



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

Mode: Offline

Venue: EEE Seminar Hall/Francis Xavier Engineering College

Date & Time: 22.08.2022 & 11.00 am

### **AGENDA**

BoS / EEE7.1: Welcome address and Opening Remarks by Chairman, Board of studies in the Department of Electrical and Electronics Engineering.

BoS / EEE7.2: Confirmation of the Minutes of the 6<sup>th</sup> meeting of Board of studies in the department of Electrical and Electronics Engineering held on 17<sup>th</sup> December 2021 and Action taken report of 6<sup>th</sup> meeting of Board of studies.

BoS / EEE7.3: Business brought forward by the Chairman, Board of Studies

7.3.1. Review of 7<sup>th</sup> BoS meeting minutes

7.3.2. NPTEL course for 2019 R /2021 R Students

7.3.3. Industrial supported course for 2019 R /2021 R Students

7.3.4. Value added courses for 2019 R UG/2021 R Students

7.3.5. Amendments in UG syllabus for 2019(V and VII Semester) & 2021 (II,III and IV Semester)

7.3.6. Minor/Specialization Honor Degree courses

BoS / EEE7.4: Suggestions given by the BOS Members

BoS / EEE7.5: Any other items for discussion



## MINUTES OF THE MEETING

The 7<sup>th</sup> Meeting of the Board of studies of the Electrical and Electronics Engineering was held on 22<sup>nd</sup> August 2022 at 11.00am in the Presentation Hall

The following members were present:

1. Dr.J.Jasper Gnana Chandran Prof & Head Chairman, BoS.
2. Dr.C.Ponmani,M.E.Ph.d., Professor, EEE,  
GCE, Tirunelveli-University Nominee.
3. Mr.Sathakkathulla, Embedded Specialist , TATA ELSXI Pvt Ltd.
4. Dr.P.Annapandi-Internal Member
5. Dr.A.JustinDiraviam-Internal Member
6. Dr.A.Ravi – Internal Member
7. Dr.A.Gnanasarvanan-Internal Member
8. Mr.J.DanielSathyaraj-Internal Member
9. Mr.J.Antony Robinson-Internal Member
10. Dr.R.Rajagopal-Internal Member
11. Dr.U.Muthuraman-Internal Member
12. Mr.N.Subramanian – Internal Member
13. Mr.S.Selvakumar-Internal Member
14. Mr.N.V.Selvam-Internal Member
15. Mrs.R.Aandal-Internal Member
16. Mrs.S.Chithra-Internal Member
17. Mrs.A.Amala Manuela-Internal Member
18. Mr.A.Sheik Siddik-Internal Member
19. Dr.J.Kohila-Internal Member
20. Mr.G.Guna-Internal Member
21. Ms.M.Krithika-Internal Member

### **BoS / EEE7.1: Welcome Address and Opening Remarks by Chairman, Board of Studies in the Department of Electrical and Electronics Engineering**

Dr.A.Ravi Professor of the Electrical and Electronics Engineering welcomed all the members for the 7<sup>th</sup> Board of studies meeting; BoS chairman introduced the BoS Members.

### **BoS / EEE7.2: To confirm the Minutes of 6<sup>th</sup>BoS Meeting held on 17<sup>th</sup>December 2021.**

The minutes of the Sixth Board of Studies meeting held on 17<sup>th</sup>December 2021 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 6<sup>th</sup>AcademicCouncil.



Annexure I: Action Taken Report

**BoS / EEE7.3.1: Review of 6<sup>th</sup>BoS meeting minutes**

The Board Chairman Dr.J.Jasper Gnana Chandran presented the changes carried out in Regulation 2021 Syllabus based on the recommendations given in sixth 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	I	-	All courses	Accepted
2	II	21EE2601	Electric Circuits and Network Analysis	The BoS members suggested to include a topic "Unbalanced three phase system" in the Unit-I. They also suggested that source transformation should be taught along with voltage and current division rule. They suggested to change the Unit II title as Network Theorems and Topology, in which the theorems should taught first followed by the network topology.
3	III	21EE3601	Electronic Devices and Integrated Circuits Design	Suggested to change the name as "Analog and Integrated Circuits", They also suggested to add elaborated heading and applications in Unit-I and Expression for Frequency in Unit-II.
		21EE3602	DC Machines and Transformers.	The BoS members suggested to rearrange the Units in the following manner. Unit III & IV will be taken as Unit II & III. Unit II will be takes as Unit-IV.



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				In the Unit-V, the braking concept to be removed and that can be added in Unit-III DC motor.
		21EE3611	Electronic Devices and Integrated Circuits Lab	The BoS members suggested to change the name as “Analog and Integrated Circuit Design Lab”.
		21EE3612	DC Machines and Transformers laboratory	Suggested to change the objectives of the course.
4	IV	21EE4601	Signals and Systems	<p>BoS members Suggested to make the following changes.</p> <p>Unit I syllabus to be reduced up to power signal. Remaining part of Unit I to be included in Unit II.</p> <p>In Unit II &amp; Unit-III Laplace Transform repeated twice, that should be corrected.</p> <p>Unit IV syllabus to expanded.</p> <p>Unit V syllabus to be rearranged.</p>
		21EE4602	Digital Electronics	<p>BoS members Suggested to have the syllabus in the following order in Unit I Min terms/Max Terms, Karnaugh Map to be shift to Unit II.</p> <p>Unit II title to be changed as Combinational logic Circuits</p> <p>Unit IV &amp; V will be sequential circuits.</p>



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				The VHDL in Unit –V to be removed.
		21EE4603	Control Theory	The BoS members suggested to exclude the topics Digital control system and state variable analysis.
		21EE4604	AC Machines	The BoS members suggested to change the sequence of Units in the following manner. Unit I &II(Synchronous Machines) will be taken as Unit III & IV. Unit III &IV(Induction machines) will be taken as Unit I & II. In the Unit-V, the special machines is taken.
		21EE4605	Modern Electronics Measuring Instruments	Suggested to exclude the topic B-H curve in Unit-I, that can be accomplished practically.  Unit II & III to be swapped.
		21EE4611	Control Theory Laboratory	Suggested to change the name as “Control Systems and Simulation Laboratory” .
		21EE4612	AC Machines Laboratory	Suggested to change the objectives of the course.

**BoS / EEE 7.3.2: NPTEL course for 2019 R/2021 R students.**

The Board Chairman stated that as per 2019& 2021 curriculum, the students can opt for credit transfer by studying the online NPTEL courses instead of Professional Elective courses, Value added courses. The Board Chairman presented the list of online NPTEL courses and the NPTEL courses suggested by the BoS members for the Academic Year 2022-23 Odd semester which can be taken by the students.

**BoS / EEE7.3.3: Industrial supported course for 2019 R /2021 R Students**



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The Board chairman presented the list of Industrial Supported Courses offered by L & T Edutech based upon the MoU signed with L & T Edutech on 13.07.2022 which could be included in the curriculum as professional elective.

- Integrated Engineering and MV Substation-PE III
- A Practitioner's approach to Power System Protection and Switch gear- PE II
- Advanced electrical system design for building- PE I
- Extra low voltage system design for buildings-PE IV
- Renewable energy and Power evacuation -PE V
- Smart grid technologies-PE IV
- Cyber physical systems for Industrial applications-PE VI
- FPGA design for Industrial Applications (VLSI) -PE IV
- AI and Edge Computing- PE I

The BoS members suggested the following points.

1. To verify the syllabus of Industrial Supported courses to avoid the correlation of the syllabus between courses and Design tools must be handled by students for Industrial Supported courses.

**BoS / EEE 7.3.4: Value added courses for 2019 R UG/2021 R Students.**

The Board chairman presented the list of Value Added Courses offered by EEE Department. The BoS members gave suggestions to make the changes in the following subjects:

1. The Title of VAC -Applications of synchronous generator in industries should be changed as Applications of synchronous machines in industries.

2. The members verified the syllabus for VAC "**EMBEDDED SYSTEM DESIGN USING ARDUINO**" and expressed their satisfaction.

**BoS / EEE 7.3.5: Amendments in UG syllabus for 2019(V and VII Semester) & 2021 (II,III and IV Semester).**

The Board chairman presented the Amendments in UG syllabus for 2019(V and VII Semester) & 2021 (II,III and IV Semester).

- **Inclusion of Test Projects in each Laboratory courses.**

**Changes in 2021 curriculum:**

1. **Total credit is reduced from 168 to 165**



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2. **21EE3604- Signals and Systems shifted from 4th semester to third semester**
3. **21GE4M01-Indian Constitution and Cultural Heritage Moved from 3<sup>rd</sup> to 4<sup>th</sup> semester**
4. **21EE4604- Transmission and Distribution in Power Systems Moved from 5<sup>th</sup> to 4<sup>th</sup> Semester.**
5. **Professional Elective – II is shifted from 6<sup>th</sup> to 5<sup>th</sup> semester**
6. **21GE2M02 Environmental and Sustainable Engineering shifted from 4<sup>th</sup> semester to 6<sup>th</sup> semester**
7. **Principles of management is changed to Total Quality Management in 7<sup>th</sup> semester.**
8. **Professional Elective – IV is shifted from 7<sup>th</sup> to 6<sup>th</sup> semester**
9. **Project Work-I Phase A is changed to Mini Project**
10. **Professional Elective – VI is shifted from 8<sup>th</sup> to 7<sup>th</sup> semester**
11. **Open Elective – IV is shifted from 8<sup>th</sup> to 7<sup>th</sup> semester**
12. **Project Work-I Phase B is removed.**
13. **Project Work is credit is reduced from 12 to 10 credit**
14. **Number of courses in Elective 7 is distributed across other electives**
15. **Industrial supported courses is added in electives**

**BoS / EEE 7.3.6: 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	21EH401	Sensors and Actuators
V	21EH501	Industry 4.0
VI	21EH601	Artificial Intelligence for Robotics (Theory cum Lab)
VII	21EH701	Digital Image Processing of Machine Vision



**VIII**

**21EH801**

**Project**

**BoS / EEE 7.4 : Suggestions Given by the Members**

Sl. No.	Semester	Course Code	Course Name	Recommendations given by BOS Members
1	I	21ME1502	Basic Civil and Mechanical Engineering	The BoS members suggested to shift the course 21ME1502-Basic Civil and Mechanical Engineering to second semester from I semester and 21ME1513-Computed Aided Engineering Graphics can be shifted from II semester to I Semester
2	II	21EE2601	Electric Circuits and Network Analysis	The BoS members suggested to include a topic "Star Delta Transformation" after Kirchoff's law in the Unit-I. They also suggested that source transformation should be taught along with voltage and current division rule.
3	III	21EE3602	DC Machines and Transformers.	Suggested to include "Electric Circuits and Network Analysis" in pre requisite. They also suggested splitting the Unit I content and that can be added to Unit II. The Topic comparison with two windage transformer can be removed. They suggested remove the topic stray losses and include the sumpner's test in Unit V.
4	III	21EE3612	DC Machines and Transformers laboratory	Suggested to include Three phase transformer Testing .





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5	IV	21EE4605	Modern Electronics Measuring Instruments	Suggested to convert this as theory course instead of theory cum practical and Title as "Measurements and modern Instruments". The instrumentation experiments can be added in Control theory lab.
6	IV	21EE4602	Digital Electronics	Suggested to convert this as theory cum practical course instead of theory.
7	IV	21EE4604	AC Machines	The Equivalent circuit topic should be included after No load and Blocked rotor test. The Magnetic Levitation concept can be included in Unit V. Applications have to be added. Remove Phasor Diagram $X_d$ and $X_q$ in Unit V.





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## Department of Electrical and Electronics Engineering





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.

- 7.3.1. Review of 7th BoS meeting minutes
- 7.3.2. NPTEL course for 2019 R Students
- 7.3.3. Industrial supported course for 2019 R Students
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- 7.3.6. Minor/Specialization Honor Degree courses

The Board Chairman Dr.J.Jasper Gnana Chandran thanked all the members for their valuable suggestions and sparing their precious time with us.

**CHAIRMAN**

**BOARD OF STUDIES**