

Ninth Board of Studies Meeting

Venue: The Daffodil – Imperial Hall / Hybrid

Date: 24.11.2023

Meeting ID: 820 1352 2514

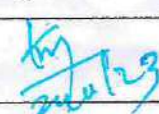
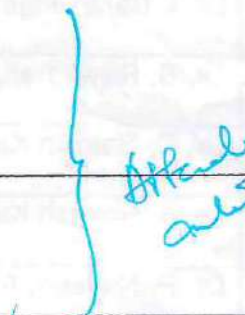
Time: 9.30 a.m.

Agenda:

To discuss and pass

1. Dissemination of Vision, Mission, PEOs and PSOs of the department
2. Discussion on the minutes of previous BoS meeting and action taken
3. Stakeholders inputs on curriculum design
4. Curriculum for I to VIII Semester of UG program under Regulations 2021(Revised)
5. Syllabi for V and VI Semester of UG program under Regulations 2021(Revised)
6. Syllabi of professional electives offered in different verticals under Regulations 2021 [Revised]
7. Syllabi of open electives offered under Regulations 2021 (Revised)
8. Discussion on Minor degree and B.E. (Hons) / B.É. (Hons) with specialization
9. Discussion on MOOC/Online courses, Industry offered courses and Value added courses
10. Courses to be offered for Ph.D. Scholars
11. Industrial training / Internship
12. Any other matter brought by the chair

Members Present:

S.No	Name of the member with Designation	Category	Signature
1.	Dr. K. Mohana Sundaram, Professor & HoD/EEE, KPRIET	Chairman	
2.	Dr. A. Ruby Meena Associate Professor, Department of Electrical and Electronics Engineering, Government College of Engineering Dharmapuri, Tamilnadu 636 704	University Nominee	
3.	Dr. N. Selvaganesan Professor, Department of Avionics, Indian Institute of Space Science and	Academic Expert-1	

Department of Electrical and Electronics Engineering

KPR Institute of Engineering and Technology



	Technology, Thiruvananthapuram - 695 547		
4.	Dr. R. Jayabarathi Associate Professor, Vice Chairperson Department of Electrical and Electronics Engineering, School of Engineering, Amrita Vishwa Vidyapeetham, Coimbatore - 641112	Academic Expert-2	R. Jayabarath 24/11/23
5.	Mr. K. K. Jembu Kailas, Lead SME, Electrical Engineering, Electrical Engineering, College Connect, L&T Edutech, Chennai - 600040	Industry Expert	} Attended online
6.	Er. P. Prasanna Kumar (Alumnus-Batch: 2014), Technology Analyst, Infosys Technologies Limited, Chennai - 600119	Alumnus	
7.	Dr. V. S. Chandrika, Professor/EEE	Faculty Member	
8.	Dr. P. Pandiyan, AsP/EEE	Faculty Member	Chandrika 24/11/23
9.	Dr. A. Karthick, AsP/EEE	Faculty Member	P. Pandiyan 24/11/23
10.	Dr. V. Parimala, AP/EEE	Faculty Member	A. Karthick 24/11/23
11.	Dr. C. Pazhanimuthu, AP/EEE	Faculty Member	V. Parimala 24/11/23
12.	Mr. G. Saravanan, AP/EEE	Faculty Member	C. Pazhanimuthu 24/11/23
13.	Dr. R. Sampathkumar, AP/EEE	Faculty Member	G. Saravanan 24/11/23
14.	Dr. I. Baranilingesan, AP/EEE	Faculty Member	R. Sampathkumar 24/11/23
15.	Dr. S. Ravindran, AP/EEE	Faculty Member	I. Baranilingesan 24/11/23
16.	Dr. D. Sathish Kumar, AP/EEE	Faculty Member	S. Ravindran 24/11/23
17.	Dr. A. Rakesh Kumar, AP/EEE	Faculty Member	D. Sathish Kumar 24/11/23
18.	Dr. P. Naveen, AP/EEE	Faculty Member	A. Rakesh Kumar 24/11/23
19.	Dr. T. Ramesh Kumar, AP/EEE	Faculty Member	P. Naveen 24/11/23
20.	Dr. P. Ravikumar, AP/EEE	Faculty Member	T. Ramesh Kumar 24/11/23

21.	Ms. B. Lalitha, AP/EEE	Faculty Member	B. Jeeva 24/11/23
22.	Ms. R. Revathi, AP/EEE	Faculty Member	R. Revathi 24/11/23
23.	Mr. A. Mohamed Ibrahim, AP/EEE	Faculty Member	M. A. Ibrahim 24/11/23
24.	Mr. V. Kamalkumar, AP/EEE	Faculty Member	V. Kamal 24/11/23
25.	Mr. C. J. Vignesh, AP/EEE	Faculty Member	C. J. Vignesh 24/11/23
26.	Mr. C. Dinesh, AP/EEE	Faculty Member	C. Dinesh 24/11/23
27.	Dr. N. Prakash, AP/EEE	Faculty Member	N. Prakash 24/11/23
28.	Dr. Rangu Seshu Kumar, AP/EEE	Faculty Member	R. S. Kumar 24/11/23
29.	Mr. K. Balamurugan, AP/EEE	Faculty Member	K. Balamurugan 24/11/23
30.	Mr. M. Mohanasundaram, AP/EEE	Faculty Member	M. Mohanasundaram 24/11/23
31.	Mr. G. Xavier Richards, AP/EEE	Faculty Member	G. Xavier Richards 24/11/23
32.	Mr. P. Jones Barnabas, IV EEE A	Student Member	P. Jones Barnabas
33.	Ms. M. Priyadarshini, IV EEE B	Student Member	M. Priyadarshini 24/11/23
34.	Ms. B. M. Abinandhana, III EEE A	Student Member	B. M. Abinandhana
35.	Mr. S. Sukant, III EEE B	Student Member	S. Sukant

Department of Electrical and Electronics Engineering

KPR Institute of Engineering and Technology



Minutes of the 9th Meeting of the Board of Studies

The meeting started with the Chairman's welcome note to all the members of the Board of Studies.

Following points were discussed during the meeting.

1. The Vision, Mission of the department, PEOs and PSOs were revised and presented to the members of the Program Assessment Committee (PAC) during the meeting held on 22/04/2023. The suggestions given by them were incorporated and presented to BoS Members for recommendation. The final version as suggested by PAC members is given below.

VISION

To be a premier centre for quality education, innovation and research in the field of Electrical and Electronics Engineering to meet the global challenges with professional ethics and social consciousness.

MISSION

- ❖ Provide a holistic environment to students through knowledge-centric and skill-based education
- ❖ Collaborate with industries for effective research and innovation in Electrical Engineering and allied areas
- ❖ Enable students to serve the society through prolific ideas with professionalism and ethical values

PROGRAM EDUCATIONAL OBJECTIVES (PEOs):

The Graduates of B.E. Electrical and Electronics Engineering, four years after graduation, will

- PEO1: Apply the acquired knowledge and skills to meet the emerging needs of the society and also excel in their chosen profession
- PEO2: Adapt to emerging technologies and continuously upskill through active research in Electrical Engineering and allied areas
- PEO3: Demonstrate leadership skills and practice their profession conforming to ethical and human values

PROGRAM SPECIFIC OUTCOMES (PSOs)

The Graduates of B.E. Electrical and Electronics Engineering will be able to

- PSO1: Analyse, design and test power electronic components integrated with computer-based systems to meet industrial and societal needs
- PSO2: Deploy modern engineering tools to model, simulate, fabricate and integrate electrical systems with renewable energy to enhance sustainability

The BoS members reviewed and recommended the revised Vision, Mission, PEOs and PSOs to the Academic Council.

2. Action taken on the minutes of the 8th BoS meeting

The minutes of the 8th BoS meeting and the action taken there on are presented, discussed and approved

Minutes of the 9th Meeting of the Board of Studies

The meeting started with the Chairman's welcome note to all the members of the Board of Studies.

Following points were discussed during the meeting.

1. The Vision, Mission of the department, PEOs and PSOs were presented to the members.

VISION

To be a premier centre for quality education, innovation and research in the field of Electrical and Electronics Engineering to meet the global challenges with professional ethics and social consciousness.

MISSION

- ❖ Provide a holistic environment to students through knowledge-centric and skill-based education
- ❖ Collaborate with industries for effective research and innovation in Electrical Engineering and allied areas
- ❖ Enable students to serve the society through prolific ideas with professionalism and ethical values

PROGRAM EDUCATIONAL OBJECTIVES (PEOs):

The Graduates of B.E. Electrical and Electronics Engineering, four years after graduation, will

- PEO1: Apply the acquired knowledge and skills to meet the emerging needs of the society and also excel in their chosen profession
- PEO2: Adapt to emerging technologies and continuously upskill through active research in Electrical Engineering and allied areas
- PEO3: Demonstrate leadership skills and practice their profession conforming to ethical and human values

PROGRAM SPECIFIC OUTCOMES (PSOs)

The Graduates of B.E. Electrical and Electronics Engineering will be able to

- PSO1: Analyse, design and test power electronic components integrated with computer-based systems to meet industrial and societal needs
- PSO2: Deploy modern engineering tools to model, simulate, fabricate and integrate electrical systems with renewable energy to enhance sustainability

2. Action taken on the minutes of the 8th BoS meeting

The minutes of the 8th BoS meeting and the action taken there on are presented, discussed and approved.

Sl.No.	SUGGESTIONS	ACTION TAKEN
1.	Dr.C.Thanga Raj suggested that Hydro and thermal speed governing system can be included in U21EEP01- Power System Operation and Control	As per the suggestion, the content was included in the course.

Department of Electrical and Electronics Engineering

KPR Institute of Engineering and Technology



2.	Dr.A.Ruby Meena suggested that Analysis of single and multi-area system can be included in U21EEP01- Power System Operation and Control	As per the suggestions, the contents were included in the course.
3.	Mr.K.K. Jemby Kailas suggested that ISE standard for testing and switching panel board can be added in U21EEP02 – High Voltage Engineering	As per the suggestion, the content was included in the course.
4.	Dr. R. Jayabarathi and Dr.C.Thanga Raj suggested that Cyber security topics and digital simulator for stability analysis can be added in U21EEP04 – Computer Aided Power System Analysis	As per the suggestions, the contents were included in the course.
5.	Dr.C.Thanga Raj suggested to add CBMEA standards in U21EEP05 – Power Quality course	As per the suggestion, the content was included
6.	Mr. K. K. Jemby Kailas and Dr.C.Thanga Raj suggested that SCADA monitoring and control and PMU related topics can be added in U21EEP06 – Power System Security	As per the suggestions, the contents were included.
7.	Dr.C.Thanga Raj and Dr.R.Jayabarathi suggested to add IEEE and IEC standards and EHVAC in India topics in U21EEP07 – EHV AC transmission	As per the suggestions, the contents were included.
8.	Mr. K. K. Jemby Kailas suggested to include the concepts of Consumer and prosumer in U21EEP08 - Smart Grid Technologies	As per the suggestions, the contents were included.
9.	Dr.R.Jayabarathi suggested to add Transformer design in U21EEP11 – Electrical Machine Design	As per the suggestions, the content was included.
10.	Mr. K. K. Jemby Kailas and Dr.R.Jayabarathi suggested that HVDC transmission in India and IGBT based Multi-modelling can be added in U21EEP12 – HVDC Transmission	As per the suggestions, the contents were included.
11.	Dr.R.Jayabarathi suggested to add Intelligent control related topics in U21EEP13 – Advanced Electric Motors and Control	As per the suggestion, the contents was included.
12.	Mr. K. K. Jemby Kailas suggested to include the reference book as “Understanding FACTS: Concepts and Technology of Flexible AC Transmission Systems” by N.G. Hingorani and L. Gyugyi” in U21EEP14 –Flexible AC Transmission Systems	As per the suggestions, the book was added in the references.
13.	Dr. Dulal Chandra Das suggested to add flow battery topics in U21EEP17 – Battery Management Systems	As per the suggestion, the content was included.
14.	Dr. Dulal Chandra Das suggested to add fly wheels and fuel cells topics in U21EEP22 – Energy Storage Systems	As per the suggestions, the contents were included.
15.	Dr.C.Thanga Raj suggested to add the applications of neural networks in power system in U21EEP25 – Artificial Intelligence Applications in Power Systems	As per the suggestion, the contents was included.
16.	Dr.C.Thanga Raj suggested to add Power plant automation in U21EEP40 – Advanced Industrial Automation	As per the suggestion, the content was included.
17.	Mr. K. K. Jemby Kailas suggested to include the reference book as “Solar Photovoltaics:	As per the suggestions, the book was added in the references.

Department of Electrical and Electronics Engineering

KPR Institute of Engineering and Technology



Fundamentals, Technologies and Applications” by Prof. Chetan Singh Solanki ” in U21EEP43 – Solar Energy Technology
--

3. Stakeholders input on curriculum design

- Stakeholders’ inputs were obtained during the Internal BoS Meeting and the points are listed below.
 - The inputs received from the stack holders through QIC, PAC and Internal BoS are presented to the members of BoS for further necessary action.

4. Curriculum for I to VIII Semester of UG program under Regulations 2021(Revised)

- Members of BoS reviewed the curriculum for I to VIII semesters of UG program under Regulations 2021(Revised) and approved.

5. Syllabi of semester V and VI offered under Regulation 2021(Revised) V Semester

Sl. No.	Course code	Course title	Suggestions	Suggested by
THEORY COURSES				
1	U21EE501	Power System Analysis	Approved	-
2	U21EE502	Power Electronics and Drives	Approved	-
3	-	Professional Elective – I	Approved	-
4	-	Professional Elective – II	Approved	-
5	-	Open Elective – II	Approved	-
THEORY COURSE WITH LABORATORY COMPONENT				
6	U21EE503	Microprocessors and Microcontrollers	After discussion among members, the 8085 processor was retained in the syllabus for better understanding of basic processors	BoS Members
LABORATORY COURSES / LABORATORY COURSE WITH PROJECT COMPONENT				
7	U21EE504	Power Electronics and Drives Laboratory	Approved	-
8	U21EE505	Power Engineering	Approved	-

Department of Electrical and Electronics Engineering

KPR Institute of Engineering and Technology



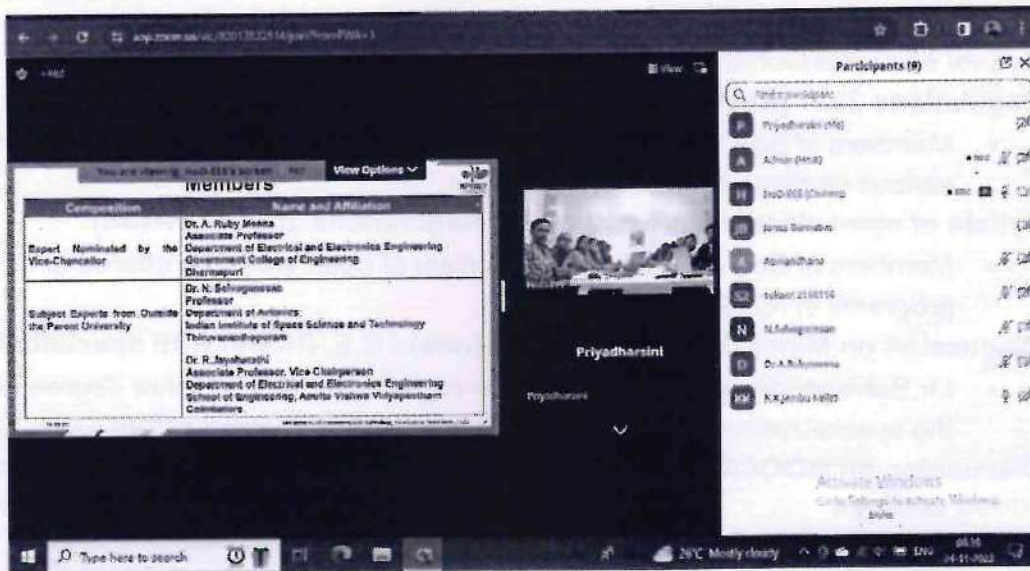
		Laboratory		
9	U21SSG02	Soft Skills – II	The credit shall be transferred to U21EE505	Dr. Ruby Meena AsP/EEE, GCE, Dharmapuri
10	U21EE507	Proto Studio – I	Approved	-
11	-	[Live in Labs-I]	Approved	-
MANDATORY NON CREDIT COURSES				
12	U21MYC05	Cyber Security Essentials	Approved	-

VI Semester

Sl. No.	Course code	Course title	Suggestions	Suggested by
THEORY COURSES				
1	U21EE601	Protection and Switchgear	Approved	-
2	U21EE604	Embedded System Design	Approved	-
3	U21AMG02	Machine Learning	Approved	-
4	-	Professional Elective – III	Approved	-
5	-	Professional Elective – IV	Approved	-
6	-	Open Elective – III	Approved	-
LABORATORY COURSES / LABORATORY COURSE WITH PROJECT COMPONENT				
7	U21EE605	Embedded System Design Laboratory	Approved	-
8	U21AMG03	Machine Learning Laboratory	Approved	-
9	U21CG606	Proto Studio– II	Approved	-
10	U21SSG03	Soft Skills – III	Approved	-
11	-	[Live in Labs-II]	Approved	-
MANDATORY NON CREDIT COURSES				
12	U21MYC06	Introduction to UNSDGS: An Integrative Approach	Approved	-

- 6. Syllabi of professional electives offered in different verticals under Regulations 2021 [Revised]**
 - Members of BoS approved all the syllabi of professional electives under various verticals in R2021(Revised)
- 7. Syllabi of open electives offered under Regulations 2021 (Revised)**
 - Members of BoS approved all the syllabi of open electives offered to other programs in R2021(Revised)
- 8. Discussion on Minor degree and B.E. (Hons) / B.E. (Hons) with specialization**
 - Mr.Selvaganesh suggested that, the eligibility for Minor/Honor degree with the specialization may be increased to 8.5CGPA instead of 7.5CGPA
- 9. Discussion on MOOC/Online courses, Industry offered courses and Value added courses**
 - Members of BoS approved all the MOOC/Online Courses, One Credit Courses and Value-Added Courses under R2021(Revised), Liberal arts course
- 10. Courses to be offered for Ph.D. Scholars**
 - Real time case study can be included in Solar Energy and Utilization – Mr. K. K. Jembu Kailas
 - Course Title of Charging infrastructure can be replaced by EV Charging Infrastructure – Dr. R. Jayabarathi
 - Mr.Selvaganesh – suggested to increase the number of course work offered for PhD students.
- 11. Industrial training / Internship**
 - BoS Members approved the list of 113 industries across PAN India recommended for in-plant training / internship.
- 12. Any Other Business**
 - The BoS members suggested to include 50% computer science related courses in the curriculum of UG – Electrical and Computer program offered for working professionals under part time during next academic year.
 - BoS Members reviewed the feedback from students on the course for ensuring the evaluation, effectiveness, and quality of the course.
 - Course feedback – AY 2022-23(even) and AY 2023-2024(Odd) - The course feedback collected from students in the department has consistently received a rating above 4 for all courses. Consequently, no corrections are deemed necessary in the curriculum.

The meeting came to an end with the thanks note by chairman



Chairman - BoS/EEE