# GOVERNMENT COLLEGE OF ENGINEERING, SALEM

# BEST PRACTICE – 1

# OUTCOME BASED EDUCATION

# 7.2.1 INSTITUTIONAL VALUES AND BEST PRACTICES

## Best Practice 1

### 1. *TITLE: Outcome-Based Education*

### 2. *OBJECTIVES OF OUTCOME BASED EDUCATION*

- To design the curriculum framework of the program integrating well defined learning outcomes.
- To use rubrics-based assessments.
- To ensure alignment between curriculum, instructional methods, and assessment practices to effectively measure student attainment of outcomes.
- To establish a quality assurance system and program improvement practices based on feedback from various stakeholders.

### 3. *CONTEXT OF THE BEST PRACTICE*

In the context of OBE, at program level, the OBE process begins with defining vision and mission statements, followed by developing Program Educational Objectives (PEOs). Then a set of Program Outcomes(POs) as per Washington Accord guidelines and Program Specific Outcomes(PSOs) are developed. Once this program structure is done, curriculum framework integrating a well-defined course outcomes (COs) for each course is designed at the course level. The mapping of COs with one or more POs and PSOs are done in order to measure the attainment of PO and PSO.

### *3.1 Design Process for the Outcome Based Education:*

#### *3.1.1 Formulation of Vision and Mission PEOs, POs, PSOs:*

The process for defining a department's vision and mission within an educational institute, is influenced by Policy Changes, Institutes Vision and Mission, Inputs gathered from various stake holders and key features.

Policy changes beings from AICTE (All India Council for Technical Education) or the Department of Higher Education, Tamil Nadu / DTE (Directorate of Technical Education). These policy changes influences Institute's vision and mission. The Institute's vision and mission are then taken into consideration by the Department Advisory Committee.

Simultaneously, contributions are solicited from a wide range of stakeholders, including

- Faculties
- Academic Experts
- Industry Experts
- Students' Employers
- Students
- Alumni
- Parents.

**Flowchart for Procedure of Formulating Vision Mission PEOs, POs and PSOs.**


Alongside these inputs, key features like,

- Engineering Knowledge
- Local, regional, National, and Global Standards Exposure
- Industrial Demands
- Employability/Entrepreneurship
- Skill Development
- Cross-cutting Issues i.e., Professional Ethics and Universal Human Values

are considered by the Department Advisory Committee.

With all inputs given, Department's vision and mission is formulated in alignment with Institute's vision and mission.
By considering the Department's vision and mission, the B.E. program's educational objectives (PEOs), program outcomes (POs), and program-specific outcomes (PSOs) are derived and proposed by the department's advisory committee and then presented to the Board of Studies.

Board of Studies comprises of,

- University Nominee
- Subject Experts
- Industrial Experts
- Alumni
- All faculties of the Department
- Student

The Board of Studies reviews these elements and the vision, mission, POs, PSOs, and PEOs are developed or revised following the aforementioned process as and when required. This is then approved by the Academic Council. Once finalized, the vision, mission, PEOs, POs, and PSOs are published and disseminated.

### *3.1.2 Process of Drafting Curriculum:*

The process starts with the establishment of the mission, vision, Program Educational Objectives (PEOs), Program Outcomes (POs), and Program Specific Outcomes (PSOs).

Based on the inputs from various stakeholder's and Department's advisory committee, using the established mission, vision, PEOs, POs, and PSOs as a guide, a draft curriculum is developed.

Within this draft curriculum, akin to program outcomes, objectives and outcomes for each course (COs) within the program are articulated to gauge the effectiveness of course delivery.

This curriculum is then deliberated upon during a Board of Studies (BOS) meeting, where suggestions and comments are carefully considered and incorporated.

Following BOS recommendations, the curriculum is proposed to the Academic Council for approval. With the Council's approval, the definitive curriculum and

syllabus are formalized. The curriculum is then implemented through the teaching, learning, and evaluation processes.

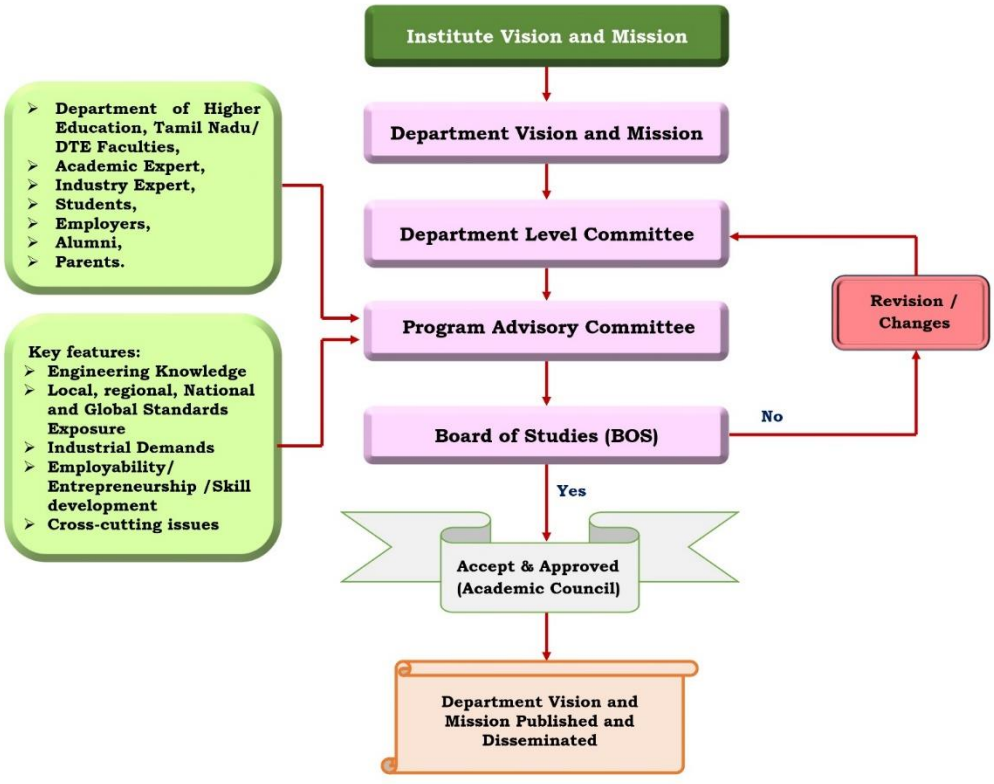
Subsequent to implementation, feedback is solicited from an array of stakeholders, including faculty, students, employers, and alumni. This input is vital for the refinement of the curriculum.

Course Outcomes (CO) and Program Outcomes (PO) attainment is monitored to assess the effectiveness of the curriculum. Concurrently, the Department Advisory Committee offers additional supervision and advice, based on the obtained performance metrics of COs and POs.

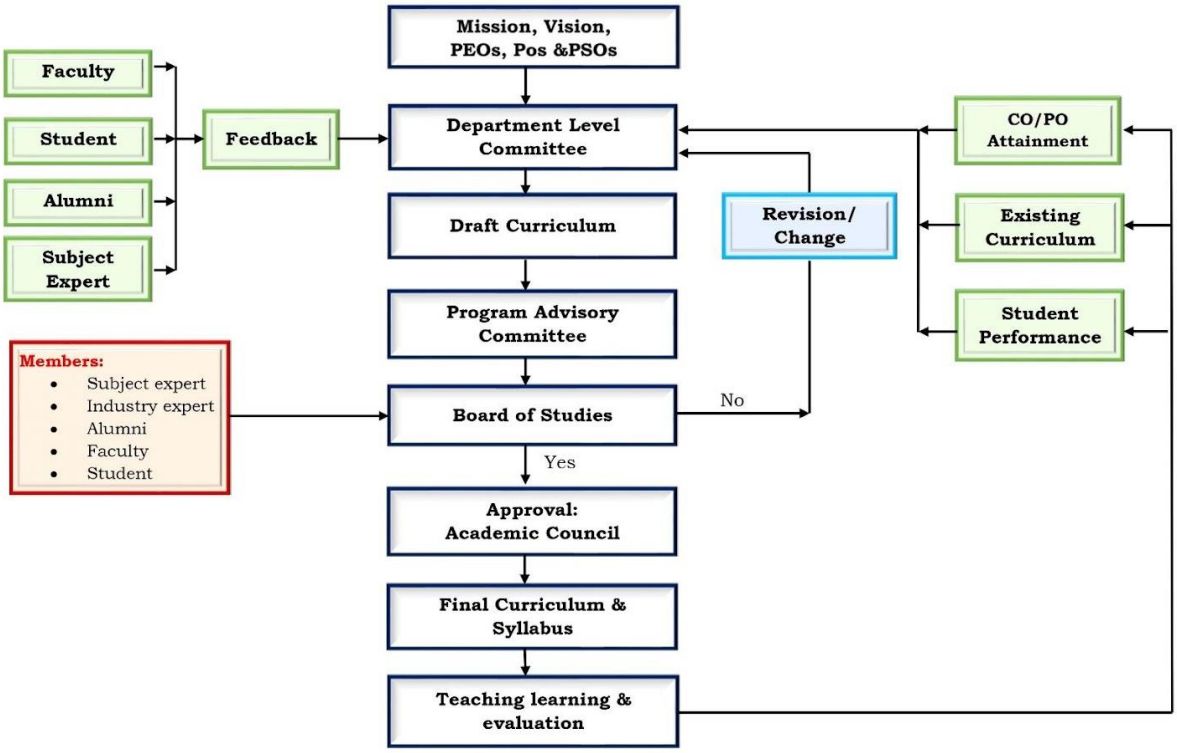
The curriculum undergoes regular reviews against the backdrop of CO/PO attainment and student progression to prompt any essential modifications during the enforcement of each regulation.

This iterative process is continued to ensure that, the curriculum maintains its relevance and effectiveness, staying true to the educational objectives, and promotes continual enhancement based on the feedback from stakeholders and the academic achievements of students.

**Process defining Vision and Mission**



# Process for designing Program Curriculum



### *3.1.3 Implementation of OBE by metrics calculation and Analysis:*

### *Calculation for attainments of COs and POs:*

**Table 1: Assessment of Course Outcomes for CIA (Continuous Internal Assessment)**

| Course outcomes | CO1 | | | CO2 | | | CO3 | | | CO4 | | | CO5 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Measure | IAT (75%) | Assgn (12.5%) | Tut (12.5%) | IAT (75%) | Assgn (12.5%) | Tut (12.5%) | IAT (75%) | Assgn (12.5%) | Tut (12.5%) | IAT (75%) | Assgn (12.5%) | Tut (12.5%) | IAT (75%) | Assgn (12.5%) | Tut (12.5%) |
| Student Name 1 | | | | | | | | | | | | | | | |
| Student Name 2 | | | | | | | | | | | | | | | |
| Student Name 3 | | | | | | | | | | | | | | | |
| ---- | | | | | | | | | | | | | | | |
| ---- | | | | | | | | | | | | | | | |
| ---- | | | | | | | | | | | | | | | |
| ---- | | | | | | | | | | | | | | | |
| Total Average | | | | | | | | | | | | | | | |

**Table 2: Assessment of Course Outcomes for ESE (End Semester Examination)**

| Course outcomes | CO1 | CO2 | CO3 | CO4 | CO5 | Total Marks |
|---|---|---|---|---|---|---|
| Student Name/Marks | | | | | | |
| Student Name 1 | | | | | | |
| Student Name 2 | | | | | | |
| Student Name 3 | | | | | | |
| ---- | | | | | | |
| ---- | | | | | | |
| ---- | | | | | | |
| ---- | | | | | | |
| Total Average | | | | | | |
| CO Attainment Level | | | | | | |

## Mechanism for the attainment of CO:

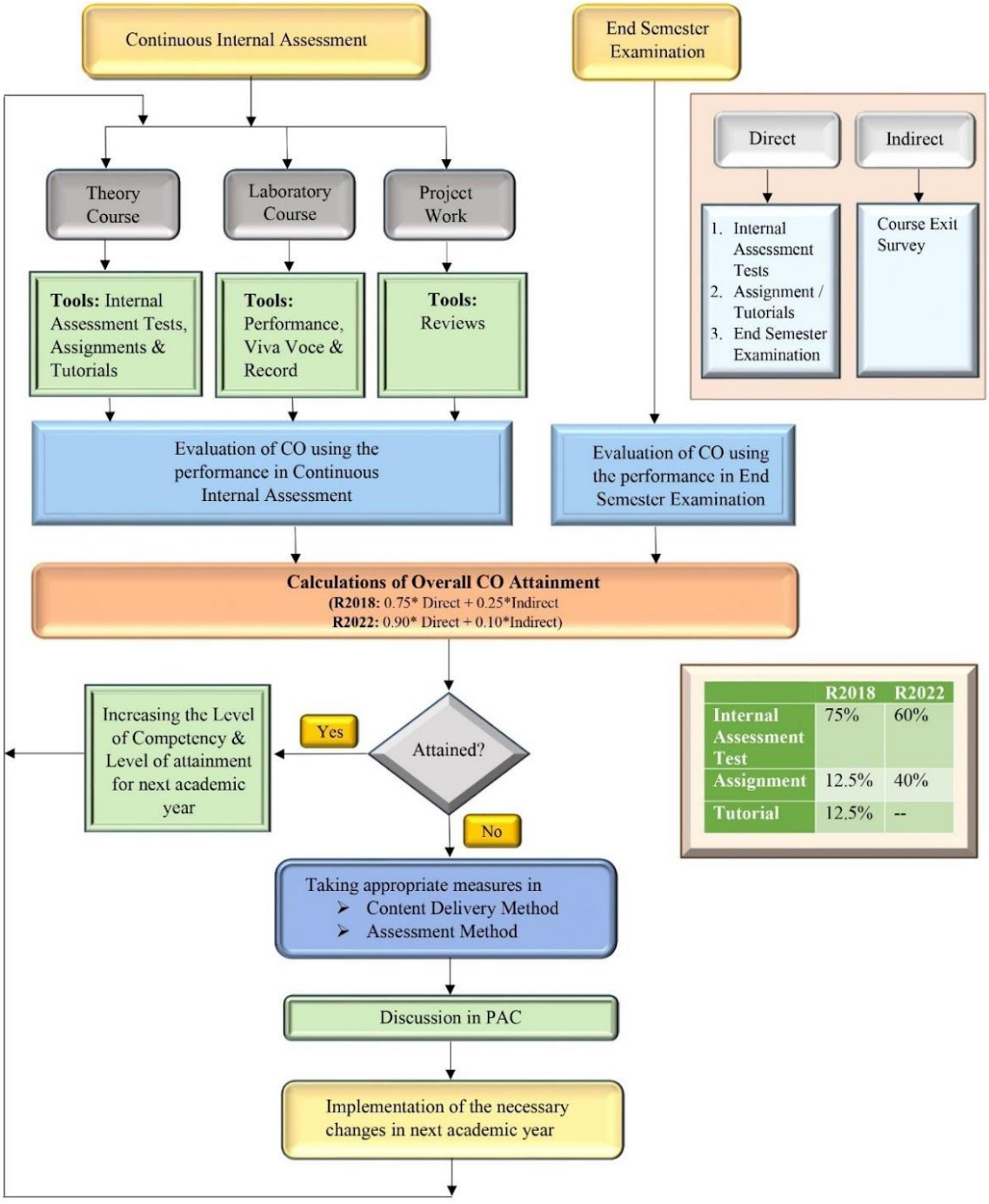



**Fig 3: Process for CO Attainment Calculation**

The student performance in continuous assessment exams is verified for each question.

CO Assessment (Direct) = Continuous internal assessment (40%) + End semester assessment (60%)

CO Assessment (Indirect) = 25% of course exit survey

**CO Attainment = 75% of Direct assessment + 25% of Indirect assessment**

In view of the threshold assumed for each course, individual course assessment in thus calculated.

**Mechanism for the attainment of PO:**

Using CO-PO mapping, the mapped POs are considered for assessment by:

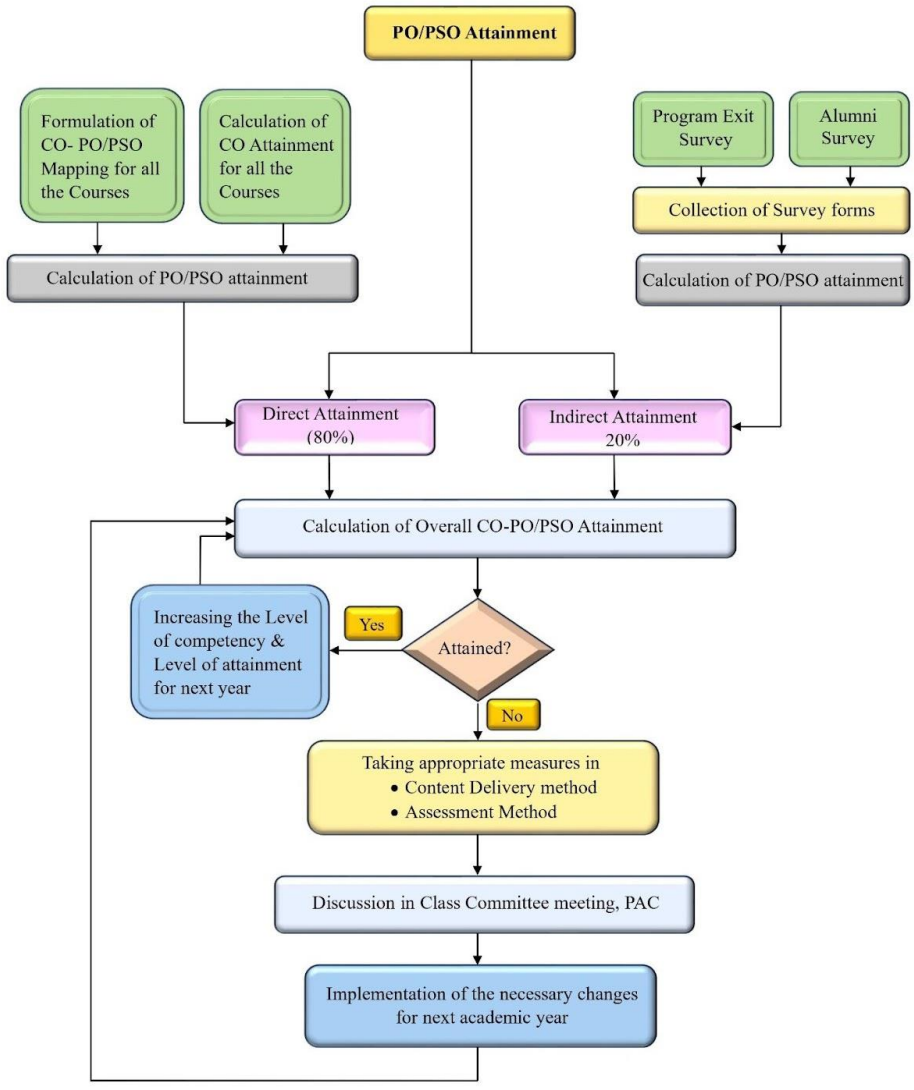



**Fig 4: Process for PO Attainment Calculation**

**PO Attainment = (Overall CO Attained * Weighted Average of PO)/Maximum CO Attainment Level**

Set the target level of attainment for PO1 say 70%, then it is concluded that PO1 has attained.

**Table 3: Course Outcome Mapping with Program Outcomes**

| COs/ POs | CO Attainment | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 | PSO1 | PSO2 | PSO3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CO1 | | | | | | | | | | | | | | | | |
| CO2 | | | | | | | | | | | | | | | | |
| CO3 | | | | | | | | | | | | | | | | |
| CO4 | | | | | | | | | | | | | | | | |
| CO5 | | | | | | | | | | | | | | | | |
| Average | | | | | | | | | | | | | | | | |

**3 – High; 2 – Medium; 1- Low**

**Table 4: COs Analytic Report**

| Academic Year | Cos | Threshold | Target (%) | | Attainment (%) | CAY - Explanation for fixing new threshold and target | Proposed action plan |
|---|---|---|---|---|---|---|---|
| 2022-2023 | CO1 | | Level 3 | | | Based on three years internal assessment and end semester examination performance, 70% marks are set as threshold marks | |
| | CO2 | | | | | | |
| | CO3 | | Level 2 | | | | |
| | CO4 | | Level 1 | | | | |
| | CO5 | | | | | | |

## *4. THE PRACTICE AND ITS UNIQUENESS*

The uniqueness of the best practice that is followed the institute is given below.

### *4.1 Practices for Curriculum Enrichment*

Curriculum enrichment practices enhance educational content, offering students a more comprehensive and engaging learning experience, fostering depth, and relevance. The following are the practices followed for Curriculum Enrichment.

- ***Induction Programmes:*** The purpose of an induction program is to facilitate the seamless integration of new students into the academic environment. It provides essential information, academic guidance, and campus familiarity,

ensuring students are well-equipped to navigate their engineering education and engage effectively in the college community. It is scheduled for first-year students right after admission and prior to the start of regular classes, lasting for a duration of 15 days.

The induction program spanned from November 14, 2022, to December 4, 2022, featuring a series of activities that included,

- 14.11.2022 – Inauguration Address by the Principal and Department introduction by HOD's.
- 15.11.2022 – Yoga Balancing Physical and Mental Power Science Behind Blessings Benefits of Yoga.
- 16.11.2022 - Dr.Gayathri – Psychologist talk.
- 17.11.2022 - Opportunities in Engineering field in industries and government departments, by Mr.Jegan, Chemical and Metallurgical Supdt. Southern Railways, Trichy.
- 18.11.2022 - Yoga Stress Management.
- 19.11.2022-20. 11.2022 Club Activities/Sports/Interaction in Hostel.
- 21.11.2022 – Yoga Activation of Dormant Brain Cells Honesty Manure of Six Temperaments.
- 22.11.2022 – Talk on "Cyber Threats & How to be safe" by Tr.V.Dinesh Sub-Inspector of Police and Tr.Senthilkumar Spl. Sub.Inspector of Police Cyber Crime Branch, Salem city.
- 23.11.2022 – Motivational Speech by S.Natarajan Former DGM, Salem Steel Plant, SAIL, Salem.
- 24.11.2022 – 4.12.2022 – Club activities/NSS/Art & Craft/NCC/Anti-drug awareness/ Cultural.


- ***MOOCs, NPTEL, Swayam and other online courses:*** Our college became an NPTEL Local Chapter in January 2019, aiming to facilitate credit transfers in

marksheets by allowing them to write MOOCs, NPTEL, other Swayam portal courses to empower students.

**Faculty Enrolment Details in NPTEL Courses**

| S.No | Academic Year | No. of Courses Registered by Faculty | No. of Faculty successfully completed courses |
|---|---|---|---|
| 1 | 2018-19 | 9 | 14 |
| 2 | 2019-20 | 29 | 41 |
| 3 | 2020-21 | 15 | 16 |
| 4 | 2021-22 | 7 | 8 |
| 5 | 2022-23 | 6 | 8 |

**Student Enrolment Details in NPTEL Courses**

| S.No | Academic Year | No. of Courses Registered by Students | No. of Students successfully completed courses |
|---|---|---|---|
| 1 | 2018-19 | 11 | 20 |
| 2 | 2019-20 | 28 | 50 |
| 3 | 2020-21 | 21 | 23 |
| 4 | 2021-22 | 16 | 54 |
| 5 | 2022-23 | 23 | 40 |

Our college has been an Active Local Chapter in NPTEL from the 2019.

- ***Naan Mudhalvan Courses:*** It is an initiative by the Tamil Nadu government, implemented by the institution starting from the second year. Students enrol in courses available on the Naan Mudhalvan Portal, designed and taught by industry experts, with internal faculty mentors. These courses carry 2 credits and students can choose based on their interests, with academic credits adjusted accordingly.


## Statistics of Naan Mudhalvan courses

### 2022 – 2023: Odd Semester

| S.No | Name of the course | Year of Offering | Semester | No.of students enrolled in the year | No.of students Completing the course in the year |
|---|---|---|---|---|---|
| 1 | Building Information Modeling | 2022-2023 | 5 | 63 | 63 |
| 2 | Design and construction of Steel buildings | 2022-2023 | 7 | 59 | 59 |
| 3 | High Rise Building Design | 2022-2023 | 7 | 60 | 60 |
| 4 | Transportation Infrastructure-Airports, Metros & Seaports | 2022-2023 | 5 | 62 | 62 |
| 5 | Machine Learning with Application to Object recognition | 2022-2023 | 5 & 7 | 16 | 16 |
| 6 | Powering IoT using Raspberry Pi or Arduino | 2022-2023 | 5 | 53 | 53 |
| 7 | Electrical vehicle | 2022-2023 | 5 & 7 | 85 | 85 |
| 8 | Electrical Vehicle Charging system | 2022-2023 | 5 & 7 | 36 | 36 |
| 9 | Smart Energy Grid | 2022-2023 | 5 & 7 | 30 | 30 |
| 10 | Robotics simulation for Manufacturing | 2022-2023 | 5 & 7 | 57 | 57 |
| 11 | Machine Learning | 2022-2023 | 5 & 7 | 207 | 207 |
| 12 | Industry 4.0 | 2022-2023 | 7 | 51 | 51 |

| | | | | | |
|---|---|---|---|---|---|
| 13 | Cyber security | 2022-2023 | 5 | 14 | 14 |
| 14 | Full stack | 2022-2023 | 5 | 12 | 12 |
| 15 | AR/VR | 2022-2023 | 5 | 18 | 18 |
| 16 | Cloud Essentials | 2022-2023 | 5 | 26 | 26 |
| 17 | Big Data Analytics | 2022-2023 | 5 | 26 | 26 |
| 18 | Cambridge (Department of English) | 2022-2023 | 1 | 433 | 433 |
| 19 | Microsoft Office Fundamentals | 2022-2023 | 3 | 456 | 456 |

**2022 – 2023: Even Semester**

| S.No | Name of the course | Year of Offering | Semester | No.of students enrolled in the year | No.of students Completing the course in the year |
|---|---|---|---|---|---|
| **1** | Robotic Process Automation | 2022-2023 | 4 | 137 | 137 |
| **2** | Block chain | 2022-2023 | 4 | 62 | 62 |
| **3** | Digital Marketing | 2022-2023 | 4 | 59 | 59 |
| **4** | Foundation for AI, ML, FS | 2022-2023 | 4 | 9 | 9 |
| **5** | Network Essentials | 2022-2023 | 4 | 74 | 74 |
| **6** | Network Engineering | 2022-2023 | 6 | 37 | 37 |
| **7** | Electric Vehicle Design | 2022-2023 | 6 | 56 | 56 |
| **8** | Professional Readiness for Innovation, Employment & Entrepreneurship | 2022-2023 | 6 | 88 | 88 |
| **9** | Smart & Advanced Manufacturing Design & Simulation | 2022-2023 | 6 | 131 | 131 |
| **10** | Sustainable Building Design | 2022-2023 | 6 | 125 | 125 |
| **11** | Product Design and Manufacturing & 3D Surface Modelling | 2022-2023 | 4 | 109 | 109 |
| **12** | Design of solar Photovoltaic system | 2022-2023 | 6 | 65 | 65 |
| **13** | Embedded System Design-Industrial Applications | 2022-2023 | 6 | 29 | 29 |

- ***Industrial visits and In-plant training:*** Industrial visits and in-plant training are educational experiences in which students are encouraged to attend. In these, students visit real-world industrial settings. These activities provide practical insights into industrial processes, operations, and working environments, complementing theoretical knowledge with hands-on learning. They enhance students' understanding, industry exposure, and readiness for future careers in their chosen fields.

- ***Subject Domain Expert Lecture:*** This activity is conducted as an integral part of our educational approach. These lectures occur are scheduled to ensure that our engineering students receive consistent exposure to domain experts, fostering a continuous and comprehensive learning experience.

- ***Foreign Technical Training:*** To enhances students' global perspectives through international exposure and to promote cross-cultural learning, set of 8 students in each academic year (2018-19 & 2019-20) where send to various foreign universities for a period of 15 days, as directed by Directorate of Technical Education, Tamil Nadu.

- ***Faculty & Students – Participation in Seminar / Workshop / FDP related to Subject domain, Pedagogy & emerging research issues:*** Students' and faculties are encouraged to attend these programs, for their professional development and updates subject knowledge. faculties are encouraged to attend these programs, for their professional development

- ***Field visits / site visits*** have been arranged in a few programmes or through clubs as a part of curriculum. The Standards Club was established and a series of awareness programmes, events and competitions were conducted for students. As a part of which, Industrial Exposure Visit (Field Visit) at JSW Steels Limited arranged by Bureau of Indian Standards on 10.06.2022 (Friday).




- ***B.E Minor Degree in other specialization (Regulation 2022):*** The Bachelor of Engineering (B.E.) Minor program offers students the opportunity to specialize in a secondary area of interest, complementing their major. This multidisciplinary approach broadens expertise, enhances employability, and allows students to explore diverse fields, enriching their educational experience.

- ***B.E Honors (Regulation 2022):*** The Bachelor of Engineering (B.E.) Major program provides students with a comprehensive and in-depth understanding of a specific engineering field. It equips students with the essential technical knowledge, practical skills, and problem-solving abilities needed for professional success in industries and advanced research in their chosen engineering discipline.

  Each department offers a range of course verticals, encompassing at least three distinct specializations. Students are given the flexibility to select one specialization as their primary area of focus within their major degree program.

### *4.2 Practices for Employability & Industry based Skill Enrichment*

- ***Internship Programmes:*** Internships provide engineering students with vital real-world experience, enhancing practical skills and industry knowledge, crucial for career readiness and professional network development. A minimum of 25 days of internship is mandatory for the completion of the degree. The Directorate

of Technical Education is committed to financially aiding deserving students, with about 50% from each department of Government Colleges receiving support. Faculty members from each department will determine a list of industries for internships. Students deemed deserving, based on the Directorate of Technical Education's criteria, will be chosen for these opportunities. These internships will take place in the selected industries at the conclusion of the sixth semester.

- ***Projects:*** Naalaiya Tiran- Experimental Project Based Learning Initiative – A joint initiative of Anna University, ICT Academy of Tamil Nadu, NASSCOM and IBM and supported by the Tamil Nadu Skill Development Corporation under the Naan Mudalvan Scheme of the Govt. of Tamil Nadu. This program fucus on Inculcating experiential project-based learning, assessment and evaluation through an EEC category elective course- Professional Readiness for Innovation, Employability and Entrepreneurship with 3 credit in the academic curriculum in R 2018 (VII semester).

  Students are engaged for 90 hours on technical and professional training and implementation of real-world projects. Both Electronics and Communication Engineering Department and Computer Science and Engineering Department have participated in this program. (All the students who completed VI semester participated) and it took place from 22nd August 2022 to 8th November 2022.

  Regular academic project involves mini project in the third year and a major project in the final year. Both projects are properly guides by the faculty and student evaluation rubrics is carefully created, to award marks based on Technical Skill, Presentation Skill, Communication Skill and Team Work etc.

- ***Coaching for various Competitive Exams and Foreign Language training:*** Proper training providers are identified to provide training for various exams like, GATE, CAT, GMAT, TOFEL, GRE, and IELTS. In addition, foreign languages training like German, French and Japanese etc are given to the students to grab opportunities globally.

- ***ICTACT-Employability Skill Training:*** Women Empowerment Program on the title of "Java Programming with Soft Skills" organised by "ICT Academy in association with DXT Technology" for the duration 12th March 2021 to 18th August 2021 (Total 200 Hours:100 Hours online and 100 hours self-learning), benefiting 76 female students.


- ***Pre-Placement training to all students:*** Place training involves both Soft Skill training and Employability Skill Training.

  Various programs have been organised from the first year onwards, focusing on the employability and soft skill development of students. The program scales from basic life style to elaboration, Psychology, Success, Personality development, industry readiness, Life skills and various technical talks and workshops.

| S.No | Academic Year | No. of Programs Conducted |
|---|---|---|
| 1. | 2018-19 | 6 |
| 2. | 2019-20 | 11 |
| 3. | 2020-21 | 23 |
| 4. | 2021-22 | 3 |
| 5. | 2022-23 | 5 |

### *4.3 Student Centric Learning Infrastructures:*

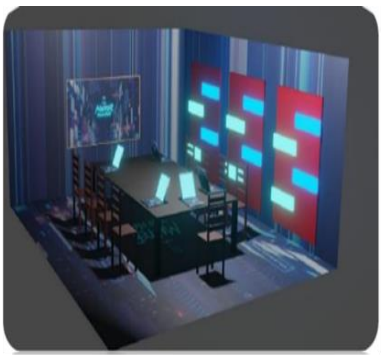
- ***Innovate TN lab – Protosem courses:*** it is a Tamil Nadu government initiative, for enhanced experiential and industrial learning. Courses under the Innovate TN Lab, aligned with the 2022 regulations of GCE, Salem, include, Ideation Sprints, Design Sprints, Engineering Sprints and Innovation Sprints. Government approval led to a Fab-Lab introduction, amending the 2018

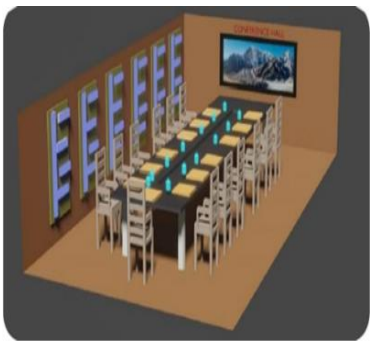
curriculum for second and third-year students. PROTSEM Courses, organized with FORGE, Coimbatore, are now available for all departments in sixth semester (45 student were selected based on their performance in four courses given above). The Innovate TN Lab, a Fab-makerspace lab, trains students with personalized experiences, technical mentoring, and exposure to various cutting-edge technologies. An investment of Rs. 5.4 crores facilitated the establishment of the Innovate TN Lab at GCE, Salem.

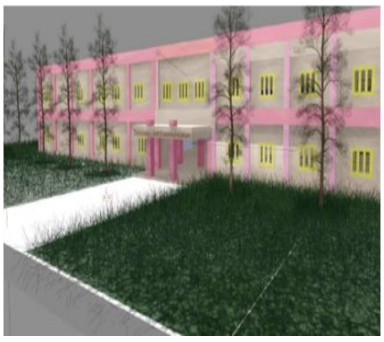
College of Engineering in Salem. This air-conditioned facility is equipped with high-end personal computers that have access to both Wi-Fi and Ethernet services. The lab houses hardware components valued at Rs. 23,60,000 and software materials worth Rs. 23,69,052.

A one-week Faculty Development Program focusing on practical training in AR/VR technologies was organized for the faculty members of the college. This program, titled "Hands-on Training of AR/VR Gadgets," was held from September 5 to September 30, 2022, in four separate sessions. It was conducted by Dr. R. Golda Brunet and Prof. M. Priadarsini, both from the Computer Science and Engineering department. The initiative was supported by Dr. R. Malayalamurthi, the Principal, Dr. D. Shoba Rajkumar, Head of the Department for Civil Engineering and in-charge of the AR/VR lab, and Dr. A. M. Kalpana, Head of the Department for Computer Science and Engineering.

Third year students from the Department of Electronics and Communication Engineering have created virtual tour – 3D model of the entire department which can be traversed in Virtual Reality. Similarly, students of Computer Science and Engineering Department, has created a 3D model of a conference hall.







***Institution Innovation Council:*** The Institution Innovation Council (IIC) has been established under the leadership of the Principal of Government College of Engineering, Salem, who will also serve as a President/Permanent member of the Council.

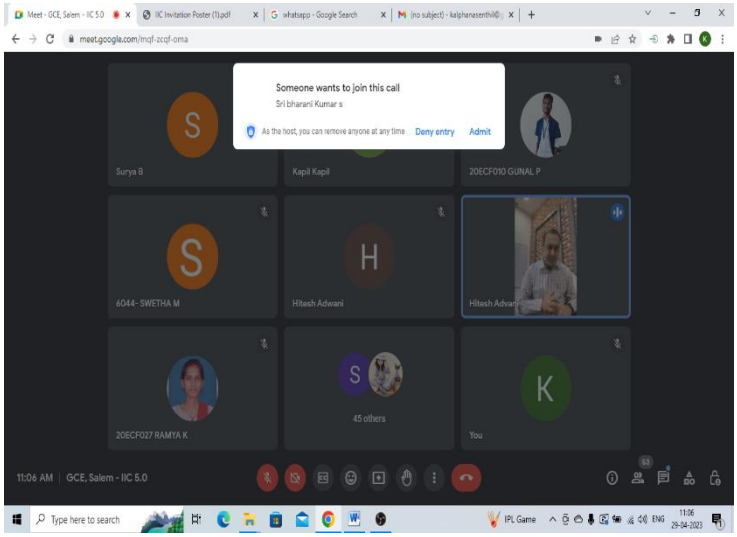
**Functions of the Institution Innovation Councils (IICs) include:**

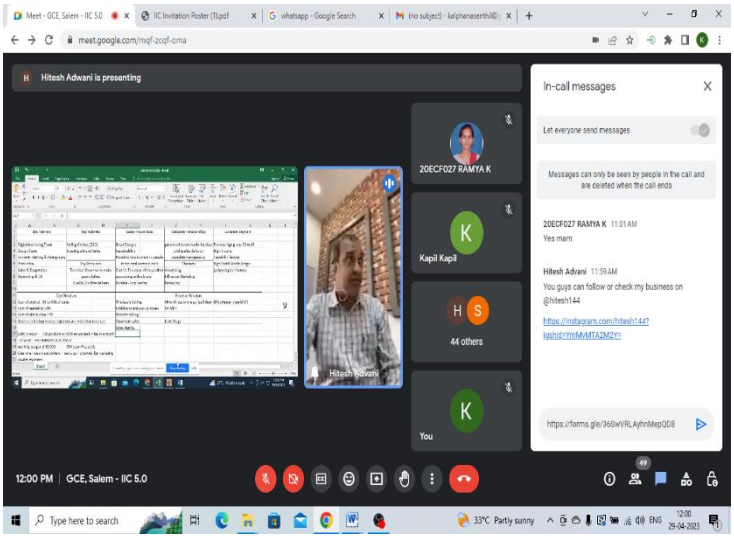
- Conducting a range of innovation and entrepreneurship activities as outlined by the Central Ministry of Innovation Council (MIC) within specified timeframes.
- Identifying and acknowledging innovative projects and disseminating their success stories.
- Organizing regular workshops, seminars, and interactions with entrepreneurs, investors, and professionals to foster a network of mentors for student innovators.
- Managing the IIC's social media presence and connections, including the IIC of Government College of Engineering, Salem's Instagram account, 'IICGCES'. This platform is used to share updates about events organized by the IIC. The Instagram link is https://www.instagram.com/iicgces/

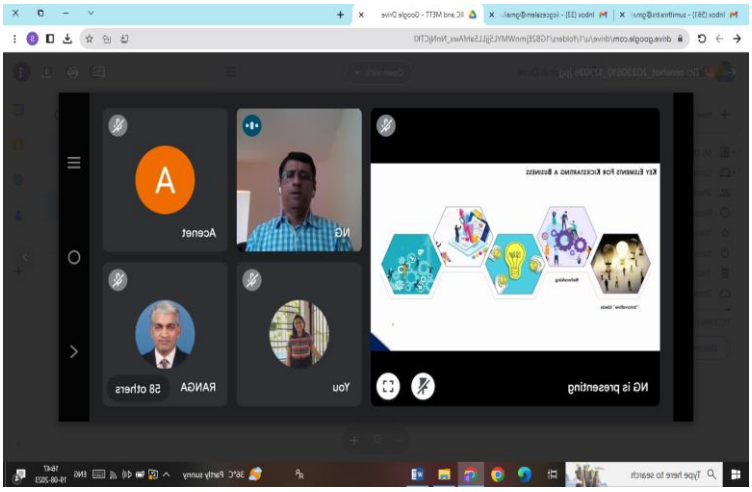
**List of events conducted by Institution Innovation Councils (IICs)**

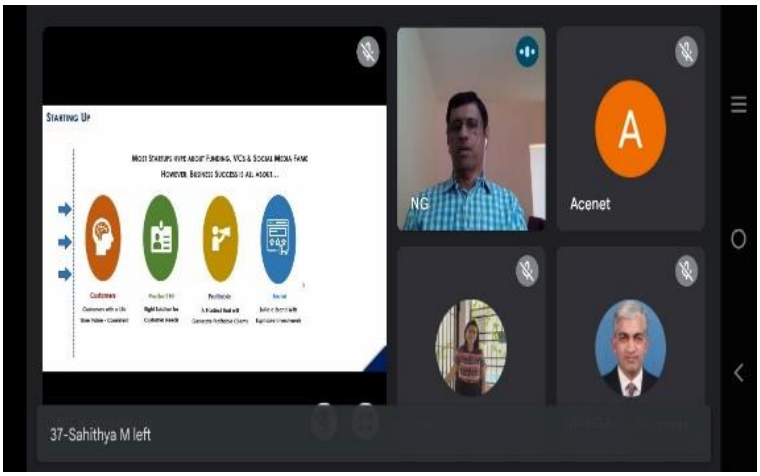
| S.No | Name of the Resource Person | Programme title | Duration | No. of Participants | Venue |
|---|---|---|---|---|---|
| **1.** | Mr.J.Arumai Ruban | Workshop on Entrepreneurship and Innovation as career opportunity | 21.4.2023 | 60 | https://meet.google.com/pcn-nosa-afo |
| **2.** | Hitesh Advani Founder of TOSS | Business Model Canvas | 29.4.2023 | 60 | https://meet.google.com/mqf-zcqf-oma |

| | | | | | |
|---|---|---|---|---|---|
| **3.** | N.G.Venkat Entrepreneur Career Spinning Wealth management & Investment | How to plan for STARTUP and legal & Ethical Steps | 10.5.2023 | 63 | https://meet.google.com/pcn-nosa-afo |








### *4.4 Curriculum Flexibility*

Curriculum flexibility offers students the ability to adapt and customize educational programs to meet individual needs, offering diverse options and choices for students' learning paths.

- ***Choice Based Credit System (CBCS):*** CBCS offers students flexibility to choose courses based on interest, aligning education with individual preferences and career goals.

- ***Fast Track Courses:*** Fast track programs allow students to accelerate their learning, completing courses or degrees in less time, promoting efficiency. Students with no standing arrears and CGPA of 7.5 and above can opt Fast track program in their 5th semester. This allows students to take up industry internship totally in 8th semester.

- ***Add/Drop Courses:*** This flexibility enables students to adjust their schedules by adding or dropping courses, adapting to changing needs or interests. At

present curriculum gives flexibility to gain six credits through MOOC courses and to drop 2 program (or) open elective courses.

- ***Value Added Courses:*** Value-added courses enhance students' skills and employability, supplementing their core curriculum with practical knowledge and competencies. Currently included courses are "Universal Human Values" and "Indian Constitution".

- ***Naan Mudhalvan Courses:*** It is a Tamil Nadu government initiative, adapted by the institution from II year, in which students take up courses in Naan Mudhalvan Portal. The course in the portal is designed and delivered by Industrial Experts and mentored by Internal faculties assigned for each course. Each course has 2 credits, and students have choice to select courses based on their field of interest. Academic credits are adjusted according to the credits earned through Naan Mudhalvan courses.

- ***Self-Study Courses:*** Self-study options empower students to take control of their learning, promoting independent research and skill development.

- ***More Number of Electives:*** Offering a variety of electives allows students to tailor their education to specific areas of interest, diversifying their knowledge.

- ***Break of Study:*** A break in study provides students with the flexibility to pause their education temporarily, accommodating life circumstances while maintaining academic progress.

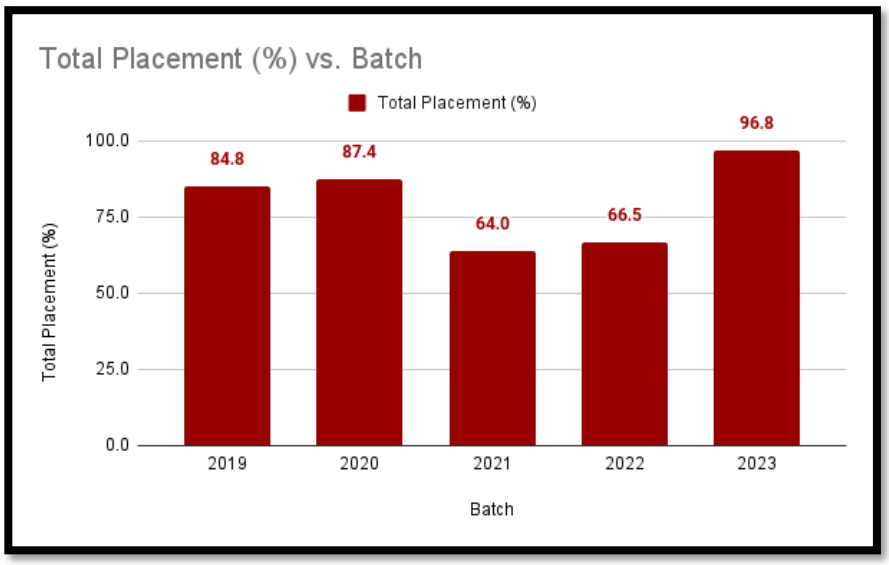
## *5. EVIDENCE OF SUCCESS*

### *5.1 Placement Improvement*

**Placement Statistics**

[5 years Statistics, AY 2018-19, 2019-20, 2020-21, 2021-22, 2022-23]

| S.No | Batch | No. of Students Placed | No. Of Students Attending Placements | Total Placement (%) |
|---|---|---|---|---|
| 1 | 2019 | 290 | 246 | **84.8** |
| 2 | 2020 | 302 | 264 | **87.4** |
| 3 | 2021 | 253 | 162 | **64.0** |
| 4 | 2022 | 358 | 238 | **66.5** |
| 5 | 2023 | 316 | 306 | **96.8** |



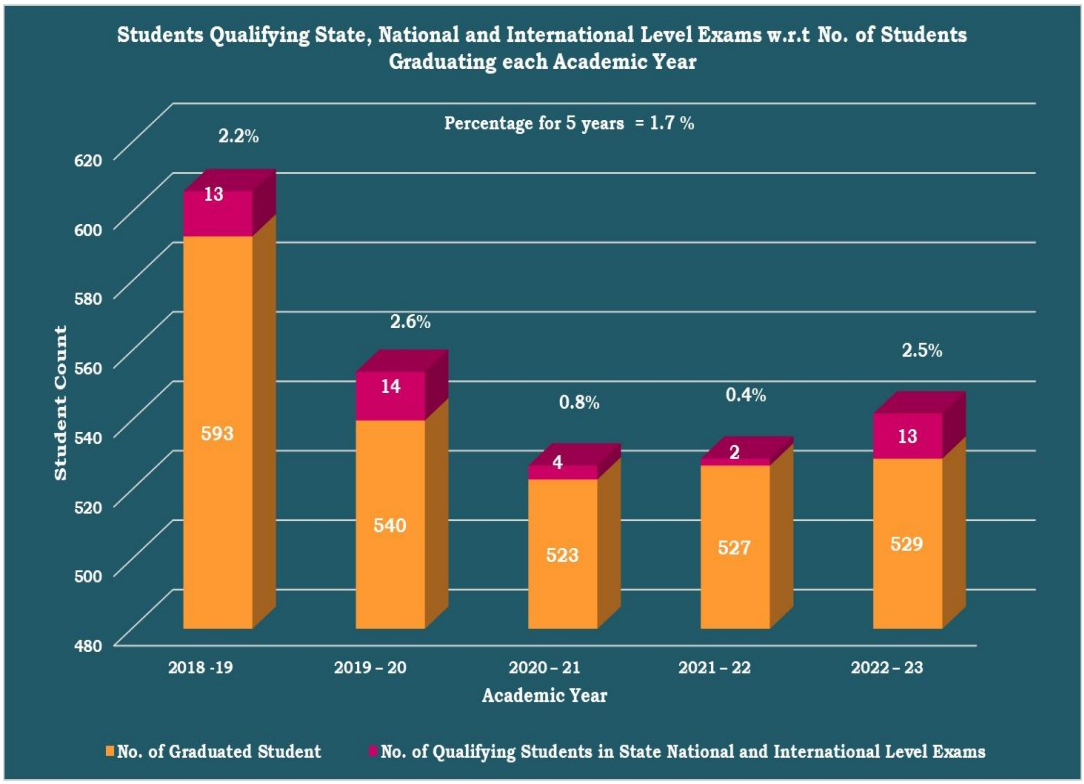

As the success of proper implementation of OBE, there has been continuous improvement in placement, from the academic year 2018-19 to 2022-23. The dip in the progress was found in the academic years 2020-2021 & 2021-22 since most of the academic classes were hosted online. The placement has drastically improved with proper guidance and coaching in the academic year 2022-2023.

### *5.2 Succeeding in Higher Studies/Competitive Exam*

Apart from placement, student consistently take part in competitive exams and opt for higher studies to become masters in their domain. Many students cleared various state and central level exam and posted in renowned positions in various government organizations. The details of the statistics are given below.

**Details of Students cleared Government Exams – for Job or Higher Studies**

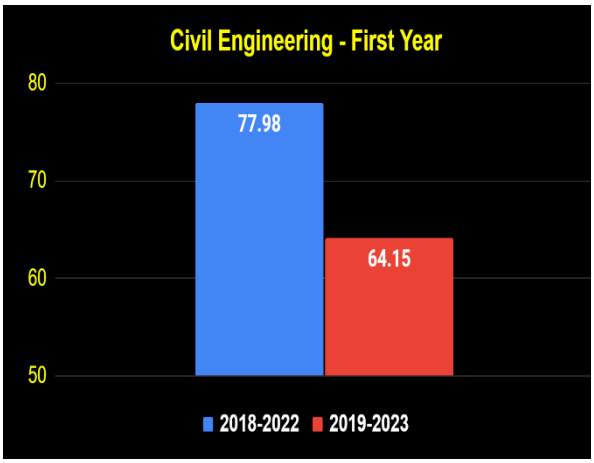
| S.No | Academic Year | No. of Students Cleared Government Exams |
|---|---|---|
| 1 | 2018-19 | 13 |
| 2 | 2019-20 | 14 |
| 3 | 2020-21 | 4 |
| 4 | 2021-22 | 2 |
| 5 | 2022-23 | 13 |

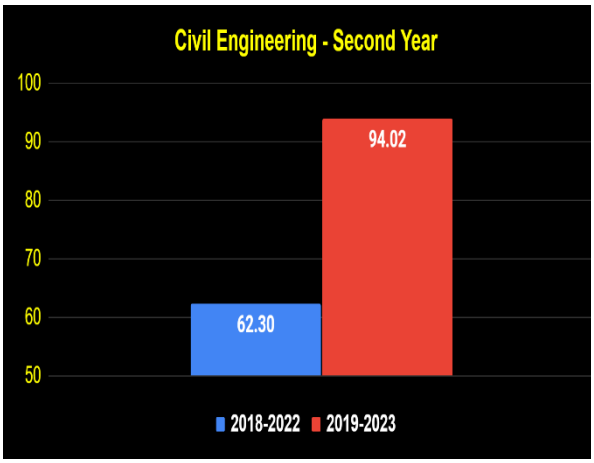


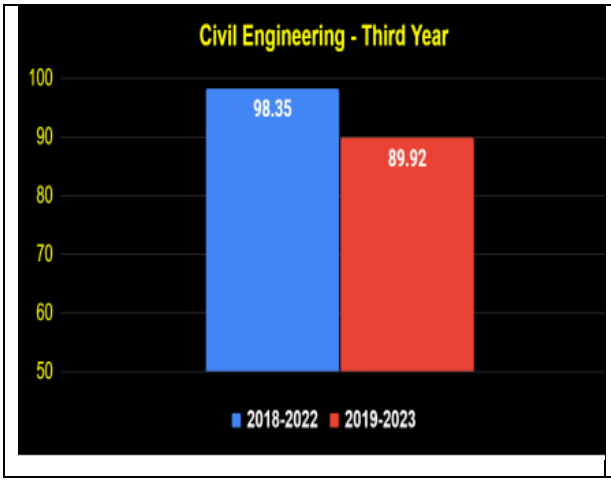

**One student has cleared IELTS Exam in the academic year 2023.**

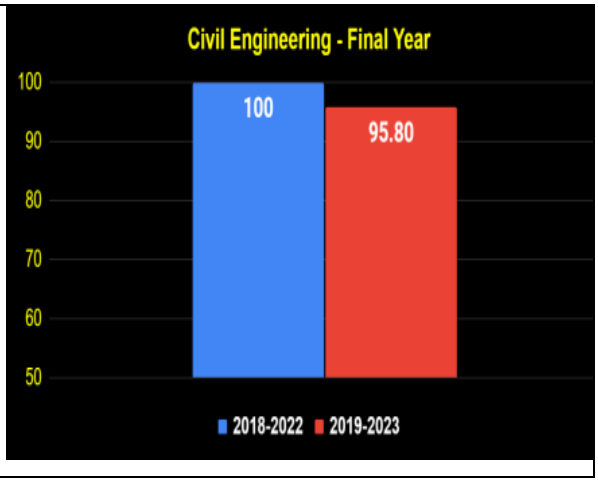
## *5.3 Academic performance comparison based on pass percentage :2018-2022 and 2019-2023 batches*

### Civil Engineering

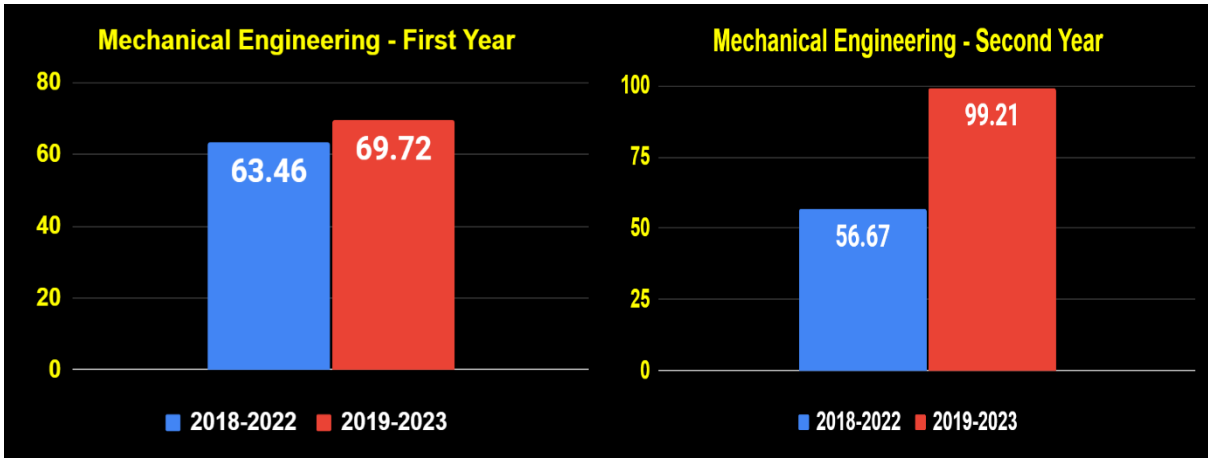




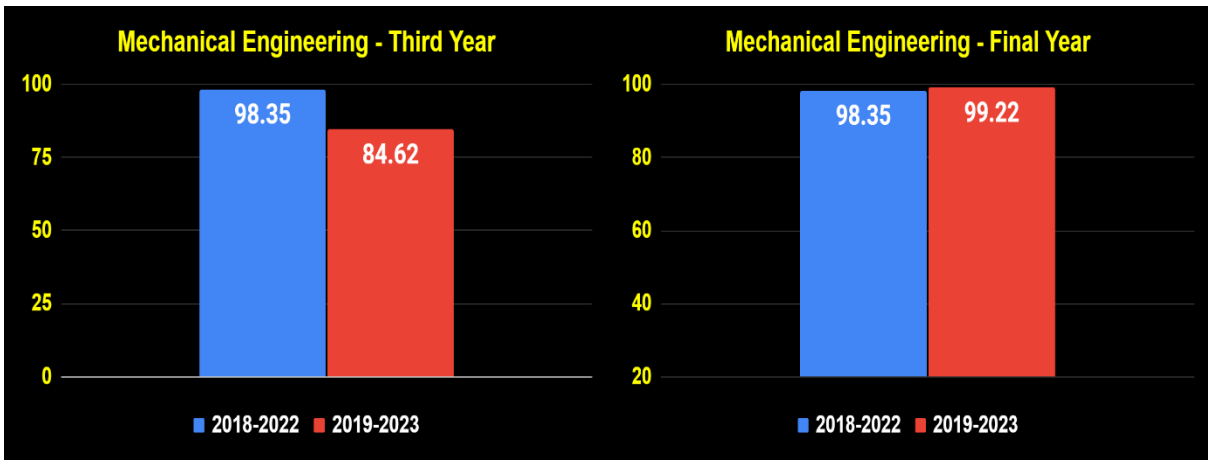




## Mechanical Engineering

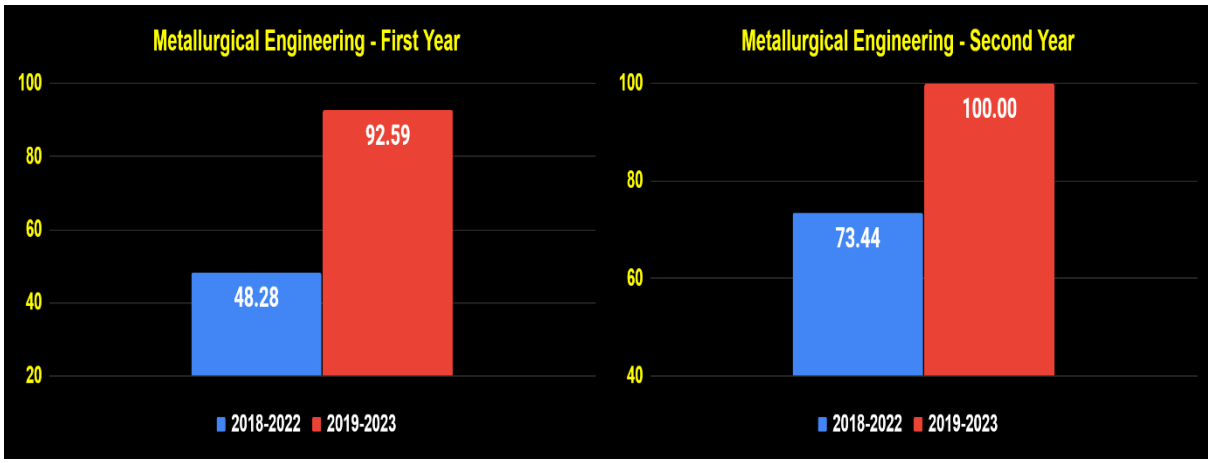


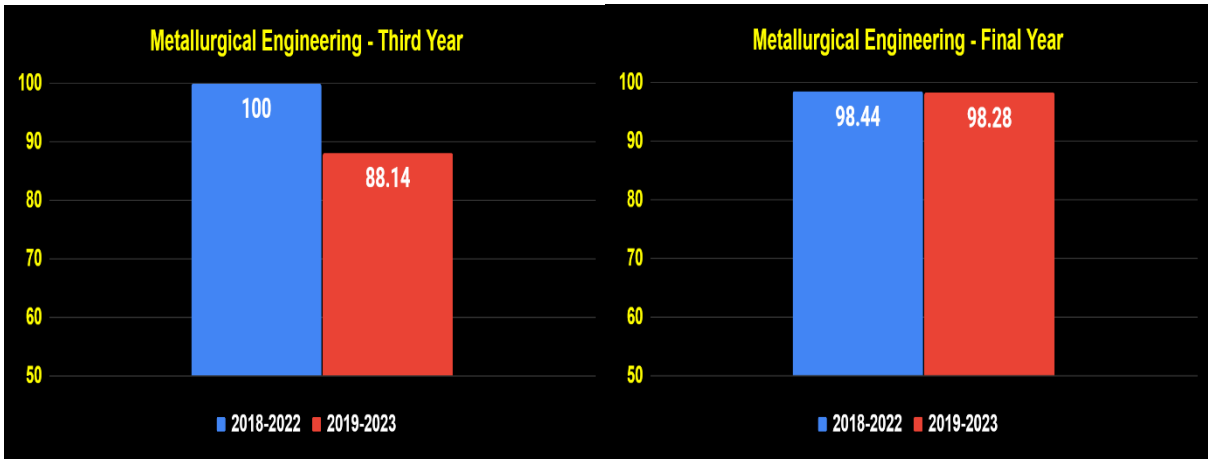




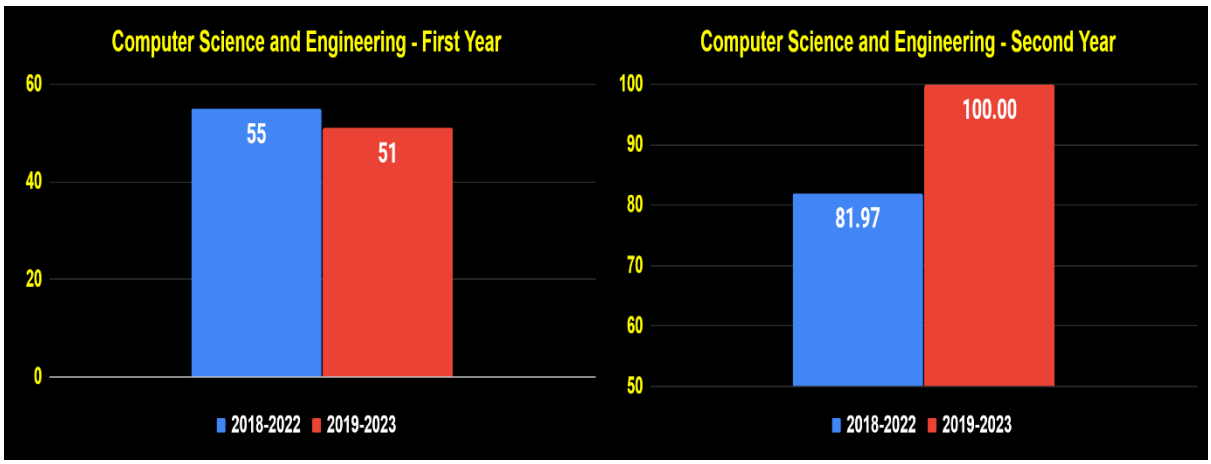


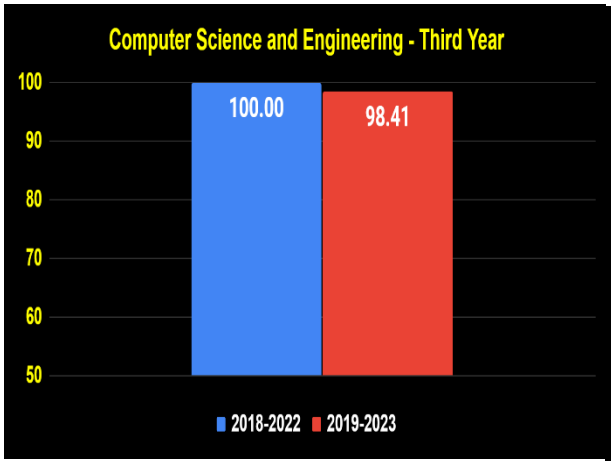
## Metallurgical Engineering

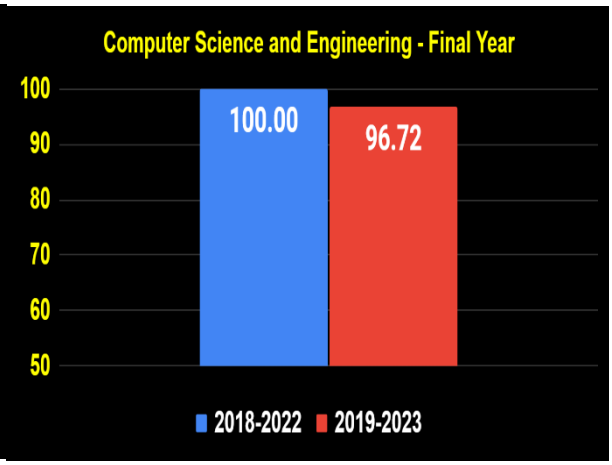


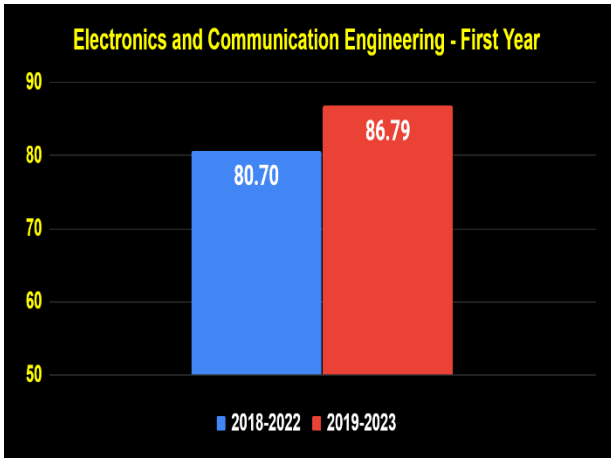

## Computer Science and Engineering

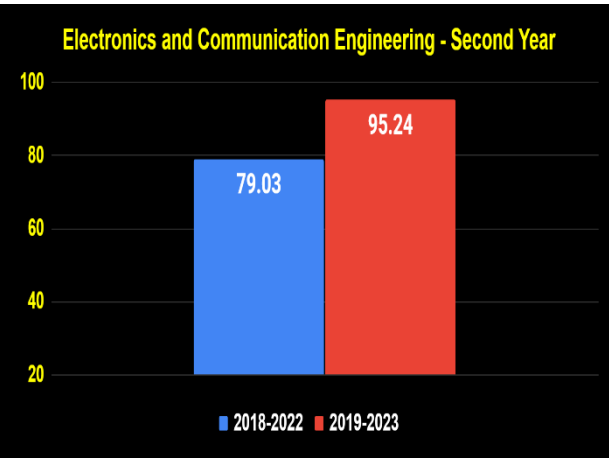


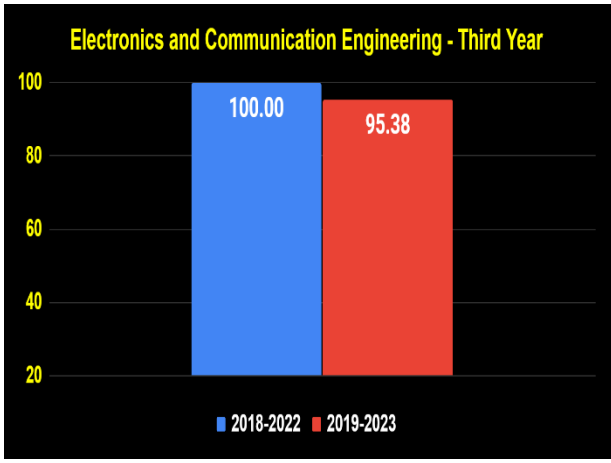


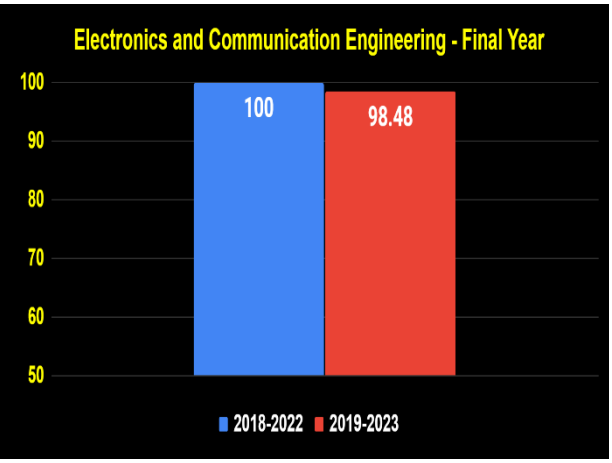




## Electronics and Communication and Engineering

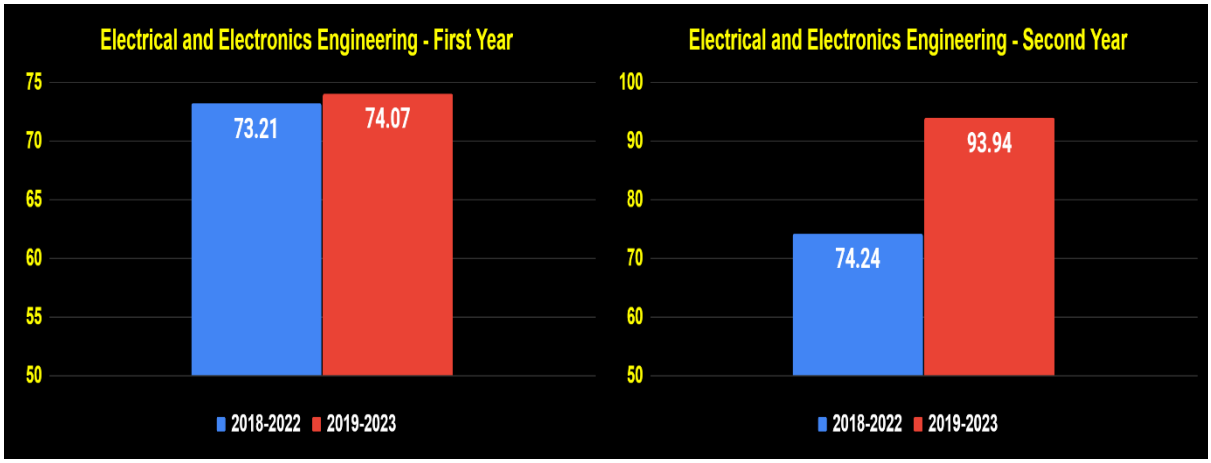


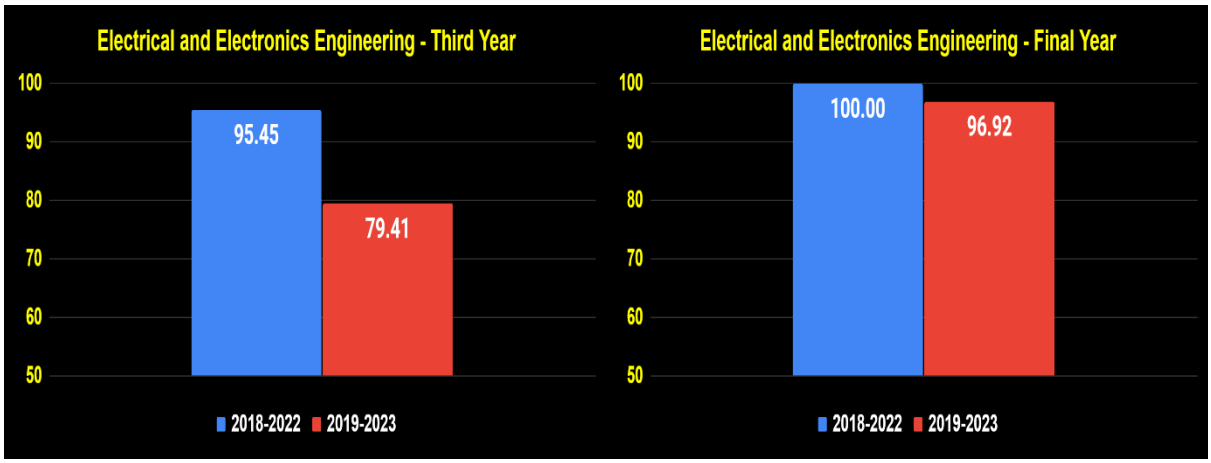



# Electrical and Electronics Engineering



# 6.Sample of PO and PSO attainment of a programme (Department of Electronics and Communication Engineering)

## Department of Electronics and Communication Engineering

## Attainment rating of CO

| Batch : 2018-2022 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Semester | Course Code | Course Outcomes (CO) | | | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Direct Attainment | | | | | | | | | | | |
| 1 | 18EN101 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - |
| 1 | 18MA101 | 2.0 | 2.0 | 2.0 | - | - | - | - | - | - | - |
| 1 | 18CY101 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - |
| 1 | 18CS101 | 2.2 | 2.0 | 1.4 | 2.2 | 1.7 | - | - | - | - | - |
| 1 | 18EN102 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.6 | 3.0 | 2.7 | 2.8 |
| 1 | 18CS102 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - | - |
| 1 | 18ME102 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - |
| 2 | 18MA203 | 2.0 | 2.0 | 2.0 | - | - | - | - | - | - | - |
| 2 | 18PH102 | 3.0 | 3.0 | 3.0 | 2.0 | 3.0 | - | - | - | - | - |
| 2 | 18ME101 | 3.0 | 2.2 | 2.5 | 2.0 | 2.0 | - | - | - | - | - |
| 2 | 18EE201 | 2.8 | 2.8 | 2.8 | 2.9 | 2.8 | 2.8 | - | - | - | - |
| 2 | 18PH103 | 3.0 | 3.0 | - | - | - | - | - | - | - | - |
| 2 | 18CY102 | 3.0 | 3.0 | 3.0 | - | - | - | - | - | - | - |
| 2 | 18EN103 | 1.0 | 3.0 | 3.0 | 1.0 | 1.0 | - | - | - | - | - |
| 2 | 18EE202 | 2.6 | 2.5 | 2.5 | 2.4 | - | - | - | - | - | - |
| 3 | 18MA303 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - |
| 3 | 18EC301 | 1.5 | 1.5 | 1.5 | 1.5 | - | - | - | - | - | - |
| 3 | 18EC302 | 2.4 | 2.3 | 2.5 | 2.4 | - | - | - | - | - | - |
| 3 | 18EC303 | 2.6 | 2.6 | 2.2 | 1.6 | - | - | - | - | - | - |
| 3 | 18EC304 | 1.9 | 1.9 | 1.3 | 1.9 | - | - | - | - | - | - |
| 3 | 18EC305 | 1.8 | 1.9 | 1.7 | 1.9 | - | - | - | - | - | - |
| 3 | 18EC306 | 2.7 | 2.7 | 2.5 | 2.2 | - | - | - | - | - | - |
| 3 | 18EC307 | 2.5 | 2.6 | 2.4 | 2.8 | - | - | - | - | - | - |
| 4 | 18MA402 | 3.0 | 3.0 | 3.0 | - | - | - | - | - | - | - |
| 4 | 18EC401 | 1.7 | 1.7 | 1.6 | 1.7 | - | - | - | - | - | - |
| 4 | 18EC402 | 1.9 | 2.0 | 1.8 | 2.0 | - | - | - | - | - | - |
| 4 | 18EC403 | 2.4 | 3.0 | 2.7 | 2.4 | - | - | - | - | - | - |
| 4 | 18EC404 | 2.3 | 2.4 | 2.3 | 2.7 | - | - | - | - | - | - |
| 4 | 18EC405 | 3.0 | 2.6 | 2.2 | 2.6 | - | - | - | - | - | - |
| 4 | 18EC406 | 2.8 | 2.7 | 2.7 | 2.4 | - | - | - | - | - | - |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 18EC407 | 2.6 | 2.7 | 2.7 | 2.8 | - | - | - | - | - | - |
| 5 | 18EC501 | 3.0 | 3.0 | 3.0 | 1.0 | - | - | - | - | - | - |
| 5 | 18EC502 | 2.8 | 2.8 | 2.9 | 2.4 | - | - | - | - | - | - |
| 5 | 18EC503 | 2.1 | 2.3 | 1.4 | 2.0 | - | - | - | - | - | - |
| 5 | 18EC504 | 2.9 | 2.9 | 2.5 | 2.1 | - | - | - | - | - | - |
| 5 | 18CSOE01 | 3.0 | 3.0 | 2.5 | 3.0 | 2.5 | | | | | |
| 5 | 18ECPE802 | 2.1 | 2.0 | 2.0 | 2.0 | | - | - | - | - | - |
| 5 | 18EC505 | 2.9 | 2.9 | 2.9 | 2.9 | - | - | - | - | - | - |
| 5 | 18EC506 | 2.8 | 2.8 | 2.7 | 2.9 | - | - | - | - | - | - |
| 6 | 18EC601 | 1.8 | 1.7 | 1.0 | 1.8 | - | - | - | - | - | - |
| 6 | 18EC602 | 1.8 | 2.5 | 1.9 | 1.8 | - | - | - | - | - | - |
| 6 | 18ECPE604 | 1.8 | 2.1 | 2.1 | 1.2 | - | - | - | - | - | - |
| 6 | 18CSOE05 | 2.7 | 2.7 | 3.0 | - | - | - | - | - | - | - |
| 6 | 18CS0E01 | 2.5 | 2.8 | 3.0 | 2.0 | - | - | - | - | - | - |
| 6 | 18ECPE806 | 2.1 | 2.4 | 3.0 | 2.4 | - | - | - | - | - | - |
| 6 | 18ECPE802 | 2.7 | 2.7 | 3.0 | 2.4 | - | - | - | - | - | - |
| 6 | 18EC603 | 3.0 | 3.0 | 3.0 | 1.0 | - | - | - | - | - | - |
| 6 | 18EN501 | 3.0 | 2.8 | 3.0 | 2.8 | 3.0 | 3.0 | 2.8 | 3.0 | - | - |
| 6 | 18EC605 | 3.0 | 3.0 | 2.0 | 3.0 | 3.0 | - | - | - | - | - |
| 7 | 18EC701 | 1.6 | 1.8 | 1.9 | 1.5 | - | - | - | - | - | - |
| 7 | 18EM701 | 2.0 | 2.0 | 2.0 | 2.0 | - | - | - | - | - | - |
| 7 | 18ECPE703 | 2.5 | 2.5 | 3.0 | 3.0 | - | - | - | - | - | - |
| 7 | 18ECPE705 | 2.2 | 2.5 | 1.9 | 2.7 | - | - | - | - | - | - |
| 7 | 18CSOE07 | 2.5 | 2.7 | 3.0 | - | - | - | - | - | - | - |
| 7 | 18ECPE810 | 1.9 | 1.9 | 2.0 | 2.0 | - | - | - | - | - | - |
| 7 | 18EC702 | 2.7 | 2.8 | 2.9 | 2.8 | - | - | - | - | - | - |
| 7 | 18EC703 | 2.7 | 2.5 | 2.5 | 2.5 | - | - | - | - | - | - |
| 8 | 18ECPE802 | 1.9 | 1.9 | 1.8 | 1.9 | - | - | - | - | - | - |
| 8 | 18ECPE806 | 1.9 | 1.9 | 2.8 | 1.9 | - | - | - | - | - | - |
| 8 | 18ECPE810 | 1.9 | 1.9 | 1.8 | 1.9 | - | - | - | - | - | - |
| 8 | 18EC801 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - |

## Department of Electronics and Communication Engineering

## Attainment rating of CO

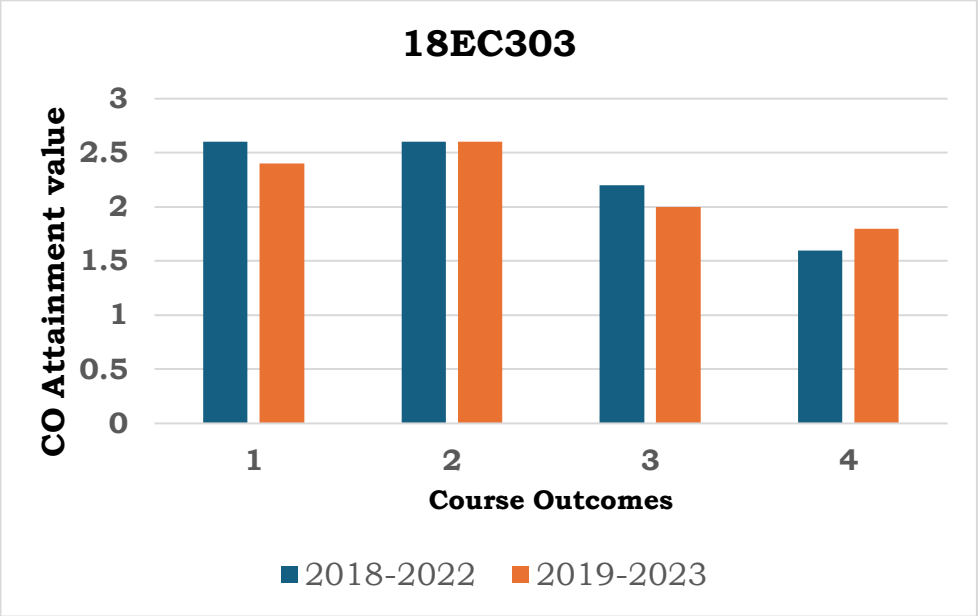
| Batch : 2019-2023 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Semester | Course Code | Course Outcomes (CO) | | | | | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| Direct Attainment | | | | | | | | | | | |
| 1 | 18EN101 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - |
| 1 | 18MA101 | 2.0 | 1.0 | 1.0 | - | - | - | - | - | - | - |
| 1 | 18CY101 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - |
| 1 | 18CS101 | 2.0 | 2.1 | 2.0 | 2.0 | 1.7 | - | - | - | - | - |
| 1 | 18EN102 | 2.8 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.8 | 2.8 |
| 1 | 18CS102 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - | - |
| 1 | 18ME102 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - |
| 2 | 18MA203 | 2.0 | 3.0 | 2.0 | - | - | - | - | - | - | - |
| 2 | 18PH102 | 2.0 | 3.0 | 2.0 | 2.0 | 2.0 | - | - | - | - | - |
| 2 | 18ME101 | 3.0 | 2.8 | 2.2 | 2.2 | 2.1 | - | - | - | - | - |
| 2 | 18EE201 | 2.4 | 2.5 | 2.4 | 2.5 | 2.4 | 2.6 | - | - | - | - |
| 2 | 18PH103 | 3.0 | 3.0 | - | - | - | - | - | - | - | - |
| 2 | 18CY102 | 3.0 | 3.0 | 3.0 | - | - | - | - | - | - | - |
| 2 | 18EN103 | 3.0 | 1.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - |
| 2 | 18EE202 | 2.7 | 2.6 | 2.7 | 2.6 | - | - | - | - | - | - |
| 3 | 18MA303 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - |
| 3 | 18EC301 | 2.1 | 2.1 | 2.1 | 2.0 | - | - | - | - | - | - |
| 3 | 18EC302 | 2.5 | 2.2 | 2.4 | 2.2 | - | - | - | - | - | - |
| 3 | 18EC303 | 2.4 | 2.6 | 2.0 | 1.8 | - | - | - | - | - | - |
| 3 | 18EC304 | 2.6 | 1.8 | 2.2 | 2.1 | - | - | - | - | - | - |
| 3 | 18EC305 | 1.7 | 1.7 | 1.7 | 1.2 | - | - | - | - | - | - |
| 3 | 18EC306 | 2.7 | 2.5 | 2.4 | 2.2 | - | - | - | - | - | - |
| 3 | 18EC307 | 2.7 | 2.6 | 2.4 | 2.5 | - | - | - | - | - | - |
| 4 | 18MA402 | 3.0 | 3.0 | 3.0 | - | - | - | - | - | - | - |
| 4 | 18EC401 | 2.0 | 2.9 | 2.7 | 2.0 | - | - | - | - | - | - |
| 4 | 18EC402 | 2.0 | 2.5 | 2.2 | 2.3 | - | - | - | - | - | - |
| 4 | 18EC403 | 2.7 | 3.0 | 2.4 | 3.0 | - | - | - | - | - | - |
| 4 | 18EC404 | 1.7 | 1.6 | 1.6 | 1.0 | - | - | - | - | - | - |
| 4 | 18EC405 | 3.0 | 2.8 | 2.6 | 2.4 | - | - | - | - | - | - |
| 4 | 18EC406 | 2.8 | 2.6 | 2.6 | 2.5 | - | - | - | - | - | - |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 18EC407 | 2.7 | 2.8 | 2.8 | 2.6 | - | - | - | - | - | - |
| 5 | 18EC501 | 2.5 | 2.2 | 2.5 | 1.4 | - | - | - | - | - | - |
| 5 | 18EC502 | 2.7 | 3.0 | 2.8 | 2.8 | - | - | - | - | - | - |
| 5 | 18EC503 | 2.5 | 2.2 | 1.4 | 1.4 | - | - | - | - | - | - |
| 5 | 18EC504 | 2.1 | 2.1 | 2.1 | 2.0 | - | - | - | - | - | - |
| 5 | 18CSOE01 | 2.5 | 2.8 | 3.0 | 2.0 | - | - | - | - | - | - |
| 5 | 18CSOE02 | 3.0 | 3.0 | 2.5 | 3.0 | - | - | - | - | - | - |
| 5 | 18EC505 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - | - |
| 5 | 18EC506 | 2.6 | 2.8 | 2.6 | 2.7 | - | - | - | - | - | - |
| 6 | 18EC601 | 1.8 | 1.8 | 1.1 | 1.8 | - | - | - | - | - | - |
| 6 | 18EC602 | 2.2 | 2.0 | 1.9 | 2.2 | - | - | - | - | - | - |
| 6 | 18ECPE601 | 1.2 | 1.0 | 1.8 | 1.2 | - | - | - | - | - | - |
| 6 | 18ECPE604 | 1.8 | 2.1 | 2.1 | 1.2 | - | - | - | - | - | - |
| 6 | 18CSOE05 | 2.7 | 2.7 | 3.0 | - | - | - | - | - | - | - |
| 6 | 18CSOE07 | 3.0 | 3.0 | 2.7 | - | - | - | - | - | - | - |
| 6 | 18ECPE805 | 2.3 | 2.2 | 2.1 | 1.9 | - | - | - | - | - | - |
| 6 | 18EC603 | 3.0 | 3.0 | 3.0 | 2.0 | - | - | - | - | - | - |
| 6 | 18EN501 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | - | - |
| 6 | 18EC605 | 3.0 | 2.7 | 2.7 | 3.0 | 3.0 | - | - | - | - | - |
| 7 | 18EC701 | 2.7 | 2.7 | 3.0 | 3.0 | - | - | - | - | - | - |
| 7 | 18EM701 | 2.7 | 2.4 | 2.2 | 2.4 | - | - | - | - | - | - |
| 7 | 18ECPE703 | 3.0 | 3.0 | 2.2 | 2.8 | - | - | - | - | - | - |
| 7 | 18ECPE707 | 2.1 | 2.7 | 3.0 | 3.0 | - | - | - | - | - | - |
| 7 | 18CSOE02 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - |
| 7 | 18ECPE811 | 2.4 | 2.7 | 2.4 | 2.7 | - | - | - | - | - | - |
| 7 | 18EC702 | 2.7 | 2.8 | 2.6 | 2.7 | - | - | - | - | - | - |
| 7 | 18EC703 | 2.8 | 2.7 | 2.7 | 2.5 | - | - | - | - | - | - |
| 8 | 18ECPE802 | 2.8 | 2.2 | 2.2 | 1.9 | - | - | - | - | - | - |
| 8 | 18ECPE806 | 3.0 | 2.4 | 2.1 | 3.0 | - | - | - | - | - | - |
| 8 | 18ECPE811 | 2.1 | 3.0 | 2.7 | 2.1 | - | - | - | - | - | - |
| 8 | 18EC801 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - |

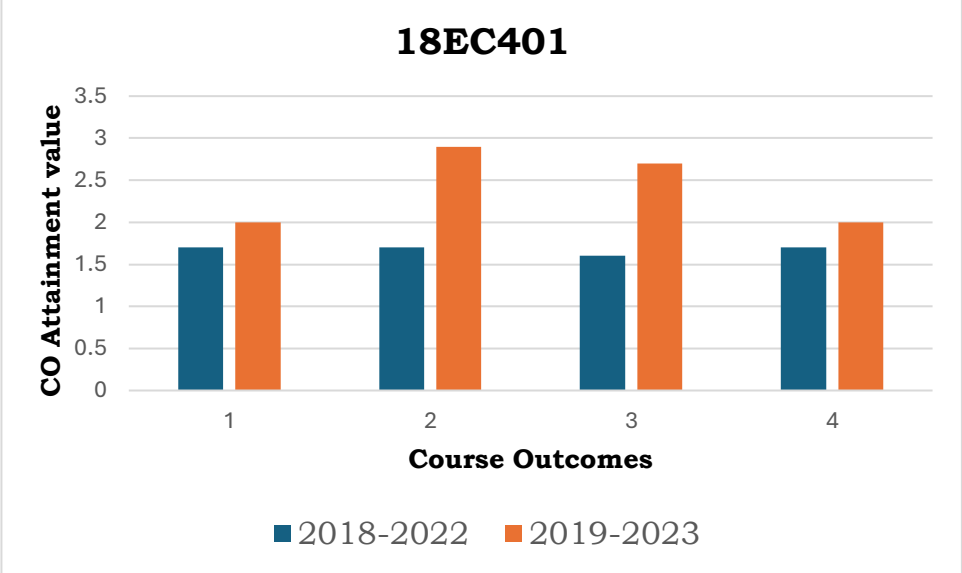
## Graphical Representation

### Comparison of CO Attainment for (2018-2022) & (2019-2023) Batches.

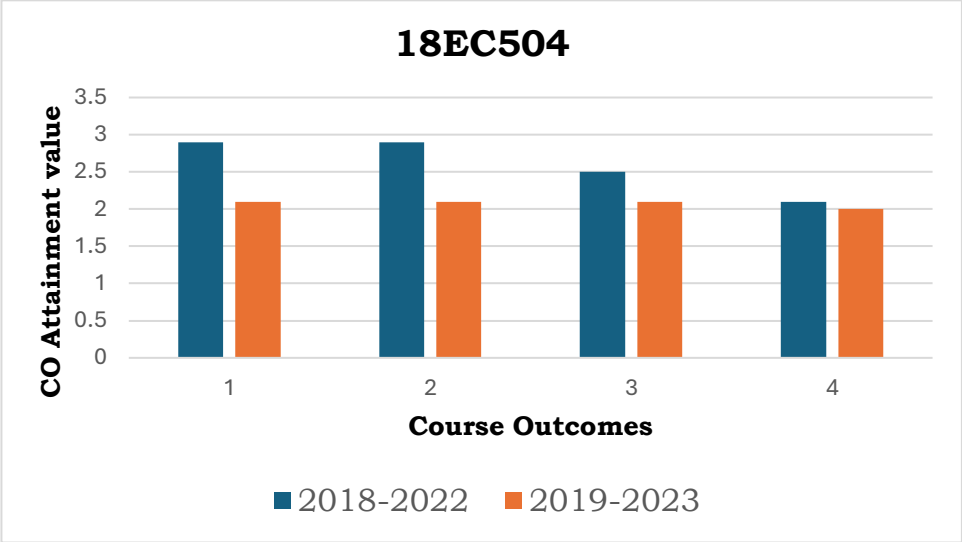
**Sub code: 18EC303**



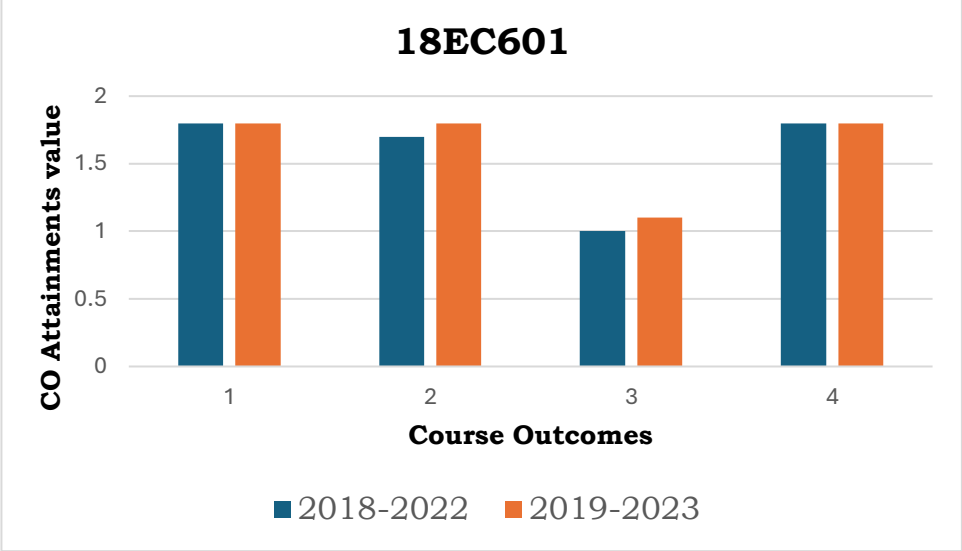

**Sub code: 18EC401**



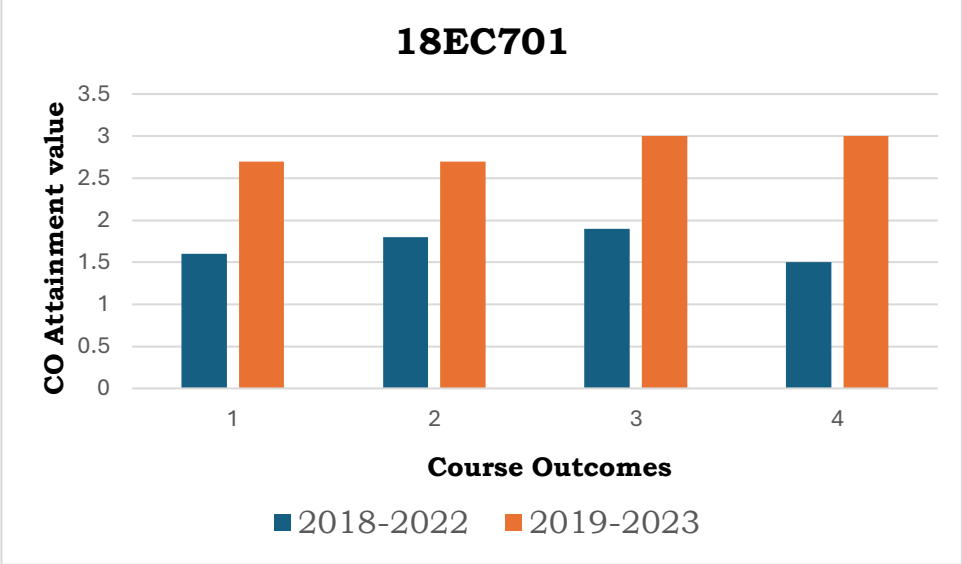
**Sub code: 18EC504**




**Sub code: 18EC601**




**Sub code: 18EC701**



# Department of Electronics and Communication Engineering

## Calculation of Weighted average and Fixing Target level for POs & PSOs

**Target value of PO & PSO: 70% of Weighted Average**

| Batch : 2018 -2022 | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sem** | **Course Code** | **Program Outcomes (PO)** | | | | | | | | | | | | **Program Specific Outcomes (PSO)** | | |
| | | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **1** | **2** | **3** |
| **Program Articulation Matrix** | | | | | | | | | | | | | | | | |
| 1 | 18EN101 | - | - | - | - | - | - | - | - | 1.6 | 3.0 | - | 1.6 | - | - | 1.2 |
| 1 | 18MA101 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 1 | 18CY101 | 2.6 | 1.7 | - | 1.6 | - | 1.3 | - | - | - | - | - | - | 2.3 | 1.3 | - |
| 1 | 18CS101 | 3.0 | 3.0 | - | 2.0 | - | - | - | - | - | - | 1.0 | 1.0 | - | 2.0 | - |
| 1 | 18EN102 | - | - | - | - | - | - | - | - | 1.5 | 3.0 | - | 1.8 | - | - | 1.3 |
| 1 | 18CS102 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 1.0 | 1.0 | - | - | - | - | 3.0 | 3.0 | 2.0 | - |
| 1 | 18ME102 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | - | 1.0 | 1.0 | - | - | 1.0 | 1.0 | 1.0 | 2.0 |
| 2 | 18MA203 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 2 | 18PH102 | 2.0 | 2.0 | - | 2.0 | 2.0 | 3.0 | - | - | 2.0 | - | 2.0 | 3.0 | - | - | - |
| 2 | 18ME101 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | - | 1.0 | - | - | - | - | 1.0 |
| 2 | 18EE201 | 2.0 | 2.0 | 2.5 | 3.0 | 0.0 | 2.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | - | - | - |
| 2 | 18PH103 | 3.0 | 2.0 | - | 2.5 | 2.0 | - | - | - | 2.5 | 0.5 | - | 1.5 | 1.0 | 1.0 | 1.0 |
| 2 | 18CY102 | 1.3 | 1.7 | - | 3.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 2 | 18EN103 | - | - | - | - | - | - | - | - | 1.5 | 3.0 | - | 1.8 | - | - | 1.3 |
| 2 | 18EE202 | 2.0 | 2.0 | 2.5 | 3.0 | 0.0 | 2.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | - | - | - |
| 3 | 18MA303 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 3 | 18EC301 | 2.0 | 1.8 | 1.5 | 2.3 | 2.3 | 1.8 | 1.8 | - | - | - | - | 0.5 | 2.5 | 2.0 | 1.3 |
| 3 | 18EC302 | 2.2 | 2.0 | 1.8 | 1.7 | 1.5 | 1.8 | 1.4 | - | - | - | - | - | 1.5 | 1.4 | 1.4 |
| 3 | 18EC303 | 2.6 | 2.4 | 2.4 | 2.4 | 2.6 | - | - | - | - | - | 2.2 | 1.6 | 2.4 | 2.0 | 2.6 |
| 3 | 18EC304 | 2.5 | 2.5 | 2.3 | 2.0 | 1.8 | 1.0 | 1.5 | - | - | - | 0.8 | 0.8 | 1.5 | 1.8 | 0.8 |
| 3 | 18EC305 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | - | - | - | - | - | 1.0 | 1.0 | 1.1 |
| 3 | 18EC306 | 1.8 | 2.0 | 1.5 | 2.0 | 2.3 | 1.3 | 1.3 | - | - | - | - | - | 1.5 | 1.3 | 1.0 |
| 3 | 18EC307 | 2.3 | 2.0 | 2.0 | 2.0 | 2.0 | 2.3 | 2.0 | 1.3 | - | - | - | - | 1.8 | 1.5 | 1.3 |
| 4 | 18MA402 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 4 | 18EC401 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | - | - | - | - | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 |
| 4 | 18EC402 | 3.0 | 3.0 | 3.0 | 3.0 | - | 2.0 | - | - | - | - | - | - | 2.0 | - | 2.0 |
| 4 | 18EC403 | 0.8 | 2.3 | 2.5 | 1.8 | 0.3 | - | - | - | - | - | 2.0 | 1.3 | 0.3 | 0.5 | 0.8 |
| 4 | 18EC404 | 2.4 | 2.3 | 2.4 | 2.3 | - | - | - | - | - | - | - | - | 2.4 | 2.3 | 2.3 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 18EC405 | 2.4 | 2.4 | 2.4 | 2.4 | 2.6 | - | - | - | - | - | 2.0 | 2.0 | 2.4 | 2.0 | 2.6 |
| 4 | 18EC406 | 2.0 | 2.5 | 1.5 | 2.3 | 1.5 | - | - | - | - | - | 0.5 | 0.5 | 2.0 | 1.5 | - |
| 4 | 18EC407 | 1.0 | 2.3 | 2.3 | 2.3 | - | - | - | - | - | - | 2.8 | 2.3 | - | - | - |
| 5 | 18EC501 | 2.6 | 2.3 | 2.3 | 2.2 | - | 2.4 | - | - | - | - | 1.1 | 1.1 | - | 2.3 | 2.2 |
| 5 | 18EC502 | 1.2 | 0.4 | 0.8 | 0.6 | 1.0 | 0.8 | 0.6 | 0.4 | - | 0.2 | 0.4 | 0.2 | 0.6 | 0.2 | 0.2 |
| 5 | 18EC503 | 1.9 | 1.9 | 1.9 | 1.9 | - | 1.9 | - | - | - | - | - | - | 1.9 | - | 1.6 |
| 5 | 18EC504 | 2.8 | 2.6 | 2.7 | 2.7 | 2.7 | 2.7 | - | - | 2.8 | - | - | - | 2.6 | 2.8 | 2.6 |
| 5 | 18CSOE01 | 3.0 | 3.0 | 2.0 | 1.0 | 2.0 | - | 1.0 | - | - | - | 1.0 | 1.2 | 1.0 | 1.0 | - |
| 5 | 18CSOE02 | 3.0 | 3.0 | 2.0 | 1.0 | 2.0 | - | 1.0 | - | - | - | 1.0 | 1.2 | 1.0 | 1.0 | - |
| 5 | 18ECPE802 | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 | - | - | - | - | - | - | - | 2.0 | 2.0 | 1.8 |
| 5 | 18EC505 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | - | - | - | - | - | - | - | - | 2.9 |
| 5 | 18EC506 | 2.3 | 2.3 | 1.5 | 1.5 | 0.5 | 0.5 | - | - | - | - | 0.5 | 0.5 | 0.8 | 0.3 | 0.5 |
| 6 | 18EC601 | 1.4 | 1.6 | 1.6 | 1.5 | 1.6 | 1.5 | 1.6 | - | - | - | 1.6 | - | 1.6 | 1.6 | 1.6 |
| 6 | 18EC602 | 2.0 | 2.1 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | - | - | - | 2.0 | 2.0 | 1.9 | 2.0 | 2.0 |
| 6 | 18ECPE601 | 1.2 | 1.3 | 1.2 | 1.4 | 1.2 | 1.3 | 1.3 | - | - | - | 1.2 | 1.2 | 1.3 | 1.4 | 1.3 |
| 6 | 18ECPE604 | 1.2 | 1.3 | 1.2 | 1.4 | 1.2 | 1.3 | 1.3 | - | - | - | 1.2 | 1.2 | 1.3 | 1.4 | 1.3 |
| 6 | 18CSOE05 | 1.0 | - | - | - | - | - | - | - | 1.0 | - | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 |
| 6 | 18CS0E01 | 2.3 | 1.3 | 1.3 | - | - | - | - | - | - | - | - | - | 0.5 | 0.3 | 1.3 |
| 6 | 18ECPE806 | 2.3 | 1.0 | 1.5 | 1.8 | 1.5 | 0.5 | - | - | - | 0.5 | - | - | 2.0 | 1.5 | 1.5 |
| 6 | 18ECPE802 | 1.3 | 2.5 | 1.8 | 1.3 | 1.8 | 2.0 | - | - | 1.0 | - | - | - | 1.5 | 2.0 | - |
| 6 | 18EC603 | 3.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | - | - | 2.0 | 2.0 | 1.0 | 1.0 | 2.5 | 3.0 | 3.0 |
| 6 | 18EN501 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 3.0 | 0.0 | 1.8 | 0.0 | 0.0 | 1.3 |
| 6 | 18EC605 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 1.0 | 3.0 | 1.0 | 2.0 | 3.0 |
| 7 | 18EC701 | 2.5 | 2.8 | 2.8 | 2.3 | 2.5 | 2.5 | 2.3 | - | - | - | 2.0 | - | 3.0 | 2.8 | 2.8 |
| 7 | 18EM701 | 1.0 | 1.2 | 1.2 | 1.0 | 1.0 | 1.4 | - | - | 1.0 | - | - | - | 1.0 | 1.2 | - |
| 7 | 18ECPE703 | - | 1.5 | 3.0 | 2.0 | 3.0 | 2.0 | 3.0 | - | - | - | 3.0 | - | 3.0 | 3.0 | 3.0 |
| 7 | 18ECPE705 | 2.3 | 2.3 | - | 2.3 | 2.3 | 2.3 | - | - | - | - | 2.3 | - | 2.3 | 2.3 | 2.3 |
| 7 | 18CSOE07 | 2.0 | 2.0 | 2.3 | - | 2.0 | 0.7 | - | - | - | - | 1.0 | 1.0 | 2.3 | 2.7 | - |
| 7 | 18ECPE810 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | - | - | 2.0 | - | - | - | 2.0 | 2.0 | - |
| 7 | 18EC702 | - | 2.8 | 2.8 | 2.3 | 2.5 | 2.5 | 2.3 | - | - | - | 2.0 | - | 3.0 | 3.0 | 2.0 |
| 7 | 18EC703 | - | 2.8 | 2.8 | 2.3 | 2.5 | 2.5 | 2.3 | - | - | - | 2.0 | - | 3.0 | 3.0 | 2.0 |
| 8 | 18ECPE802 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | - | - | - | - | - | - | - | 1.9 | 1.9 | 1.9 |
| 8 | 18ECPE806 | 2.3 | 1.0 | 1.5 | 1.8 | 1.5 | 0.5 | - | - | - | 0.5 | - | - | 2.0 | 1.5 | 1.5 |
| 8 | 18ECPE810 | 2.0 | 1.4 | 1.0 | 2.2 | 1.2 | - | - | - | - | - | - | - | 2.4 | 1.0 | 1.2 |
| 8 | 18EC801 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 1.0 | 3.0 | 1.0 | 2.0 | 3.0 |
| **Weighted Average** | | **2.1** | **2.0** | **2.0** | **2.0** | **1.8** | **1.6** | **1.6** | **1.7** | **1.6** | **1.5** | **1.6** | **1.6** | **1.8** | **1.7** | **1.7** |
| **70% Target Level** | | **1.5** | **1.4** | **1.4** | **1.4** | **1.2** | **1.1** | **1.2** | **1.2** | **1.1** | **1.1** | **1.1** | **1.1** | **1.2** | **1.2** | **1.2** |

# Attainment rating of POs & PSOs

| Dept: ECE | | Batch : 2018 -2022 | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sem** | **Course Code** | **Program Outcomes (PO)** | | | | | | | | | | | | **Program Specific Outcomes (PSO)** | | |
| | | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **1** | **2** | **3** |
| **Direct Attainment** | | | | | | | | | | | | | | | | |
| 1 | 18EN101 | - | - | - | - | - | - | - | - | 2.0 | 2.0 | - | 2.0 | - | - | 2.0 |
| 1 | 18MA101 | 2.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 1 | 18CY101 | 2.6 | 1.7 | - | 1.6 | - | 1.3 | - | - | - | - | - | - | 2.3 | 1.3 | - |
| 1 | 18CS101 | 2.8 | 2.8 | - | 1.9 | - | - | - | - | - | - | 0.9 | 0.9 | - | 1.9 | - |
| 1 | 18EN102 | - | - | - | - | - | - | - | - | 1.5 | 3.0 | - | 1.8 | - | - | 1.3 |
| 1 | 18CS102 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 1.0 | 1.0 | - | - | - | - | 3.0 | 3.0 | 2.0 | - |
| 1 | 18ME102 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | - | 1.0 | 1.0 | - | - | 1.0 | 1.0 | 1.0 | 2.0 |
| 2 | 18MA203 | 2.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 2 | 18PH102 | 2.0 | 2.0 | - | 1.0 | 1.0 | 2.0 | - | - | 1.0 | - | 1.0 | 2.0 | - | - | - |
| 2 | 18ME101 | 1.7 | 2.0 | 1.7 | 2.1 | 2.1 | 2.0 | 1.6 | 2.1 | - | 2.1 | 1.4 | 1.4 | 1.6 | 2.1 | 2.0 |
| 2 | 18EE201 | 1.9 | 1.9 | 2.3 | 2.8 | 0.0 | 1.9 | 2.8 | 2.8 | 0.0 | 0.0 | 2.8 | 2.8 | | | |
| 2 | 18PH103 | 3.0 | 1.3 | - | 2.1 | 1.3 | - | - | - | 2.1 | 0.1 | - | 0.8 | 0.3 | 0.3 | 0.3 |
| 2 | 18CY102 | 1.3 | 1.7 | - | 3.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 2 | 18EN103 | - | - | - | - | - | - | - | - | 1.5 | 3.0 | - | 1.8 | - | - | 1.3 |
| 2 | 18EE202 | 1.7 | 1.7 | 2.1 | 2.5 | 0.0 | 1.7 | 2.5 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 18MA303 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 3 | 18EC301 | 0.8 | 0.7 | 0.6 | 0.9 | 0.9 | 0.7 | 0.7 | - | - | - | - | 0.2 | 1.0 | 0.8 | 0.5 |
| 3 | 18EC302 | 1.7 | 1.6 | 1.5 | 1.3 | 1.2 | 1.1 | 1.1 | - | - | - | - | - | 1.2 | 1.0 | 1.0 |
| 3 | 18EC303 | 2.3 | 2.2 | 2.3 | 1.6 | 1.4 | - | - | - | - | - | 1.8 | 1.2 | 2.0 | 1.7 | 2.4 |
| 3 | 18EC304 | 1.7 | 1.3 | 1.1 | 1.0 | 1.4 | 1.7 | 1.6 | - | - | - | 1.7 | 1.7 | 1.7 | 1.6 | 1.7 |
| 3 | 18EC305 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | - | - | - | - | - | 0.6 | 0.6 | 0.7 |
| 3 | 18EC306 | 1.5 | 1.7 | 1.3 | 1.7 | 1.9 | 1.0 | 1.0 | - | - | - | - | - | 1.3 | 1.0 | 0.8 |
| 3 | 18EC307 | 2.0 | 1.7 | 1.7 | 1.7 | 1.7 | 2.0 | 1.7 | 1.1 | - | - | - | - | 1.5 | 1.3 | 1.1 |
| 4 | 18MA402 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 4 | 18EC401 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | - | - | - | - | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 4 | 18EC402 | 2.8 | 2.8 | 2.2 | 2.0 | - | 2.0 | - | - | - | - | - | - | 1.5 | - | 1.3 |
| 4 | 18EC403 | 0.7 | 2.0 | 2.2 | 1.5 | 0.2 | - | - | - | - | - | 1.8 | 1.1 | 0.2 | 0.4 | 0.7 |
| 4 | 18EC404 | 1.9 | 1.8 | 1.9 | 1.8 | - | - | - | - | - | - | - | - | 1.9 | 1.9 | 1.9 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 18EC405 | 2.1 | 2.0 | 2.2 | 1.8 | 1.2 | - | - | - | - | - | 1.6 | 1.4 | 2.0 | 1.4 | 2.0 |
| 4 | 18EC406 | 1.8 | 2.2 | 1.3 | 2.0 | 1.3 | - | - | - | - | - | 0.4 | 0.4 | 1.8 | 1.3 | - |
| 4 | 18EC407 | 0.9 | 2.0 | 2.0 | 2.0 | - | - | - | - | - | - | 2.5 | 2.0 | - | - | - |
| 5 | 18EC501 | 2.2 | 1.9 | 1.9 | 1.8 | - | 2.0 | - | - | - | - | 0.9 | 0.9 | - | 1.9 | 1.8 |
| 5 | 18EC502 | 2.8 | 2.6 | 2.7 | 2.7 | 2.7 | 2.6 | 2.8 | 2.8 | - | 2.8 | 2.9 | 2.9 | 2.6 | 2.8 | 2.4 |
| 5 | 18EC503 | 1.2 | 1.2 | 1.2 | 1.2 | - | 1.2 | - | - | - | - | - | - | 1.2 | - | 1.0 |
| 5 | 18EC504 | 2.5 | 2.4 | 2.4 | 2.5 | 2.5 | 2.4 | - | - | 2.6 | - | - | - | 2.4 | 2.5 | 2.4 |
| 5 | 18CSOE01 | 2.3 | 2.3 | 1.6 | 0.8 | 1.6 | - | 0.8 | - | - | - | 0.8 | 0.9 | 0.8 | 0.8 | - |
| 5 | 18CSOE02 | 2.3 | 2.3 | 1.6 | 0.8 | 1.6 | - | 0.8 | - | - | - | 0.8 | 0.9 | 0.8 | 0.8 | - |
| 5 | 18ECPE802 | 2.7 | 1.5 | 1.6 | 2.4 | 2.4 | - | - | - | - | - | - | - | 1.8 | 1.8 | 1.6 |
| 5 | 18EC505 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | - | - | - | - | - | - | - | - | 2.9 |
| 5 | 18EC506 | 2.1 | 2.1 | 1.4 | 1.4 | 0.5 | 0.5 | - | - | - | - | 0.5 | 0.5 | 0.7 | 0.2 | 0.5 |
| 6 | 18EC601 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | - | - | - | 0.8 | - | 0.8 | 0.8 | 0.8 |
| 6 | 18EC602 | 1.4 | 1.4 | 1.4 | 1.3 | 1.4 | 1.3 | 1.4 | - | - | - | 1.4 | 1.4 | 1.3 | 1.3 | 1.3 |
| 6 | 18ECPE601 | 1.0 | - | - | 0.7 | 1.0 | 1.0 | 1.0 | - | - | - | - | - | 1.0 | 1.0 | 1.0 |
| 6 | 18ECPE604 | 1.0 | - | - | 0.7 | 1.0 | 1.0 | 1.0 | - | - | - | - | - | 1.0 | 1.0 | 1.0 |
| 6 | 18CSOE05 | 0.9 | - | - | - | - | - | - | - | 0.9 | - | 1.9 | 1.9 | 1.9 | 0.9 | 0.9 |
| 6 | 18CS0E01 | 2.1 | 1.2 | 1.2 | - | - | - | - | - | - | - | - | - | 0.5 | 0.2 | 1.2 |
| 6 | 18ECPE806 | 1.9 | 0.8 | 1.2 | 1.4 | 1.2 | 0.4 | - | - | - | 0.4 | - | - | 1.7 | 1.2 | 1.2 |
| 6 | 18ECPE802 | 0.9 | 1.8 | 1.3 | 0.9 | 1.3 | 1.4 | - | - | 0.7 | - | - | - | 1.1 | 1.4 | - |
| 6 | 18EC603 | 2.5 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | - | - | 2.0 | 2.0 | 1.0 | 1.0 | 2.0 | 3.0 | 3.0 |
| 6 | 18EN501 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 2.9 | 0.0 | 1.7 | 0.0 | 0.0 | 1.2 |
| 6 | 18EC605 | 1.9 | 2.8 | 2.8 | 2.8 | 2.8 | 1.9 | 1.9 | 2.8 | 2.8 | 2.8 | 0.9 | 2.8 | 0.9 | 1.9 | 2.8 |
| 7 | 18EC701 | 1.4 | 1.6 | 1.6 | 1.3 | 1.4 | 1.4 | 1.3 | - | - | - | 1.1 | - | 1.7 | 1.5 | 1.5 |
| 7 | 18EM701 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | - | - | 2.0 | - | - | - | 2.0 | 2.0 | - |
| 7 | 18ECPE703 | - | 1.4 | 2.7 | 1.8 | 2.7 | 1.8 | 2.7 | - | - | - | 2.7 | - | 2.7 | 2.7 | 2.7 |
| 7 | 18ECPE705 | 1.8 | 1.8 | - | 1.8 | 1.8 | 1.8 | - | - | - | - | 1.8 | - | 1.8 | 1.8 | 1.8 |
| 7 | 18CSOE07 | 1.9 | 1.9 | 2.3 | - | 1.9 | 0.6 | - | - | - | - | 1.0 | 1.0 | 2.3 | 2.6 | - |
| 7 | 18ECPE810 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | - | - | 1.3 | - | - | - | 1.3 | 1.3 | - |
| 7 | 18EC702 | - | 2.6 | 2.6 | 2.1 | 2.3 | 2.3 | 2.1 | - | - | - | 1.9 | - | 2.8 | 2.8 | 1.9 |
| 7 | 18EC703 | - | 2.4 | 2.4 | 2.0 | 2.2 | 2.2 | 2.0 | - | - | - | 1.8 | - | 2.6 | 2.6 | 1.8 |
| 8 | 18ECPE802 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | - | - | - | - | - | - | - | 1.2 | 1.2 | 1.2 |
| 8 | 18ECPE806 | 1.6 | 0.7 | 1.1 | 1.2 | 1.1 | 0.4 | - | - | - | 0.4 | - | - | 1.4 | 1.1 | 1.1 |
| 8 | 18ECPE810 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | - | - | - | - | - | - | - | 1.9 | 1.8 | 1.9 |
| 8 | 18EC801 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 1.0 | 3.0 | 1.0 | 2.0 | 3.0 |
| **Direct Attainment** | | 1.8 | 1.8 | 1.8 | 1.7 | 1.5 | 1.4 | 1.5 | 2.0 | 1.5 | 1.7 | 1.3 | 1.5 | 1.5 | 1.4 | 1.5 |

| 80% Direct Attainment (A) | 1.4 | 1.4 | 1.4 | 1.4 | 1.2 | 1.1 | 1.2 | 1.6 | 1.2 | 1.4 | 1.1 | 1.2 | 1.2 | 1.1 | 1.2 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

## Indirect Attainment Method

| Sem | Course Code | Program Outcomes (PO) | | | | | | | | | | | | Program Specific Outcomes (PSO) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 |
| **Students PO & PSO Exit Survey** | | | | | | | | | | | | | | | | |
| **Attainment Level** | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| **10%** | | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** |
| **Employer Survey** | | | | | | | | | | | | | | | | |
| **Attainment Level** | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| **5%** | | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** |
| **Alumni Survey** | | | | | | | | | | | | | | | | |
| **Attainment Level** | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| **5%** | | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** |
| **20% Indirect Attainment (B)** | | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** |
| **Total (Direct A+ Indirect B)** | | **2.0** | **2.0** | **2.0** | **2.0** | **1.8** | **1.7** | **1.8** | **2.2** | **1.8** | **2.0** | **1.7** | **1.8** | **1.8** | **1.7** | **1.8** |
| **Target Level** | | **1.5** | **1.4** | **1.4** | **1.4** | **1.2** | **1.1** | **1.2** | **1.2** | **1.1** | **1.1** | **1.1** | **1.1** | **1.2** | **1.2** | **1.2** |
| **Attainment Status** | | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |

# Department of Electronics and Communication Engineering

## Calculation of Weighted average and Fixing Target level for POs & PSOs

**Target value of PO & PSO: 75% of Weighted Average**

| **Dept: ECE** | | **Batch : 2019 -2023** | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sem** | **Course Code** | **Program Outcomes (PO)** | | | | | | | | | | | | **Program Specific Outcomes (PSO)** | | |
| | | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **1** | **2** | **3** |
| **Program Articulation Matrix** | | | | | | | | | | | | | | | | |
| 1 | 18EN101 | - | - | - | - | - | - | - | - | 1.6 | 3.0 | - | 1.6 | - | - | 1.2 |
| 1 | 18MA101 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 1 | 18CY101 | 2.6 | 1.7 | - | 1.6 | - | 1.3 | - | - | - | - | - | - | 2.3 | 1.3 | - |
| 1 | 18CS101 | 3.0 | 3.0 | - | 2.0 | - | - | - | - | - | - | 1.0 | 1.0 | - | 2.0 | - |
| 1 | 18EN102 | - | - | - | - | - | - | - | - | 1.5 | 3.0 | - | 1.8 | - | - | 1.3 |
| 1 | 18CS102 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 1.0 | 1.0 | - | - | - | - | 3.0 | 3.0 | 2.0 | - |
| 1 | 18ME102 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | - | 1.0 | 1.0 | - | - | 1.0 | 1.0 | 1.0 | 2.0 |
| 2 | 18MA203 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 2 | 18PH102 | 2.0 | 2.0 | - | 2.0 | 2.0 | 3.0 | - | - | 2.0 | - | 2.0 | 3.0 | - | - | - |
| 2 | 18ME101 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | - | 1.0 | - | - | - | - | 1.0 |
| 2 | 18EE201 | 2.0 | 3.0 | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | - | - | - |
| 2 | 18PH103 | 3.0 | 2.0 | - | 2.5 | 2.0 | - | - | - | 2.5 | 0.5 | - | 1.5 | 1.0 | 1.0 | 1.0 |
| 2 | 18CY102 | 1.3 | 1.7 | - | 3.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 2 | 18EN103 | - | - | - | - | - | - | - | - | 1.5 | 3.0 | - | 1.8 | - | - | 1.3 |
| 2 | 18EE202 | 2.0 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 3.0 | - | - | - |
| 3 | 18MA303 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 3 | 18EC301 | 2.0 | 1.8 | 1.8 | 1.5 | 1.3 | 1.3 | 1.3 | - | - | - | - | - | 1.8 | 1.5 | 1.3 |
| 3 | 18EC302 | 2.0 | 1.8 | 1.8 | 1.6 | 1.3 | 1.3 | 1.3 | - | - | - | - | - | 1.6 | 1.2 | 1.6 |
| 3 | 18EC303 | 2.4 | 2.4 | 2.4 | 2.4 | 2.6 | - | - | - | - | - | 2.0 | 1.8 | 2.4 | 2.0 | 2.6 |
| 3 | 18EC304 | 2.5 | 2.5 | 2.3 | 2.0 | 1.8 | 1.0 | 1.5 | - | - | - | 0.8 | 0.8 | 1.5 | 1.8 | 0.8 |
| 3 | 18EC305 | 1.7 | 1.5 | 1.7 | 1.6 | 1.5 | 1.6 | 1.5 | - | - | - | - | - | 1.6 | 1.5 | 1.5 |
| 3 | 18EC306 | 1.8 | 2.0 | 1.5 | 2.0 | 2.3 | 1.3 | 1.3 | - | - | - | - | - | 1.5 | 1.3 | 1.0 |
| 3 | 18EC307 | 2.3 | 2.0 | 2.0 | 2.0 | 2.0 | 2.3 | 2.0 | 1.3 | - | - | - | - | 1.8 | 1.5 | 1.3 |
| 4 | 18MA402 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 4 | 18EC401 | 2.8 | 3.0 | 3.0 | 2.3 | 0.3 | 0.8 | - | - | - | - | 1.0 | 1.0 | 0.3 | 0.8 | 0.8 |
| 4 | 18EC402 | 2.0 | 3.0 | 3.0 | 3.0 | - | 2.0 | - | - | - | - | - | - | 2.0 | - | 2.0 |
| 4 | 18EC403 | 0.8 | 2.3 | 2.5 | 1.8 | 0.3 | - | - | - | - | - | 2.0 | 1.3 | 0.3 | 0.5 | 0.8 |
| 4 | 18EC404 | 1.5 | 1.6 | 1.5 | 1.6 | - | 1.0 | - | - | - | - | - | - | 1.6 | 1.5 | 1.5 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 18EC405 | 2.6 | 2.3 | 2.6 | 2.4 | 2.6 | - | - | - | - | - | 2.0 | 1.8 | 2.4 | 2.0 | 2.6 |
| 4 | 18EC406 | 2.0 | 2.5 | 1.5 | 2.3 | 1.5 | - | - | - | - | - | 0.5 | 0.5 | 2.0 | 1.5 | - |
| 4 | 18EC407 | 1.0 | 2.3 | 2.3 | 2.3 | - | - | - | - | - | - | 2.8 | 2.3 | - | - | - |
| 5 | 18EC501 | 2.2 | 2.1 | 2.1 | 2.1 | - | 2.3 | - | - | - | - | 1.4 | 1.4 | - | 2.3 | 2.3 |
| 5 | 18EC502 | 2.3 | 1.3 | 1.3 | - | - | - | - | - | - | - | - | - | 0.5 | 0.3 | 1.3 |
| 5 | 18EC503 | 1.6 | 1.5 | 1.4 | 1.4 | - | 1.4 | - | - | - | - | - | - | 1.9 | - | 1.3 |
| 5 | 18EC504 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | - | - | 2.1 | - | - | - | 2.0 | 2.0 | 2.6 |
| 5 | 18CSOE01 | 2.3 | 1.3 | 1.3 | - | - | - | - | - | - | - | - | - | 0.5 | 0.3 | 1.3 |
| 5 | 18CSOE02 | 2.3 | 1.3 | 1.3 | - | - | - | - | - | - | - | - | - | 0.5 | 0.3 | 1.3 |
| 5 | 18ECPE802 | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 | - | - | - | - | - | - | - | 2.0 | 2.0 | 1.8 |
| 5 | 18EC505 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - | - | - | - | 3.0 |
| 5 | 18EC506 | 2.3 | 2.3 | 1.5 | 1.5 | 0.5 | 0.5 | - | - | - | - | 0.5 | 0.5 | 0.8 | 0.3 | 0.5 |
| 6 | 18EC601 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.5 | 1.6 | - | - | - | 1.8 | - | 1.6 | 1.6 | 1.5 |
| 6 | 18EC602 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | - | - | 2.1 | - | - | - | 2.0 | 2.0 | 2.6 |
| 6 | 18ECPE601 | 1.2 | 1.3 | 1.2 | 1.4 | 1.2 | 1.3 | 1.3 | - | - | - | 1.2 | 1.2 | 1.3 | 1.4 | 1.3 |
| 6 | 18ECPE604 | 1.2 | 1.3 | 1.2 | 1.4 | 1.2 | 1.3 | 1.3 | - | - | - | 1.2 | 1.2 | 1.3 | 1.4 | 1.3 |
| 6 | 18CSOE05 | 1.0 | - | - | - | - | - | - | - | 1.0 | - | 2.0 | 2.0 | 2.0 | 1.0 | 1.0 |
| 6 | 18CSOE07 | 2.0 | 2.0 | 2.3 | - | 2.0 | 0.7 | - | - | - | - | 1.0 | 1.0 | 2.3 | 2.7 | - |
| 6 | 18ECPE805 | 2.0 | 1.8 | 1.8 | 1.5 | 1.3 | 1.3 | 1.3 | - | - | - | - | - | 1.8 | 1.5 | 1.3 |
| 6 | 18EC603 | 3.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.0 | - | - | 2.0 | 2.0 | 1.0 | 1.0 | 2.5 | 3.0 | 3.0 |
| 6 | 18EN501 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 3.0 | 0.0 | 1.8 | 0.0 | 0.0 | 1.3 |
| 6 | 18EC605 | 3.0 | 2.0 | 2.0 | 3.0 | 3.0 | 2.0 | 2.0 | 2.0 | 2.0 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 1.8 |
| 7 | 18EC701 | 2.5 | 2.8 | 2.8 | 2.3 | - | 2.5 | 2.3 | - | - | - | 2.0 | - | 3.0 | 2.8 | 2.8 |
| 7 | 18EM701 | 2.0 | - | - | - | - | 2.0 | 1.8 | 1.3 | 2.0 | 1.8 | 1.8 | 1.5 | 1.3 | 1.3 | 1.3 |
| 7 | 18ECPE703 | - | 1.5 | 3.0 | 2.0 | 3.0 | 2.0 | 3.0 | - | - | - | 3.0 | - | 3.0 | 3.0 | 3.0 |
| 7 | 18ECPE707 | 3.0 | 2.0 | 1.0 | 2.0 | 2.0 | - | 1.0 | - | 1.0 | - | 1.0 | - | 2.0 | 2.0 | 1.0 |
| 7 | 18CSOE02 | 3.0 | 3.0 | 2.0 | 1.0 | 2.0 | - | 1.0 | - | - | - | 1.0 | 3.0 | 2.0 | 1.0 | - |
| 7 | 18ECPE811 | 3.0 | 1.8 | 2.3 | 1.3 | 1.0 | - | - | - | - | - | - | - | 3.0 | 1.0 | 1.8 |
| 7 | 18EC702 | 2.8 | 2.8 | 2.3 | 2.5 | 2.5 | 2.3 | - | - | - | 2.0 | - | 3.0 | 3.0 | 2.0 | - |
| 7 | 18EC703 | 2.8 | 2.8 | 2.3 | 2.5 | 2.5 | 2.3 | - | - | - | 2.0 | - | 3.0 | 3.0 | 2.0 | - |
| 8 | 18ECPE802 | 3.0 | 1.8 | 2.3 | 1.3 | 1.0 | - | - | - | - | - | - | - | 3.0 | 1.0 | 1.8 |
| 8 | 18ECPE806 | 2.3 | 1.0 | 1.5 | 1.8 | 1.5 | 0.5 | - | - | - | 0.5 | - | - | 2.0 | 1.5 | 1.5 |
| 8 | 18ECPE811 | 3.0 | 1.8 | 2.3 | 1.3 | 1.0 | - | - | - | - | - | - | - | 3.0 | 1.0 | 1.8 |
| 8 | 18EC801 | 2.0 | 3.0 | 3.0 | 3.0 | 1.0 | 3.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 1.0 | 2.0 | 3.0 |
| **Weighted Average** | | **2.2** | **2.0** | **1.9** | **1.9** | **1.6** | **1.5** | **1.5** | **1.4** | **1.6** | **1.9** | **1.7** | **1.8** | **1.8** | **1.5** | **1.6** |
| **75% Target Level** | | **1.6** | **1.5** | **1.4** | **1.4** | **1.2** | **1.1** | **1.1** | **1.0** | **1.2** | **1.4** | **1.2** | **1.3** | **1.4** | **1.1** | **1.2** |

# Attainment rating of POs & PSOs

| Dept: ECE | | Batch : 2019 -2023 | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Sem** | **Course Code** | **Program Outcomes (PO)** | | | | | | | | | | | | **Program Specific Outcomes (PSO)** | | |
| | | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **1** | **2** | **3** |
| **Direct Attainment** | | | | | | | | | | | | | | | | |
| 1 | 18EN101 | 1.0 | 1.0 | - | 1.0 | - | - | - | - | - | - | - | - | 1.0 | - | - |
| 1 | 18MA101 | 1.0 | 1.0 | - | 1.0 | - | - | - | - | - | - | - | - | 1.0 | - | - |
| 1 | 18CY101 | 2.8 | 1.8 | - | 1.8 | - | 1.2 | - | - | - | - | - | - | 2.2 | 1.4 | - |
| 1 | 18CS101 | 2.5 | 2.5 | - | 1.7 | 1.7 | - | - | - | - | - | 0.8 | 1.7 | - | 1.7 | - |
| 1 | 18EN102 | - | - | - | - | - | - | - | - | 1.5 | 3.0 | - | 1.8 | - | - | 1.3 |
| 1 | 18CS102 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 1.0 | 1.0 | - | - | - | - | 3.0 | 3.0 | 2.0 | - |
| 1 | 18ME102 | 1.0 | 1.0 | 2.0 | 2.0 | 1.0 | 1.0 | - | 1.0 | 1.0 | - | - | 1.0 | 1.0 | 1.0 | 2.0 |
| 2 | 18MA203 | 2.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 2 | 18PH102 | 1.0 | 2.0 | - | 1.0 | 1.0 | 2.0 | - | - | 1.0 | - | 1.0 | 1.0 | - | - | - |
| 2 | 18ME101 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.5 | - | 1.7 | 2.0 | 1.7 | 2.1 | 2.0 | - |
| 2 | 18EE201 | 2.0 | 3.0 | 2.0 | 3.0 | 0.0 | 2.0 | 3.0 | 3.0 | 0.0 | 0.0 | 3.0 | 3.0 | | | |
| 2 | 18PH103 | 3.0 | 1.3 | - | 2.1 | 1.3 | - | - | - | 2.1 | 0.1 | - | 0.8 | 0.3 | 0.3 | 0.3 |
| 2 | 18CY102 | 1.3 | 1.7 | - | 3.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 2 | 18EN103 | - | - | - | - | - | - | - | - | 1.5 | 3.0 | - | 1.8 | - | - | 1.3 |
| 2 | 18EE202 | 1.8 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.7 | 2.7 | | | |
| 3 | 18MA303 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 3 | 18EC301 | 1.8 | 1.6 | 1.6 | 1.4 | 1.1 | 1.1 | 1.1 | - | - | - | - | - | 1.6 | 1.4 | 1.1 |
| 3 | 18EC302 | 1.8 | 1.5 | 1.6 | 1.4 | 1.0 | 1.2 | 1.2 | - | - | - | - | - | 1.2 | 0.8 | 1.0 |
| 3 | 18EC303 | 2.1 | 2.0 | 2.2 | 1.8 | 1.2 | - | - | - | - | - | 1.6 | 1.4 | 2.0 | 1.7 | 2.4 |
| 3 | 18EC304 | 2.2 | 2.1 | 2.2 | 2.2 | 2.1 | 2.1 | 2.2 | - | - | - | 2.1 | 2.2 | 2.2 | 2.2 | 2.1 |
| 3 | 18EC305 | 0.9 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | - | - | - | - | - | 0.8 | 0.8 | 0.8 |
| 3 | 18EC306 | 1.4 | 1.6 | 1.2 | 1.6 | 1.8 | 1.0 | 1.0 | - | - | - | - | - | 1.2 | 1.0 | 0.8 |
| 3 | 18EC307 | 1.9 | 1.7 | 1.7 | 1.7 | 1.7 | 1.9 | 1.7 | 1.1 | - | - | - | - | 1.5 | 1.3 | 1.1 |
| 4 | 18MA402 | 3.0 | 2.0 | - | 2.0 | - | - | - | - | - | - | - | - | 2.0 | - | - |
| 4 | 18EC401 | 2.4 | 1.9 | 2.4 | 2.3 | 2.0 | 1.6 | - | - | - | - | 0.7 | 0.7 | - | 3.2 | 1.3 |
| 4 | 18EC402 | 1.8 | 2.3 | 2.3 | 2.0 | - | 1.8 | - | - | - | - | - | - | 1.3 | - | 1.5 |
| 4 | 18EC403 | 0.7 | 2.1 | 2.3 | 1.6 | 0.2 | - | - | - | - | - | 1.9 | 1.2 | 0.2 | 0.5 | 0.7 |
| 4 | 18EC404 | 1.4 | 1.5 | 1.4 | 1.5 | - | 0.9 | - | - | - | - | - | - | 1.5 | 1.4 | 1.4 |
| 4 | 18EC405 | 2.1 | 2.0 | 2.2 | 2.0 | 1.8 | - | - | - | - | - | 1.6 | 1.4 | 2.0 | 1.7 | 2.4 |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 18EC406 | 1.8 | 2.2 | 1.4 | 2.0 | 1.3 | - | - | - | - | - | 0.4 | 0.4 | 1.8 | 1.3 | - |
| 4 | 18EC407 | 0.9 | 2.0 | 2.0 | 2.0 | - | - | - | - | - | - | 2.5 | 2.0 | - | - | - |
| 5 | 18EC501 | 1.6 | 1.5 | 1.5 | 1.5 | - | 1.6 | - | - | - | - | 1.0 | 1.0 | - | 1.6 | 1.6 |
| 5 | 18EC502 | 2.1 | 1.2 | 1.2 | - | - | - | - | - | - | - | - | - | 0.5 | 0.2 | 1.2 |
| 5 | 18EC503 | 1.0 | 0.9 | 0.9 | 0.9 | - | 0.9 | - | - | - | - | - | - | 1.2 | - | 0.8 |
| 5 | 18EC504 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | - | - | 1.4 | - | - | - | 1.4 | 1.4 | 1.8 |
| 5 | 18CSOE01 | 2.1 | 1.2 | 1.2 | - | - | - | - | - | - | - | - | - | 0.5 | 0.2 | 1.2 |
| 5 | 18CSOE02 | 2.1 | 1.2 | 1.2 | - | - | - | - | - | - | - | - | - | 0.5 | 0.2 | 1.2 |
| 5 | 18ECPE802 | 2.7 | 1.8 | 1.8 | 2.7 | 2.7 | - | - | - | - | - | - | - | 1.8 | 1.8 | 1.6 |
| 5 | 18EC505 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | - | - | - | - | - | - | - | - | 3.0 |
| 5 | 18EC506 | 2.0 | 2.3 | 1.3 | 1.3 | 0.5 | 0.5 | - | - | - | - | 0.5 | 0.5 | 0.7 | 0.2 | 0.5 |
| 6 | 18EC601 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.9 | - | - | - | 1.0 | - | 0.9 | 0.9 | 0.8 |
| 6 | 18EC602 | 1.7 | 1.8 | 1.6 | 1.4 | 1.4 | 1.4 | - | - | 1.4 | - | - | - | 1.4 | 1.4 | 1.8 |
| 6 | 18ECPE601 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | - | - | - | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 |
| 6 | 18ECPE604 | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | - | - | - | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 |
| 6 | 18CSOE05 | 0.9 | - | - | - | - | - | - | - | 0.9 | - | 1.9 | 1.9 | 1.9 | 0.9 | 0.9 |
| 6 | 18CSOE07 | 1.9 | 1.9 | 2.3 | - | 1.9 | 0.6 | - | - | - | - | 1.0 | 1.0 | 2.3 | 2.6 | - |
| 6 | 18ECPE805 | 1.8 | 1.6 | 1.6 | 1.4 | 1.1 | 1.1 | 1.1 | - | - | - | - | - | 1.6 | 1.4 | 1.1 |
| 6 | 18EC603 | 2.8 | 1.8 | 1.8 | 1.8 | 1.8 | 0.9 | - | - | 1.8 | 1.8 | 0.9 | 0.9 | 2.3 | 2.8 | 2.8 |
| 6 | 18EN501 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 2.9 | 0.0 | 1.7 | 0.0 | 0.0 | 1.2 |
| 6 | 18EC605 | 2.7 | 1.8 | 1.8 | 2.7 | 2.7 | 1.8 | 1.8 | 1.8 | 1.8 | 2.7 | 2.7 | 2.7 | 1.8 | 1.8 | 1.6 |
| 7 | 18EC701 | 2.4 | 2.6 | 2.6 | 2.1 | - | 2.4 | 2.1 | - | - | - | 1.9 | - | 2.9 | 2.6 | 2.6 |
| 7 | 18EM701 | 1.8 | - | - | - | - | 1.8 | 1.6 | 1.1 | 1.8 | 1.6 | 1.6 | 1.4 | 1.1 | 1.1 | 1.1 |
| 7 | 18ECPE703 | - | 1.4 | 2.7 | 1.8 | 2.7 | 1.8 | 2.7 | - | - | - | 2.7 | - | 2.7 | 2.7 | 2.7 |
| 7 | 18ECPE707 | 2.7 | 1.8 | 0.9 | 1.8 | 1.8 | - | 0.9 | - | 0.9 | - | 0.9 | - | 1.8 | 1.8 | 0.9 |
| 7 | 18CSOE02 | 3.0 | 3.0 | 2.0 | 1.0 | 2.0 | - | 1.0 | - | - | - | 1.0 | 3.0 | 2.0 | 1.0 | - |
| 7 | 18ECPE811 | 2.6 | 1.5 | 1.9 | 1.1 | 0.9 | - | - | - | - | - | - | - | 2.6 | 0.9 | 1.5 |
| 7 | 18EC702 | 2.5 | 2.5 | 2.0 | 2.3 | 2.3 | 2.0 | - | - | - | 1.8 | - | 2.7 | 2.7 | 1.8 | - |
| 7 | 18EC703 | 2.5 | 2.5 | 2.1 | 2.3 | 2.3 | 2.1 | - | - | - | 1.8 | - | 2.8 | 2.8 | 1.8 | - |
| 8 | 18ECPE802 | 2.5 | 1.4 | 1.9 | 1.0 | 0.8 | - | - | - | - | - | - | - | 2.5 | 0.8 | 1.4 |
| 8 | 18ECPE806 | 2.0 | 0.9 | 1.3 | 1.5 | 1.3 | 0.4 | - | - | - | 0.4 | - | - | 1.8 | 1.3 | 1.3 |
| 8 | 18ECPE811 | 2.5 | 1.4 | 1.9 | 1.0 | 0.8 | - | - | - | - | - | - | - | 2.5 | 0.8 | 1.4 |
| 8 | 18EC801 | 2.0 | 3.0 | 3.0 | 3.0 | 1.0 | 3.0 | 2.0 | 3.0 | 3.0 | 3.0 | 3.0 | 2.0 | 2.0 | 2.0 | 3.0 |
| **Direct Attainment** | | **1.9** | **1.9** | **1.7** | **1.7** | **1.6** | **1.4** | **1.3** | **1.3** | **1.3** | **1.2** | **1.6** | **1.4** | **1.6** | **1.6** | **1.3** |
| **80% Direct Attainment (A)** | | **1.5** | **1.5** | **1.4** | **1.3** | **1.3** | **1.1** | **1.1** | **1.0** | **1.0** | **1.0** | **1.3** | **1.1** | **1.3** | **1.3** | **1.1** |

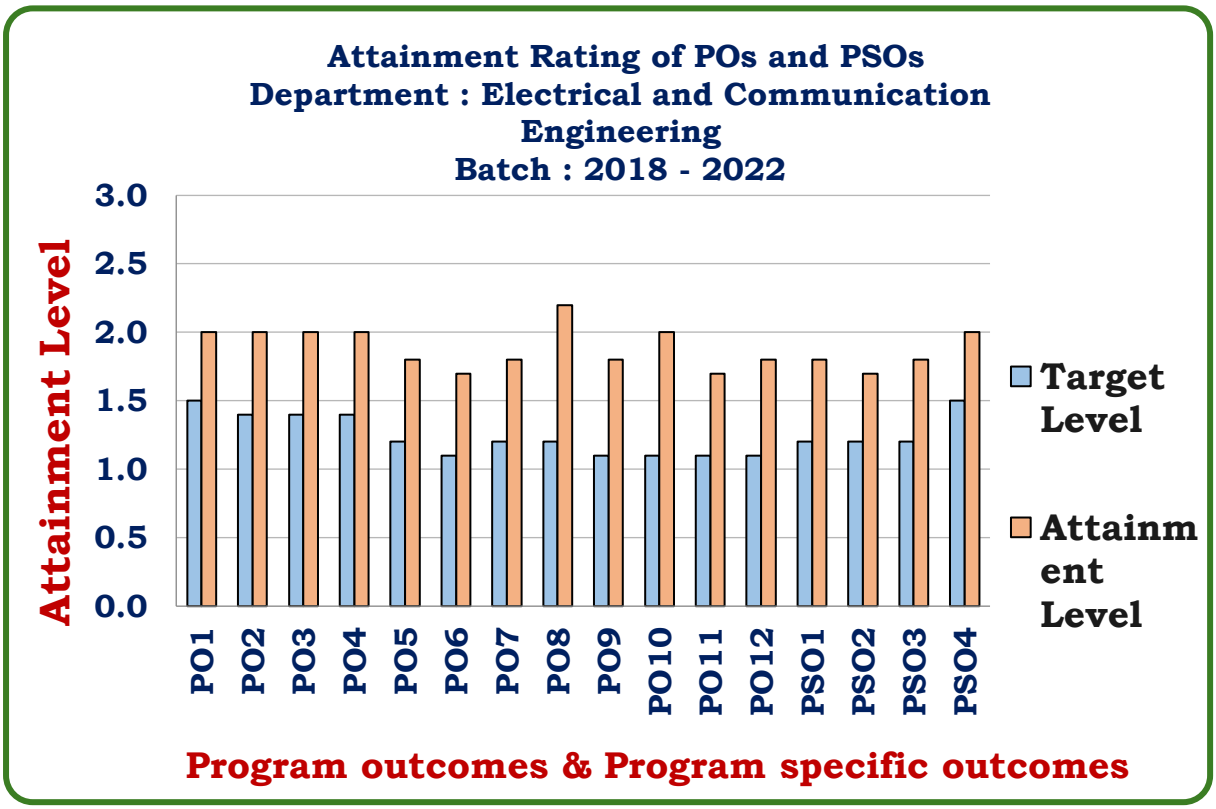
## Indirect Attainment Method

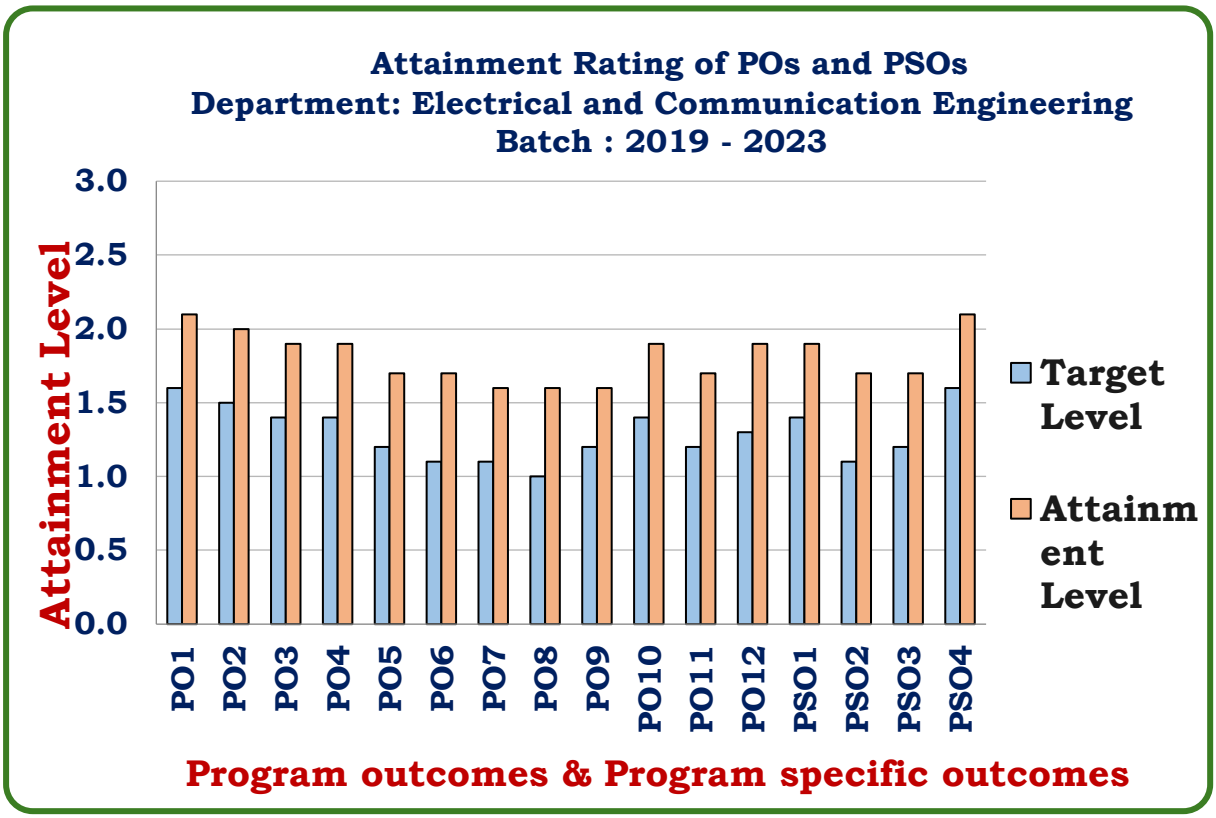
| Sem | Course Code | Program Outcomes (PO) | | | | | | | | | | | | Program Specific Outcomes (PSO) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 |
| **Students PO & PSO Exit Survey** | | | | | | | | | | | | | | | | |
| **Attainment Level** | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| **10%** | | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** | **0.3** |
| **Employer Survey** | | | | | | | | | | | | | | | | |
| **Attainment Level** | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| **5%** | | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** |
| **Alumni Survey** | | | | | | | | | | | | | | | | |
| **Attainment Level** | | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| **5%** | | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** | **0.2** |
| **20% Indirect Attainment (B)** | | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** | **0.6** |
| **Total (Direct A+ Indirect B)** | | **2.1** | **2.0** | **1.9** | **1.9** | **1.7** | **1.7** | **1.6** | **1.6** | **1.6** | **1.9** | **1.7** | **1.9** | **1.9** | **1.7** | **1.7** |
| **Target Level** | | **1.6** | **1.5** | **1.4** | **1.4** | **1.2** | **1.1** | **1.1** | **1.0** | **1.2** | **1.4** | **1.2** | **1.3** | **1.4** | **1.1** | **1.2** |
| **Attainment Status** | | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** | **Yes** |

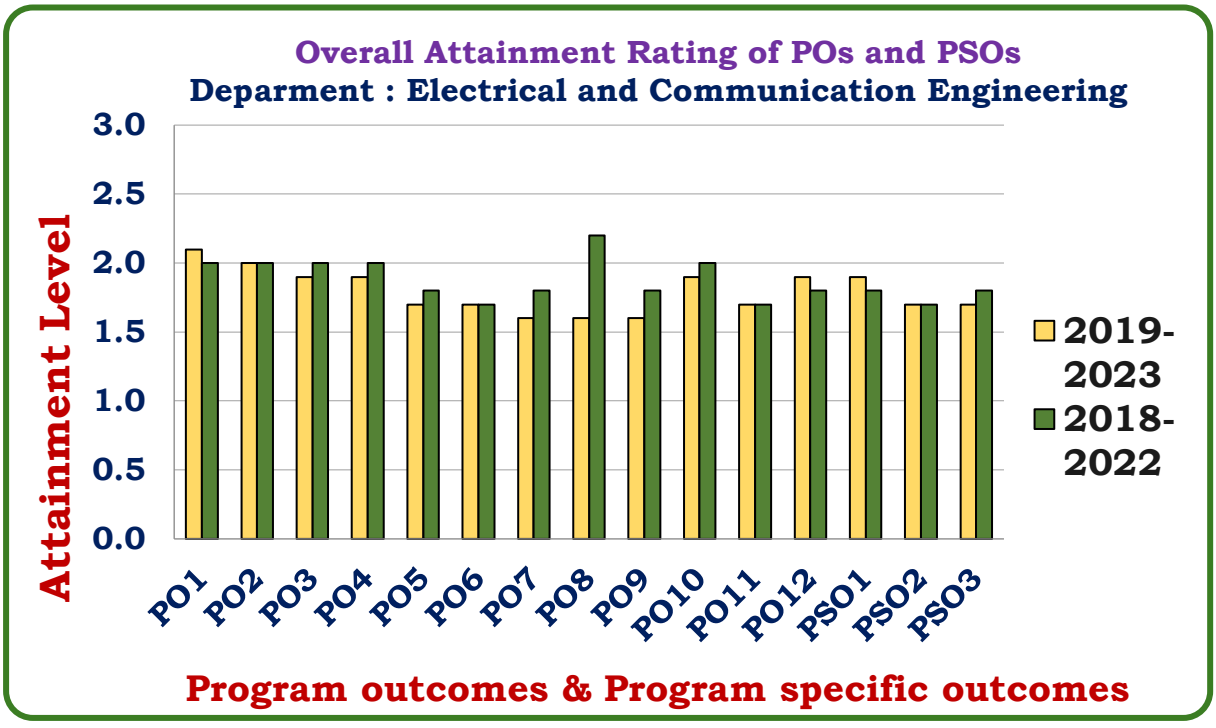
## Department of Electrical and Communication Engineering

### Overall Attainment Rating of POs and PSOs

| Batch | Program Outcomes (PO) | | | | | | | | | | | | Program Specific Outcomes (PSO) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 |
| **Batch: 2018 - 2022** | | | | | | | | | | | | | | | | |
| Target Level | 1.5 | 1.4 | 1.4 | 1.4 | 1.2 | 1.1 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.5 |
| Overall Attainment Level | 2.0 | 2.0 | 2.0 | 2.0 | 1.8 | 1.7 | 1.8 | 2.2 | 1.8 | 2.0 | 1.7 | 1.8 | 1.8 | 1.7 | 1.8 | 2.0 |
| **Batch: 2019 - 2023** | | | | | | | | | | | | | | | | |
| Target Level | 1.6 | 1.5 | 1.4 | 1.4 | 1.2 | 1.1 | 1.1 | 1.0 | 1.2 | 1.4 | 1.2 | 1.3 | 1.4 | 1.1 | 1.2 | 1.6 |
| Overall Attainment Level | 2.1 | 2.0 | 1.9 | 1.9 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.9 | 1.7 | 1.9 | 1.9 | 1.7 | 1.7 | 2.1 |




Attainment Rating of POs and PSOs
Department: Electrical and Communication Engineering
Batch : 2019 - 2023
Attainment Level
3.0
2.5
2.0
1.5
1.0
0.5
0.0
PO1
PO2
PO3
PO4
PO5
PO6
PO7
PO8
PO9
PO10
PO11
PO12
PSO1
PSO2
PSO3
PSO4
Target Level
Attainment Level
Program outcomes & Program specific outcomes


Overall Attainment Rating of POs and PSOs
Deparment : Electrical and Communication Engineering
Attainment Level
3.0
2.5
2.0
1.5
1.0
0.5
0.0
PO1
PO2
PO3
PO4
PO5
PO6
PO7
PO8
PO9
PO10
PO11
PO12
PSO1
PSO2
PSO3
2019-2023
2018-2022
Program outcomes & Program specific outcomes