



JEPPIAAR INSTITUTE OF TECHNOLOGY

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Kunnam, Sunguvarchatram, Sriperumbudur-631604



12-06-2024

MINUTES OF MEETING BOARD OF STUDIES MEETING

DATE: 12-06-2024 at 11:50 AM

The offline meeting of the Board of Studies (BoS) of the Undergraduate Programme, B.E. for the Department of Electronics and Communication Engineering, Jeppiaar Institute of Technology, was held on 12-06-2024 at 11:50 AM in the Syndicate Room of the institute and was chaired by Dr.T.Sripriya, HoD of ECE.

The following is the list of BOS Members:

S. NO.	NAME	DESIGNATION	ROLE
1.	Dr.T.Sripriya	Associate Professor & Head, Department of Electronics and Communication Engineering, Jeppiaar Institute of Technology, Chennai.	Chairman
2.	Dr.T. Kishore Kumar	Professor, Department of Electronics and Communication Engineering, National Institute of Technology, Warangal	External Member- Academics
3.	Dr. Badri N Subudhi	Associate Professor, Department of Electronics and Communication Engineering, Indian Institute of Technology, Jammu	External Member- Academics
4.	Dr.S.Kanthamani	Associate Professor, Department of Electronics and Communication Engineering, Thiagarajar College of Engineering, Madurai - 625015	University Representative
5.	Dr.K.Aswin Seshadri	Deputy General Manager, Motherson Technology Service Limited, Chennai	External Member- Industry

6.	Mr.R.Ragul Kannan	Senior Automation Developer & Associate Consultant, Worldline Global Services, Chennai	Alumni Member
7.	Dr.S.Arul	Professor, ECE, JIT, Chennai	Internal Member
8.	Dr.D.Kumutha	Professor, ECE, JIT, Chennai	Internal Member
9.	Dr.W.Nancy	Assistant Professor, ECE, JIT, Chennai	Internal Member
10.	Ms.M.Benisha	Assistant Professor, ECE, JIT, Chennai	Internal Member
11.	Ms.L.Hubert Mary	Assistant Professor, ECE, JIT, Chennai	Internal Member
12.	Ms.M.Bharathi	Assistant Professor, ECE, JIT, Chennai	Internal Member
13.	Ms.M.Indumathi	Assistant Professor, ECE, JIT, Chennai	Internal Member
14.	Ms.Mercy Sharon Devadas	Assistant Professor, ECE, JIT, Chennai	Internal Member
15.	Ms.T.Karthika	Assistant Professor, ECE, JIT, Chennai	Internal Member
16.	Mr.P.Gobi	Assistant Professor, ECE, JIT, Chennai	Internal Member

Dr. T. Sripriya kicked off the meeting by extending a heartfelt welcome to all the members present and introducing the Board Members.

Upon the conclusion of the meeting, Dr. S. Shenbaga Ezhil, the IQAC Director, communicated her appreciated and delivered the vote of thanks.

Agenda of the Meeting:

Agenda Item No. 1: To welcome all the BoS Members

Dr.T.Sripriya introduced and welcomed all the members of the BoS.

Agenda Item No. 2: To discuss and approve curriculum contents of branch specific courses

A. Semester I

- Dr.T.Kishore Kumar, requested to know how the topics for mini projects were allocated. The IQAC Director clarified this doubt for the esteemed Board member by elaborating on the mentoring system and the choices given to the students between professional practices and mini projects. It was the opinion of the Board Members that prototype development relevant to the "Basic Electronics and Electrical, Python" related work can be given as the students taking the course have just completed 12th Std.
- The Board member went on to request a clarification of what the subject 'Professional Practices' entails. This question was yet again answered by Dr. S.Shenbaga Ezhil who explained that it involved coaching for competitive exams such as UPSC. Dr.T.Kishore Kumar, further suggested that in this case the title of mini project be changed to something else and that it should not come under the purview of the Career Development Cell but under the subject faculty.

- Dr.S.Kanthamani suggested that the subjects 'Employment Enhancement Skills' and 'Professional Ethics and Human Values' be combined into a comprehensive single course and be based on the laboratories conducted to provide enhancement.
- A lengthy discussion pertaining to the contents of 'Basic Electricals and Electronics' ensued wherein the honoured Board Members provided numerous valuable inputs. They unanimously suggested that since Unit III of this subject comprises of topics that are already covered in the subject 'Semiconductor Devices', this unit should be removed along with Unit IV (since it consists of Digital Electronics topics).
- Furthermore, the subject should be renamed to 'Basic Electrical Engineering' and the units should be replaced with topics more suited to the newly altered subject name i.e. predominantly in Electricals.
- It was the suggestion of Dr.S.Kanthamani that digital electronics-based experiments (i.e. Verification of half adder and full adder along with Study of basic logic gates) be removed from the BEEE laboratory syllabus as they are no longer in the scope of the subject.
- The Board of Studies members both recommended that more Indian author books be included as prescribed textbooks to facilitate easier learning and comprehension for the students. On this note they suggested that the Book authored by Smith et.al. be replaced by the books authored by Dr. S. Salivahanan or Suresh Kumar on the same subject.
- Dr.S.Kanthamani strongly suggested that the topics surrounding 'h parameters' be removed from the syllabus for 'Semiconductor Devices'.
- Board Member, Dr.S.Kanthamani, questioned why there was no English included as a subject for first years. The IQAC Director responded to this by explaining that Communication Skills and Technical Writing had been included as a laboratory in the first semester. However, the Board members reiterated the importance of including English as a separate subject as Tamil medium students and economically weaker students may be admitted.
- Dr.T. Kishore Kumar suggested that the title 'Professional Practices' can be rethought.
- The Board members emphasized the need for a grading procedure for Competitive exams to be formulated.

B. Semester II

- Both the Board Members suggested that in 'Electronic Circuits', Unit V should be removed, and Unit I should be split into 2 parts.
- They further stated that all topics pertaining to BJTs be made into 1 unit and topics related to JFET be kept as a separate unit.
- They also suggested the removal of the topics surrounding IC MOSFET Amplifiers.
- Dr.S.Kanthamani reiterated this and suggested that the prescribed textbook should be changed and at least 2 or 3 Indian Author books should be included. She suggested 'Switching Theory and Logic Design' by Kohavi.
- With respect to 'Electronic Circuits Laboratory', the same Board Member suggested that Frequency response of CB and CC be removed.
- Dr.S.Kanthamani also suggested the removal of the experiments revolving around Darlington Amplifier and CMRR Measurement of Differential Amplifiers. Further, she suggested performing only 'Determination of bandwidth of single stage amplifiers' (i.e. remove the multistage amplifiers portion).

- She was also of the opinion that Experiments 7 to 12 be combined into 2 experiments that use PSpice.

C. Semester III

- Regarding Electromagnetic Fields, Dr.S.Kanthamani enquired if certain topics will be covered in mathematics. This question was answered by the subject co-ordinator who clarified that though the basics are covered in mathematics this subject would delve into the topics more in-depth and include minimal repetition of topics.
- Upon this clarification, Dr.S.Kanthamani suggested the removal of the following topics from the syllabus:
 - Uniqueness of electrostatic solutions
 - Current density and Ohm's law
 - Electromotive force and Kirchhoff's voltage law
 - Equation of continuity and Kirchhoff's current law
- The Board Member also suggested removing all topics following Laplace transforms in Unit II and including continuity equation as part of the syllabus. She also recommended the use of the textbook authored by Gangadhar for this subject.

D. Semester IV

- Dr.S.Kanthamani suggested certain changes in the syllabus for Linear Integrated Circuits. She was of the opinion that the syllabus should be reduced and the topic on JFET removed. She also recommended changing Unit I.

E. Semester V

- Dr.S.Kanthamani strongly objected to combining RF Design and Antennas and Microwave Engineering. She emphasized that Antennas should be kept as a necessity and taught separately.
- With regards to 'Antenna and Microwave Engineering', Dr.S.Kanthamani proposed the following points
 - The title should be changed to " Antennas and Wave Propagation".
 - All ECE student should know the concepts of Propagation.
 - Antenna related portions should be included as part of the syllabus.
 - The textbook used should be authored by an Indian.
- It would be highly beneficial if RF and passive arrays were covered prior to topics revolving around antennas. It was also her expert recommendation that books authored by David M. Pozar and Matthew M. Radmanesh be used as textbooks for these subjects and that the syllabus be framed based on these books.
- It was the opinion of the esteemed Members of the Board that the subject titled 'VLSI and Chip Design' be changed to 'VLSI Design' and the portions pertaining to chip design be removed from the syllabus.

F. Semester VI

- The Board members unanimously were of the opinion that the Syllabus for Wireless Communication seemed very vast.

G. Professional Electives Verticals

• Vertical I

- Dr.T. Kishore Kumar Suggested the removal of the subject 'Wide Bandgap Devices'
- He further recommended the retention of the following subjects:
 - Low Power VLSI Design

- FPGA Based Design
- Advanced Digital Systems (in place of Analog IC Design)
- **Vertical II**
 - Dr.T.Kishore Kumar proposed the following subjects to be included in the verticals:
 - Advanced Digital Signal Processing
 - Multimedia Compression Techniques
 - Speech Processing
 - It was recommended by the Board member that the syllabus for ‘Speech Processing’ be reduced.
- **Vertical III**
 - Both Board Members suggested the removal of Antenna Design as a professional elective.
- **Vertical IV**
 - It was the opinion of Dr.T. Kishore Kumar that preference be given to the following subjects:
 - Biomedical Signal Processing
 - Wearable Devices
 - Medical Imaging Systems
 - It was suggested that the syllabus for ‘Biomedical Signal Processing’ be reduced.
- **Vertical V**
 - The recommended subjects for this vertical are as follows:
 - Computer Networks
 - Optical Communication & Networks
 - 4G/5G Communication Networks
 - The Board members recommended the reduction of syllabus for ‘Optical Communication & Networks’.
- **Vertical VI**
 - Dr.T. Kishore Kumar also emphasized the importance of Artificial Intelligence and Applications and suggested the inclusion of this subject in this vertical.
 - The suggested subjects for this vertical are:
 - Artificial Intelligence and Applications
 - Wireless Sensor Network Design
 - IoT Based Systems Design
 - Machine Learning and Deep Learning can be merged as one subject
- **Vertical VII**
 - The Board Members suggested the replacement of ‘Radar Technologies’ with ‘Radar Engineering’. They also suggested the use of the textbook authored by M. Skolnik.
 - Dr.T. Kishore Kumar also recommended the removal of ‘Avionic Systems’ as a subject. He recommended the following subjects to be included in the vertical:
 - Satellite Communication
 - Radar Engineering
 - Remote Sensing

To round it off, both Board Members emphasized the need to keep the syllabus for professional electives as simple as possible. Furthermore, they suggested to have 3 subjects in all verticals if possible.

Follow up Action:

After undergoing the suggested changes, the revised B.E(Electronics and Communication Engineering) Curriculum will be sent to the BoS members for approval.

T. Sripriya 7/21/24

Dr.T.Sripriya

Board Chairman &HOD/ECE