M.Tech. PE

Chairman, BoS has put forward the Programme Educational Objectives (PEOs) and Programme Specific Outcomes (PSOs) of M.Tech (PE) to the Members of BoS for considering of reviewing.

PEOs of M. Tech (PE) considered for review:

PEO1 (Research and Innovation)	engage in research, innovation and in teaching in Higher Educational institutions

PEO2 (Technical expertise and Successful career)	excel in profession in industry and entrepreneurship with latest technologies of power electronics & drives in the areas of renewable energy, smart grid and electric vehicles
PEO3 (Soft skills and Lifelong learning)	exhibit professional ethics, effective communication and teamwork in solving engineering problems by adapting contemporary research towards sustainable development of society

PSOs of M. Tech (PE) considered for review:

PSO 1	Apply knowledge of power electronics for development of effective and innovative solutions to problems associated with integration of renewable energy, smart grid and electric vehicles
PSO 2	Analyze the complex engineering problems related to power electronics industry and develop solutions using latest hardware and software tools

As per the suggestions offered by the BoS members, following PEOs and PSOs are approved:

PEO1 (Research and Innovation)	engage in research, innovation and teaching in the fields related to power electronics & drives

PEO2 (Technical expertise and Successful career)	excel in professional practices relevant to industry and engage in entrepreneurship with latest technologies in the areas of power converters, renewable energy, smart electric grid, industrial drives and electric vehicles
PEO3 (Soft skills and Lifelong learning)	exhibit professional ethics, effective communication skills and spirit of teamwork by carrying out research for a sustainable development

PSO1	apply knowledge of power electronics for the development of effective and innovative solutions to problems pertaining to the renewable energy sources, smart electric grids and electric vehicles
PSO2	analyze complex engineering problems related to power electronics industry and develop solutions with the latest hardware and software tools

BOS-EEE-November 2020-RES2:

Resolution on Agenda2: Approval of Scheme of M.Tech. PE

Chairman, BoS presented the scheme for M.Tech. PE of PRR-14, Model UGC curriculum released in year 2018. He informed the committee that the PRR-20 scheme is prepared based on the Model UGC curriculum while considering the revised Program Educational Objectives (PEOs), Program Outcomes (POs) and Program Specific Outcomes (PSOs).

- The list of mandatory courses, audit courses and open elective courses are presented.
- The members are informed that the students admitted in to PRR-20 scheme are required to complete a miniproject in II semester and an industrial internship in III semester which will be evaluated by the Departmental Post Graduate Evaluation Committee (DPGEC).
- It is brought to the notice of the BoS that the students are free to select any MOOC as professional elective/ open elective from the list mentioned by the department in the corresponding semesters.
- The members are also informed that the students can prefer to study through online mode in the form of MOOCs in III semester if they are working on industrial projects

(in industries).

• The dissertation will be carried out in two semesters (III & IV semesters).

BOS-EEE-November 2020-RES3:

Resolution on Agenda3: Approval of Syllabus of M.Tech. PE

Chairman, BoS presented the syllabus for M.Tech. PE

M.Tech. – PE – I SEM

Analysis of Power Electronic Converters:

1. This is existing course with modified syllabus Under PRR20 as per the AICTE model curriculum to meet the industry/ research requirement.
2. Analysis of full Bridge dc-dc Converter is introduced in Unit-III.
3. The concept on advanced modulation techniques for improved performance, variable D.C. link inverter, buck and boost inverter and Introduction to multilevel Inverters has been removed in UNIT-IV.
4. In this Analysis of Power Electronics Converters theory course, the student will design, analyze the performance of various power electronic converters like AC voltage controllers, Rectifiers, Choppers and Inverters.

Renewable Energy Systems:

- The course is newly introduced in PRR20 scheme in place of alternative sources of electrical energy course in PRR14.
- The first two units of renewable energy systems is similar to alternative sources of electrical energy course and included some additional topics like present scenario of solar photovoltaic and wind energy.

Electrical Machine Modeling and Analysis:

- The name of the course has been changed from 'Machine Modeling & Analysis' to 'Electrical Machine Modeling and Analysis'.
- Basic principle for Electrical Machine Analysis has been introduced in UNIT-I. • Previous Text book has been replaced by P.S.Bimbra, "Generalized Theory of Electrical Machines" Khanna publications, Fifth edition -1995.
- Course Learning objectives and outcomes have been changed suitably.

FACTS & Custom Power Devices:

- This course was in II semester in PRR14 and it is moved into I semester of PRR20 with modified syllabus (with additions of custom power devices).
- Unit-I covers Power flow in Power Systems & Transmission line compensation. Unit II covers Static shunt compensators. Unit-III covers Unified Power Flow Controller.

- Custom Power Devices are introduced in Unit- IV.

Electromagnetic Interference & Compatibility:

- This course has been continued in PRR-20 regulations in the I semester only similar to PRR-14 scheme. The syllabus has been revised completely.
- Unit-I covers introduction to EMI and EMC along with sources of EMI • EMI from apparatus and circuits is included in Unit-II
- Unit- III deals with EMC techniques and EMI filters
- Unit-IV deals with devices for suppression of EMI

Nonlinear Control Systems:

- This course introduces the basics of nonlinear functions, their characteristics, and the stability analysis of nonlinear systems.
- The differences between linear and nonlinear systems, describing function analysis and compensation and design of nonlinear system using describing function method are introduced in Unit-I.

- The concepts of phase plane analysis and linearization of nonlinear systems are introduced in Unit-II.
- Unit-III deals with the stability analysis of nonlinear systems using Lyapunov's theory and control design based on Lyapunov's direct method.
- In Unit-IV the concepts of non-linear control system design problem, Disturbance issues in nonlinear control are introduced along with various examples like sliding mode control, ball and beam, flight control, magnetic levitation and robotic manipulator.

Microgrid & Distributed Generation Technologies:

- This is a new course introduced as a Professional Elective-IV/ MOOCs-IV in II semester of M.Tech. PE course to provide an insight of Microgrid operation and distribution technologies.
- First unit describe the operation of DG technologies and their need in current scenario of power systems.
- Second unit analyze the issues associated with integration of DGs with the conventional grid and list the standards of DG.
- Third unit describe the technical and economic aspects associated with DG. • Fourth unit deals with introduction and operation of microgrids.

Power Quality:

- The Elective-III, II semester has been shifted to I semester as a Professional Elective II/ MOOCs-II to provide an insight of Power Quality problems and their mitigation methods in Distribution system.
- The phenomena of Voltage Interruptions and Voltage Sags are explained in Unit-II and Harmonics and its sources have been added as Unit-III to have complete knowledge on all Power Quality problems
- Harmonic indices are also added in Unit-III in order know the concepts of different regulatory commissions in power system.
- The concept and topologies of Unified Power Quality Conditioner (UPQC) is added in the Unit-IV.

Power Converters Laboratory:

• This is a new laboratory introduced Under PRR20 as per the AICTE model curriculum to meet the industry/ research requirement.

• To cater the needs of modern power electronics industry, 8 hardware experiments and 4 simulation experiments using MATLAB/Simulink have been introduced in Power Converters Laboratory.

• In this power converters laboratory course the student will design, analyze the performance of various power electronic converters like single and three phase AC voltage controllers , Rectifier , Choppers and Inverters.

Renewable Energy Systems Laboratory:

• This course is shifted from II semester (PRR14) to II semester (PRR20). • The two experiments Effect of tilt angle and shading on solar PV Panel are combined and made as a single experiment.

• Three new experiments finding the MPP by varying the duty cycle of DC-DC Converter, Simulation of Fuel cell stack model and Simulation of Lead acid battery model have been added.

• Presently in Renewable Energy Systems Laboratory course 7 hardware experiments and 5 simulation experiments are there.

Suggestions made by the BoS

Modifications

AC Voltage Controllers and converters have to be replaced Front End converters

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Modified course (M)

The word ‘Electrical’ is introduced in the course

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Detailed description of standard be discussed, are to be mentioned in course syllabus
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Newly introduced (N)/

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Type of course:

Professional Core (PC)

Professional Elective (PE)

Core Laboratory (CL)

PC

Analysis of Power Electronic Converters

PC

Renewable Energy Systems

PE

Machine Modeling and Analysis

PE

Custom

Power Devices

PE

Electromagnetic

Compatibility

PE

Nonlinear Control Systems

PE

Distributed Generation

Technologies

PE

Power Quality

CL

Power Converters Laboratory

CL

Renewable Energy Systems Laboratory

12.11.2020

Course Name

Course Code

P20PE101

P20PE102

P20PE103A

FACTS &

P20PE103B

Interference & P20PE103C

P20PE104A

Microgrid &

P20PE104B

P20PE104C

P20PE105

P20PE106

Minutes of Meeting of BoS-EEE

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M. Tech. – PE – II SEM

Advanced Power Electronics:

- It is an Existing course with modified syllabus in M.Tech (Power Electronics) II semester.
- Basic ac modeling approach, modeling and current controlling of DC-DC converters are introduced in Unit-I.
- Design of DC-DC converter components such as transformer, inductor, capacitor, input filter and thermal design are introduced in Unit-II
- Basic resonant circuit concepts, classification, resonant converter topologies and switching strategies are introduced in Unit-III.
- The concepts of power quality issues have been removed and multi-level inverters and their topologies are introduced in Unit-IV.

Power Electronic Control of DC & AC Drives:

1. The course“P20PE202 POWER ELECTRONIC CONTROL OF DC & AC DRIVES” is introduced as an elective course in the II semester under PRR20 curriculum for making the students ready to work in power electronics and drives industry and also to pursue the research in electric drives.
2. The first unit of course content is designed to introduce the concepts of electric drives, rectifier fed DC Drives and Chopper fed DC Drives and.
3. Second unit of course content deals with scalar, vector and direct torque control of induction motor drives
4. Third unit consists of vector control – field weakening mode of sinusoidal SPM machine drives, synchronous reluctance machine drives (Maximum torque per ampere control and maximum power factor control) and wound field synchronous machine drives.
5. Fourth unit introduces closed loop control of sinusoidal IPM machine drives and trapezoidal SPM machine drives.

Artificial Intelligence Applications in Electrical Engineering:

- This course gives an introduction of Artificial Intelligence tools for various applications of electrical engineering.
- In Unit-I, the basics of biological neural networks and artificial neural networks are

introduced. The contents listed under Unit-1 provide better understanding of the neural network architectures and the learning mechanisms.

- The concepts of perceptrons, multi-layer neural networks and the Backpropagation algorithm are introduced in Unit-II. This also covers the basic understanding of fuzzy logic theory.
- Unit-III deals with the processing mechanism of the data through genetic algorithms (GAs). This covers the reproduction mechanism, fitness functions, crossover, mutation related to GAs.
- Unit-IV covers the major applications of the neural networks, fuzzy logic control and genetic algorithms in the field of electrical engineering.

Optimal Control Theory:

- This course is newly introduced in the II semester as Professional Elective Course
- Unit-I introduces the performance measures for Optimal Control Problems • Unit-II covers the calculus of variations
- Unit-III deals with Variational Approach to control problems
- Unit-IV deals with Dynamic Programming

Modeling and Simulation of Power Electronic Systems:

- The Professional Elective course in I semester has been shifted to II semester to provide an insight on the simulation of power electronic system.
- The concepts of various simulation processes and its solutions are introduced in Unit-I to provide Knowledge on the simulation of power electronic system. • Unit-II deals with modeling of various power electronic converters • Unit-III deals with modeling of power electronic drives and its controlling techniques and its applications
- State space representation of power electronic converters and linearization and modeling of power electronic converters with different state space models are introduced in Unit-IV

Electric and Hybrid Electrical Vehicles:

1. The course “P20PE204A-Electric and Hybrid Electrical Vehicles” is introduced as an elective course in the II semester under PRR20 curriculum for making the students ready to work in automobile industry and also to pursue the research in the Electric &

Hybrid Electrical vehicle technology.

2. The first two units of course content is designed to introduce the concepts of electric

& hybrid electrical vehicles and their applications in on-road, off-road, ships, aircrafts and military applications.

3. Third unit consists of operation and design of power electronic converters and electric motors used in electric and hybrid electric vehicles.
4. Fourth unit introduces modeling and simulation study of storage devices, power electronic converters and motors used in electric and hybrid electric vehicles using software tools like MATLAB & PSIM.

Microcontroller & DSP based Systems:

- PRR-14 has Microprocessor & Microcontroller (in IInd semester), Digital Signal Processors (in Ist semester) as two different elective subjects.
- In PRR-20, those two subjects have been combined by excluding Microprocessors and

  modified as elective subject Microcontroller and DSP based systems.
- Unit-I deals with architecture, addressing modes and Instruction set of 8051 microcontrollers.
- Unit-II deals with assembly language programming using 8051 microcontrollers. • Unit-III deals, interfacing 8051 microcontrollers with I/O devices and stepper motor. • The architecture features, elementary programing on DSP processor and FPGA controller are introduced in Unit-IV.

Energy Auditing & Management:

- This course has been introduced as Professional Elective course in II semester of the program to make the students understand the concept of energy auditing and its management.
- Unit-I deals with demand side management in power utilities
- Unit-II deals with introduction to energy audit and auditing of electrical equipment • Unit-III deals with instrumentation techniques and evaluation for renewable energy systems
- Unit- IV covers the area of energy conservation.

Advanced Power Electronics Simulation Laboratory:

• The course title is changed to Advanced Power Electronic Simulation Laboratory in PRR20 scheme instead of Power Electronic Simulation Laboratory in PRR14. • The course syllabus is modified as per advanced power electronics course.

Electric Drives Laboratory:

1. The course “P20PE206 ELECTRIC DRIVES LABORATORY” is Professional core LAB-4 and is introduced in the II semester under PRR20 curriculum for making the students ready to work in power electronics and drives industry and also to pursue the research in electric drives.

2. The experiments are designed to introduce the concepts of electric drives, rectifier fed DC Drives, Chopper fed DC Drives, speed control of induction motor drives. 3. Last two experiments are designed to introduce the concepts of simulation for making the students ready to work in power electronics and drives in designing the equipment for research and industry.

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Suggestions made by the BoS m[e] Newly introduce[d]

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Modified course (M)

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Generation of gate signals for converters has to be introduced a[l] introduction of experiment[s] laboratorie[s]

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experiments on ZVS an[d] Ne[w] schemes of resonant converters [a] introduce[d]

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Professional Core (PC)

Type of cours[e]

Professional Elective (PE)

Core Laboratory (CL)

PC

Advanced Power Electronics

PC

Power Electronic Control of DC & AC

PE

Artificial Intelligence

Electrical Engineering

PE

Optimal Control Theory

PE

Simulation of Power

Electronic Systems

PE

Electric and Hybrid Electrical Vehicles

PE

DSP

PE

Energy Auditing & Management

Advanced Power

CL

Electronics Simulation

CL

Electric Drives Laboratory

Minutes of Meeting of BoS-EEE

Course Name

Course

Code

P20PE201

Drives

P20PE202

Applications in P20PE203A

P20PE203B

Modeling and

P20PE203C

P20PE204A

based Systems

P20PE204B Microcontroller &

P20PE204C

Laboratory

P20PE205

P20PE206

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M. Tech. – PE – III SEM

Smart Electric Grid:

- This professional elective course has been shifted from II semester from III semester with the reorganized syllabus.
- Unit- I deals with introduction to smart grid and its architecture.
- Unit-II deals with tools and techniques for smart grid
- Unit-III deals with communication technologies in smart grid.
- Unit-IV deals with control of smart power grid system

Advanced Control Strategies for Power Converters and Drives:

- This course has been newly introduced in III semester of the program to make the students familiar with advanced control strategies that are used to control Power converters and drives.
- Unit- I deals with classical control methods for power converters and drives. ● Unit-II deals with the widely used method of Model Predictive Control (MPC) for three phase inverters.
- Unit-III deals with MPC control for induction and PMSM machines. ●

Unit-IV deals with design and implementation issues of MPC

Machine Learning:

- This course is newly introduced to provide an insight of the supervised and unsupervised learning techniques in general, and recent developments in machine learning (ML) specifically for electrical engineering with power electronics specializations
- Various supervised learning techniques are introduced in Unit-I to provide fundamental knowledge on the regression and classification methods that are used by several field learners
- Various unsupervised learning techniques are introduced in Unit-II to provide fundamental knowledge on the different clusters and dimensionality reductions that are used by several field learners
- Unit-III deals with machine learning model evaluation, model selection and algorithm selections. By this knowledge students can introduce novel and/or real

time applications for various tasks/operations. Further, the data representation learning methods and concepts of deep learning are also introduced ● Recent developments in machine learning (ML) are introduced in Unit IV, which explores the ML techniques for energy systems reliability management, ML based modeling of power electronic converters, ML techniques to classify power transmission line fault types and locations, and ML applications to the internet of things (IoT). After completion of these topics the students can individually perform their own research in the field of machine learning in general and in power electronics specific

Suggestions made by the

Modifications

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Modified course (M)

Model Predictive Control and synchronous motor dealt

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Newly introduced (N)/

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Type of course

Professional Core (PC)

Professional Elective (PE)

Core Laboratory (CL)

PE

PE

PE

12.11.2020

Course Name

Course Code

Smart Electric Grid P20PE301A

Advanced Control Strategies for Power Converters and Drives

P20PE301B

Machine Learning P20PE301C

Minutes of Meeting of BoS-EEE

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BOS-EEE-November 2020-RES4:

Resolution on Agenda4: Any other item with the permission of chair

Chairman, BoS appraised the new academic activities which are introduced in the PRR-20 curriculum:

Assignments based Teaching Learning Process (ATLP):

- Faculty will be posting weekly assignments targeting the class based lecture outcomes on every Sunday.
- Solutions of the weekly assignments will be posted by the concerned faculty on the next Sunday.

Continuous Internal Evaluation (CIE):

- Students have to submit two assignments A1 and A2 (each one will be covering two units of course content) which have emphasis on critical thinking and problem solving. These assignments are not related to ATLP based weekly assignments.

Innovation Incubation Research and Entrepreneurship (I2RE):

- All the students will be involved in I2RE activities to inculcate research skill among them.
- Each student has to submit special assignments for each course on research papers and patents which will be related to the course content and will be posted by the course faculty. Students have to write a 2-page summary on any two course research papers (CRPs) & Course Patents (CPs) and submit to the course faculty as part of Special Assignments (SAs). Salient points of the Course Research Papers (CRPs) and Course Patents (CPs) will be asked in Compulsory Questions section of MSEs
- Each course will be equipped with Course Projects. These can be based on either

software or hardware. Simulation based course projects can be encouraged to get hand-on with software. Course Project will be an independent project carried out by the student during the course period, under the supervision of course teacher.

Chairman, BoS invited suggestions from External BoS Members towards strengthening of Teaching/Learning Process

Suggestions Received from External BoS Members:

1.	Dr. D. M. Vinod Kumar Professor, Dept. of EEE, NIT, Warangal	Smart grid is to be introduced in the syllabus as India isheading towards making its grid completely smart. Studentsare to be encouraged to participate in Smart grid hackathons.
2.	Dr. V. T. Somasekhar Professor, Dept. of EEE, NIT, Warangal	Advanced Control strategies of Power Converters are to betaught to the students. If the course is not opted, these topicsare to be taught to students by organizing workshops in thatarea.
3.	Dr. M. Shailaja Kumari Professor, Dept. of EEE, NIT, Warangal	Students are to be encouraged to do live projects which include design of converters or analysis of physical systems rather than limiting themselves to simulation based projects.
4.	Sri T. Srimannarayana Murthy Chief Engineer (Elecl.), KTPS, Kothagudem	Students are to be nurtured with professional skills. It is mypersonal observation that most of the freshers are not havingrequired skills of working in an organization.
5.	Sri E. Ram Mohan Rao Associate Consultant, TCS, Hyderabad	Students are to be encouraged to attain higher cognitive levelsof learning. Most of the new entrants in the industry are failingto analyse or design new algorithms and systems.
6.	Sri Ch. Ramesh Sr. Engineer, R&D, MEdha Servo Drives Pvt. Ltd., Hyderabad	Students are to be exposed to advanced power converters.Course projects are to be introduced where every student hasto design atleast one converter in his entire program
7.	Sri Balajose Goli Software Development Manager, Oracle India Pvt. Ltd., Hyderabad	Artificial Intelligence is to be introduced to the students withan orientation to Power Electronics stream.

At the end, Dr. C. Venkatesh, Professor & Head, Chairperson, BoS, EEED, thanked all the BoS members for giving their suggestions and approving the M.Tech. PE scheme and syllabus.

The meeting was adjourned at 6:30pm.

Regards

Dr. C. Venkatesh
Chairperson, BoS of EEE, KITSW
Professor & Head, EEED

Members Present:

S. No.	Name of the Member	Designation	Position in BoS	Signature
1.	Dr. C. Venkatesh	Professor & HoD, EEED, KITSW	Chairperson, BoS	
2.	Sri V. Ramaiah	Professor of EEED, KITSW	Member	
3.	Dr. V. Rajagopal	Professor of EEED, KITSW	Member	
4.	Sri M. Narasimha Rao	Assoc. Professor of EEED, KITSW	Member	
5.	Dr. G. Rajender	Assoc. Professor of EEED, KITSW	Member	
6.	Dr. D. M. Vinod Kumar	Professor, Dept. of EEE, NIT, Warangal	External Member (from renowned Academic Institute)	
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15.	Dr. P. Nagarjuna Reddy	Asst. Professor of EEED, KITSW	Co-OptedMember-3	