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## Department of Electronics and Communication Engineering

### Board of Studies Meeting – II

**Date :** 14.12.2019

**Time :** 10:00 AM

**Venue :** Presentation Hall

The second Board of Studies Meeting of **Electronics & Communication Engineering Department** was convened under the chairmanship of **Mrs.L.R.Priya**, Professor and Head / **Electronics & Communication Engineering Department**, of Francis Xavier Engineering College in the **Presentation hall** on 14<sup>th</sup> December, 2019 at 10:00 am.

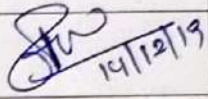
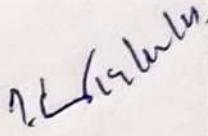
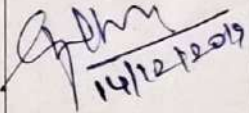
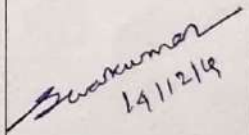
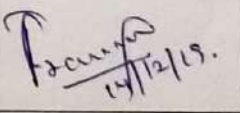
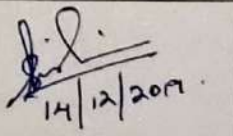
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## Department of Electronics and Communication Engineering

### External Members present :

S. No	Members as per UGC Norms	Members Nominated	Signature
1	Head of the Department concerned (Chairman)	<b>Mrs.L.R.Priya,</b> Head &Asso. Prof, ECE department	 14/12/19
2	One Expert nominated by the Vice Chancellor from a panel of six recommended by the college Principal	<b>Dr.G.Karpagarajesh</b> Associate Professor, Department of Electronics and Communication Engineering, Government College of Engineering Tirunelveli	
3	Two experts in the subject from outside the college nominated by the Academic Council	<b>Dr.S.Ananth</b> Associate Professor Department of Communication Engineering School Of Electronics Engineering (Sense)VIT-Vellore	 14/12/2019
		<b>Dr. P. Sivakumar</b> Professor, Department of Electronics and Communication Engineering, Kalasalingam University, Krishnankoil-626126. Virudhunagar , Tamil Nadu, India.	 14/12/19
4	One representative from industry/corporate sector/allied area relating to placement	<b>Er.Francy Williams</b> Senior Engineer, All India Radio , Palayamkottai, Tirunelveli	 14/12/19.
5	One Post Graduate meritorious aluminous nominated by the Principal	<b>Er.S.J. Jinolin Jacob</b> HR manager, US Operations Insigma Technologies Pvt Ltd Trivandrum	 14/12/2019.

**Internal Members Present :**

S. No	Name of the Member	Designation	Signature
1	Dr.M.Caroline Viola Stella Mary	Professor/ECE	
2	Dr. N. Muthu Kumaran	Asso. Prof/ECE	
3	Dr.K.Lakshmi Narayanan	Asst. Prof/ECE	
4	Mrs.M.Navaneetha Velammal	Asso. Prof/ECE	
5	Mr.C.AmarsinghFeroz	Asso. Prof./ECE	
6	Mrs.J.Friska	Asso. Prof./ECE	
7	Mrs.D.Regii Timna	Asst. Prof/ECE	
8	Mr.S.Esakki Rajavel	Asst. Prof/ECE	
9	Mr.R.Kabilan	Asst. Prof/ECE	
10	Mrs.M. Chitra Evangelin	Asst. Prof/ECE	
11	Mr. P. Kannan	Asst. Prof/ECE	
12	Mr.M.Suresh Chinna Thampy	Asst. Prof/ECE	
13	Mr.S.Allwin Devaraj	Asst. Prof/ECE	
14	Mrs.E.Francy Irudaya Rani	Asst. Prof/ECE	
15	Mr.R.Prem Ananth	Asst. Prof/ECE	
16	Mr.G.Jayaraman	Asst. Prof/ECE	
17	Mr.B.Pradheep T Rajan	Asst. Prof/ECE	
18	Mrs.R.Niranjana	Asst. Prof/ECE	
19	Mr.David Ayling	Asst. Prof/English	
20	Dr.Subramania Bala Jeshurun	Asst. Prof/MBA	

**Ex-Officio members present:**

S. No	EX OFFICIO MEMBERS		Signature
1	Dr.D.C.JoyWinnie Wise	Principal, Francis Xavier Engineering College, TVL	
2	Dr.R.Vedhapriyavadhana, Asso.Prof, ECE Dept	Professor Academics, Francis Xavier Engineering College, Tirunelveli	
3	Dr.G.Rajakumar, Prof, ECE Dept.	Controller of Examinations, Francis Xavier Engineering College, Tirunelveli	

## Minutes of Meeting

The session started with a prayer, by **Mrs.J.Friska**, Assoc.Prof/ECEwho also introduced and welcomed the members of the Board of Studies, which includes a University Nominee, Expert members, an industry member and an alumni of the college.

The Chairman of the board **Mrs.L.R.Priya**, Professor and Head / **Electronics & Communication** Engineering Department introduced the external members of "Board of Studies". Vision, mission, outline about department and its salient features were portrayed by the chairman.

Chairman then outlined the agenda for discussion in the meeting.

### Agenda :

Item No.	Particulars
Item : 2.1	Curriculum and Syllabi of B.E. Electronics and Communication Engineering
Item : 2.2	Curriculum and Syllabi of M.E Communication systems & M.E. VLSI Design
Item : 2.3	Innovative teaching and evaluation techniques
Item : 2.4	Research Coordination and utilization of resources
Item : 2.5	Suggestions for enhanced Course Outcome-Programme Outcome mapping

## Dr.G.Karpagarajesh

19EC5601	Control Systems	Suggested mentioning <b>only the methods</b> in syllabus rather than types of methods explicitly.
19EC5602	Linear Integrated Circuits	Instead of high speed S&H, the topic can be mentioned as just Sample & hold. In IV unit, no need to mention any IC number for function generator.
19EC5603	Microprocessor and Microcontroller	Can include <b>PIC microcontroller</b> in syllabus
19EC6706	Embedded Systems	May include <b>Embedded C</b> into syllabus
19EC5603	Microprocessor and Microcontroller laboratory	<b>Remove outdated MASM</b> content and may introduce <b>KEIL platform</b> instead
19EC5705	Avionics	Could be brought under open electives, but <b>prerequisites</b> should be such that students can opt for this course only in 7 <sup>th</sup> or 8 <sup>th</sup> semester.

- Suggested to include a new course based on latest technology **LiDAR**.

## Dr.S.Ananth

19EC6707	Cryptography and Network Security	Combine <b>blockchain technology</b> into the syllabus
19EC6706	Embedded Systems	To upgrade with current technology combine syllabus of course <b>19EC6701 Internet of Things Introduce right after EC5603</b> Microprocessor and Microcontroller
19EC5701	Communication Networks	Should be included into a <b>professional core course</b> .
19EC8801	4G LTE	Can be changed to more advanced <b>5G</b> , into which portion of 4G can be introduced.
19EC5703	Sensors and Transducers	<b>Importance</b> of this elective can be insisted for students

- **Professional Electives-II** courses can be revised to cover latest demands of the market.
- Computer related latest technologies like **data analytics, artificial intelligence, machine learning with deep learning, robotics and automation, block chain technology etc can be included** instead. This would satisfy market demands and ensure employability opportunities.

**Dr.P.Sivakumar**

- **Soft skills** course must be included in 4<sup>th</sup> semester too to maintain a continuity.
- **Courses from Science & humanities** department, which is related to electronics stream must be included.

19EC6705	DSP architecture	Can be combined with syllabus of <b>19EC5704 Advance Digital Signal Processing</b>
19EC5707, 19EC5708	Electronic Testing, Electronics Packaging	Explicit courses are not necessary on a market demand basis. Hence can be combined and incorporated into syllabus of <b>19EC6708 CMOS Analog IC Design</b>
19EC5709	Speech Processing	May be renamed and revamped as <b>Speech and analytical processing</b>

- For **open electives, basic courses** can be offered. Advanced technical courses mentioned under open electives can be included under professional electives.
- Semester-wise **skill training programme** framed and organized by the department was analysed by the BOS members, the **meticulous effort** of which was **appreciated** by them.
- **Value added courses** offered must be **renamed** with titles different from the core and elective courses offered in curriculum.
- **Management courses** must include 1 entrepreneurship course, 1 ethics course and 1 HR course.

**Er.S.J. Jinolin Jacob**

- Insisted that since **communication skills** has become essential for students in employment sector and entrepreneurial forefront, soft skills has to be delivered throughout the course.

**Er.Francy Williams**

- Suggested to include more of **practical aspect** of subjects.
- Suggested to include **instrumentation based** subjects in earlier semesters.
- Students should be encouraged to develop **good communication skills** and participate in paper presentations, project expos and national & international competitions.

<b>Item : 2.2</b>	<b>Curriculum and Syllabi of M.E Communication systems &amp;M.E. VLSI Design</b>	
19EC6708	CMOS Analog IC Design	Can be framed in line with <b>TCAD</b>

- **Dr.S.Ananth recommended that mini projects** can be renamed and also suggested the **evaluation schemes** for it.

**Dr.P.Sivakumar** shared with the gathering, how mini projects are assigned in his college. He mentioned that students are asked to conduct a survey in village areas to address their problems and find a technical solution for them. This way students will work on **realtime projects** and also be involved in **social service schemes**.

- **Dr.S.Ananth** suggested that in **laboratory classes**, each student must be trained to work on all aspects of experiments like **hardware, simulation and evaluation**.

This would **satisfy necessary outcomes for the course**.

**Dr.P.Sivakumar** suggested to include **practical component into theory course** and deliver as a combined course

By this way **mode of teaching** too is bound to evolve into higher levels.

Eg. NI labview component can be included as 1 unit in Sensors & actuators

- Time can be taken for these changes to be well thought out and planned before implementation.
- **Dr.S.Ananth** implicated that **more online courses** like NPTEL, COURSERA etc., must be included in the syllabus.  
They can be included into the **evaluation scheme** and credit can be allotted for them.
- **Dr.Karpagarajesh** insisted that **digital notes** can be prepared for the courses.
- Students can be encouraged to attend **online English proficiency tests** like IELTS.

- **Futuristic Suggestion:**

**Dr.S.Ananth** implicated that **final year projects** could be done on an **interdisciplinary** basis. ECE students can combine with students of other streams like CSE , MECH. Guide and Co-guide can be assigned.

- **Dr.Karpagarajesh** offered to allow Post graduate students to make **use of resources** like **OptiSim** in Government College of Engineering.
- **Dr.Sivakumar** offered to allow our students to make use of TCAD platform at Kalasalingam University.

- **Dr.P.Sivakumar** insisted that in order **to streamline the courses**, he suggested to list out all the subjects track-wise, order their sequence and then decide which course to be delivered in which semester.
- Also the electives need not be categorized into Electives I,II, III... etc. Single list of Professional Electives can be given with **proper prerequisites** mentioned. Students can be allowed to select the electives according to their interests and also that satisfies the prerequisites.
- **To obtain an apt CO-PO mapping**, the syllabus topics for a course must be categorized under the revised blooms taxonomy's knowledge levels. Number of hours needed to deliver each knowledge level has to be calculated. Depending on the number of hours required, the CO-PO mapping has to be given. This would give a perfect mapping.
- **PSO's of the department could be defined**. It should address the unique student facilities that can be offered by the department, and also the unique faculty competency.