



# RAMCO INSTITUTE OF TECHNOLOGY

Approved by AICTE, New Delhi & Affiliated to Anna University  
Accredited by NAAC & An ISO 9001: 2015 Certified Institution  
NBA Accredited UG Programs: CSE, EEE, ECE and MECH

## Department of Electrical and Electronics Engineering

Academic Year 2021 – 2022

### Minutes of Meeting – 5<sup>th</sup> Program Assessment & Quality Improvement Committee (PA&QIC)

**Date of Meeting** : 08.07.2022 (Friday)  
**Time of Meeting** : 9:30 AM to 12:00 Noon  
**Reference** : RIT/EEE/PA&QIC/05  
**Venue** : EEE Seminar Hall

#### Members Present:

Sl. No.	Name of the Faculty Member	Designation	PAQIC
1.	Dr. S. Kannan	Professor / EEE	Convener
2.	Dr. K. Karthikeyan	Associate Professor / EEE	Member
3.	Dr. B. Deepa Lakshmi	Associate Professor / EEE	Member
4.	Mr. D. Karthik Prabhu	AP(SG) / EEE	Member
5.	Mrs. C. Subha	AP (SG) / Civil	Member
6.	Dr. M. Gomathynayagam	Associate Professor / CSE	Member
7.	Mrs. G. Gnanapriya	AP (SG) / ECE	Member
8.	Mr. J. Jerold John Britto	AP (SG) / Mechanical	Member
9.	Dr. T. Vigneshwari	AP (SG) / Physics	Member
10.	Mr. E. Thangam	AP (SG) / EEE	Representative
11.	Mr. S. Meenakshi Sundaravel	AP (SG) / EEE	Representative
12.	Mr. A. Arun Kumar	AP / EEE	Representative
13.	Mr. A. S. Vigneshwar	AP / EEE	Representative
14.	Mrs. S. Jeyanthi	AP / EEE	Representative
15.	Ms. S. Sharmila Kumari	AP / EEE	Representative
16.	Mrs. G. Sivapriya	AP / EEE	Representative
17.	Mr. A. Guna	AP / EEE	Representative

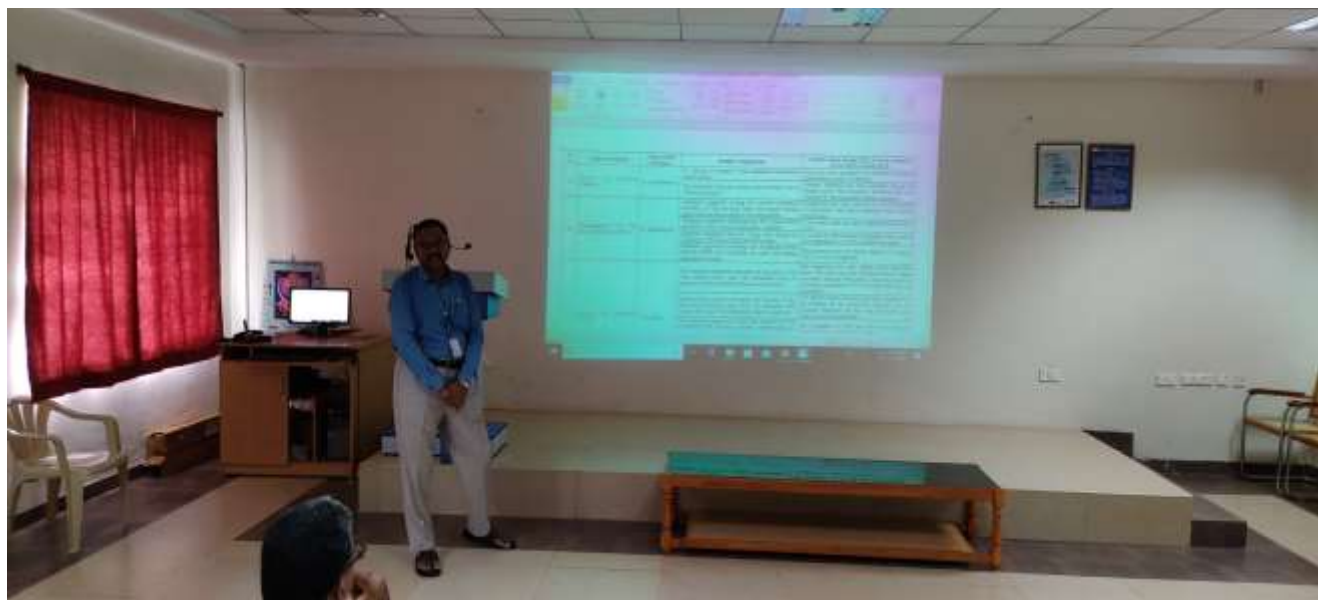
## The agenda of the meeting

Sl. No.	Topics to be present
1	Review of Previous meeting (4 <sup>th</sup> PA&QIC)
2a	Teaching and Learning : (i) Curricular Gap and content beyond syllabus, (ii) New Initiatives and Innovative methods practiced and its implications, (iii) Action taken for slow learners and bright students, (iv) Question paper quality improvement
2b	Institute – Industry Interactions and its impact - Internship & In-Plant Training
3	Attainment of COs, POs, PSOs with program effectiveness (2020-2021)
4a	Student Participation: Professional Societies and Technical Association
4b	Student Participation: Inter-Institute events and online course
5	Faculty Performance, Participations, online course and Research and Development activities
6	New facilities created & Laboratory utilization
7	Continuous Improvements
8	Alumni Interactions
9a	Training and Placement Progress
9b	EDC & Carrier Guidance Cell activities
9c	Feedback Analysis (Student / Parent / Alumni / Recruiters / Employee)
10	Budget allocation and Utilization (2021-22)
11	Any other matters

### 1A. REVIEW OF PREVIOUS MEETING (4<sup>th</sup> PA&QIC)

Presenter: Dr. K. Karthikeyan, ASCP/EEE

- The contents discussed during the 4<sup>th</sup> PAQIC meeting under various headings, suggestions given by the members and actions taken for those suggestions are presented.



### Suggestions given by the members

- Each and every criteria presentation, wherever possible the quantitative data can be provided.
- The feedback from the Alumni and recruiters can be obtained regularly.

## 2A. TEACHING AND LEARNING PROCESS

Presenter: Mrs. S. Jeyanthi, AP / EEE

- The process for identifying curriculum gaps and the related materials were presented.
- The content beyond the syllabus plan and implementation was verified. The proof documents such as logbook, class register, simulation diagram and field photograph were shown.
- The value added course on Application of MATLAB for Electrical Engineering Problems conducted for II Year EEE Students was presented.
- A list of all innovative practices was presented. The sample practices like Flipped classrooms, virtual labs, simulations for theory courses, field trips, and many other noteworthy creative techniques were shown.
- There was discussion about the introduction of project-based learning. The hardware for project-based learning was shown.
- The action taken for different learners was presented. It was presented that online courses have been given for advanced learners and short notes, formula sheet; quick revision notes, special coaching class and study guide were used for slow learners.
- The comments received from the external experts for the previous academic year were addressed this year.



### Suggestions from the members:

- It was suggested by a member that a separate report shall be prepared for “each content beyond the syllabus” so as to quickly verify the implementation of content beyond the syllabus.
- The categorization of the students based on their performance in Internal Assessment Test can be done only for theory.
- The consolidation of the points in the quality of the question paper and answer script corrections can be done and presented in the meetings.

## 2B. INSTITUTE – INDUSTRY INTERACTIONS AND ITS IMPACT - INTERNSHIP & IN-PLANT TRAINING

Presenter: Mr. E. Thangam, AP (SG) / EEE

### i. Industry Institute Interactions and its Impact

#### a) Consultancy Initiatives:

Sl. No.	Project	Name of the Project	Faculty and Student Coordinator
1.	Industry Project 1	Fabrication of Screw Counter	Mr. E. Thangam
2.	Industry Project 2	Preliminary Electrical Energy Audit	Mr. D. Karthik Prabhu R . Rakeshkannan (953618105019)
3.	Industry Project Allied Work	Electrical Safety Awareness among the Workers	V. R. Ugesh (953618105026) S. Vinodh (953618105303)

#### b) EEE Department MoU's with 24 Industries

- Ramco Group of Textile Division, Rajapalayam, Gowri House Metal Works, Rajapalayam, Minniyal Private Limited, Krishnankoil, Dynamic TEK, Chennai, MEDSBY Healthcare AND Engineering Solutions, Coimbatore, TVS training and services, Chennai, Ramco Cements Ltd., Chennai, Ramco systems Ltd., Chennai, Ramco Industries Ltd., Chennai, TCSion, Chennai, M.S. Chellamuthu Trust, Madurai, Enthu Technology Solutions India Private Limited, Coimbatore, Crystal Delta, Chennai, Geons Logix, Tessolve Semiconductor Pvt. Ltd., Bangalore, NI Systems Private Limited, Bangalore, Imarticus Learning Pvt Ltd, Great Learning, Aravind Herbal, Eureka education group, V-Invent Chemilab Private Limited, Rajapalayam, Raja Nursery Garden, Rajapalayam, TRY CAE, Skill Shark



### c. Impact Analysis

Sl. No.	Name of the Company	Impacts
1.	Tessolve Semiconductor Pvt. Ltd., Bangalore	5 students got placed in Tessolve semiconductors Pvt Ltd, Banglore (2014-2018 – 1 student), (2015-2019 – 1 student), (2016-2020 – 1 student), (2017-2021 – 2 Students)
2.	The Ramco Cements Ltd., Chennai	10 students got placed in Ramco Cements Limited (2013-2017 – 1 student) (2014-2018 – 3 students) (2015-2019 – 3 students) (2016-2020 – 3 students) (2018-2022 – 1 students)
3.	Minniyal Private Limited, Krishnankoil	8 students have completed their final projects
4.	Ramco systems Ltd., Chennai	20 students placed in Ramco Systems, Chennai (2013-2017 – 1 student) (2014-2018 – 9 student) (2015-2019 -7 students) (2016-2020 – 3 students) (2019-2023 – 1 students)
5.	Ramco Group of Textile Division, Rajapalayam	5 students placed in Ramco group textile division (2013-2017 – 5 students), (2016-2020 – 1 student) Display Equipment are being used for taking demonstration classes
6.	MEDSBY Healthcare and Engineering Solutions, Coimbatore	Students are allowed to attend the 3D printing classes in the medsky 3D printer
7.	Enthu Technology Solutions India Private Limited, Coimbatore	Industrial Visit - 55 students have underwent Industrial visit to Enthu technologies, Bangalore
8.	NI Systems Private Limited, Bangalore	CLAD Training - Intensive training is being given to the students to get CLAD certificate by NI Labview
9.	V-Invent Chemilab Private Limited, Rajapalayam	Industry Projects - we are working for a project called automatic wall painting

### d. Industry Supported Laboratories

- NI Lab view Academy - Year of Establishment - 2015
- Tessolve Semiconductor Test Engineering Laboratory - Year of Establishment – 2017
- RIT MEDSBY Innovation Centre - Year of Establishment - 2019
- e-yantra Laboratory - Year of Establishment – 2019
- Rajapalayam Mills Limited supported Renewable Energy Sources Laboratory - Year of Establishment – 2020

#### ii. Industrial Training / Internship

As per Anna University Regulation 2017, Clause 4.5

- a. The students may undergo Industrial training for a period as specified in the Curriculum during summer / winter vacation. In this case the training has to be undergone continuously for the entire period.

- b. The students may undergo Internship at Research organization / University (after due approval from the Department Consultative Committee) for the period prescribed in the curriculum during summer / winter vacation, in lieu of Industrial training.

**a. Department Consultative Committee Members**

Sl. No	Name of the Faculty member	Designation	Position
1.	Dr. S. Kannan, Ph.D.	Professor and Head (EEE)	Head
2.	Dr. K. Karthikeyan, Ph.D.	Associate Professor/EEE	Member
3.	Mr. D. Karthik Prabhu, M.E	Assistant Professor (Sr.Gr) / EEE	Member
4.	Mr. E. Thangam, , M.E	Assistant Professor (Sr.Gr) / EEE	IPT & Internship In-charge
5.	Mr. S. Meenakshi Sundaravel, M.E	Assistant Professor (Sr.Gr) / EEE	Member

**b. Student Internship Progress:**

Sl. No.	Class & Name of the Mentor	Student Strength	No. of students completed the Internship as per Norms(15 days)	No. of students not completed the Internship as per Norms (15 days)
1.	IV Year EEE Mr. E. Thangam	15	15	-
2.	IV Year EEE Mr. D. Karthik Prabhu	14	14	-
3.	III Year EEE Mr. A.S. Vigneshwar	12	4	8
4.	III Year EEE Mrs. B. Deepalakshmi	13	6	7
5.	III Year EEE Dr. K. Karthikeyan	08	NIL	8
6.	II Year EEE – A S. Meenakshisundaravel	16	3	13
7.	II Year EEE – A Ms. S. Sharmilakumari	15	NIL	15
8.	II Year EEE – B Mrs. G. Sivapriya	15	NIL	15
9.	II Year EEE – B Mr. A. Guna	15	1	14

**b. Industrial Visits:**

Sl. No	Class/Semester	Class Strength	Name of the Company	No of Students Visited
1	II Year / III Semester B.E.EEE	60	Keltron Controls, Aroor, Kerala	56 (2 – Faculty Members)
2	III Year / V Semester B.E.EEE	61	Kerala Electricals and Allied Engineering Co. Ltd, Kerala	54 (3 – Faculty Members)
3	IV Year / VII Semester B.E. EEE	33	Kerala Electricals and Allied Engineering Co. Ltd Keltron Controls, Aroor, Kerala	28 (2 – Faculty Members)

**Suggestions from the members:**

- At the end of each semester, a greater proportion of students may be encouraged to participate in industrial training.
- Encourage students to work on projects in the industry, which will strengthen industry-institute interactions.
- MoU utilization needs to be improved.
- Need to take steps for signing MoU with reputed institute for the benefit of students and faculty members.

**3. ATTAINMENT OF COs, POs, PSOs WITH PROGRAM EFFECTIVENESS (2020-21)**

The points presented in the 4<sup>th</sup> PAQIC meeting by **Mr. E. Thangam, AP (SG)/EEE** are as follows,

- a. Assessment methods practiced in the last academic year.

Direct	Indirect
Internal Assessment Test 1,2,3, Assignment, Quiz, Course Exit Survey	Alumni Exit survey, Program Exit survey

- b. Course Exit Survey is newly included from the Academic year 2019 – 20.

10% weightage has been given to Course Exit Survey for calculating Course outcome for the individual courses.

- c. Course Outcome Target Setting Procedure for CO Attainment – R 2017

Batch	Target Attainment
<b>2017 -2021</b> (Average of GPA <sub>1</sub> )	1.8 for Theory Courses & 2 for Laboratory Courses/Projects

Batch	Target Attainment
2018 -2022 (Average of GPA <sub>2</sub> )	Target <sub>1</sub> = Average of GPA <sub>1</sub> × 0.3
2019 -2023 (Average of GPA <sub>3</sub> )	$Target_2 = \text{Maximum of } \left( Target_1, \left( \frac{AGPA_1 + AGPA_2}{2} \right) \right)$
2020 - 2024	$Target_3 = \text{Maximum of } \left( Target_2, \left( \frac{AGPA_1 + AGPA_2 + AGPA_3}{3} \right) \right)$



d. Details of not attained courses – R 2017

Batch	Details of not attained courses
2017 -2021	<ul style="list-style-type: none"> <li>• HS8151 Communicative English</li> <li>• BE8252 Basic Civil and Mechanical Engineering</li> <li>• MA8353 Transforms and Partial Differential Equations</li> <li>• EE8391 Electromagnetic Theory</li> <li>• EE8301 Electrical Machines - I</li> <li>• EC8353 Electron Devices and Circuits</li> </ul>
2018 – 2022 upto VI Semester	<ul style="list-style-type: none"> <li>• MA8151 Engineering Mathematics – I</li> <li>• PH8253 Physics for Electronics Engineering</li> <li>• EE8391 Electromagnetic Theory</li> </ul>
2019 – 2023 Upto IV Semester	<ul style="list-style-type: none"> <li>• HS8151 Communicative English</li> <li>• GE8151 Problem Solving and Python Programming</li> <li>• BS8161 Physics and Chemistry Laboratory</li> <li>• MA8251 Engineering Mathematics - II</li> </ul>

e. Details of CO-PO Mapping for the batch 2017 – 2021

PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Map.	2.7	2.2	1.8	1.7	1.5	1.9	1.6	1.3	1.9	1.5	1.7	1.5

f. Details of CO-PSO Mapping for the batch 2013-2017, 2014-2018, 2015-2019, 2016-2020

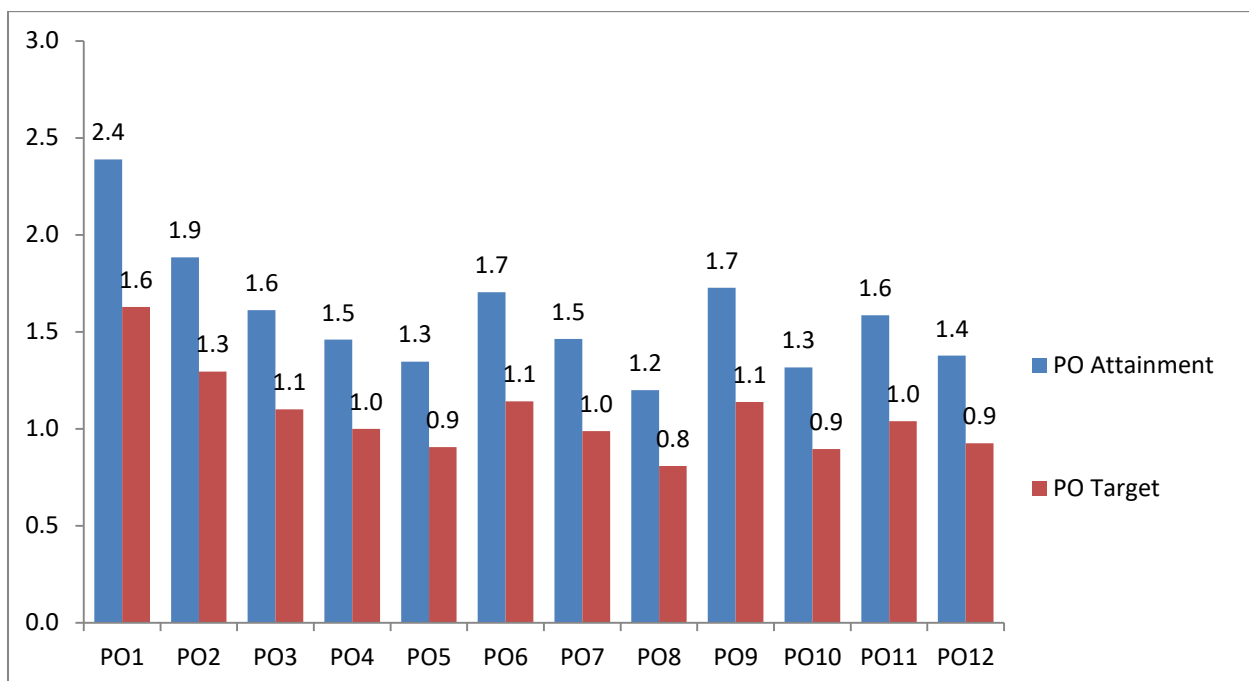
PSO	PSO1	PSO2	PSO3	PSO4
Map.	1.9	1.8	1.5	1.5

g. Target Setting Procedure for PO & PSO Attainment – R 2013

Batch	PO / PSO Target
2017 – 2021	60 % of Mapping 1.8

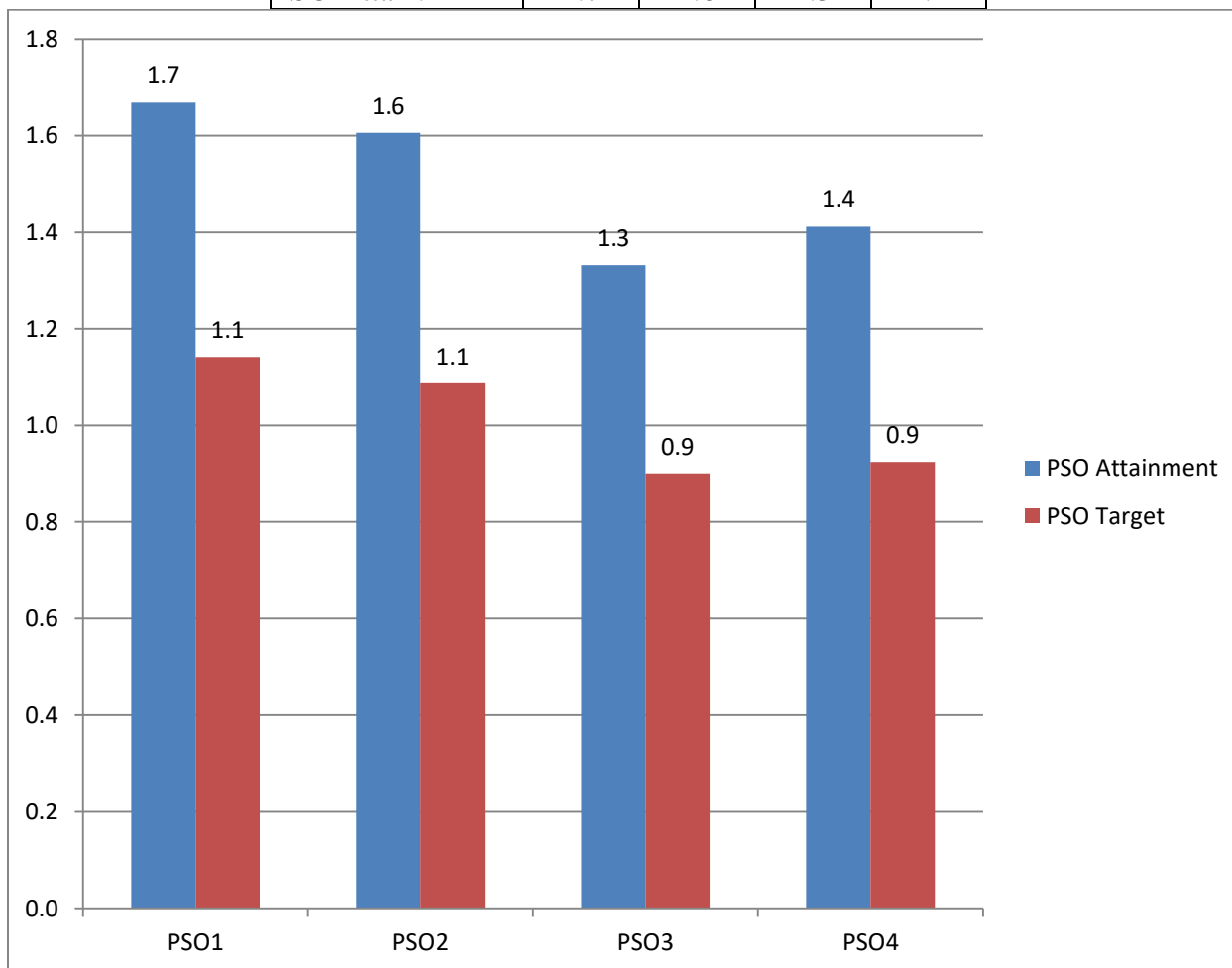
h. Details of PO Attainment

PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
PO Mapping	2.7	2.2	1.8	1.7	1.5	1.9	1.6	1.3	1.9	1.5	1.7	1.5
Target 60% of Mapping	1.6	1.3	1.1	1.0	0.9	1.1	1.0	0.8	1.1	0.9	1.0	0.9
PO Attain.	2.4	1.9	1.6	1.5	1.3	1.7	1.5	1.2	1.7	1.3	1.6	1.4



k. Details of PSO Attainment

PSO	PSO1	PSO2	PSO3	PSO4
PSO Mapping	1.9	1.8	1.5	1.5
Target 60% of Mapping	1.1	1.1	0.9	0.9
PSO Attain.	1.7	1.6	1.3	1.4



I. Course Outcome Attainment 2021 -2022 Odd Semester

III Semester\*

Sl. No	CO	Course Code & Course Name	Course Attainment
1	C201	MA8353 Transforms and Partial Differential Equations	2.8
2	C202	EE8351 Digital Logic Circuits	2.67

Sl. No	CO	Course Code & Course Name	Course Attainment
3	C203	EE8391 Electromagnetic Theory	2.47
4	C204	EE8301 Electrical Machines - I	2.86
5	C205	EC8353 Electron Devices and Circuits	2.73
6	C206	ME8792 Power Plant Engineering	2.87
7	C207	EC8311 Electronics Laboratory	3
8	C208	EE8311 Electrical Machines Laboratory - I	3

V Semester\*

Sl. No	CO	Course Code & Course Name	Course Attainment
1	C301	EE8501 Power System Analysis	2.4
2	C302	EE8551 Microprocessors and Microcontrollers	2.6
3	C303	EE8552 Power Electronics	Yet to receive
4	C304	EE8591 Digital Signal Processing	2.68
5	C305	CS8392 Object Oriented Programming	Yet to receive
6	C306	OCE551 Air Pollution and Control Engineering	Yet to receive
7	C307	OIT551 Database Management Systems	Yet to receive
8	C309	OAN551 Sensors and Transducers	Yet to receive

VII Semester\*

Sl. No	CO	Course Code & Course Name	Course Attainment
1	C401	EE8701 High Voltage Engineering	2.7

Sl. No	CO	Course Code & Course Name	Course Attainment
2	C402	EE8702 Power System Operation and Control	3
3	C403	EE8703 Renewable Energy Systems	2.8
4	C404	OCS752 Introduction to C Programming	Yet to calculate
5	C405	OML751 Testing of Materials	Yet to calculate
6	C406	GE8071 Disaster Management	3
7	C407	GE8077 Total Quality Management	Yet to calculate
8	C408	EE8711 Power System Simulation Laboratory	Yet to calculate

\* - CO attainment will be attained due to online open book examination.

m. Actions to be taken to get Maximum Score in Criterion 3

- CO-PO Mapping, CO- PSO Mapping, Target Calculation Procedure, Course Outcome Calculation Procedure, PO/PSO Outcome calculation procedure should be familiar to all faculty members.
- Every faculty member must be able to give a proper unique justification about the all the process which we are following in attainment calculation.
- The Course file should be prepared with utmost care, and all evidences should be provided on the spot.
- HoD and all faculty members, please try to take steps in the attainment of PO- 6 to PO-12, because these attainments cannot be attained in the class room delivery.

n. External member suggestions:

- Members insisted all faculty members to refer the examination reform policy and do the mapping effectively for all the courses.
- Value added courses and other activities which are contributing PO attainment can be included for attainment calculation.

#### **4A. STUDENT PARTICIPATION: PROFESSIONAL SOCIETIES AND TECHNICAL ASSOCIATION**

Presenter: Mr. A. Arun Kumar, AP / EEE

- The activities carried out from professional societies and association have been presented from 01.01.2022 to 30.06.2022

- The prize winners list and acknowledgement for the receipt of prizes for the National Science Day events have been shown.
- The activities planned are conducted for the even semester of 2021-22

#### **Suggestions given by the members**

- The PAQIC members suggested conducting value-added courses for all the students of EEE under Professional societies and associations.
- The members suggested that alumni interactions shall be planned under professional societies.
- The members suggested showing their plan of activities and status of the completion with details of the conducted events.

#### **4B. STUDENT PARTICIPATION: INTER-INSTITUTE EVENTS AND ONLINE COURSE**

- The details of the participation of the students in several co-curricular activities have been presented.
- The details of the online course completion have been presented.

#### **Suggestions by members:**

- The number of students participating in the co-curricular activities is very less in number during this period. Hence, members suggested increasing the outside RIT, outside Tamil Nadu State participations.
- HoD Sir instructed that it is the responsibility of the Mentor to provide guidance to their wards so that all the students will participate in the events.
- HoD Sir instructed the Mentors to track the completion of their wards online course completion and told them to encourage bright students to complete their online courses.

#### **5. FACULTY CONTRIBUTIONS AND R & D ACTIVITIES**

Presenter: Mr. D. Karthik Prabhu, AP (SG) / EEE

- Presented the faculty cadre proportion, student faculty ratio, faculty Qualification, faculty retention, Innovations by faculty in Teaching and learning, faculty participation in FDPs, STTPs, training programs and workshops, faculty publication and research proposal submission, patent details, developmental activities, consultancy activities for the academic year 2021-2022 based on the NBA requirements.
- Briefed the online courses completion by the faculty.
- Presented the action taken for the last meeting suggestions by the members.

#### **Remarks from Members:**

- Members suggested concentrating more on criteria 5.5 Innovation by faculty in teaching and learning in terms of uploading the teaching learning videos and materials in slide share and YouTube and collect the peer reviews. Also suggested that to improve “work must be reproducible and developed further by other scholars” area.



### **Suggestions from the members:**

- Members suggested that the IoT lab can be enhanced by having an industrial tie-up.
- It is suggested to transfer the Arduino, Raspberry pi boards and various sensors from other labs to the Project lab to improve the Project laboratory utilization.

## **7. CONTINUOUS IMPROVEMENTS**

**Presenter:** Mr. A. S. Vigneshwar, AP /EEE

- The student admission statics has been presented and it is emphasized that the quality of the admission has been improved.
- The placement statistics has been presented and it is highlighted that the placement percentage is keeps on improving.
- He also pointed about the ISO external audit comments, scope for improvement, actions taken for implementation and its effectiveness.



### **Suggestions from the members**

- Members suggested presenting the details pertaining to this particular period only.
- Members suggested that before presenting the data, it should be verified and validated.
- Members suggested that the points given in the academic audit during this period can be shared with the faculty members so that they can plan for the remedial actions.
- Members suggested that the action taken from external surveillance ISO audit should be presented.
- Members suggested that the Mentor should identify the students those who are interested in entrepreneurship and they must be motivated.

## **8. ALUMNI INTERACTIONS**

**Presenter:** Dr. K. Karthikeyan, ASCP / EEE

- He has presented the alumni interactions happened in the department during this period.

- The previous meeting suggestions and the actions taken for those suggestions have been presented in the meeting.
- The details of the allocating an Alumni supervisor to the final year projects has been presented.

### **Suggestions from the members**

- Members suggested conducting more number of alumni interactions. They suggested presenting the details of the interactions with planned activities.
- Members suggested conducting the alumni meet in various cities of Tamil Nadu.
- Members suggested that the department coordinator should ensure that all the alumni are joined in Almalshine software.
- Members suggested that the alumni activities can be planned in the professional societies.



## **9A. TRAINING AND PLACEMENT PROGRESS**

Presenter: Mr. A. S. Vigneshwar, AP /EEE

- The placement statics for the last academic year has been presented. The placement percentage is 79.31%, 23 students got placed out of 29 students.
- He has also presented the industrial sector wise placement details and companies visited for the on campus recruitment.
- Highest CTC: 4 LPA, Average CTC: 2.62 LPA & Lowest CTC : 2 LPA
- Students placed in Sector Wise: IT - 7, Core – 14, & others – 2
- All the training details are also presented.

### **Suggestions from the members**

- The average CTC of the students must be improved.
- The quality of the placement should be improved.
- HoD insisted that the mentors should play major role in shaping the career of their wards.
- The placement statistics of the recent years can be presented.
- The training given to the students during this specific period should be presented along with number of students benefitted.

## 9B. EDC & CARRIER GUIDANCE CELL ACTIVITIES

Presenter: Mrs. G. Siva Priya, AP /EEE

- Presented the presented the number of events conducted by the EDC, IIC and carrier guidance cell and number of students benefitted from those events for the academic year 2021-2022 even semesters.
- Presented the action taken for the last meeting suggestions by the members.

### Suggestions from the members

- The members suggested that mention the number of EEE students participation for the events
- The members suggested that number of student's participation in EDC activities can be increased.
- The members suggested that don't use the arrow mark for the table bring below the heading.
- The members suggested that added the event planned details.



## 9 C. STUDENT FEEDBACKS AND ANALYSIS

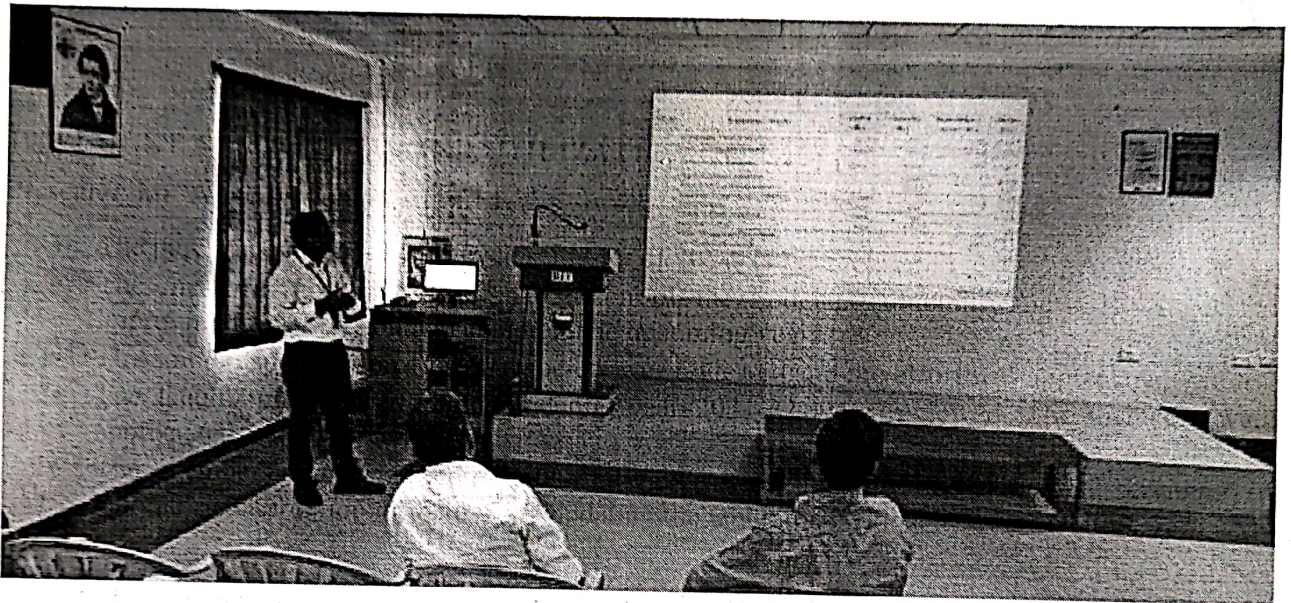
Presenter: Mrs. G. Sivapriya, AP/EEE

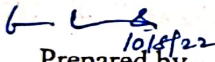
- The modes of collecting student's feedback such as Online Feedback System in every semester, Class committee meeting and Course committee meeting has been explained.
- The Class committee meeting and Course committee meeting comments and actions taken for those comments are also presented.
- The analysis of the academic student feedback, PTA meeting Feedback and alumni Feedback has been presented. The actions taken for improving the academic feedback PTA meeting Feedback and Alumni Feedback score are also presented.

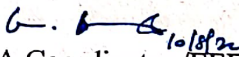
## 10. BUDGET ALLOCATION AND UTILIZATION (2021-22)

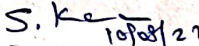
Presenter: Mr. A. Arun Kumar, AP /EEE


- The purchase progress of the even semester of 2021-22 was reviewed
- The members appreciated the utilization of the budgeted amount. They also suggested improving the utilization percentage in the upcoming years.
- The amount spent for professional society was reviewed and the effort was appreciated.
- The faculty incentives for the academic year 2021-22 were reviewed. The members were appreciated.
- The members suggested continuing the process of updating the software, servicing of laboratory, calibration of meters and updating the laboratory with state of art facilities.



  
10/08/22  
Prepared by  
Dr. K. Karthikeyan  
ASP/EEE

  
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