St. XAVIER'S
CATHOLIC COLLEGE OF ENGINEERING
Chunkankadai, Kanyakumari District, Tamil Nadu

Accredited with 'A' Grade by NAAC
All UG Programs Accredited by NBA
Recognized under section 2(f) & 12(B) of UGC Act, 1956
All UG, MBA & MCA Programs Permanently Affiliated

[An Autonomous Institution]

Department of Electrical and Electronics Engineering

Attendance sheet of Board of Studies Meeting

The second Board of Studies (BOS) meeting of the Department of Electrical and Electronics Engineering was conducted on 27-.05.2023 in EEE seminar Hall, SXCCE at 09.30 A.M. Following members were present.

Sl.No.	Faculty Name	Signature
1	Dr.V.Suresh Kumar, Professor, Department of EEE Thiagarajar College of Engineering Madurai.	27/05/2023
2	Dr. G. Saravana Ilango Professor,EEE Department National Institute of Technology Trichy-620 015	
3	Dr.S.Solai Manohar, Professor/EEE, CMR Institute of Technology Bangalore -560037	
4	Er. S.Emil Jeba Singh, Assistant Executive Engineer, APDRP central office TANGEDCO, Parvathipuram Kanyakumari Electricity Distribution circle	27/05/23
5	Er. P.Merlin Kumar Senior Executive Engineer (Electrical) Nuclear Power Corporation of India	27/05/2023
6	Dr.J.Maheswaran, Principal/SXCCE	
7	Dr.R.P.Anto Kumar, Dean Academics	

8	Dr. S.V. Kayalvizhi HOD & Chairman of BOS	
9	Dr. M. Marsaline Beno, Dean Research	
10	Dr. A.DarwinJoseRaju, Asso.Professor/EEE	
11	Dr. J. Merry Geisa, Asso.Professor/EEE	
12	Dr. M. Germin Nisha, Asso.Professor/EEE	
13	Dr. M. John Bosco, Asst.Professor/EEE	
14	Mr. Almond D'souza, Asst.Professor/EEE	
15	Mrs. W.Vinil Dani, Asst.Professor/EEE	
16	Dr.S.S.Selva Pradeep, Asst.Professor/EEE	
17	Mrs. P. Suji Garland, Asst.Professor/EEE	
18	Dr. Jain B. Marshel, Asst.Professor/EEE	
19	Dr. George Ansfer.A, Asst.Professor/EEE	AB
20	Mr.AbragamSiyonSing.M, Asst.Professor/EEE	
21	Dr. Jesus Bobin.V, Asst.Professor/EEE	
22	Mr. J. Leon Bosco Raj, Asst.Professor/EEE	
23	Mrs. S. Shiny, Asst.Professor/EEE	
24	Dr.Vijimon Moni Asst.Professor/Mathematics	

Dr.S.V.KAYALVIZHI 21/5/23.

HOD & Chairman of BOS

St. Xavier's Catholic College of Engineering, Chunkankadai- 629 003
(An Autonomous Institution - Affiliated to Anna University, Chennai)
www.sxcce.edu.in
Faculty of Electrical Engineering
Department of Electrical and Electronics Engineering

Second Board of Studies Meeting

Mode : Offline
Date & Time : 27th May 2023 at 09.30 a.m. - 12.45 p.m.
Venue : EEE Seminar Hall

AGENDA

- Prayer
- 02.01. Confirmation of First BoS meeting minutes held on 14-11-2022 and Decision/Action Taken report.
- 02.02. Discussion on the Suggestions / Recommendations offered by the members in the first Academic Council meeting and the first Governing Body meeting.
- 02.03. Presentation of the proposed curriculum and getting recommendation for approval for the II year detailed draft syllabi of both UG and PG Programmes for regulation 2022.
- 02.04. Ratification for including Naan Mudhalvan courses and Tamil courses as per the directions of Anna University & Government of Tamilnadu..
- 02.05. Other matters if any.
- Vote of Thanks

Members Present : Enclosed

MINUTES OF THE MEETING

The second Board of Studies meeting started with a silent prayer. Dr.M.Marsaline Beno, Dean of Research/Professor Faculty of Electrical Engineering welcomed the external and the internal members. The Chairman Dr.S.V.Kayalvizhi HoD/EEE presented the first Board of studies meeting and the first academic council meeting minutes and the action taken report.

02.01. Confirmation of First BoS meeting minutes held on 14-11-2022 and Decision/Action Taken report.

Sl.No	UG curriculum and syllabus -Suggestions	Action taken	Remarks
1	Continuity for Power System courses	Control Systems is moved from 5th semester to 4th semester and Generation, Transmission and Distribution course is moved from 4th semester to 5th semester	confirmed

2	Power Plant Engineering course shall be included in the open elective. E-Waste course shall be removed from the open elective.	E-Waste course is replaced by Power Plant Engineering in the open elective	confirmed
3	The course title of Electrical Machines – I and Electrical Machines – II can be specifically mentioned	The course title of Electrical Machines – I and Electrical Machines – II is changed to DC Machines & transformers and AC Machines respectively.	confirmed
4	The syllabus of basic courses offered to the first year of other departments can be made as simple. V.K.Mehta is suggested as the textbook.	The contents of basic courses is made simple. Textbook V.K.Mehta is included in Reference.	confirmed

Sl.No	PG curriculum and syllabus -Suggestions	Action taken	Remarks
1	Fourier transform can be included in the Applied mathematics course and the name of the course can be changed into Applied mathematics instead of Applied mathematics for Power Electronics Engineers.	Syllabus is reframed by the Mathematics Department.	Confirmed
2	Controller based courses (DSP/Microcontroller/ Embedded) shall be added in the professional core.	System design using microcontroller course is added in second semester professional core.	Confirmed
3	Theory cum lab course, Analysis of Electrical Machines can be converted into theory cum tutorial courses.	Analysis of Electrical Machines subject is converted to theory cum tutorial.	Confirmed
4	Advanced Power Converters can be changed into another relevant name.	Advanced Power Converters is named as voltage lift converters	Confirmed

5	Current source inverter topic can be removed from unit 4 of Analysis of Power Converters course(I semester) , and the 5 th unit can be renamed as Multilevel and Impedance Source Inverters of the same course.	The suggestions mentioned in the Analysis of Power Converters course(I semester) is done.	Confirmed
6	Experiments in advanced level can be added to Design Laboratory for Power Electronics Systems and Analog and Digital Controllers for PE Converters Laboratory	Experiments in advanced level is added to both the laboratory courses.	Confirmed
7	The title of Design Laboratory for Power Electronic Systems laboratory can be changed into Design Laboratory for Power Electronics and Drives.	The title is changed as recommended.	Confirmed
8	The title of Modern Rectifiers and Resonant Converters can be changed into PWM Rectifiers and Resonant Converters.	The course name is changed.	Confirmed
9	In the Control of Power Electronic Circuits Course Controller Design For DC-AC Converter Circuits can be included as one unit and the 4 th and 5 th unit can be coupled together.	In the Control of Power Electronic Circuits Course ,topics are reformed as per the suggestion given .	Confirmed
10	In the System Design Using Microcontroller course unit 1 and 2 can be replaced by Arm processor.	Arm Processor is included as separate units.	Confirmed
11	Python coding can be included in the Machine Learning and Deep Learning course.	Python coding is included.	Confirmed
12	Optimization Techniques course syllabus can be compared with UG syllabus and make necessary changes.	Modifications are carried out.	Confirmed
13	The syllabus for Python Programming For Machine Learning, HVDC and FACTS are found to be vast it can be reduced.	The contents of the mentioned courses are analyzed and reduced.	Confirmed

14	Machine Learning and Deep Learning , Soft Computing Techniques courses can be checked for overlaps if any.	Contents are checked and Neural network module is removed from Machine Learning course	Confirmed
15	Check whether all the topics mentioned in the syllabus are covered in the text book.	All the topics mentioned in the syllabus are covered in the prescribed books.	Confirmed

- **02.02. Discussion on the Suggestions / Recommendations offered by the members in the first Academic Council meeting and the first Governing Body meeting.**

The first Academic Council meeting of St. Xavier's Catholic College of Engineering was conducted on 09.12.2022(Friday) at 10:00 am at Einstein Hall.

Suggestions / Recommendations	Decisions / Actions taken	BOS Recommendations
It is suggested to get approval from the BoS for the online courses that are going to be offered from NPTEL/SWAYAM platform before offering them to the students.	The online courses will be offered from the Fifth Semester. It is decided to get the approval from BoS in the next meeting.	The departments identified the NPTEL / SWAYAM courses which are equivalent to 5th and 6th semesters Professional Elective courses for UG Programmes and 3rd semester PG programmes and got the recommendation from BoS IIT Spoken tutorial courses with assessment and grade sheet with credits can also be considered.
It is suggested to have One Credit Courses to be handled by Industry Experts.	It will be discussed in the next BoS meetings.	Two credits Naan Mudhalvan courses on cutting edge technologies are offered to the students by industrial experts in each semester, which is one of the initiatives of Tamilnadu Government. In addition to this seminar by Industrial experts can be arranged as per the requirement

It is recommended to have the Journal Publication as optional instead of Mandatory for the Programmes.	Changed in the Regulation.	The BoS recommended to make the Journal / Conference publications as Desirable and those students who are doing that can be honoured by providing higher grades in the particular course. It should not be made as a mandate since it required more time.
It is suggested to use Bloom's Taxonomy Keywords while formulating the Course Outcomes.	Incorporated in the syllabi.	Confirmed
It is recommended to include the latest versions of the text books.	Incorporated in the syllabi.	Confirmed
The total credit for the PG programmes may be increased	Will be discussed in the next BoS meeting.	The BOS recommended not to change the minimum total credit required to complete the programme.
It is suggested to avoid 1.5 credits Laboratory Courses.	Will be presented in the next BoS meeting.	For the detailed Hands on Experience it is suggested to have 2 credit Laboratory Courses
It is suggested not to offer NPTEL/SWAYAM online course for P.G. Programmes	Will be presented in the next BoS meeting.	Anna university is offering this facility. On considering the benefit of the students it is recommended to offer NPTEL/SWAYAM online courses to P.G. students also.
It is suggested to rename the course "Research Tools in Engineering to "Research Tool Laboratory" for the P.G. Programmes.	Modified in the Curriculum and Syllabi.	Confirmed
It is suggested to change label for the elective courses track from "Verticals" to some other appropriate label.	Will be presented in the next BoS meeting.	"Verticals" is the generic name used by the Anna University. To avoid the confusion the same terminology is recommended. It is recommended to have a unique name for each verticals and it should be clearly bifurcated

		from the other verticals.
It is suggested to have two text books and five reference books for UG courses and five reference books for PG courses	Incorporated in the syllabi.	Confirmed
It is suggested to change the course title of Placement training courses.	Will be presented in the next BoS meeting.	It is recommended to rename the "Placement training course" to "Skill Development Courses".
It is observed that the number of courses in the 3rd semester of the U.G. Programmes is high in number.	Will be discussed in the next BoS meeting and will do the needful.	The course "Value Education" is made as a 0 credit mandatory course.
It is suggested to change the title of the course "Higher Order Thinking"	Will be presented in the next BoS meeting.	The syllabus of this course includes both Critical Thinking and Creative thinking. So "Higher Order Thinking" is the right title for this course

Programme	Suggestions / Recommendations	Decisions / Action taken
Faculty of Electrical Engineering	It is suggested to give specific name for course titles instead of generic names.	Modified in the curriculum and syllabi

02.03. Presentation of the proposed curriculum and getting recommendation for approval for the II ye draft syllabi of both UG and PG Programmes for regulation 2022.

The chairman presented the newly framed 2022 draft curriculum and syllabus for 3rd and 4th Semester of B.E Electrical and Electronics Engineering and M.E Power Electronics and Drives. Then the proposed curriculum and syllabus was reviewed by the Board of Studies members and they recommended the following suggestions.

B.E Electrical and Electronics Engineering

1. Transforms and Complex Functions

a. Introduction to Fourier series can be included in first unit.

b. Syllabus is vast so it can be reduced.

2.Electronic Devices and Circuits

a. In Unit II the title can be changed as Transistors instead of Transistors And Thyristors. Also remove the contents SCR , two transistor model of SCR and add SiC and GaA.

b.In Unit III remove the contents CB,CC.

c.In Unit IV remove contents bridge rectifier, and add HWR and FWR with and without filters, also remove filter.

d.Textbook Salivahanan S and Suresh Kumar N, "Electronic devices and Circuits", Mc Graw Hill Education , fourth Edition can be used as reference book and reference book Robert L.Boylestad, "Electronic devices and circuit theory", 11th edition, Pearson prentice Hall 2013 can be shifted to text book.

e.If necessary this subject can be converted to Theory cum Practical course.

3.Measurements & Instrumentation

a. In Unit II contents static meter and earth resistance tester can be added.
b. Replace content megger by insulation tester .

4.DC Machines & Transformers

a.In Unit IV contents Hopkinson's test, Retardation test can be removed and topics introduction tan delta capacitance, introduction to type testing can be added

b.In Unit V content energy efficient technologies can be added.

5.DC Machines & Transformers Laboratory

a. Experiments Hopkinson's test on DC motor – generator set, Sumpner's test on single phase transformers, Open circuit and load characteristics of DC shunt generator- calculation of critical resistance and critical speed. Load characteristics of DC compound generator with differential and cumulative connections, Open circuit and load characteristics of DC shunt generator- calculation of critical resistance and critical speed can be removed.
b. Dismantle and assemble dc motor and transformer experiments can be added.

6.Electronic Devices and Circuits Laboratory

a. Experiments 1,3,6,7 can be conducted as separate experiments.

b. Experiments Design Differential amplifier circuit using BJT, Measurement of frequency and phase angle using CRO, Realization of passive filters, Simulation of circuits using esim can be removed.

7. AC Machines

a. The order of the titles in each unit can be changed in the following manner

Unit I THREE PHASE INDUCTION MOTOR.
Unit 2 STARTING AND SPEED CONTROL OF THREE PHASE INDUCTION MOTOR.
Unit 3 SINGLE PHASE INDUCTION MOTORS AND SPECIAL MACHINES.
Unit 4 SYNCHRONOUS MACHINES (contents include synchronous generator + less amount of synchronous motor).
Unit 5 SPECIAL ELECTRICAL MACHINES(BLDC and stepper motor).

8.Digital Logic Circuits

a.Textbook S. Salivahanan, S. Arivazhagan, "Digital Circuits and Design" 5th Edition, Oxford University Press, 2019. can be shifted to reference and M. Morris Mano, "Digital Logic and Computer Design", Pearson India Education Services Pvt. Ltd., New Delhi, 2016. can be added as text book.

9. Linear Integrated Circuits

a.In Unit III remove contents Log and Antilog Amplifiers, Analog multiplier & Divider , clippers, clampers.
b.In Unit IV AD633 andAnalog multiplier ICs can be removed.

10.Control Systems

a.The abbreviation LTIV can be removed
b.In Unit II Construction and Interpretation can be removed

11.AC machines laboratory

a.The experiments order can be changed as per the suggestion given in the theory
b.Experiment Dismantle and assemble AC motor can be added.

12.Linear And Digital Circuits Laboratory

a.For all laboratory courses experiments can be limited to 8 in number.
b. In this course 4 experiments can be from digital and 4 from LIC.

M.E Power Electronics and Drives

a.The courses in Professional Elective IV can be in the following order

Renewable Energy Technology

Wind Energy Conversion Technology

Energy Management and Auditing

HVDC and FACT

b. The courses in Professional Elective V can be in the following order

Energy Storage Technologies

Optimization techniques course can be change to Battery management system/PE interface for EV

Python programming for machine learning

Smart grid

1.Energy Storage Technologies

a.In Unit III topic Li Ion battery should be added

2.Energy Management And Auditing

a. In Unit IV topics commercial losses can be added and DSM can be removed

b.In Unit V topic fittings in lighting techniques can be removed

02.04. Ratification for including Naan Mudhalvan courses and Tamil courses as per the directions of Anna University & Government of Tamilnadu.

The committee agreed to conduct Naan Mudhalvan courses and Tamil courses as per the directions of Anna University & Government of Tamilnadu

02.05. Other matters if any.

a. Nptel approved course and IIT spoken tutorial can be considered as a 2 credit course

b. One credit courses can be conducted by experts from industry

c. If PG students are having Journal publication/scopus indexed conference they can be awarded highest grade in Project Work course.

e. Technical training can be conducted for core companies.

After offering the above suggestions and recommendations, the Board of Studies members approved the UG curriculum and syllabus for 3rd and 4th semester and PG Power Electronics and Drives curriculum and syllabus for 3rd and 4th semester.

Finally the Head of the Department thanked all the members of the Board of Studies and the meeting ended at 12:45pm. While concluding the meeting, the Principal acknowledged the contribution of the expert members through their valuable suggestions during the discussions throughout the meeting and expressed thanks to everyone participated.

27/5/2023

Dr.V.Suresh Kumar

(Anna University Nominee)

Dr. G. Saravana Ilango

(Academic Expert)

Dr.S.Solai Manohar

(Academic Expert)

27/05/23

Er. S.Emil Jeba Singh

(Industry Expert)

27/05/23

Er. P.Merlin Kumar

(Alumnus)

27/5/2023

Dr.S.V.Kayalvizhi

(H.O.D EEE)

Dr.R.P.Anto Kumar

(Academic Dean)

Dr.J.Maheswaran

(Principal)

Department of Electrical and Electronics Engineering

Second Board of Studies meeting held on 27/5/2023