

**Department of Electronics and Communication Engineering**  
**Francis Xavier Engineering College, Vannarpettai, Tirunelveli - 627 003**  
(An Autonomous Institution - Affiliated to Anna University, Chennai)  
[www.francisxavier.ac.in](http://www.francisxavier.ac.in)

## **4<sup>th</sup> Board of Studies Meeting in the Department of Electronics & Communication Engineering**

Mode: Through Online (Meeting Link:

<https://zoom.us/join/zoom/register/tJEtcOqurDwtG9LzuH3R0AWAec1xsT6eD447> )

Date & Time: 12<sup>th</sup> January, 2021

### **AGENDA**

BoS / ECE 4.1: Welcome address and Opening Remarks by Chairman, Board of studies in the Department of ECE

BoS / ECE 4.2: Confirmation of the Minutes of the 3<sup>rd</sup> meeting of Board of studies in the department of Electronics & Communication Engineering held on 29<sup>th</sup> July, 2020 and Action taken report of 3<sup>rd</sup> meeting of Board of studies

BoS / ECE 4.3: Business brought forward by the Chairman, Board of Studies, which is curriculum & syllabi of Curriculum and Syllabi of

4.3.1 Value Added Courses

4.3.2 Minor course

4.3.3 Online courses

BoS / ECE 4.4: Suggestions given by the BOS Members

BoS / ECE 4.5: Any other items for discussion

- 
- 
-

Department of Electronics & Communication Engineering  
**MINUTES OF THE MEETING**

The 4<sup>th</sup> Meeting of the Board of studies of the Electronics & Communication Engineering was held on 12<sup>th</sup> January, 2021 at 11 am through online.

The following members were present:

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

**6. Internal Members Present:**

| S. No | Name of the Member              | Designation    |
|-------|---------------------------------|----------------|
| 1     | Dr.M.Caroline Viola Stella Mary | Professor/ECE  |
| 2     | Dr. N. MuthuKumaran             | Asso. Prof/ECE |
| 3     | Dr.Subbulakshmi Nammalwar       | Asso Prof/ECE  |
| 4     | Mrs.M.NavaneethaVelammal        | Asso. Prof/ECE |

|    |                                   |                 |
|----|-----------------------------------|-----------------|
| 5  | Mr.C.AmarsinghFeroz               | Asso. Prof./ECE |
| 6  | Dr.K.Lakshmi Narayanan            | Asst. Prof/ECE  |
| 7  | Dr.R.Kabilan                      | Asst. Prof/ECE  |
| 8  | Dr.Andrew Roobert                 | Asst. Prof/ECE  |
| 9  | Mrs.D.Regitimna                   | Asst. Prof/ECE  |
| 10 | Mr.S.EsakkiRajavel                | Asst. Prof/ECE  |
| 11 | Mrs.M. Chitra Evangelin Christina | Asst. Prof/ECE  |
| 12 | Mr. P. Kannan                     | Asst. Prof/ECE  |
| 13 | Mr.M.SureshChinnaThampy           | Asst. Prof/ECE  |
| 14 | Mr.S.AllwinDevaraj                | Asst. Prof/ECE  |
| 15 | Mrs.E.Francylrudaya Rani          | Asst. Prof/ECE  |
| 16 | Mr.G.Jayaraman                    | Asst. Prof/ECE  |
| 17 | Mr.R.PremAnanth                   | Asst. Prof/ECE  |
| 18 | Mr.B.Pradheep T Rajan             | Asst. Prof/ECE  |
| 19 | Mrs.R.Niranjana                   | Asst. Prof/ECE  |
| 20 | Ms.N.Renee Segrid Reddiyar        | Asst. Prof/ECE  |

**Ex-Officio members present:**

| S. No | EX OFFICIO MEMBERS                |   |
|-------|-----------------------------------|---|
| 1     | Dr.V.Velmurugan                   | Principal, Francis Xavier Engineering College, TVL                          |
| 2     | Dr.L.R.Priya, 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 |

**Members Absent**

1. Mrs.Vishnupriya Mohanan

could not attend the meeting due to his prior commitments and unavoidable reasons and were granted leave of absence.

## **MINUTES**

Board of Studies Meeting started with a prayer by Professor Prem Ananth, AP/ECE

**BOS / ECE 4.1: WELCOME ADDRESS AND OPENING REMARKS BY CHAIRMAN, BOARD OF STUDIES IN THE DEPARTMENT OF ECE**

The Chairman, BOS of Electronics & Communication Engineering welcomed and introduced the members of 4<sup>th</sup> Board of Studies and thanked each of them for sparing their valuable time to attend the meeting.

**BoS / ECE 4.2: CONFIRMATION OF THE MINUTES OF THE 3<sup>RD</sup> MEETING OF BOARD OF STUDIES IN THE DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING HELD ON 29<sup>TH</sup> JULY, 2020 AND ACTION TAKEN REPORT OF 3<sup>RD</sup> MEETING OF BOARD OF STUDIES**

The minutes of the Third Board of Studies meeting held on 29<sup>th</sup> July, 2020 were communicated to the members. The comments received have been incorporated and placed for confirmation. The same was approved by the 3<sup>rd</sup> Academic Council.

Annexure I: Action Taken Report

**BoS / ECE 4.3: Business brought forward by the Chairman, Board of Studies, which is**

**4.3.1 TO CONFIRM AND APPROVE THE CURRICULUM AND SYLLABI OF VALUE ADDED COURSES**

**The list of value added courses were shared and explained by the Chairman.**

**Dr.S.Ananth**

suggested to include **Wearable Electronics** as one of the Value Added Course

suggested to include **Quantum computing** as one of the Value Added Course

suggested to include **Plasmonics** as one of the Value Added Course

**Dr.P.Sivakumar**

suggested to include **Cyber Physical Systems** as one of the Value Added Course

✓ **RESOLVED TO APPROVE** following Value added courses.

- **Wearable Electronics**
- **Quantum computing**
- **Plasmonics**

**4.3.2 TO CONFIRM AND APPROVE THE CURRICULUM AND SYLLABI OF MINOR COURSES**

**The list of minor courses were shared and explained by the Chairman.**

**Dr.G.Karpagarajesh**

Suggested to include a course involving **Optical networks, Li Fi, or Photonics** under communication systems.

**Dr.S.Ananth**

**Suggested to include single electron and thin film transistor topics into syllabus of nanoscale devices**

Suggested and fine tuned the syllabus for Antenna minor course.

✓ **RESOLVED TO APPROVE** following changes in minor courses

- Include Minor course on Li-Fi
- Include **single electron and thin film transistor topics** into syllabus of nanoscale devices

**Mrs.J.Friska** put forth the fact that minor course on **embedded & IOT** has been included so that this area of technology will be covered from basics to latest technologies in regulation 2019.

**Dr.Rajakumar** put forth the fact that talks are in place with industries to conduct **Industry support courses** too, like

**Texas Instruments**

**National Instruments**

#### **4.3.3 TO CONFIRM AND APPROVE THE CURRICULUM AND SYLLABI OF ONLINE COURSES •**

The list of value added courses were shared and explained by the Chairman.

The list of courses were approved by all the expert members.

✓ **RESOLVED TO APPROVE** the list of online courses displayed.

#### **BoS / ECE 4.4: SUGGESTIONS GIVEN BY THE BOS MEMBERS**

**Dr.S.Ananth**

Suggested to check for options of **Block Chain technology** course offered as open elective by CSE department.

Replace **Free space optics** which is offered as Professional Elective by **Underwater Communication**

**Er.Francy Williams**

- Congratulated and appreciated the team for the meticulous efforts taken in framing the best and latest industry driven curriculum for the students.

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

- Suggested to include employability oriented topics.

The members had a brainstorming discussion, deliberation and interaction among themselves. After discussion, productive suggestions were incorporated appropriately in the UG Curriculum and Syllabi for value added courses, minor courses and online courses.

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

1. Include in value added courses

- **Wearable Electronics**

Annexure II: List of Value added Courses

2. Select **Embedded & IOT** for minor course

- Microcontroller Based System Design
- Embedded System Design And Architecture
- Embedded C And Python Programming
- Wireless Protocols For IOT
- IOT System Design & Applications

3. Replace professional elective **Free space optics by Underwater communication**

4. Inclusion of online courses for UG- Annexure III

5. Inclusion of online courses PG - Annexure III

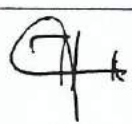
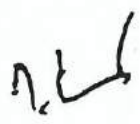




The Chairman thanked all the members for their kind cooperation and the meeting came to an end.



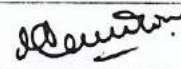


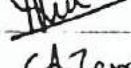
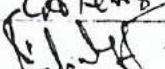
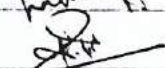
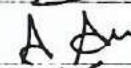
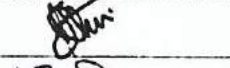
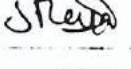
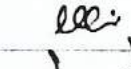

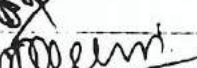
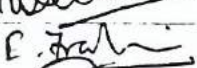
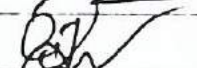

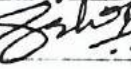
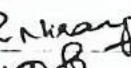
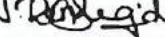

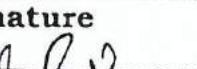
CHAIRMAN  
BOARD OF STUDIES

# Attendance Sheet Table of Members

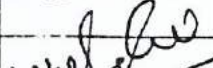
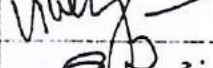

## External Members present:

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

# Internal Members Present:

| S. No | Name of the Member                | Designation     | Signature   |
|-------|-----------------------------------|-----------------|---|
| 1     | Dr.M.Caroline Viola Stella Mary   | Professor/ECE   |    |
| 2     | Dr. N. MuthuKumaran               | Asso. Prof/ECE  |    |
| 3     | Dr.Subbulakshmi Nammalwar         | Asso Prof/ECE   |    |
| 4     | Mrs.M.NavaneethaVelammal          | Asso. Prof/ECE  |    |
| 5     | Mr.C.AmarsinghFeroz               | Asso. Prof./ECE |    |
| 6     | Dr.K.Lakshmi Narayanan            | Asst. Prof/ECE  |    |
| 7     | Dr.R.Kabilan                      | Asst. Prof/ECE  |    |
| 8     | Dr.Andrew Roobert                 | Asst. Prof/ECE  |    |
| 9     | Mrs.D.Regi Timna                  | Asst. Prof/ECE  |    |
| 10    | Mr.S.EsakkiRajavel                | Asst. Prof/ECE  |    |
| 11    | Mrs.M. Chitra Evangelin Christina | Asst. Prof/ECE  |   |
| 12    | Mr. P. Kannan                     | Asst. Prof/ECE  |  |
| 13    | Mr.M.Suresh Chinna Thampy         | Asst. Prof/ECE  |  |
| 14    | Mr.S.AllwinDevaraj                | Asst. Prof/ECE  |  |
| 15    | Mrs.E.Francy Irudaya Rami         | Asst. Prof/ECE  |  |
| 16    | Mr G.Jayaraman                    | Asst. Prof/ECE  |  |
| 17    | Mr.R.Prem Ananthi                 | Asst. Prof/ECE  |  |
| 18    | Mr.B.Pradheep T Rajan             | Asst. Prof/ECE  |  |
| 19    | Mrs.R.Niranjana                   | Asst. Prof/ECE  |  |
| 20    | Ms.N.Rence Segrid Reddiyar        | Asst. Prof/ECE  |  |

## Ex-Officio members present:

| S. No | EX OFFICIO MEMBERS   | Signature   |
|-------|--|---|
| 1     | Dr.V.Velmurugan<br>Principal, Francis Xavier Engineering College, TVL  |  |
| 2     | Dr.L.R.Priya,<br>Asso.Prof, ECE Dept<br>Professor Academics,<br>Francis Xavier Engineering College, Tirunelveli      |  |
| 3     | Dr.G.Rajakumar,<br>Prof, ECE Dept.<br>Controller of Examinations,<br>Francis Xavier Engineering College, Tirunelveli |  |

Zoom online meet link:

<https://zoom.us/join/zoom/register/1JEtcOqurDwtG9LzuH3R0AWAec1xsT6eD447>

Zoom Meeting | You are viewing ECE HOD's screen | View Options

Recording

Speaker View

**COURSE CONTENT**

**COURSE OBJECTIVES**

1. Understand the concept of a group and its importance.
2. Understand the concept of a group and its importance.
3. Understand the concept of a group and its importance.
4. Understand the concept of a group and its importance.

**COURSE OUTCOMES**

1. Understand the concept of a group and its importance.
2. Understand the concept of a group and its importance.
3. Understand the concept of a group and its importance.
4. Understand the concept of a group and its importance.

**Text Books**

1. Text Book of Group Theory, Dr. P. R. Venkatesh, New Age Publishers, Bangalore.

Anand Sreekant... Galaxy S8+ Francy Irudaya... Subbulakshmi N

Chitra Evange... ECE HOD AMARINCHI

Suresh Chinnat... Dr.N.Muthu ku... KANNAN P

Jinolin Jacob S J Sivakumar Poth... karpaga rajesh Dr.K.Lakshmi N...

Unmute Start Video Participants Chat Share Screen Record Reactions Leave

Type here to search

12:05 PM 12-01-2021

Zoom Meeting | You are viewing ECE HOD's screen | View Options

Recording

Speaker View

**COURSE CONTENT**

**COURSE OBJECTIVES**

1. Understand the concept of a group and its importance.
2. Understand the concept of a group and its importance.
3. Understand the concept of a group and its importance.
4. Understand the concept of a group and its importance.

**COURSE OUTCOMES**

1. Understand the concept of a group and its importance.
2. Understand the concept of a group and its importance.
3. Understand the concept of a group and its importance.
4. Understand the concept of a group and its importance.

**Text Books**

1. Text Book of Group Theory, Dr. P. R. Venkatesh, New Age Publishers, Bangalore.

Anand Sreekant... Galaxy S8+ Francy Irudaya... Subbulakshmi N

Chitra Evange... ECE HOD AMARINCHI

Suresh Chinnat... Dr.N.Muthu ku... KANNAN P

Jinolin Jacob S J Sivakumar Poth... karpaga rajesh Dr.K.Lakshmi N...

Unmute Start Video Participants Chat Share Screen Record Reactions Leave

Type here to search

12:06 PM 12-01-2021

Zoom Meeting You are viewing ECE1HOD's screen View Options

Recording Speaker View

| Subject Name   | Discipline                       | SAE Name                    | Institute   | Course Duration |
|--|----------------------------------|-----------------------------|-------------|-----------------|
| MR.AIAA Graduate Introduction                            | Computer Science and Engineering | Prof. Durgal Khanna         | IIIT Madras | 8 Weeks         |
| MR. Abhishek   | Mechanical Engineering           | Prof. Anand Thandakathil    | IIIT Madras | 8 Weeks         |
| MR.AIAA Graduate Introduction of Micro Systems           | Electrical Engineering           | Prof. Venkatesh Tadikamalla | IIIT Madras | 8 Weeks         |
| MR.AIAA Graduate Introduction to Artificial Intelligence | Computer Science and Engineering | Prof. Venkatesh Tadikamalla | IIIT Madras | 12 Weeks        |
| MR.AIAA Graduate Introduction to Artificial Intelligence | Computer Science and Engineering | Prof. Venkatesh Tadikamalla | IIIT Madras | 12 Weeks        |

Andrew Roobar... Suresh Chinnat... Francy Irudaya...  
Chitra Evange... ECE HOD... Prem Ananth... Dr.N.Muthu ku... KANNAN P... Galaxy S8+... Jinolin Jacob S J...  
Sivakumar Poth... karpaga rajesh... Dr.K.Lakshmi N... AMARSINGH FE...

Unmute Start Video Participants Chat Share Screen Record Reactions Leave

Type here to search

12:21 PM 12-01-2021

Zoom Meeting You are viewing ECE1HOD's screen View Options

Speaker View

Department of Electronics and Communication Engineering

LIST of PG Online Courses for R2019

| Subject Name  | Discipline                       | SAE Name                    | Institute   | Course Duration |
|---|----------------------------------|-----------------------------|-------------|-----------------|
| MR. AIAA Graduate Introduction to Artificial Intelligence | Computer Science and Engineering | Prof. Venkatesh Tadikamalla | IIIT Madras | 12 Weeks        |
| MR. AIAA Graduate Introduction to Artificial Intelligence | Computer Science and Engineering | Prof. Venkatesh Tadikamalla | IIIT Madras | 12 Weeks        |
| MR. AIAA Graduate Introduction to Artificial Intelligence | Computer Science and Engineering | Prof. Venkatesh Tadikamalla | IIIT Madras | 12 Weeks        |

Andrew Roobar... Suresh Chinnat... Francy Irudaya...  
Chitra Evange... ECE HOD... Prem Ananth... Dr.N.Muthu ku... KANNAN P... Galaxy S8+... Jinolin Jacob S J...  
Sivakumar Poth... karpaga rajesh... Dr.K.Lakshmi N... AMARSINGH FE...

Unmute Start Video Participants Chat Share Screen Record Reactions Leave

Type here to search

12:24 PM 12-01-2021

# ANNEXURE I

| S.N<br>O | Code/Name  | Suggestions  | Suggested by                   | Action plan  | Reflection<br>in the<br>Curriculum |
|----------|--|--|--------------------------------|--|------------------------------------|
| 1        | 19EC7611-<br>Advanced<br>Communication<br>Laboratory | To include following<br>experiments<br><b>Optical:</b> study and<br>characteristics of OTDR,<br>splicing techniques, simulation<br>using Optisim | <u>Dr.G.Karpa<br/>garajesh</u> | Included<br>Experiment no<br>4,5 in the list<br>of optical<br>experiments.                             | Page No.85                         |
| 2        | 19EC7702-<br>Fiber Optic<br>Networks<br>(PE-V)       | Free Space Optics is an<br>emerging area, suggested to<br>include it as one or two units   | <u>Dr.G.Karpa<br/>garajesh</u> | Included Free<br>space optics as<br>fifth unit in<br>Free space<br>Networks                            | Page<br>No.122                     |
| 3        | 19EC8704-<br>MEMS and<br>NEMS (PE<br>VII)            | Suggested to include Optical<br>MEMS as it is recent trend   | <u>Dr.G.Karpa<br/>garajesh</u> | Included<br>Optical MEMS<br>as fifth unit in<br>MEMS and<br>NEMS.                                      | Page<br>No.145                     |
| 4        | 19EC7707-<br>CMOS<br>Analog IC<br>Design             | Suggested to include Device<br>Modelling as it is recent trend   | <u>Dr.G.Karpa<br/>garajesh</u> | Included<br>Device<br>Modelling as<br>first unit in<br>CMOS Analog<br>IC Design.                       | Page No<br>131                     |
| 5        |  | Suggested Radio mechanics,<br>soldering, basics of TV<br>repairing, AC basics can be<br>included.  | <u>Dr.G.Karpa<br/>garajesh</u> | These topics are<br>being taught in<br>Skill Training<br>sessions<br>conducted<br>during<br>vacations. |                                    |

|    |  |   |                                |  |   |
|----|--|---|--------------------------------|--|---|
| 6  | 19EC6911-<br>Internship<br>cum Mini<br>Project-  | Suggested to add Internship   | <u>Dr.G.Karpa<br/>garajesh</u> | It is added with<br>Mini Project as<br>Internship cum<br>Mini Project<br>and is offered in<br>sixth semester<br>as EEC.  | Page No.73  |
| 7  | 19EC6613-<br>VLSI<br>System<br>Design<br>Laboratory  | Suggested to include exclusive<br>VLSI lab in 5 <sup>th</sup> or 6 <sup>th</sup> sem.   | <u>Dr.G.Karpa<br/>garajesh</u> | VLSI System<br>Design is offered<br>as Professional<br>Core in Sixth<br>Semester as<br>Theory Cum<br>Practical with 4<br>credits.As<br>exclusive VLSI<br>Lab is<br>included.the<br>credit for theory<br>is reduced from 4<br>to 3 and<br>Exclusive VLSI<br>Lab is<br>includedwith 2<br>credits ,the total<br>credit is<br>increased from<br>165 to 166(For<br>Regular)<br>126(Lateral) | Page<br>No.9(credit<br>change)<br>Page no.75<br>(Theory)<br>Page<br>no.78(Theor<br>y) |
| 8  | 19EC7611-<br>Advanced<br>Communic<br>ation<br>Laboratory   | Suggested to include simulation<br>experiments under CST<br>Microwave Studio.   | <u>Dr.S.Ananth</u>             | Added<br>simulation<br>experiments in<br>the list of<br>Microwave<br>Experiments.  | Page No.85  |
| 9  | 19EC7703-<br>4G &5G<br>Networks,<br>19EC7704-<br>OFDM<br>Systems,<br>19EC8708-<br>Mobile<br>Communicat<br>ions | Suggested to check out the<br>communication based elective<br>courses for similarity or<br>repetition of topics.  | <u>Dr.S.Ananth</u>             | It was checked<br>and ensured<br>that topics are<br>not repeated.  |   |
| 10 | 19EC7710-<br>Block Chain<br>Technologie<br>s   | Cryptocurrency in current<br>scenario looks like a blocked<br>topic. Suggested to include<br>some other topics.Also he<br>insisted to change the<br>prerequisite related to the | <u>Dr.P.Sivaku<br/>mar</u>     | As crypto<br>currency is an<br>outdated topic<br>which is<br>included as<br>unit III is  | Page no.135   |

|    |   |   |                |   |             |
|----|---|---|----------------|---|-------------|
|    |   | subject   |                | removed and the relevant content is added.  |             |
| 11 | 19EC8710-ASIC Design                        | M.J.S .Smith, "Application Specific Integrated Circuits, Addison -Wesley Longman Inc., 2004 is a very old book. Need to refer latest book and include&re-modify topics in it.   | Dr.P.Sivakumar | Latest books are added and the topics are modified.   | Page no.154 |
| 12 | 19EC7711 Professional Ethics in Engineering | Since Professional Ethics subject is mandatory for an engineer, it has to be studied separately. If not, it can be incorporated in Principles of Management subject as a single unit  | Dr.P.Sivakumar | Included Professional Ethics in Engineering as separate subject as PE VI in sem 7.                            |             |
| 13 |   | Books suggested for some course under Professional core and Professional Electives category seem to be quite old.Suggested to change it to a recent version book which are below five years.Suggested to check if they cover the revised syllabus topics.   | Dr.P.Sivakumar | Recent Edition books were added and checked about the coverage of all topics.                                 |             |
| 14 |   | Suggested to mention only the direct prerequisite and not include the prerequisite of the prerequisite.   | Dr.P.Sivakumar | Included only direct Pre-requisite  |             |
| 15 |   | Electives can be offered to students based on streams namely, networking, communication, signal processing and VLSI. Order of subjects should be verified once.   | Dr.P.Sivakumar | Order of subjects were verified and found to be correct   |             |
| 16 | 19EC8803-Image Processing Essentials        | It is given Digital Image Processing as an option in open elective. To study this subject, the prerequisite topic like Digital Signal Processing and Signals and Systems are to be kept as first two units. Otherwise, just offer the subject which gives basic electronics knowledge to other department students. | Dr.P.Sivakumar | The prerequisite topic like signals and systems is included in first unit and DSP is included in second unit. |             |
| 17 |   | Suggested to include Phase I project in 7 <sup>th</sup> semester.   |                | Internship cum mini project is  |             |

|    |  |  |                              |  |                         |
|----|--|--|------------------------------|--|-------------------------|
|    |  |  |                              | introduced as an <b>Employability Enhancement Course in 6<sup>th</sup> sem.</b>                    |                         |
| 18 |  | Enquired how the projects are going to be implemented in current pandemic situation. | <b>Er.Francy Williams</b>    | New online platforms are being investigated for the same   |                         |
| 19 | 19EC7711 Professional Ethics In Engineering.19EC8711- Intellectual Property Rights | Suggested to include Humanities related courses.                                     | <b>Er.S.J. Jinolin Jacob</b> | Professional Ethics in Engineering, Intellectual Property Rights are included as PE-V1 and PE-VIII | Page no.137,Page no 156 |

## **ANNEXURE II**

### **LIST OF VALUE ADDED COURSES**

1. Automotive Electronics Applications
2. Computational image analysis
3. System design using FPGA
4. Sensor Technology
5. Wearable Electronics

### **ANNEXURE III**

#### **ONLINE COURSES**

##### **1. Online courses UG**

- Mechatronics
- Machine Learning, ML
- Introduction to internet of things
- Introduction to Robotics
- Basics of Software Defined Radios and Practical Applications
- Cloud computing
- Deep Learning
- Fuzzy Sets, Logic and Systems & Applications
- Introduction to Machine Learning
- Evolution of Air Interface towards 5G

##### **2. Online courses PG**

- Spread Spectrum Communications and Jamming
- Pattern Recognition and Application
- Deep Learning for Computer Vision
- Nanostructures and Nanomaterials: Characterization and Properties
- Introduction to Blockchain Technology and Applications
- Nanobiotechnology- Web Course