



# **ST. ANNE'S COLLEGE OF ENGINEERING AND TECHNOLOGY**

(Approved by AICTE, New Delhi. Affiliated to Anna University, Chennai)

Accredited by NAAC

ANGUCHETTPALAYAM, PANRUTI – 607 106.

**6.3.3 Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year**

**6.3.3 Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year**

| <b>Dates (from-to) (DD-MM-YYYY)</b> | <b>Title of the professional development program organised for teaching staff</b>                      | <b>Title of the administrative training program organised for non-teaching staff</b> | <b>No. of participants</b> |
|-------------------------------------|--|--|----------------------------|
| 05.08.2023                          | "Role of Teachers in 21th century"   |  | 45                         |
| 16.09.2023                          | Assessment Rubrics   |  | 32                         |
| 12.03.2024                          | Training program on Academic Audit-I   |  | 10                         |
| 28.03.2024                          | Webinar in Institutional Preparedness for Learning outcome   |  | 18                         |
| 28.02.2024                          | Implementing outcome based education (OBE) in higher education system-efficient question paper setting |  | 37                         |
| 06.04.2024                          |  | Training on computer skills  | 8                          |
| 14.06.2024                          | Implementing outcome based education (OBE) in higher education system-CO-PO,PSO mapping                |  | 32                         |

*R. Jeyavel*  
**Dr. R. AROKIADASS, M.E., Ph.D.,**  
 Principal,

St. Anne's College of Engineering & Technology,  
 ANGUCHETTYPALAYAM,  
 Sivavathur (Post), Paruthi (T.M),  
 Coimbatore (Dist), Pin: 607 101.



# ST. ANNE'S COLLEGE OF ENGINEERING AND TECHNOLOGY

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ANGUCHETTYPALAYAM, PANRUTI - 607106.

## INTERNAL QUALITY ASSURANCE CELL

### CIRCULAR 2023-2024

CIR. No.: SANCET/IQAC/2023- 24/CIR/02

Date: 03. 08.2023

It is informed to all the staff members that the Internal Quality Assurance Cell (IQAC) has arranged an Orientation Programme on "Role of Teachers in the 21<sup>st</sup> Century" for teaching staff members. Hence, all the faculty are requested to attend the orientation program without fail.

**Resource Person** : Dr. Sr. B.J. Queensly Jeyanthi, SAT  
Secretary  
Jayaraj Annapackiam College, Periyakulam.

**Date** : 05.08.2023

**Time** : 09.30AM

**Venue** : Conference Hall.

**IQAC Coordinator**

  
PRINCIPAL

**Copy to:**

1. Secretary
2. Vice Principal
3. All HODs
4. Administrative Officer
5. Library
6. File

**Dr. R. AROKIDASS, M.E., Ph.D.,**  
**Principal,**  
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### Orientation Program on Roles of Teachers in the 21<sup>st</sup> Century

Internal Quality Assurance cell (IQAC) organized orientation program entitled “**Roles of teachers in the 21<sup>st</sup> century**” for the faculty members to encourage them to reach their goal effectively.

**Date of the Meeting & Time:** 05.08.2023

**Venue:** Conference Hall

**Resource Person:** Rev. Sr. Dr. B.J. Queensly Jeyanthi, SAT.  
Secretary  
Jayaraj Annapackiam College, Periyakulam

#### Participants:

All teaching Faculty of SANCET

#### Report:

The session was started with the prayer song and followed by welcome address to the gathering. Rev. Sr. Dr. B.J. Queensly Jeyanthi, SAT, Secretary, Jayaraj Annapackiam College, Periyakulam, took the session entitled “**Role of teachers in the 21<sup>st</sup> Century**”. First session was elaborated the qualities of good teacher which changes the mindset of teachers. Second session starts after the break, which insists the major qualities of a good teacher. This was an interactive session. Faculty has participated earnestly. Afternoon session was continued with the group discussion. The topic was “**Role of an individual in SANCET**”.



The feedback was also collected and found that the program was very fruitful. Finally, Mr. V.C. Eugin Martin Raj, IQAC Co-coordinator proposed vote of thanks.

#### Outcome:

The staff members felt that the session was very helpful to improve their quality.

81. A  
5/8/2023

*R. Arunkadass*  
5/8/2023  
Dr. J. ARUNKADASS, M.E., Ph.D.,  
Principal,  
St. Anne's College of Engineering & Technology,  
ANGUCHETTPALAYAM,  
Siruvathur-(Post), Panruti. TN 607 106

**ST. ANNE'S COLLEGE OF ENGINEERING & TECHNOLOGY**  
**ANGUCHETTYPALAYAM, PANRUTI - 607 106**

**TEACHING STAFF**

**05-08-2023**

| S.NO | STAFF NAME                 | Signature (FN) | Signature (AN) |
|------|----------------------------|----------------|----------------|
| 1    | Dr. R. AROKIADASS          |                |                |
|      | <b>DEPT OF MECH</b>        |                |                |
| 2    | Dr. D. OMMURUGADHASAN      |                |                |
| 3    | Dr. R. SASIKUMAR           |                |                |
| 4    | Mr. P. MURUGAN             |                |                |
| 5    | Mr. K. SHANMUGA ELANGO     |                |                |
| 6    | Mr. K. SARAVANAN           |                |                |
| 7    | Rev. Sr. A. JOSEPHINE MARY |                |                |
| 8    | Mr. R. JAYAKUMAR           |                |                |
| 9    | Mr. M. SIVAMANIKANDAN      |                |                |
|      | <b>DEPT OF ECE</b>         |                |                |
| 10   | Dr. Sr. S. ANITA           |                |                |
| 11   | Mrs. D. UMAMAHESWARI       |                |                |
| 12   | Mr. S. BALA BASKER         |                |                |
| 13   | Mr. R. RADHA KRISHNAN      |                |                |
| 14   | Mrs. B. MARY AMALA JENNI   |                |                |
| 15   | Mr. V. VENKATESAN          |                |                |
| 16   | Mr. S. DURAI RAJ           |                |                |
| 17   | Mr. B. ARUN KUMAR          |                |                |
| 18   | Mrs. A. SAMADHANAPRIYA     |                |                |
|      | <b>DEPT OF EEE</b>         |                |                |
| 19   | Mr. V. C. EUGIN MARTIN RAJ |                |                |
| 20   | Mr. J. RAMESH              |                |                |
| 21   | Mr. K. SRIRAM              |                |                |
| 22   | Mr. V. BALAJI              |                |                |
| 23   | Mr. A. SUNDARAPANDIYAN     |                |                |
| 24   | Mrs. J. ARUL MARTINAL      |                |                |
| 25   | Dr. V. YOGAMBARI           |                |                |
| 26   | Dr. V. SHANMUGAM           |                |                |
| 27   | Mrs. T. ARTHI              |                |                |
|      | <b>DEPT OF CSE</b>         |                |                |
| 28   | Rev. Sr. A. PUNITHA JILT   | AB             | AB             |
| 29   | Mr. S. MANAVALAN           |                |                |
| 30   | Mr. P. SARAVANA BHAVA      |                |                |
| 31   | Mrs. P. NIVETHA            |                |                |
| 32   | Mr. D. RAJ THILAK          |                |                |
| 33   | Mrs. S. SRIVIDHYA          |                |                |

|    |                            |                        |                        |
|----|----------------------------|------------------------|------------------------|
| 48 | Mt. A. THOMAS ARAVAMUTHAM  | <del>[Signature]</del> | <del>[Signature]</del> |
|    | DEPT OF PHYSICAL EDUCATION |                        |                        |
| 47 | Mt. C. CHAKKARAPANI        | [Signature]            | [Signature]            |
|    | DEPT OF LIBRARY            |                        |                        |
| 46 | Dr. P. ALBERT RAJ          | [Signature]            | [Signature]            |
| 45 | Mr. D. SAMPATH KUMAR       | [Signature]            | [Signature]            |
|    | DEPT OF ENGLISH            |                        |                        |
| 44 | Mrs. S. RAMYA              | [Signature]            | [Signature]            |
|    | DEPT OF CHEMISTRY          |                        |                        |
| 43 | Mt. K. RAKESH JAWAHER      | [Signature]            | [Signature]            |
| 42 | Dr. M. MARSHAL ARUNKUMAR   | [Signature]            | [Signature]            |
|    | DEPT OF PHYSICS            |                        |                        |
| 41 | Dr. S. AZHAGARASI          | [Signature]            | [Signature]            |
| 40 | Mt. R. VISWALINGAM         | [Signature]            | [Signature]            |
| 39 | Mt. V. PRAKASH             | [Signature]            | [Signature]            |
| 38 | Mt. N. SYED MUBARAK        | [Signature]            | [Signature]            |
|    | DEPT OF S/H MATHS          |                        |                        |
| 37 | Mt. V. VIGNESH             | AB                     | AB                     |
| 36 | Mt. G. RAJAKUMAR           | AB                     | AB                     |
| 35 | Mt. R. MANICKAVASAGAN      | [Signature]            | [Signature]            |
| 34 | Mrs. K. KAYALVIZHI         | [Signature]            | [Signature]            |

Dr. S. Azhagarasi  
5/10/25



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ANGUCHETTPALAYAM, PANRUTI - 607106.

## INTERNAL QUALITY ASSURANCE CELL

### CIRCULAR 2023-2024

CIR. No.: SANCET/IQAC/2023- 24/CIR/04

Date: 13. 09. 2023

It is informed to all the staff members that the Internal Quality Assurance Cell (IQAC) has arranged an Training Programme on "Assessment Rubrics" for all the teaching staff members. Hence, all the faculty are requested to attend the training program without fail.

**Resource Person** : Mr. S. Balabasker, AP/ECE and Mrs. B. Mary Amala Jenni, AP/ECE  
**Date** : 16. 09. 2023  
**Time** : 09.30AM  
**Venue** : R&D Lab.

*for V.S.P.*  
IQAC Coordinator  
13/9/2023

#### Copy to:

1. Secretary
2. Vice Principal
3. All HODs
4. Administrative Officer
5. Library
6. File

*R. Arokia Dass*  
PRINCIPAL  
13/9/23

**Dr. R. AROKIDASS, M.E., Ph.D.**  
Principal,  
St. Anne's College of Engineering & Technology  
ANGUCHETTPALAYAM,  
Siruvethur-(Post), Panruti-(T.k),  
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ANGUCHETTYPALAYAM, PANRUTI - 607106.

Training Program on  
Assessment Rubrics

Date: 16.09.2023 (FN)

| ATTENDANCE SHEET |                               |           |
|------------------|-------------------------------|-----------|
| Sl. No           | Name of the Full-time teacher | Signature |
| 1                | Dr. R. Arokiadass             |           |
| 2                | Dr. D. Ommurugadhasan         |           |
| 3                | Dr. Sr. S. Anita              | AB        |
| 4                | Dr. P. Albert Raj             |           |
| 5                | Dr. D. Sampath Kumar          |           |
| 6                | Dr. R. Sasikumar              |           |
| 7                | Dr. G. Abirama Sundari        | AB        |
| 8                | Mr. N. Syed Mubarak           |           |
| 9                | Mr. V. Prakash                | AB        |
| 10               | Mr. K. Rackesh Jawaher        |           |
| 11               | Mrs. S. Ramya                 | AB        |
| 12               | Sr. Gnana Jency               | AB        |
| 13               | Mr. P. Murugan                |           |
| 14               | Mr. K. Shanmuga Elango        |           |
| 15               | Mr. K. Saravanan              |           |
| 16               | Mr. R. Jayakumar              |           |
| 17               | Mr. M. Sivamanikandan         | AB        |
| 18               | Mrs. D. Umamaheswari          |           |
| 19               | Mr. R. Radha Krishnan         |           |
| 20               | Mr. V. Venkatesan             | AB        |
| 21               | Mr. S. Durairaj               |           |
| 22               | Mr. B. Arun Kumar             | AB        |
| 23               | Mrs. A. Samadhana Priya       |           |
| 24               | Mr. V. C. Eugin Martin Raj    |           |
| 25               | Mr. J. Ramesh                 |           |
| 26               | Mr. K. Sriram                 | AB        |
| 27               | Mr. V. Balaji                 |           |



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|    |                             |                                |
|----|-----------------------------|--------------------------------|
| 28 | Mr. A. Sundarapandiyan      | <i>AS</i>                      |
| 29 | Mrs. J. Arul Martinal       | AB                             |
| 30 | Dr. V. Yogambari            | AB                             |
| 31 | Dr. V. Shanmugam            | V. Shanmugam                   |
| 32 | Mrs. T. Arthi               | T. Arthi                       |
| 33 | Sr. A. Punitha Jilt         | <i>AP</i>                      |
| 34 | Mr. S. Manavalan            | <i>SM</i>                      |
| 35 | Mr. P. Saravana Bhava       | P. Saravana Bhava<br>16.9.23   |
| 36 | Mrs. P. Nivetha             | P. Nivetha                     |
| 37 | Mr. D. Raj Thilak           | AB                             |
| 38 | Mrs. S. Srividhya           | S. Srividhya                   |
| 39 | Mrs. K. Kayalvizhi          | K. Kayalvizhi                  |
| 40 | Mr. R. Manickavasagan       | R. Manickavasagan<br>16/9/2023 |
| 41 | Mrs. R. Vijayalakshmi       | R. Vijayalakshmi<br>16/9/23    |
| 42 | Dr. M. Kavitha Mayilvaganan | M. Kavitha Mayilvaganan        |



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## INTERNAL QUALITY ASSURANCE CELL CIRCULAR

2023-2024

CIR. No: SANCET/IQAC/2023- 24/CIR/10

Date: 11. 03.2024

With reference to the circular SANCET/IQAC/2023- 24/CIR/09 dated 11.03.2024, the Academic Audit -1 will be held on 15<sup>th</sup> & 16<sup>th</sup> March 2024. Hence the Internal Quality Assurance Cell has planned to conduct the training program for the auditors on 12.03.2024 to enhance the quality audit.

**Venue** : IQAC CELL  
**Date & Time** : 12.03.2024 & 3.30 PM to 4.30 PM.  
**Resource Person** : Dr.Sr.S.Anita,  
Dean of Excellence – SANCET

*K. S. S. Anita*  
11/03/2024  
**IQAC Director**

*S. S. Anita*  
11/3/2024  
**Dean of Excellence**

*R. R. Arokiadass*  
11/3/24  
**Principal**

**Copy to:**

1. Secretary
2. Dean & Vice Principal
3. All HoDs
4. Administrative Officer
5. Library
6. File

**Dr.R.AROKIADASS, M.E., Ph.D.,**  
**Principal,**  
St.Anne's College of Engineering & Technology,  
**ANGUCHETTYPALAYAM,**  
**Siruvathur-(Post), Panruti-(T.k),**  
**Cuddalore-(Dist), Pin: 607 110.**



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## TRAINING PROGRAMME ON ACADEMIC AUDIT - I

### ATTENDANCE SHEET

Date: 12.03.2024

| S. no. | NAME                   | SIGNATURE |
|--------|------------------------|-----------|
| 1      | Mr. S. Balabaskar      |           |
| 2      | Mr. K. Shanmuga Elango |           |
| 3      | Mr. S. Durai Raj       |           |
| 4      | Mr. J. Ramesh          |           |
| 5      | Mr. N. Syed Mubarak    |           |
| 6      | Mr. V. Balaji          |           |
| 7      | M.V. PRAKASH           |           |
| 8      | Mr. K. Rackesh Jawahar |           |
| 9      | Mr. k. Saravanan       |           |
| 10     | Mrs. T. Arthi          |           |



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## INTERNAL QUALITY ASSURANCE CELL(IQAC) REPORT ON ACADEMIC AUDIT -I TRAINING PROGRAM

### Introduction:

This report presents an overview of the Internal audit training program conducted by resource person Dr. Sr. Anita for the audit team members Mr. S. Bala Baskar, Mr. K. Shanmuga Elango, Mr. S. Durai Raj, Mr. J. Ramesh, Mr. V. Prakash, Mr. K. Rackesh Jawahar, Mr. N. Syed Mubarak, Mr. V. Balaji, and Mr. S. Manavalan on March 12, 2024. The program aimed to enhance the skills and knowledge of staff members across various departments, including the Career Guidance and Placement Cell, Office and Sports, and Placement and Examination Cell. The training program focused on equipping participants with the necessary tools and techniques to conduct internal audits effectively within their respective departments.

### Objectives:

- To familiarize staff members with the principles and practices of internal auditing.
- To empower staff members to conduct internal audits independently.
- To enhance the effectiveness and efficiency of departmental operations through internal audits.
- To ensure submission with controlling requirements and organizational policies.

### Training Program Overview:

**Overview of Internal Auditing and planning:** The principles, goals, and procedures of internal auditing were covered in this session. Auditors were shown how to organize and rank audit tasks according to risk. To detect and assess issues inside their departments, they were exposed to a number of risk evaluation techniques and methods.

**Audit Procedures and Techniques:** This session covered the practical exposure of conducting internal audits, including document review, interviews, observation, and testing. Participants learned how to gather audit documentation, analyze findings, and communicate results effectively.

**Reporting and Follow-Up:** Participants received instruction on how to flow thorough audit reports that express audit findings, references, and remedial measures in an understandable manner. A decision was taken regarding the importance of monitoring the achievement of audit suggestions through follow-up measures.

### Specialized Sessions for Each Department:

**Departments:** These give department-specific audit considerations, including curriculum delivery, laboratory management, project execution, and research activities. Participants gained an

understanding of best practices for certifying quality, safety, and compliance within the departments.

| S.no | Departments  |
|------|--|
| 1    | Subject allocation   |
| 2    | Curriculum and syllabus  |
| 3    | Time table   |
| 4    | Log book   |
| 5    | Value Added course (Minimum one for Academic year)   |
| 6    | Project reports  |
| 7    | Internship   |
| 8    | Anna university / CIA Time table   |
| 9    | Students, faculty feedback, analysis & action taken report   |
| 10   | Parents feedback   |
| 11   | All Events documents (As per the Academic calendar) including Participative learning, Experiential learning and Problem-solving methodology. |
| 12   | List of students with class in charge and mentor's (year wise)   |
| 13   | Counseling record  |
| 14   | Class committee meeting  |
| 15   | CIA Answer scripts   |
| 16   | Anna University Result Copy and Analysis   |
| 17   | Feedback on Anna University Question paper   |
| 18   | Mapping of CO and PO, Question papers  |
| 19   | Research papers  |
| 20   | Incubation Activity  |
| 21   | Program (Activity) regarding MoU's – Min. one program/year   |
| 22   | Software license   |
| 23   | Laboratory Stock register  |
| 24   | Maintenance register for each laboratory   |

|    |  |
|----|--|
| 25 | Proof of all grants (Sanctioned letter, reports, UC) |
|----|--|

**Career Guidance and Placement Cell:** This session focused on auditing processes related to career guidance, student placements, and industry collaborations. Participants gained insights into best practices for facilitating student career development and enhancing placement opportunities.

| S.no | Carrier guidance and Placement Cell  |
|------|--|
| 1    | Soft skills, Language and communication skills, Life skills, ICT -computing skills.                                    |
| 2    | Events for competitive examinations and career counselling offered by the Institution (any form of events with proof). |
| 3    | Placement details.   |

**Office and Sports Department:** Participants learned how to audit administrative processes, facilities management, and sports activities. Special attention was given to ensuring compliance with health and safety regulations and enhancing resource utilization.

| S.no | Administration office  |
|------|--|
| 1    | Anna University Affiliation order  |
| 2    | AICTE Approval order   |
| 3    | DOTTE Approval order   |
| 4    | Admitted Student Name list - Reserved Category wise  |
| 5    | Government order for Reservation   |
| 6    | TNEA Booklet - up to the page of Reservation   |
| 7    | DOTTE Approval order   |
| 8    | First year name list & Allotment order   |
| 9    | Scholarship details  |
| 10   | Audit statement  |
| 11   | Scholarships- PMSS, FGG, BC/MBC, Minority – Government Sanctioned list.                                |
| 12   | Management free ships & all other scholarships (uzhavar) and its proof.                                |
| 13   | CL, RL, OD, ML, Higher studies, Gifts/Bonus, travelling allowance, one way travelling concession, EPF. |
| S.no | Sports   |

|   |  |
|---|--|
| 1 | Sports and competitions in which students of the Institution participated list and its proof |
|---|--|

**Examination Cell:** This session addressed auditing procedures for examination processes, grading systems. Participants gained practical skills to assess the integrity and effectiveness of examination and placement procedures.

| S.no | Exam Cell                                 |
|------|---|
| 1    | List of electives                         |
| 2    | Assessment report (CIA1,2,3)              |
| 3    | Internal mark- Auto generated out of 20   |
| 4    | Lab conduction and model mark entry proof |
| 5    | CIA and AU conduction proof               |
| 6    | CIA Exam question paper                   |
| 7    | Mark statements and AU results            |
| 8    | Web portal Entry - Theory Course          |
| 9    | Photocopy & Revaluation applied copy      |
| 10   | Grievance register                        |

**Entrepreneurship Development Cell (EDC):** This session focused on auditing processes related to entrepreneurship initiatives and startup support. Auditors gained an understanding of best practices for developing business spirit and supporting innovation within the college community.

| S.no | EDC Cell  |
|------|---|
| 1    | IIC activities  |
| 2    | Project expo  |
| 3    | Idea hackathon  |
| 4    | Events (broucher, resource person details, students attendance, reports, MoM, Photos, details of resource person with contact). |

**National Service Scheme (NSS):** Auditors learned how to audit NSS activities, public appointment projects, and volunteer management processes. Special attention was given to assessing the impact and effectiveness of NSS initiatives in addressing societal needs and promoting social responsibility.

| S.no | NSS Cell                                  |
|------|---|
| 1    | Social activities outside NSS & its proof |
| 2    | NSS activities and its proof, Photos      |
| 3    | Village adaptation                        |

**Library:** This session addressed auditing procedures for library purchase, movement, and user services. Participants gained practical skills to evaluate the efficiency of library operations, improve resource utilization, and enhance user satisfaction.

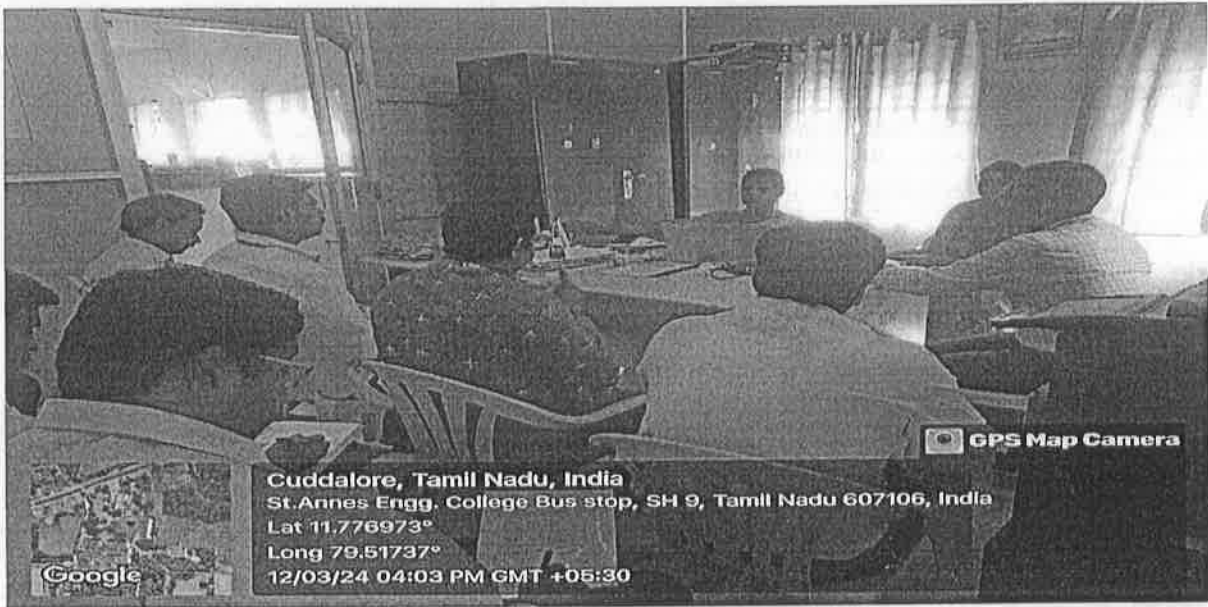
| S.no | Library                             |
|------|-------------------------------------|
| 1    | Gate register                       |
| 2    | Nirmal Software details             |
| 3    | Library issue & return of resources |
| 4    | Stock verification entry            |
| 5    | E-journals, list                    |
| 6    | Database list                       |
| 7    | Details of library usage            |

### **The Internal Audit Training Program achieved the following outcomes:**

- Enhanced understanding of internal auditing ethics and techniques among staff members.
- Improved capacity to identify and moderate risks within departmental operations.
- Strengthened documentation and reporting practices for audit findings and approvals.
- Increased awareness of submission requirements and best practices within each department.

### **Conclusion:**

The Internal Audit Training Program served as a valuable opportunity for staff members to enhance their auditing skills and contribute to the overall effectiveness and efficiency of departmental operations within our college. By promoting a culture of internal control, responsibility, and continuous improvement, the program has laid the foundation for sustainable growth and success. Feedback collected for the Internal Audit Training Program highlighted the program's relevance and interactive learning approach within our college.



Cuddalore, Tamil Nadu, India  
 St. Annes Engg. College Bus stop, SH 9, Tamil Nadu 607106, India  
 Lat 11.776973°  
 Long 79.51737°  
 12/03/24 04:03 PM GMT +05:30



Cuddalore, Tamil Nadu, India  
 St. Annes Engg. College Bus stop, SH 9, Tamil Nadu 607106, India  
 Lat 11.776974°  
 Long 79.517367°  
 12/03/24 04:01 PM GMT +05:30

*K-8-4*  
*15/03/2024*

**IQAC Director**

*S. S. S.*  
*15/3/2024*

**Dean of Excellence**

*R. Arakadass*  
*15/3/24*

**Dr. R. AROKIADASS, M.E., Ph.D.,**  
**Principal,**  
 St. Anne's College of Engineering & Technology,  
 ANGUCHETTPALAYAM,  
 Siruvathur-(Post), Panruti-(T.k),  
 Cuddalore-(Dist), Pin: 607 110.



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## INTERNAL QUALITY ASSURANCE CELL

### FEEDBACK - CONSOLIDATED

Program: "Training Program on Academic Audit - I"

Date: 12.03.2024

Time: 3.30 PM to 4.30 PM

| Q. No.             | Questions   | Feedback Obtained Student Count | Credit Category |   |   |   |   | Total Credit | Credit Secured | Percentage |
|--------------------|---|---------------------------------|-----------------|---|---|---|---|--------------|----------------|------------|
|                    |   |                                 | 5               | 4 | 3 | 2 | 1 |              |                |            |
| 1                  | Did the content provide you with comprehensive information?   | 9                               | 5               | 3 | 1 | 0 | 0 | 45           | 40             | 89         |
| 2                  | Did you find the training easy to understand and use?         | 9                               | 5               | 3 | 1 | 0 | 0 | 45           | 40             | 89         |
| 3                  | Was the program interactive and engaging?                     | 9                               | 6               | 3 | 0 | 0 | 0 | 45           | 42             | 93         |
| 4                  | Did the program give example of how to implement in practice? | 9                               | 2               | 6 | 1 | 0 | 0 | 45           | 37             | 82         |
| 5                  | How would you rate the overall quality of this session?       | 9                               | 3               | 6 | 0 | 0 | 0 | 45           | 39             | 87         |
| 6                  | Overall, how would you rate the training instructor?          | 9                               | 4               | 5 | 0 | 0 | 0 | 45           | 40             | 89         |
| Overall Percentage |   |                                 |                 |   |   |   |   |              |                | 88         |

K. S. 15/03/2024

IQAC Director

*[Signature]*  
Dean of Excellence

*[Signature]*  
DR. PAROKIABASS, M.E., Ph.D.,  
Principal,

St. Anne's College of Engineering & Technology,  
ANGUCHETTYPALAYAM,  
Siruvathur-(Post), Panruti-(T.k),



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**INTERNAL QUALITY ASSURANCE CELL**

**CIRCULAR**  
**(2023 – 2024)**

**CIR. No: SANCET/IQAC/2023-24/CIR/11**

**Date: 27.03.2024**

It is informed that Internal Quality Assurance cell in collaboration with Master Soft, has planned to organize a webinar on Institutional Preparedness for Learning Outcomes on March 28, 2024. Hence, all the HoD's and 2<sup>nd</sup> Criteria members are requested to attend the webinar without fail.

**Venue** : Mechatronics lab

**Date & Time** : 28.03.2024 & 3.00 PM.

*K. S. S.*  
*27/3/2024*  
**IQAC Director**

*S. K.*  
*27/3/2024*  
**Dean of Excellence**

*R. Aradiass*  
*27.3.24*  
**Principal**  
**Dr.R.AROKIADASS, M.E., Ph.D.**  
**Principal,**  
St.Anne's College of Engineering & Technology,  
ANGUCHETTYPALAYAM,  
Srivathur-(Post), Panruti-(T.k),  
Cuddalore-(Dist), Pin: 607 110.



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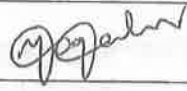
## WEBINAR ON INSTITUTIONAL PREPAREDNESS FOR LEARNING OUTCOMES

### ATTENDANCE SHEET

Date: 28.03.2024

Time: 3.00 PM

| S. no. | NAME                   | SIGNATURE |
|--------|------------------------|-----------|
| 1      | Dr. Sr. S. Anita       |           |
| 2      | Mr. k. Saravanan       |           |
| 3      | Mr. K. Shanmuga Elango |           |
| 4      | Mr. K. Sriram          |           |
| 5      | Mr. S. Balabaskar      |           |
| 6      | Mrs. S. Ramya          |           |
| 7      | Mr. S. Durai Raj       |           |
| 8      | Mr. K. Ramesh          |           |
| 9      | Mrs. T. Arthi          |           |
| 10     | Mr. B. Arunkumar       |           |
| 11     | Dr. R. Sasikumar       |           |
| 12     | Sr. A. Josephine Mary  |           |
| 13     | Mr. V. Venkatesan      |           |

|     |                             |  |
|-----|-----------------------------|--|
| 14  | Dr. V. Yogambari            |  |
| 15* | Dr. M. Kavitha Mayilvaganan | M. Kavitha   |
| 16  | Ms. K. Kayalvizhi           | K. Kayalvizhi  |
| 17  | Ms. T. Gayathri             | T. Gayathri  |
| 18  | Mr. V. Prabakaran           | V. Prabakaran  |



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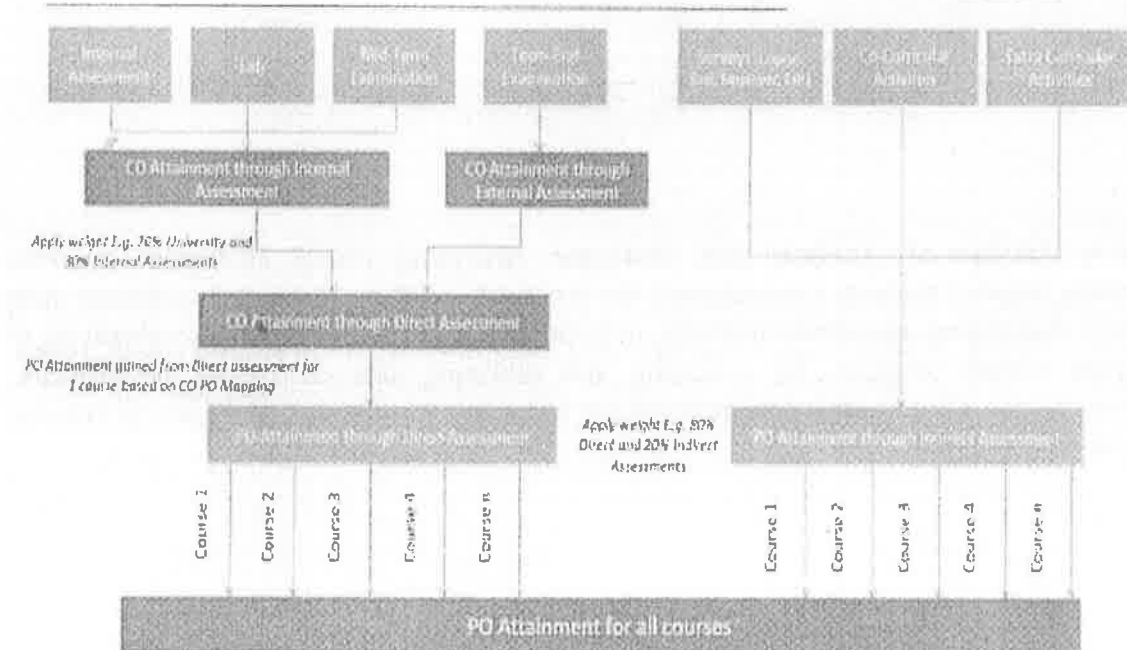
## INTERNAL QUALITY ASSURANCE CELL(IQAC) REPORT ON INSTITUTIONAL PREPAREDNESS FOR LEARNING OUTCOMES

**Introduction:** In today's educational landscape, institutions are increasingly highlighting outcome-based education (OBE) to ensure that students achieve specific learning outcomes. This report aims to assess institutional preparedness in implementing OBE, monitoring course outcome attainment, analyzing attainment, tracking student progression, and leveraging artificial intelligence (AI), particularly natural language processing (NLP), in reporting and analyzing attainment outcomes to track student progress and enhance course attainment.

**Outcome-Based Education (OBE):** OBE underlines defining clear learning outcomes and aligning teaching strategies to achieve them. Institutions must articulate measurable outcomes that reflect the knowledge, skills, and attitudes graduates should possess. Assessment practices should focus on criterion-referenced evaluation to determine if students have met the specified outcomes.

### OBE Workflow

MasterSoft  
Building the Future



## Outcome Based Education (OBE)

MasterSoft

Transformation of curriculum towards Outcome Based Education (OBE)

MASTERSoft

Progress Status

| Course | Faculty    | Section | SY | CR | Prerequisite | Corequisite | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 |
|--------|------------|---------|----|----|--------------|-------------|------|------|------|------|------|------|------|
| 21001  | Dr. Prasad | 1       | 1  | 1  | 21001        | 21001       | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 21002  | Dr. Prasad | 1       | 1  | 1  | 21001        | 21001       | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 21003  | Dr. Prasad | 1       | 1  | 1  | 21001        | 21001       | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| 21004  | Dr. Prasad | 1       | 1  | 1  | 21001        | 21001       | 1    | 1    | 1    | 1    | 1    | 1    | 1    |

Object Status

| Object | Status | Value |
|--------|--------|-------|
| 1      | 1      | 1     |
| 2      | 1      | 1     |
| 3      | 1      | 1     |
| 4      | 1      | 1     |
| 5      | 1      | 1     |
| 6      | 1      | 1     |
| 7      | 1      | 1     |
| 8      | 1      | 1     |
| 9      | 1      | 1     |
| 10     | 1      | 1     |

CO Attainment

| Course | Faculty    | Section | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 |
|--------|------------|---------|------|------|------|------|------|------|------|
| 21001  | Dr. Prasad | 1       | 1    | 1    | 1    | 1    | 1    | 1    | 1    |

Course Status

| Course | Status | Value |
|--------|--------|-------|
| 1      | 1      | 1     |
| 2      | 1      | 1     |
| 3      | 1      | 1     |
| 4      | 1      | 1     |
| 5      | 1      | 1     |
| 6      | 1      | 1     |
| 7      | 1      | 1     |
| 8      | 1      | 1     |
| 9      | 1      | 1     |
| 10     | 1      | 1     |

## Outcome Based Education (OBE)

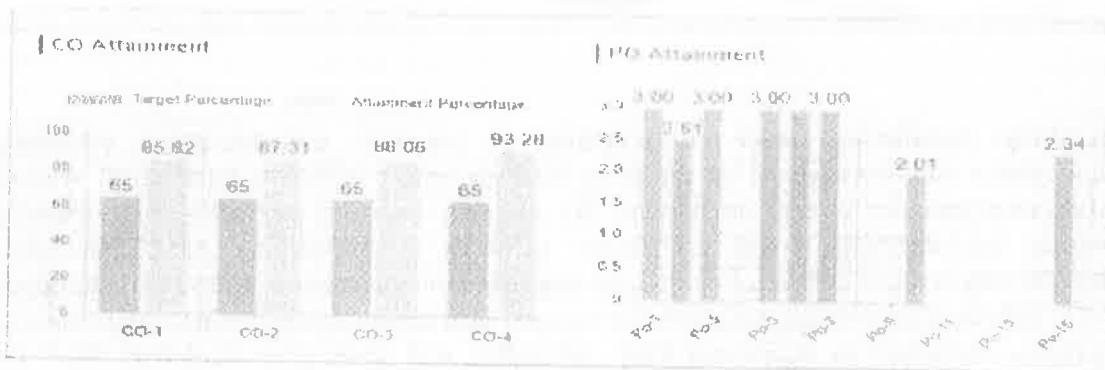
MasterSoft

| CO/PO | PO-1 | PO-2 | PO-3 | PO-4 | PO-5 | PO-6 | PO-7 | CO-PO Mapping Details |
|-------|------|------|------|------|------|------|------|-----------------------|
| CO-1  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | CO-1                  |
| CO-2  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | CO-2                  |
| CO-3  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | CO-3                  |
| CO-4  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | CO-4                  |
| CO-5  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | CO-5                  |

**Course Attainment Analysis and Outcome:** Analyzing course attainment involves assessing whether students have achieved the proposed learning outcomes. Institutions must employ challenging assessment methods, including influential and collective evaluations, to measure student progress. By collecting and analyzing data on student performance, institutions can identify areas for improvement and refine instructional strategies to enhance learning outcomes.

| CO_NAME | TOTAL_STUDENT | ATTAIN_STUDENT | TARGET_PER | ATTAINMENT_PER | GAP_PER | Attainment_Level |
|---------|---------------|----------------|------------|----------------|---------|------------------|
| CO-1    | 11            | 11             | 85         | 100            | -15.00  | 3                |
| CO-2    | 11            | 11             | 85         | 100            | -15.00  | 3                |
| CO-3    | 11            | 11             | 85         | 100            | -15.00  | 3                |
| CO-4    | 11            | 11             | 85         | 100            | -15.00  | 3                |
| CO-5    | 11            | 7              | 85         | 63.64          | 21.36   | 2                |

### Attainment Analytics



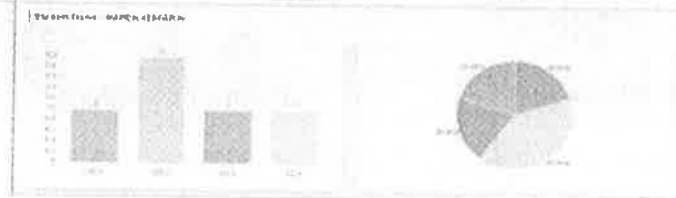
### Attainment Outcomes

Student Web Attainment

Academic Session: P.Y. 2021-22

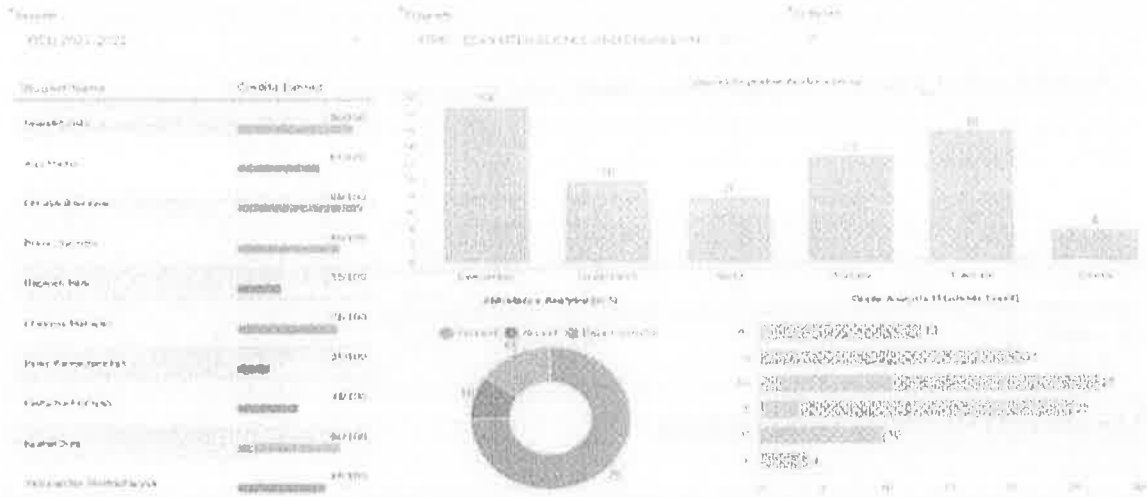
Course: EE Electrical Engineering 2019 (for CO-5) (2019-20)

| Registration No. | Student Name       | CO-1 | CO-2 | CO-3 | CO-4 | View |
|------------------|--------------------|------|------|------|------|------|
| U18A016          | Abhishek Chandra M | 3.00 | 3.00 | 3.00 | 3.00 | View |
| U18A017          | Adarsh             | 3.00 | 3.00 | 3.00 | 3.00 | View |
| U18A018          | Adarsh             | 3.00 | 3.00 | 3.00 | 3.00 | View |



**Tracking Student Progress:** Effective tracking of student progress is essential for monitoring individual performance and identifying areas needing intervention. Institutions should implement strong data tracking systems to monitor student performance across various assessments and assignments. Regular feedback mechanisms and personalized learning approaches can help address student needs and facilitate continuous improvement.

## How do we keep track of Student Progression



**Conclusion:** Institutions must be prepared to integrate outcome-based education methodologies and leverage AI in reporting NLP to ensure effective tracking of student progress and enhance course attainment. By aligning teaching strategies with learning outcomes, implementing strong assessment practices, and attaching AI technologies, institutions can create a culture of continuous improvement and ensure students are equipped with the necessary knowledge and skills for success. This report highlights the significance of institutional readiness in approving OBE principles and leveraging AI-driven NLP for effective reporting and tracking of learning outcomes.

*K. S. S.*  
05/04/2024  
IQAC Director

*S. K. S.*  
5/4/2024  
Dean of Excellence

*R. S. S.*  
6/4/24  
Dr. R. ARUNIDASS, M.E., Ph.D.,  
Principal,  
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**INTERNAL QUALITY ASSURANCE CELL**

**EVENT FEEDBACK - CONSOLIDATED**

**WEBINAR: Institutional Preparedness for Learning Outcomes**      **DATE: 28.03.2024**      **TIME: 3:00 PM**

| Q. No.                    | Questions   | Feedback Obtained | Credit Category |   |   |   |   | Total Credit | Credit Secured | Percentage |
|---------------------------|---|-------------------|-----------------|---|---|---|---|--------------|----------------|------------|
|                           |   |                   | 5               | 4 | 3 | 2 | 1 |              |                |            |
| 1                         | Did the content provide you with comprehensive information?   | 17                | 6               | 7 | 4 | 0 | 0 | 85           | 70             | 82%        |
| 2                         | Did you find the training easy to understand and use?         | 17                | 6               | 5 | 5 | 1 | 0 | 85           | 67             | 79%        |
| 3                         | Was the program interactive and engaging?                     | 17                | 6               | 5 | 5 | 1 | 0 | 85           | 67             | 79%        |
| 4                         | Did the program give example of how to implement in practice? | 17                | 4               | 6 | 6 | 1 | 0 | 85           | 64             | 75%        |
| 5                         | How would you rate the overall quality of this session?       | 17                | 5               | 7 | 3 | 2 | 0 | 85           | 71             | 86%        |
| 6                         | Overall, how would you rate the training instructor?          | 17                | 6               | 6 | 4 | 1 | 0 | 85           | 68             | 80%        |
| <b>Overall Percentage</b> |   |                   |                 |   |   |   |   |              |                | <b>80%</b> |

*S. K. S. / 5/1/2024*  
**IQAC Director**

*S. K. S. / 5/1/2024*  
**Dean of Excellence**

*R. J. Subramanian*  
**Principal**  
**DR. R. ARUNADASS, M.E., Ph.D.,**  
 Principal,  
 St. Anne's College of Engineering & Technology,

**ANGUCHETTYPALAYAM,**  
 Siruvathur-(Post), Panruti-(T. K),  
 Cuddalore-(Dist), Pin: 607 106.



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## INTERNAL QUALITY ASSURANCE CELL

### CIRCULAR

2023-2024

CIR. No.: SANCET/IQAC/2023- 24/CIR/08

Date: 27. 02. 2024

It is informed to all the teaching staff members that the Internal Quality Assurance Cell (IQAC) has arranged an orientation programme on “**Implementing Outcome Based Education (OBE) in higher education system - Efficient question paper setting**”. Hence, all the faculty are requested to attend the program without fail. The details are listed below.

**Venue:** Mechatronics Laboratory.

**Date & Time:** 28.02.2024 & 4 PM to 5 PM.

**Resource Person:** Mr.K.Saravanan,  
AP/Mechanical

*K. Saravanan*  
27/2/24  
IQAC Director

*S. J.*  
27/2/2024  
Dean of Excellence

*R. Arunkumar*  
27/2/24  
Dr. R. ARUNKUMAR, M.E., Ph.D.,  
Principal,  
St. Anne's College of Engineering & Technology  
ANGUCHETTPALAYAM,  
Struvathur-(Post), Panruti-(T.k),  
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Implementing Outcome Based Education in higher education  
System - Efficient question paper setting

ATTENDANCE SHEET

Department: EEE

Date: 28.02.2024

| S. no. | NAME                    | SIGNATURE           |
|--------|-------------------------|---------------------|
| 1      | Mr. K. Sriram           | K. Sriram           |
| 2      | Mr. J. Ramesh           | J. Ramesh           |
| 3      | Mr. A. Sundara Pandiyan | A. Sundara Pandiyan |
| 4      | Mr. V. Balaji           | V. Balaji           |
| 5      | Dr. V. Shanmugam        | AB                  |
| 6      | Dr. V. Yogambari        | Dr. V. Yogambari    |
| 7      | Mrs. T. Arthi           | T. Arthi            |
| 8      | Mr. V. Prabakaran       | V. Prabakaran       |

Department: Mech

| S. no. | NAME                   | SIGNATURE                  |
|--------|------------------------|----------------------------|
| 1      | Mr. K. Shanmuga Elango | K. Shanmuga Elango 28/2/24 |
| 2      | Dr. D. Ommurugadhasan  | AB                         |
| 3      | Mr. R. Jayakumar       | R. Jayakumar               |
| 4      | Mr. k. Saravanan       | k. Saravanan               |
| 5      | Mr. M. Sivamanikandan  | M. Sivamanikandan          |
| 6.     | Sr. Josephine Mary.    | Sr. Josephine Mary.        |



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**INTERNAL QUALITY ASSURANCE CELL (IQAC)**

**REPORT ON “IMPLEMENTING OUTCOME BASED EDUCATION (OBE)  
IN HIGHER EDUCATION - EFFICIENT QUESTION PAPER SETTING”**

The goal of the question paper setting program was to improve instructors' cognitive skills while ensuring that they were meeting the knowledge requirements for each segment of the test. The purpose was to create question papers that are student-centered, consider different cognitive levels, and match to course outcomes in order to promote comprehension and evaluation.

The program's first component focused on developing question papers with a student-centered approach. This strategy focuses heavily on developing questions that require students to connect with the subject in a meaningful way, exercise critical thinking, and apply what they have learned to real-world circumstances. To encourage students to think at a higher level, tactics such as case studies, application-based questions, and problem-solving were tested.

**Question Paper Setting**

**Based on Examination Reforms Policy given by AICTE website**

| Level | Descriptor    | Level of attainment  |
|-------|---------------|--|
| 1     | Remembering   | Recalling from the memory of the previously learned material                   |
| 2     | Understanding | Explaining ideas or concepts   |
| 3     | Applying      | Using the information in another familiar situation                            |
| 4     | Analysing     | Breaking information into the part to explore understandings and relationships |
| 5     | Evaluating    | Justifying a decision or course of action                                      |
| 6     | Creating      | Generating new ideas, products or new ways of viewing things                   |



## BLOOM'S TAXONOMY:

**K-Level**

**K1-Remember,**

**K2-Understand,**

**K3-Apply,**

**K4- Analyze,**

**K5-Evaluate, and**

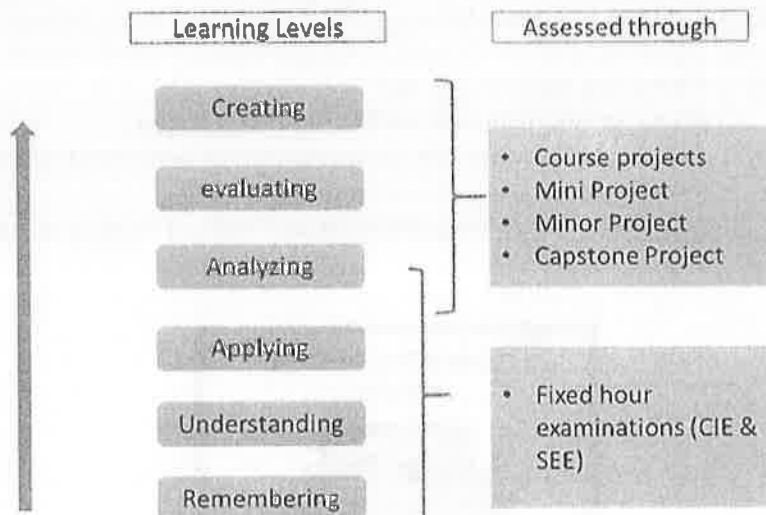
**K6-Create**

**K1 & K2 – lower order**

**K3 & K4 – Intermediate order**

**K5 & K6 – Higher Order**

### Assessment methods for different Bloom's cognitive levels



| Level         | Skill Demonstrated  | Question Ques / Verbs for tests   |
|---------------|---|---|
| 1. Remember   | <ul style="list-style-type: none"> <li>Ability to recall of information like facts, conventions, definitions, jargon, technical terms, classifications, categories, and criteria</li> <li>ability to recall methodology and procedures, abstractions, principles, and theories in the field</li> <li>knowledge of dates, events, places</li> <li>mastery of subject matter</li> </ul> | list, define, tell, describe, recite, recall, identify, show, label, tabulate, quote, name, who, when, where  |
| 2. Understand | <ul style="list-style-type: none"> <li>understanding information</li> <li>grasp meaning</li> <li>translate knowledge into new context</li> <li>interpret facts, compare, contrast</li> <li>order, group, infer causes</li> <li>predict consequences</li> </ul>  | describe, explain, paraphrase, restate, associate, contrast, summarize, differentiate interpret, discuss  |
| 3. Apply      | <ul style="list-style-type: none"> <li>use information</li> <li>use methods, concepts, laws, theories in new situations</li> <li>solve problems using required skills or knowledge</li> <li>Demonstrating correct usage of a method or procedure</li> </ul>   | calculate, predict, apply, solve, illustrate, use, demonstrate, determine, model, experiment, show, examine, modify   |
| 4. Analyse    | <ul style="list-style-type: none"> <li>break down a complex problem into parts</li> <li>Identify the relationships and interaction between the different parts of a complex problem</li> <li>identify the missing information, sometimes the redundant information and the contradictory information, if any</li> </ul>   | classify, outline, break down, categorize, analyze, diagram, illustrate, infer, select  |
| 5. Evaluate   | <ul style="list-style-type: none"> <li>compare and discriminate between ideas</li> <li>assess value of theories, presentations</li> <li>make choices based on reasoned argument</li> <li>verify value of evidence</li> <li>recognize subjectivity</li> <li>use of definite criteria for judgments</li> </ul>  | assess, decide, choose, rank, grade, test, measure, defend, recommend, convince, select, judge, support, conclude, argue, justify, compare, summarize, evaluate |
| 6. Create     | <ul style="list-style-type: none"> <li>use old ideas to create new ones</li> <li>Combine parts to make (new) whole,</li> <li>generalize from given facts</li> <li>relate knowledge from several areas</li> <li>predict, draw conclusions</li> </ul>   | design, formulate, build, invent, create, compose, generate, derive, modify, develop, integrate   |

## SAMPLES QUESTIONS FOR BLOOMS TAXONOMY LEVELS:

### 1. REMEMBER

| Skill Demonstrated   | Question Ques / Verbs for tests   |
|--|---|
| <ul style="list-style-type: none"> <li>Ability to recall of information like, facts, conventions, definitions, jargon, technical terms, classifications, categories, and criteria</li> </ul> | list, define, describe, state, recite, recall, identify, show, label, tabulate, quote, name, who, when, where, etc. |
| <ul style="list-style-type: none"> <li>ability to recall methodology and procedures, abstractions, principles, and theories in the field</li> </ul>  |   |
| <ul style="list-style-type: none"> <li>knowledge of dates, events, places</li> </ul>   |   |
| <ul style="list-style-type: none"> <li>mastery of subject matter</li> </ul>  |   |

#### Sample Questions:

1. State Ohm's law
2. List the physical and chemical properties of silicon
3. List the components of A/D converter
4. List the arithmetic operators available in C in increasing order of precedence.
5. Define the purpose of a constructor.
6. Define the terms: Sensible heat, Latent heat and Total heat of evaporation
7. List the assembler directives.
8. Describe the process of galvanisation and tinning
9. Write truth table and symbol of AND, OR, NOT, XNOR gates
10. Define the terms: Stress, Working stress and Factor of safety.
11. What is the difference between declaration and definition of a variable/function?
12. List the different storage class specifiers in C.
13. What is the use of local variables?
14. What is a pointer to a pointer?
15. What are the valid places for the keyword "break" to appear?
16. What is a self-referential structure?

### 2. UNDERSTAND

| Skill Demonstrated   | Question Ques / Verbs for tests  |
|--|--|
| <ul style="list-style-type: none"> <li>understanding information</li> <li>grasp meaning</li> <li>translate knowledge into new context</li> <li>interpret facts, compare, contrast</li> <li>order, group, infer causes</li> <li>predict consequences</li> </ul> | describe, explain, paraphrase, restate, associate, contrast, summarize, differentiate interpret, discuss |

#### Sample Questions:

1. Explain the importance of sustainability in Engineering design
2. Explain the behaviour of PN junction diode under different bias conditions

3. Describe the characteristics of SCR and transistor equivalent for a SCR
4. Explain the terms: Particle, Rigid body and Deformable body giving two examples for each.
5. How many values of the variable num must be used to completely test all branches of the following code fragment?
6. Discuss the effect of Make in India initiative on the Indian manufacturing Industry.
7. Summarise the importance of ethical code of conduct for engineering professionals
8. Explain the syntax for 'for loop'.
9. What is the difference between including the header file with-in angular braces < > and double quotes
10. What is the meaning of base address of the array?
11. What is the difference between actual and formal parameters?
12. Explain the different ways of passing parameters to the functions.
13. Explain the use of comma operator (,).
14. Differentiate between entry and exit controlled loops.
15. How is an array different from linked list?

### 3. APPLY

| Skill Demonstrated  | Question Ques / Verbs for tests  |
|---|--|
| <ul style="list-style-type: none"> <li>• use information</li> <li>• use methods, concepts, laws, theories in new situations</li> <li>• solve problems using required skills or knowledge</li> <li>• Demonstrating correct usage of a method or procedure</li> </ul> | calculate, predict, apply, solve, illustrate, use, demonstrate, determine, model, experiment, show, examine, modify. |

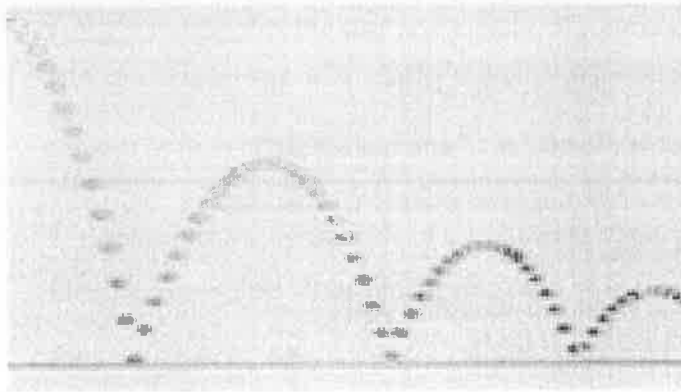
#### Sample Questions:

1. Model and realize the following behaviors using diodes with minimum number of digital inputs.
  - (i) Turning on of a burglar alarm only during night time when the locker door is opened.
  - (ii) Providing access to an account if either date of birth or registered mobile number or both are correct.
  - (iii) Updating the parking slot empty light in the basement of a shopping mall.
2. One of the resource persons needs to address a huge crowd (nearly 400 members) in the auditorium. A system is to be designed in such a way that everybody attending the session should be able to hear properly and clearly without any disturbance. Identify the suitable circuit to boost the voice signal and explain its functionality in brief.

3. A ladder 5.0 m long rests on a horizontal ground & leans against a smooth vertical wall at an angle  $200^\circ$  with the vertical. The weight of the ladder is 900 N and acts at its middle. The ladder is at the point of sliding, when a man weighing 750 N stands on a rung 1.5 m from the bottom of the ladder. Calculate the coefficient of friction between the ladder & the floor.

4. A ball is dropped from 6 meters above a flat surface. Each time the ball hits the surface after falling a distance  $h$ , it rebounds a distance  $rh$ . What will be the total distance the ball travels in each of the following cases.

(a)  $r > 1$  (b)  $0 < r < 1$  (c)  $r = 1$



5. The region bounded by the curves  $y = e^{(-1)x}$ ,  $y = 0$ ,  $x = 1$ , and  $x = 5$  is rotated about the  $x$ -axis. Use Simpson's Rule with  $n = 8$  to estimate the volume of the resulting solid.

6. An electric train is powered by machine which takes the supply from 220 V DC rail running above the train throughout. Machine draws current of 100 A from the DC rail to account for high torque during starting and runs at 700 r.p.m initially. Calculate the new speed of the train once it picks up the speed. Where the torque output required is only 70% of starting torque. Assume the motor has a resistance of  $0.1 \Omega$  across its terminals.

7. Write an algorithm to implement a stack using queue.

8. A single array  $A[1..MAXSIZE]$  is used to implement two stacks. The two stacks grow from opposite ends of the array. Variables  $top1$  and  $top2$  ( $top1 < top2$ ) point to the location of the topmost element in each of the stacks. What is the condition for "stack full", if the space is to be used efficiently.

9. Consider the following table of arrival time and burst time for three processes  $P_0$ ,  $P_1$  and  $P_2$ .

Process    Arrival time    Burst Time

|       |      |      |
|-------|------|------|
| $P_0$ | 0 ms | 9 ms |
| $P_1$ | 1 ms | 4 ms |
| $P_2$ | 2 ms | 9 ms |

10. The pre-emptive shortest job first scheduling algorithm is used. Scheduling is carried out only at arrival

or completion of processes. What is the average waiting time for the three processes?

11. A CPU generates 32-bit virtual addresses. The page size is 4 KB. The processor has a translation look-aside buffer (TLB) which can hold a total of 128-page table entries and is 4-way set associative. What is the minimum size of the TLB tag?

#### 4. ANALYZE

| Skill Demonstrated   | Question Ques / Verbs for tests  |
|--|--|
| <ul style="list-style-type: none"><li>• Break down a complex problem into parts.</li><li>• Identify the relationships and interaction between the different parts of complex problem</li></ul> | classify, outline, break down, categorize, analyse, diagram, illustrate, infer, select |

##### *Sample Questions:*

1. A class of 10 students consists of 5 males and 5 females. We intend to train a model based on their past scores to predict the future score. The average score of females is 60 whereas that of male is 80. The overall average of the class is 70. Give two ways of predicting the score and analyse them for fitting model.
2. Suppose that we want to select between two prediction models, M1 and M2. We have performed 10 rounds of 10-fold cross-validation on each model, whereas the same data partitioning in round one is used for both M1 and M2. The error rates obtained for M1 are 30.5, 32.2, 20.7, 20.6, 31.0, 41.0, 27.7, 26.0, 21.5, 26.0. The error rates for M2 are 22.4, 14.5, 22.4, 19.6, 20.7, 20.4, 22.1, 19.4, 16.2, 35.0. Comment on whether one model is significantly better than the other considering a significance level of 1%.
3. Return statement can only be used to return a single value. Can multiple values be returned from a function? Justify your answer.
4. Bob wrote a program using functions to find sum of two numbers whereas Alex wrote the statements to find the sum of two numbers in the main () function only. Which of the two methods is efficient in execution and why?
5. Carly wants to store the details of students studying in 1st year and later on wishes to retrieve the Information about the students who score the highest marks in each subject. Specify the scenario where the data can be organized as a single 2-D array or as multiple 1-D arrays.
6. Dave is working on a Campus Management Software but is unable to identify the maximum number of students per course. He decided to implement the same using arrays but discovered that there is memory wastage due to over-provisioning. Which method of memory storage should be used by Dave and how it can be implemented using C?
7. Albert is working on a 32-bit machine whereas Julie is working on a 64-bit machine. Both wrote the same code to find factorial of a number but Albert is unable to find factorial of a number till 9 whereas Julie is able to find the factorial of higher number. Identify the possible reason why Albert is unable to find the factorial. Suggest some changes in the code so that Albert can handle bigger inputs.
8. While writing a C code, the problem faced by the programmers is to find if the parenthesis is

balanced or not. Write an algorithm to check if the parenthesis in C code are balanced. Initially your code should work for balanced { and } braces.

| 9. | Skill Demonstrated   | Question Ques / Verbs for tests   | ist. |
|----|--|---|------|
|    | <ul style="list-style-type: none"> <li>compare and discriminate between ideas</li> <li>assess value of theories, presentations</li> <li>make choices based on reasoned argument</li> <li>verify value of evidence</li> <li>recognize subjectivity</li> <li>use of definite criteria for judgments</li> </ul> | assess, decide, choose, rank, grade, test, measure, defend, recommend, convince, select, judge, support, conclude, argue, justify, compare, summarize, evaluate |      |

## 5. EVALUATE

## 6. CREATE

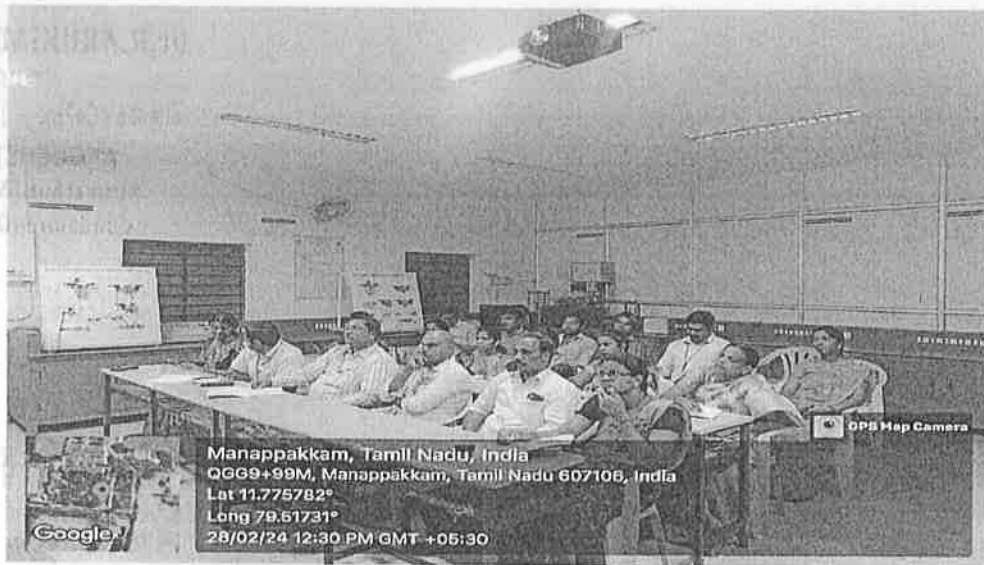
| Skill Demonstrated  | Question Ques / Verbs for tests   |
|---|---|
| <ul style="list-style-type: none"> <li>use old ideas to create new ones</li> <li>Combine parts to make (new) whole,</li> <li>generalize from given facts</li> <li>relate knowledge from several areas</li> <li>predict, draw conclusions</li> </ul> | design, formulate, build, invent, create, compose, generate, derive, modify, develop, integrate |

Both higher order cognitive skills 'Evaluate' and 'Create' are difficult to assess in time-limited examinations. These need to be assessed in variety of student works like projects, open ended problem-solving exercises etc. Typical examples of problem statements or need statements which need higher order abilities to solve are given below

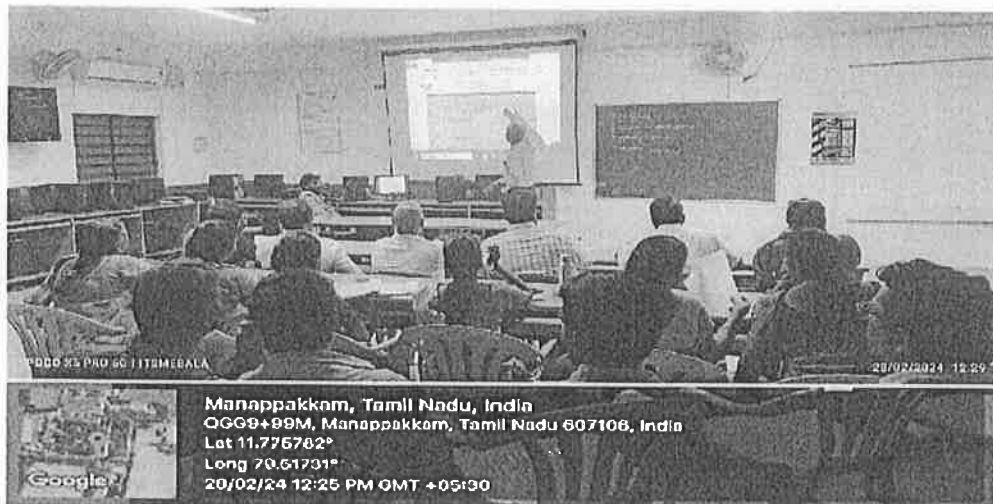
### *Sample Problem / Need statements:*

1. A Biotech industry needs automation for filling its product into 20 ltr bottles. Design a system to meter the flow into the bottles so that each bottle has 20 ltr of the liquid. There will be more than one filling station and the system has to monitor all the filling stations as well as keep count of the total production on a daily basis.
2. Microwave Doppler radar with a range of 9m are available for motion detection. Design a surround view monitoring system for a 3 wheeler to detect human obstacles while the vehicle is in motion.
3. Design a system to assist the driver by using cameras to detect lane markers and pedestrians while the vehicle is in motion.
4. Develop a small size USB 2.0 / 3.0 CMOS camera system which can be used for industrial inspection, medical applications, microscopy, etc. The system should be able to capture the image quickly and be able to process the captured image and then store it also

5. Automatic tethering of milking machine to the udder of a cow. A milk diary wants to automate the milking process. The milking process involves attaching the milking cups to the teats. Design a system for the same.
6. An electric vehicle uses LIO batteries. The batteries have to be charged and get discharged during use. The batteries require continuous monitoring during charging and discharging so that they remain healthy and yield a long life. Design a system to monitor and manage the health of the batteries.



*Figure: 1 Faculty members on orientation program*



*Figure: 2 Faculty members on orientation program*

In conclusion, the question paper setting program successfully combined several cognitive levels, a student-centered approach, and course objectives. Teachers can use a range of question types and difficulty levels to better assess their students' comprehension and encourage critical thinking skills. The efficiency of assessments in establishing meaningful learning experiences for students will be improved in the future through continual training and question paper setting processes.

K. S. S. S.  
8/3/24  
IQAC Director

S. S. S. S.  
8/3/24  
Dean of Excellence

R. R. R. R.  
8/3/24  
Principal

**Dr. R. AROKIADASS, M.E., Ph.D.,**  
Principal,  
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**INTERNAL QUALITY ASSURANCE CELL**  
**EVENT FEEDBACK – CONSOLIDATED**

DATE: 28.02.2024

**EVENT: Orientation programme on "Implementing Outcome Based Education in higher education system- Efficient question paper setting"**

| Q. No.             | Questions   | Feedback Obtained count | Credit Category |    |   |   |   | Total Credit | Credit Secured | Percentage |
|--------------------|---|-------------------------|-----------------|----|---|---|---|--------------|----------------|------------|
|                    |   |                         | 5               | 4  | 3 | 2 | 1 |              |                |            |
| 1                  | Did the content provide you with comprehensive information?   | 34                      | 15              | 14 | 4 | 1 | 0 | 170          | 145            | 85%        |
| 2                  | Did you find the training easy to understand and use?         | 34                      | 10              | 18 | 5 | 1 | 0 | 170          | 139            | 82%        |
| 3                  | Was the program interactive and engaging?                     | 34                      | 12              | 15 | 5 | 2 | 0 | 170          | 139            | 82%        |
| 4                  | Did the program give example of how to implement in practice? | 34                      | 10              | 16 | 7 | 1 | 0 | 170          | 137            | 81%        |
| 5                  | How would you rate the overall quality of this session?       | 34                      | 10              | 17 | 6 | 1 | 0 | 170          | 138            | 81%        |
| 6                  | Overall, how would you rate the training instructor?          | 34                      | 13              | 14 | 6 | 1 | 0 | 170          | 141            | 83%        |
| Overall Percentage |   |                         |                 |    |   |   |   |              | 82%            |            |

K. S. Arora  
18

IQAC Director

8-A  
Dean of Excellence  
13/4/2024

*R. Aravindan*  
 DR. R. ARAVINDAN, M.E., Ph.D.  
 Principal  
 St. Anne's College of Engineering & Technology  
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**INTERNAL QUALITY ASSURANCE CELL**

**CIRCULAR**  
**(2023 - 2024)**

**CIR. No: SANCET/IQAC/2023-24/CIR/12**

**Date: 02.04.2024**

It is informed that the Internal Quality Assurance cell has planned to organize a Training on Computer Skills for non-teaching staff on April 6, 2024. Hence, all the non-teaching staff are requested to attend the program without fail.

**Venue** : Computer lab 1  
**Date & Time** : 06.04.2024 & 10 AM to 4.30 PM.  
**Resource Persons** : Ms. S. Abinaya, AP/CSE  
&  
Ms. T. Gayathri, AP/CSE

K & L  
02/04/2024

**IQAC Director**

S. K. S. J.  
2/4/2024  
**Dean of Excellence**

R. Arakidass  
2/4/24  
**Principal**

**Dr.R.AROKIADASS, M.E., Ph.D.,**  
**Principal,**  
**St.Anne's College of Engineering & Technology**  
**ANGUCHETTYPALAYAM,**  
**Siruvathur-(Post), Panruti-(T.k).**  
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## INTERNAL QUALITY ASSURANCE CELL(IQAC) REPORT ON COMPUTER SKILLS TRAINING PROGRAM

### Introduction:

This report presents an overview of the computer skills training program conducted on April 6, 2024, by resource persons Ms. S. Abinaya, Ms. T. Gayathiri, and Mr. Saravanan, assistant professor of MECH, who welcomed the gathering. The principal, Dr. R. Arokiadass, addressed the non-teaching staff on the significance of Computer skills, and the presence of the Dean of Excellence, Sr. Dr. S. Anita, made the program more encouraging. The program aimed to enhance the skills and knowledge of non-teaching staff members across various departments. The training program focused on equipping participants with the necessary tools and gave an introduction to the basics of MS Office, applications in MS Office, and installation.

### Objectives:

- To provide an in-depth understanding of MS Office.
- To provide professionals from various sectors with an insight into the fundamentals of Word, Excel, and PowerPoint and their practical applications.
- To understand how this technology works.
- To learn what its applications are in order to obtain the maximum benefit in the MS Office area.

**Program Structure:** The training program was structured to cover key aspects of Microsoft Word, Excel, and PowerPoint, with a focus on practical applications relevant to the daily responsibilities of non-teaching staff.

**Microsoft Word:** The Word focused on fundamental skills such as formatting text, creating tables, inserting images, and utilizing templates. Participants were introduced to shortcuts and time-saving techniques to enhance efficiency in document creation and editing.

**Microsoft Excel:** In the Excel workshop, participants learned how to navigate the interface, input data, perform basic calculations, and create charts and graphs. Advanced topics included using formulas and functions, sorting and filtering data, and utilizing pivot tables for data analysis.

**Microsoft PowerPoint:** The PowerPoint workshop emphasized creating engaging presentations through effective use of layouts, themes, and multimedia elements. Participants learned to structure presentations, add animations and transitions, and deliver content confidently.

**Implementation:** The training program was conducted through a combination of instructor-led sessions and hands-on exercises. Participants were provided with useful information. Additionally, dedicated support was given to address any queries or technical issues.

**Outcomes:** The computer skills training program yielded several positive outcomes for non-teaching staff members:

- Staff members reported improved efficiency in performing administrative tasks such as document preparation, data management, and presentation development.
- Standardization of document formats and increased proficiency in digital tools facilitated smoother collaboration among staff members and departments.
- Participants expressed greater confidence in utilizing technology to accomplish tasks, leading to a more empowered and motivated workforce.
- Feedback from participants was overwhelmingly positive, with many expressing gratitude for the opportunity to enhance their digital abilities and apply new skills in their daily work.
- Non-teaching staff will be able to learn about the fundamentals and methodologies that are used in various fields.

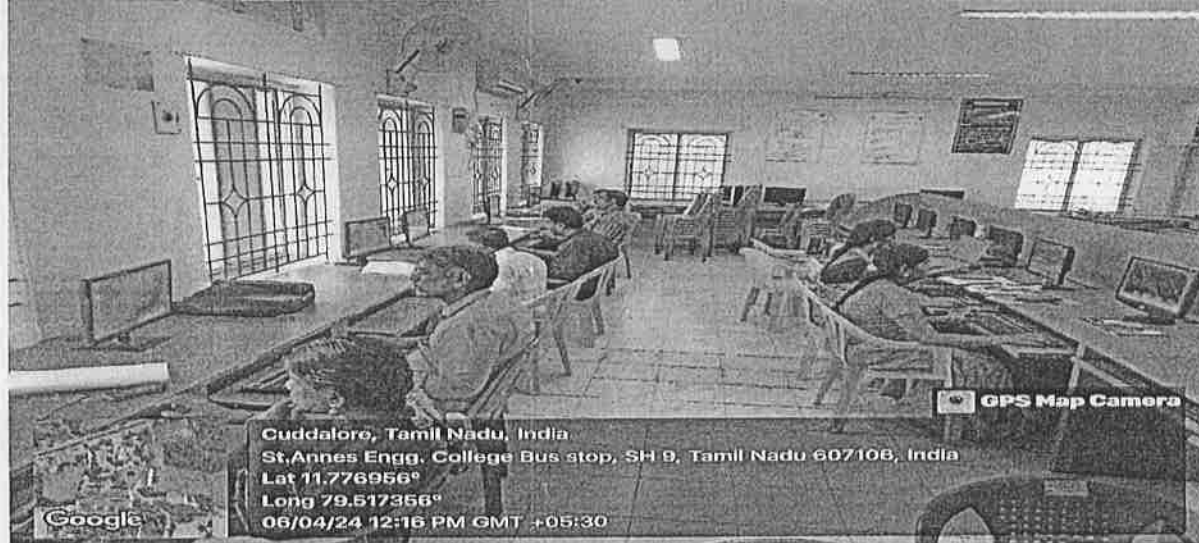
- ✓ Academic Advantages
- ✓ Computer literacy
- ✓ Career Advancements
- ✓ Collaboration Abilities

**Conclusion:** In conclusion, the computer skills training program for non-teaching staff proved to be helpful in equipping them with essential abilities in Microsoft Word, Excel, and PowerPoint. By investing in staff development, our college aims to foster a culture of continuous learning and innovation, ultimately contributing to the overall success and efficiency of administrative operations.





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*K. S. S.*  
 13/4/24  
 IQAC Director

*S. J.*  
 13/4/24  
 Dean of Excellence

*R. Arumugam*  
 Dr. R. ARUMUGAM, M.E., Ph.D.  
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INTERNAL QUALITY ASSURANCE CELL

EVENT FEEDBACK - CONSOLIDATED

EVENT: Training on Computer Skills

DATE: 06.04.2024

TIME: 10.00 AM

| Q. No.             | Questions  | Feedback Obtained Count | Credit Category |   |   |   |   | Total Credit | Credit Secured | Percentage |
|--------------------|--|-------------------------|-----------------|---|---|---|---|--------------|----------------|------------|
|                    |  |                         | 5               | 4 | 3 | 2 | 1 |              |                |            |
| 1                  | Did you find the training easy to understand and use?            | 08                      | 2               | 3 | 3 | 0 | 0 | 40           | 31             | 78%        |
| 2                  | Was the program interactive and engaging?                        | 08                      | 2               | 3 | 3 | 0 | 0 | 40           | 31             | 78%        |
| 3                  | Did the program give example of how to implement in practice?    | 08                      | 1               | 3 | 4 | 0 | 0 | 40           | 29             | 73%        |
| 4                  | Was the information in the training module presented clearly?    | 08                      | 3               | 3 | 2 | 0 | 0 | 40           | 33             | 83%        |
| 5                  | Was the language easy to understand?                             | 08                      | 4               | 1 | 3 | 0 | 0 | 40           | 33             | 83%        |
| 6                  | How would you rate the overall quality of this training session? | 08                      | 1               | 4 | 3 | 0 | 0 | 40           | 30             | 75%        |
| 7                  | Overall, how would you rate the training instructor?             | 08                      | 4               | 2 | 2 | 0 | 0 | 40           | 34             | 85%        |
| Overall Percentage |  |                         |                 |   |   |   |   |              |                | 79%        |

IQAC Director

Dean of Excellence

Dr. R. Arinchiyappan, Ph.D.  
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## INTERNAL QUALITY ASSURANCE CELL

### CIRCULAR

2023-2024

CIR. No.: SANCET/IQAC/2023- 24/CIR/14

Date: 10. 06. 2024

It is informed to all the teaching staff members that the Internal Quality Assurance Cell (IQAC) has arranged an orientation programme on “ **Implementing Outcome Based Education (OBE) in higher education system - Course Outcome, Program Outcome and Program Specific Outcome Mapping**”. Hence, all the faculty are requested to attend the program without fail. The details are listed below.

**Venue:** Mechatronics Laboratory.

**Date & Time:** 14.06.2024 & 1 PM to 4.30 PM.

**Resource Person:** Mr.K.Saravanan,  
AP/Mechanical

*K. Saravanan*  
10/6/2024  
IQAC Director

*S. K. P.*  
10/6/24  
Dean of Excellence

*R. Arokjadass*  
10.6.24  
Principal  
Dr.R.AROKJADASS, M.E., Ph.D.  
Principal,

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## INTERNAL QUALITY ASSURANCE CELL

### REPORT ON IMPLEMENTING OUTCOME BASED EDUCATION (OBE) IN HIGHER EDUCATION SYSTEM

#### **Objective:**

The objective of this workshop is to outline the principles of Outcome-Based Education (OBE) as per Anna University norms and illustrate the process of Course Outcomes (COs) to Program Outcomes (POs) mapping for different types of courses, namely theory courses, laboratory courses, theory cum practical courses, and mandatory courses. The report aims to demonstrate how CO-PO mapping ensures the alignment of course objectives with program goals,

A one-day workshop on Implementing Outcome Based Education (OBE) in higher education system was conducted by IQAC on June 14, 2024. The resource person, Mr. K. Saravanan, explains about CO-PO mapping.

#### **Outcome-Based Education (OBE):**

OBE process is a result-oriented approach to education that aims to produce students who are not only knowledgeable in their field of study but who are also able to apply that knowledge to real-world situations. It is a student-centered instruction model that focuses on measuring student performance through outcomes.

Learning outcomes describe what students should be able to do by the end of a teaching session or course. They are related to, but different from, teaching aims, which instead describe broadly what the session or course is about and its overall purpose

CO-PO mapping is a systematic process of linking COs with POs to ensure that the learning outcomes of individual courses contribute to the overall program outcomes. This alignment helps in evaluating the effectiveness of the curriculum and making necessary adjustments for continuous improvement.

#### **CO-PO Mapping for Different Types of Courses**

1. Theory Courses
2. Laboratory Courses