



## 9<sup>th</sup> Board of Studies Meeting in the Department of Electrical and Electronics Engineering

Mode: Online

Google Meet Link: <https://meet.google.com/tdi-isgt-ndu>

Date & Time: 10.06.2023 & 10.00 am

### AGENDA

BoS / EEE9.1: Welcome address and Opening Remarks by Chairman, Board of studies in the Department of Electrical and Electronics Engineering.

BoS / EEE9.2: Confirmation of the Minutes of the 8<sup>th</sup> meeting of Board of studies in the department of Electrical and Electronics Engineering held on 28<sup>th</sup> February 2023 and Action taken report of 8<sup>th</sup> meeting of Board of studies.

BoS / EEE9.3: Business brought forward by the Chairman, Board of Studies

9.3.1. Review of 8<sup>th</sup> BoS meeting minutes.

9.3.2. Industrial Supported Course 2021 R Students.

9.3.3. Value added courses for 2021 R Students.

9.3.4. Minor/Specialization Honor Degree courses

BoS / EEE9.4: Suggestions given by the BOS Members

BoS / EEE9.5: Any other items for discussion



## MINUTES OF THE MEETING

The 9<sup>th</sup> Meeting of the Board of studies of the Electrical and Electronics Engineering was held on 10<sup>th</sup> June 2023 at 10.00am through Google meet.

The following members were present:

1. Dr.A.Ravi Prof & Head Chairman, BoS.
2. Dr.C.Ponmani, Professor, EEE,  
GCE, Tirunelveli-University Nominee.
3. Dr.M.Ramaswamy, Professor, EEE,  
Annamalai University, chidambaram.
4. Dr.A.Rajkumar, Asso.Prof, KARE, Krishnankovil
5. Dr.L.Padmavathi, Principal Scientist, CSIR-CEERI Pilani, Rajasthan.
6. Dr.P.Annapandi-Internal Member
7. Dr.A.Gnanasarvanan-Internal Member
8. Dr.N.Hemalatha, Asso Prof-Internal Member
9. Mr.J.Daniel Sathyaraj-Internal Member
10. Mr.J.Antony Robinson-Internal Member
11. Dr.R.Rajagopal-Internal Member
12. Dr.U.Muthuraman-Internal Member
13. Mr.N.Subramanian - Internal Member
14. Mr.S.Selvakumar-Internal Member
15. Mr.N.V.Selvam-Internal Member
16. Mrs.R.Aandal-Internal Member
17. Mrs.A.Amala Manuela-Internal Member
18. Mrs.M.Subashini-Internal Member
19. Mrs.S.Laxmi-Internal Member
20. Mr.A.Ananth-Internal Member

### **BoS / EEE 9.1: Welcome Address and Opening Remarks by Chairman, Board of Studies in the Department of Electrical and Electronics Engineering**

Dr.A.Ravi, Board Chairman initiated the 9<sup>th</sup> BoS meeting with Greetings; Mrs.R.Aandal AP/EEE welcomed all the members for the 9<sup>th</sup> Board of studies meeting.

### **BoS / EEE 9.2: To confirm the Minutes of 8<sup>th</sup> BoS Meeting held on 28th February 2023.**

The minutes of the eighth Board of Studies meeting which is held on 28<sup>th</sup> February 2023 was communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 8<sup>th</sup> Academic Council Meeting.



**BoS / EEE9.3.1: Review of 8<sup>th</sup>BoS meeting minutes**

The Board Chairman Dr.A.Ravi presented the changes carried out in Regulation 2021 Syllabus based on the recommendations given in 8<sup>th</sup>BoS meeting. All the Suggestions given by BoS Members were taken into account and incorporated in the Regulation 2021 syllabus.

Sl. No.	Semester	Course Code	Course Name	Recommendations given by BOS Members
1	V	21EE5601	Microprocessors, Microcontrollers and Its Applications	Digital Electronics should be added in the pre requisite. Suggested to remove the topic introduction to ARM Processor in the Unit V.
2	V	21EE5602	Power Electronics	Introduction to Multilevel Inverters can be added in the Unit-IV. The Unit IV and V can be combined as Unit IV and the drives concept can be includes as Unit-V.
3	V	21EE5603	Power Generation systems	Suggested to convert this as core course instead of Professional Elective.
4	VI	21EE6601	Computer Aided Power System Analysis	Suggested to have this course as simple Power System analysis instead of Computer Aided Power System analysis.
5	V	21EE5701	Design of Electrical Machines	Suggested to convert this as Professional instead of Elective core course. Design of Magnetic Circuits topic can be included in Unit-I. The concept of Lap and Wave winding should be added in Unit III. The Unit II and Unit III can be interchanged to have sequence of concepts.
6	VI	21EE5704	Virtual Instrumentation	Suggested to use the term Virtual Instrumentation instead of VI.
7	V	21EE5611	Power Electronics Laboratory	Suggested to include MLI in simulation experiments. In the test project chopper control must be done by varying duty cycle.



**Department of Electrical and Electronics Engineering**

**BoS / EEE9.3.2: Industrial Supported course for 2021 R students.**

The Board Chairman presented the list of industrial supported courses which are taught by L&T Edutech included in VII semester Professional Elective courses which can be taken by the students.

S.no	Class/Sem	Industrial Supported Courses
1	III EEE/V	Advanced Electrical system design for buildings
2	III EEE/V	AI and Edge Computing
3	III EEE/V	Integrated Engineering of MV Substation
4	IV EEE/VII	A Practitioner's approach to power system protection and switchgear

**BoS / EEE 9.3.3: Value added courses for 2019 R UG/2021 R Students.**

The Board chairman presented the list of Value Added Courses offered by EEE Department.

S.No	Course Code	Course Name	Category	L	T	P	C
1	21EE0V01	Embedded Systems Design using Arduino	VAC	0	0	4	2
2	21EE0V02	Raspberry Pi	VAC	0	0	4	2
3	21EE0V03	Solar Photo Voltaic System	VAC	0	0	4	2
4	21EE0V04	Lab VIEW	VAC	0	0	4	2
5	21EE0V05	Electronic testing	VAC	0	0	4	2
6	21EE0V06	Energy Auditing	VAC	0	0	4	2
7	21EE0V07	Electrical and Hybrid Vehicles	VAC	0	0	4	2



**Department of Electrical and Electronics Engineering**

**BoS / EEE 9.3.4 Minor/Specialization Honor Degree courses.**

The Board chairman presented the list of Minor/Specialization offered by EEE Department.  
 The BoS members accepted all the courses.

Semester	Course Code	Course Name
IV	21EES401	Industry 4.0
V	21EES501	Sensors and Actuators
VI	21EES601	Artificial Intelligence for Robotics (Practical cum Theory)
VII	21EES701	Digital Image Processing and Machine Vision (Practical cum Theory)
VIII	21EES801	Project

**BoS / EEE 9.4 : Suggestions Given by the Members**

Sl. No.	Semester	Course Code	Course Name	Recommendations given by BOS Members
1	VII	21EE7601	Renewable Energy Systems	Suggested to change the Unit III title as SOLAR PV SYSTEMS instead of SOLAR PV AND THERMAL SYSTEMS. The Biomass energy can be added in Unit V and Unit IV may be of Energy Storage Devices.
2	VII	21EE7611	Power System Simulation Laboratory	Suggested to check the case study project which deals with E Vehicle.
3	VII	21EE7612	Industrial Automation and Renewable Energy Systems Laboratory	Experiment 3 should be renamed as partial shading of solar PV Systems. Experiments on intelligent controllers should be added.  The study experiments on Biogas and fuel cell may be added.
4	VII	21EE7710	Modern Power Converters	Suggested to divide resonant converters into 2 units and asked to add some industrial converters. Unit V SOURCE CURRENT SHAPING OF RECTIFIERS should be removed and embedded control of Power Electronic Converter can be taken as Unit V.



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5	VII	21EE7711	Power Quality	Unit III Title should be renamed as Harmonic Analysis. Unit IV Title should be renamed as Power Factor Improvement. Unit V Title should be renamed as CPD for Power Quality Problems. Active filters topic can be added in Unit V instead of Unit III.
6	VII	21EE7712	Advanced Power Semiconductor Devices and Protection	Suggested to revise the syllabus according to modern needs. The case studies have to be added in each unit.
7	VII	21EE7713	Microcontroller Based System Design	Suggested to include more system design applications in Unit V.
8	VII	21EE7714	Wind Energy Conversion Systems	Suggested to include off shore wind analysis in both fixed and variable speed systems.
9	VII	21EE7715	Power Electronics for Renewable Energy Systems	The Unit IV can be combined with Unit I with the introduction of reference frame theory. The BoS members told the detailed analysis of reference frame theory is not need at UG level. Energy storage applications can be added in Unit II.
10	VII	21EE8701	Generation, Utilization and conservation of electrical Energy	Electric Vehicle concept can be added in Unit V.
11	VII	21EE8702	Power System Operation and Control	Optimization Techniques must be added in Unit V
12	VII	21EE8704	Industrial Automation and Control	The case studies should be added in Unit V.
13	VII	21EE8706	Electrical and Hybrid Vehicles	The topic Vehicle mechanism should be added in Unit I.
14	VII	21EE7801	Operation and Maintenance of Electrical Equipment	The course title should be modified as Electrical Equipment Safety.
15	VII	21EE7803	Control Engineering	Suggested to remove the topic state space analysis.



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16	VII	21EE7804	Electrical Machines	Basics of Driving circuits should be added in Unit V.
17	VII	21EE8805	Micro grid and Control	This course should be removed from Open Elective List.

It is informed that as per revised regulation Norms, The students joining Engineering education in the Academic Year 2023-24 should take Tamil as 2 credit course. The total credits for the students joining Engineering education in the Academic Year 2023-24 is 167 instead of 165 including Tamil course.

The BoS members appreciated the effort taken by the FXEC/EEE Department for framing the syllabus in excellent manner. The members had a brainstorming discussion, deliberation and interaction among themselves. After discussion, productive suggestions were incorporated appropriately in the UG and PG Curriculum and Syllabi.

Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

- 9.3.1. Review of 8<sup>th</sup>BoS meeting minutes.
- 9.3.2. Industrial Supported Course 2021 R Students.
- 9.3.3. Value added courses for 2021 R Students.
- 9.3.4. Minor/Specialization Honor Degree courses

The meeting ended with the vote of thanks by Mrs.M.Subashini AP/EEE, Finally the Board Chairman Dr.A.Ravi thanked all the members for their valuable suggestions and sparing their precious time with us.



CHAIRMAN  
  
 BOARD OF STUDIES



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**Attendance Sheet Table of Members**

S.No.	Name of the BoS Member	Signature
1	Dr.A.Ravi Prof & Head Chairman BoS	
2	Dr.C.Ponmani, External-Offline	
3	Dr.M.Ramaswamy, External-Online	
4	Dr.A.Ramkumar, External-Online	
5	Dr.L.Padmavathi, External-Online	
6	Mr.Sathakkathulla, External	ABSENT
7	Dr.P.Annapandi, Internal	 10.6.23
8	Dr.N.Hemalatha, Internal	
9	Dr.A.GnanaSaravanan, Internal	 10/6/23
10	Mr.J.DanielSathyaraj, Internal	
11	Mr.J.AntonyRobinson, Internal	
12	Dr.R.RajaGopal, Internal	- AB -
13	Dr.U.Muthuraman, Internal	- AB -
14	Mr.N.Subramanian, Internal	
15	Mr.S.Selvakumar, Internal	
16	Mr.N.V.Selvam, Internal	
17	Mrs.R.Aandal, Internal	





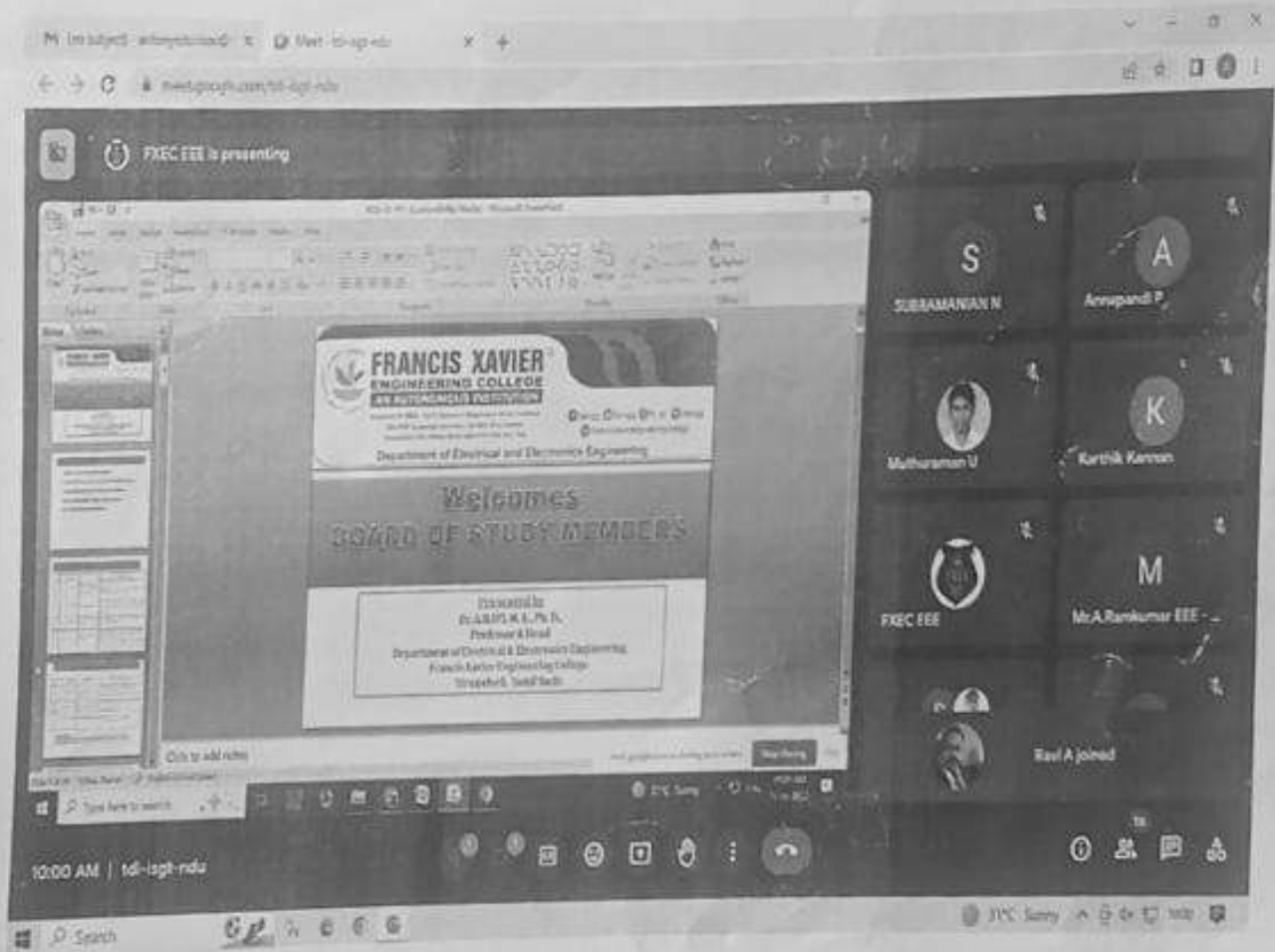
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## Department of Electrical and Electronics Engineering

18	Mrs.A.AmalaManuela,Internal	
19	Ms.M.Subashini,Internal	
20	Mr.A.Ananth- Internal Member	
21	Mrs.S.Laxmi- Internal Member	S. Laxmi



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## Department of Electrical and Electronics Engineering

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FXEC EEE is presenting

10:05 AM | tld-lqgt-ndu

High wide screen

Chapter No.	Chapter Name	Length
1	Introduction	00:00:00
2	Basic Concepts	00:00:00
3	Electrical Engineering	00:00:00
4	Electronics Engineering	00:00:00
5	Power Electronics	00:00:00
6	Control Systems	00:00:00
7	Microprocessors	00:00:00
8	Microcontrollers	00:00:00
9	PLC	00:00:00
10	Robotics	00:00:00
11	Artificial Intelligence	00:00:00
12	Blockchain	00:00:00
13	Cloud Computing	00:00:00
14	Big Data	00:00:00
15	Internet of Things	00:00:00
16	Smart Grid	00:00:00
17	Renewable Energy	00:00:00
18	Energy Storage	00:00:00
19	Smart Buildings	00:00:00
20	Smart Cities	00:00:00
21	Smart Transportation	00:00:00
22	Smart Agriculture	00:00:00
23	Smart Manufacturing	00:00:00
24	Smart Healthcare	00:00:00
25	Smart Education	00:00:00
26	Smart Environment	00:00:00
27	Smart Security	00:00:00
28	Smart Governance	00:00:00
29	Smart Infrastructure	00:00:00
30	Smart Society	00:00:00
31	Smart Living	00:00:00
32	Smart Mobility	00:00:00
33	Smart Energy	00:00:00
34	Smart Water	00:00:00
35	Smart Waste	00:00:00
36	Smart Air Quality	00:00:00
37	Smart Noise	00:00:00
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39	Smart Light	00:00:00
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FXEC EEE is presenting

10:20 AM | tld-lqgt-ndu

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1	Introduction	00:00:00
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