


INSTITUTIONAL DISTINCTIVENESS

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PRINCIPAL

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**SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)**

**Sree Sainath Nagar, A. RANGAMPET
Chittoor (Dist.) - 517 102, A.P., INDIA**

ASSESSMENT MANUAL

B.Tech. Program



**SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)**

SREE SAINATH NAGAR, TIRUPATI – 517 102, A.P

JUNE 2016



SREE VIDYANIKETHAN ENGINEERING COLLEGE (AUTONOMOUS)

SREE SAINATH NAGAR, TIRUPATI – 517 102

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1. INTRODUCTION

Assessment:

Assessment is one or more processes, carried out by the institution, that identify, collect, and prepare data to evaluate the achievement of program educational objectives and program outcomes.

This manual presents the assessment system for **B.Tech** program at Sree Vidyanikethan Engineering College. The assessment systems designed have been planned in line with the NBA accreditation criteria. The scope of this assessment procedure is to monitor the performance of the program, to ensure its program educational objectives, assess the program outcomes and to use the data collected for continuous improvement of the program. The manual is intended to provide members of faculty to evolve uniform assessment practices across all the programs and courses and will guide future program improvements.

2. BACKGROUND

Paradigm shift in Education Delivery from Traditional Education to Outcome Based Education (OBE)

Traditional Education

- Teachers focus on 'covering the content' giving much less thought to the 'learning by the student' and 'teaching methodology'.
- The content-driven approach to teaching has been referred to as a teacher-centered approach.
- Instructional objectives and learning outcomes are not comprehensively planned and informed to students.
- Student involvement is at very low level.
- Too much technical content at the expense of a broader and liberal education.
- Stress on lower order thinking skills.
- Student assessment is not aligned to program outcomes.

3. OUTCOME BASED EDUCATION (OBE)

- Outcome Based Education (OBE) is an educational approach that focuses on the graduate attributes or outcomes after completing an academic program.
- Outcome based approach means knowing what you want to achieve and then taking the steps to do so.
- The desired outcomes are determined first and then program curriculum, teaching and learning methodology and supporting facilities are designed to support the intended outcomes.

Scope of OBE

Focuses on the goals and objectives of the program

- More directed and coherent curriculum.
- Graduates will be more “relevant” to industry and other stakeholders
- Continuous Quality Improvement (CQI) is in place.
- Evidence of measurements to feed a quality improvement process
- ‘Learner Centric’, rather than the traditional ‘Teacher Centric’.

4. MISSION OF NATIONAL BOARD OF ACCREDITATION:

“To stimulate the quality of teaching, self-evaluation, and accountability in the higher education system, which help institutions realize their academic objectives and adopt teaching practices that enable them to produce high- quality professionals and to assess and accredit the programs offered by the colleges or the institutions, or both, imparting technical and professional education.”

5. VISION AND MISSION OF THE INSTITUTION

Vision: To be one of the Nations’ premier Engineering Colleges by achieving the highest order of excellence in Teaching and Research.

Mission: Through multidimensional excellence, we value intellectual curiosity, pursuit of knowledge building and dissemination, academic freedom and integrity to enable the students to realize their potential. We promote technical mastery of Progressive Technologies, understanding their ramifications in the future society and nurture the next generation of skilled professionals to compete in an increasingly complex world, which requires practical and critical understanding of all aspects.

6. VISION AND MISSION OF THE DEPARTMENT

To be defined by the departments in line with Institute vision and mission

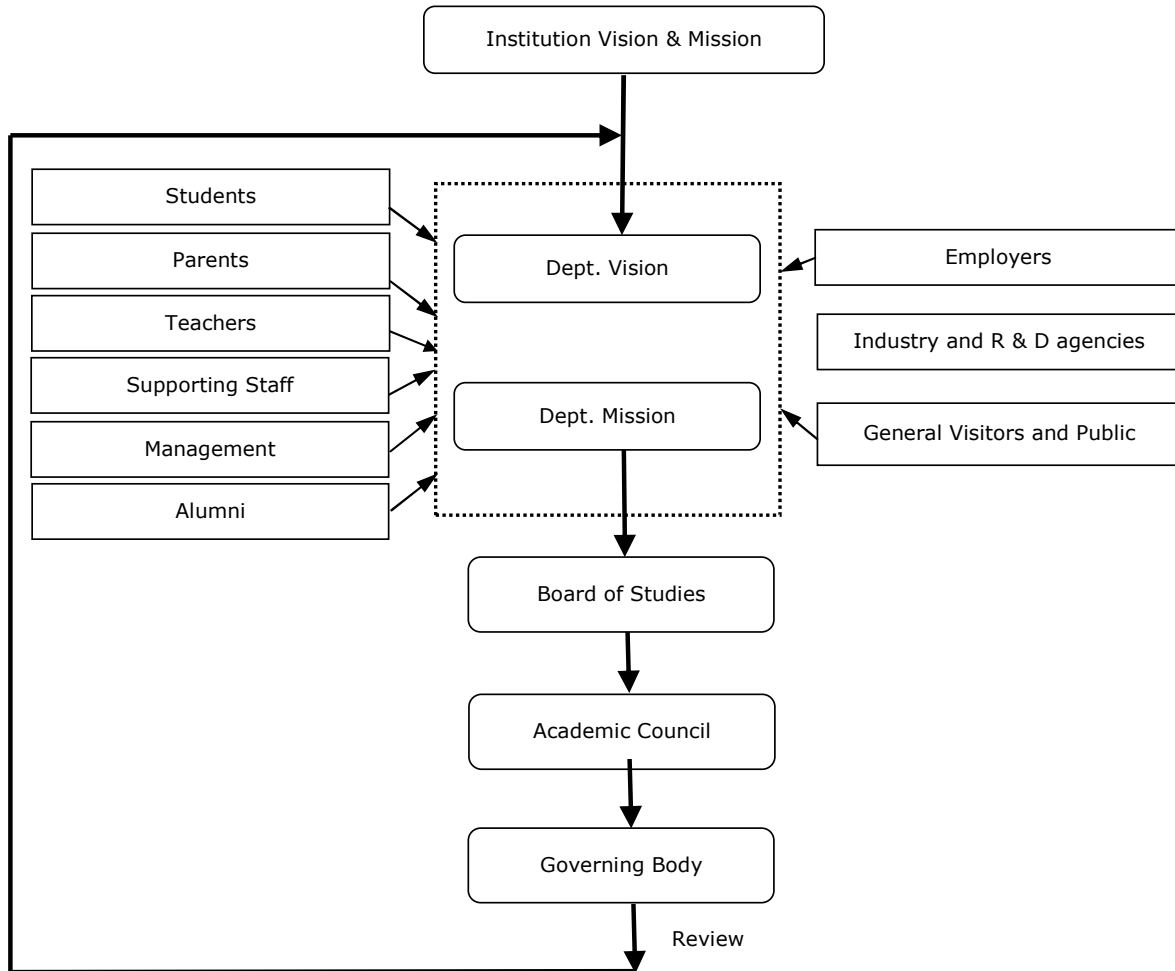


Fig. Process for Defining Vision and Mission of the Department

7. PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

The Program Educational Objectives (PEOs) are broad statements that describe the career and professional accomplishments that the program is preparing graduates to accomplish. PEOs should be measurable, appropriate, realistic, time bound and achievable. The program educational objectives are formulated on the basis of stakeholders needs and approved by the statutory bodies of the institution.

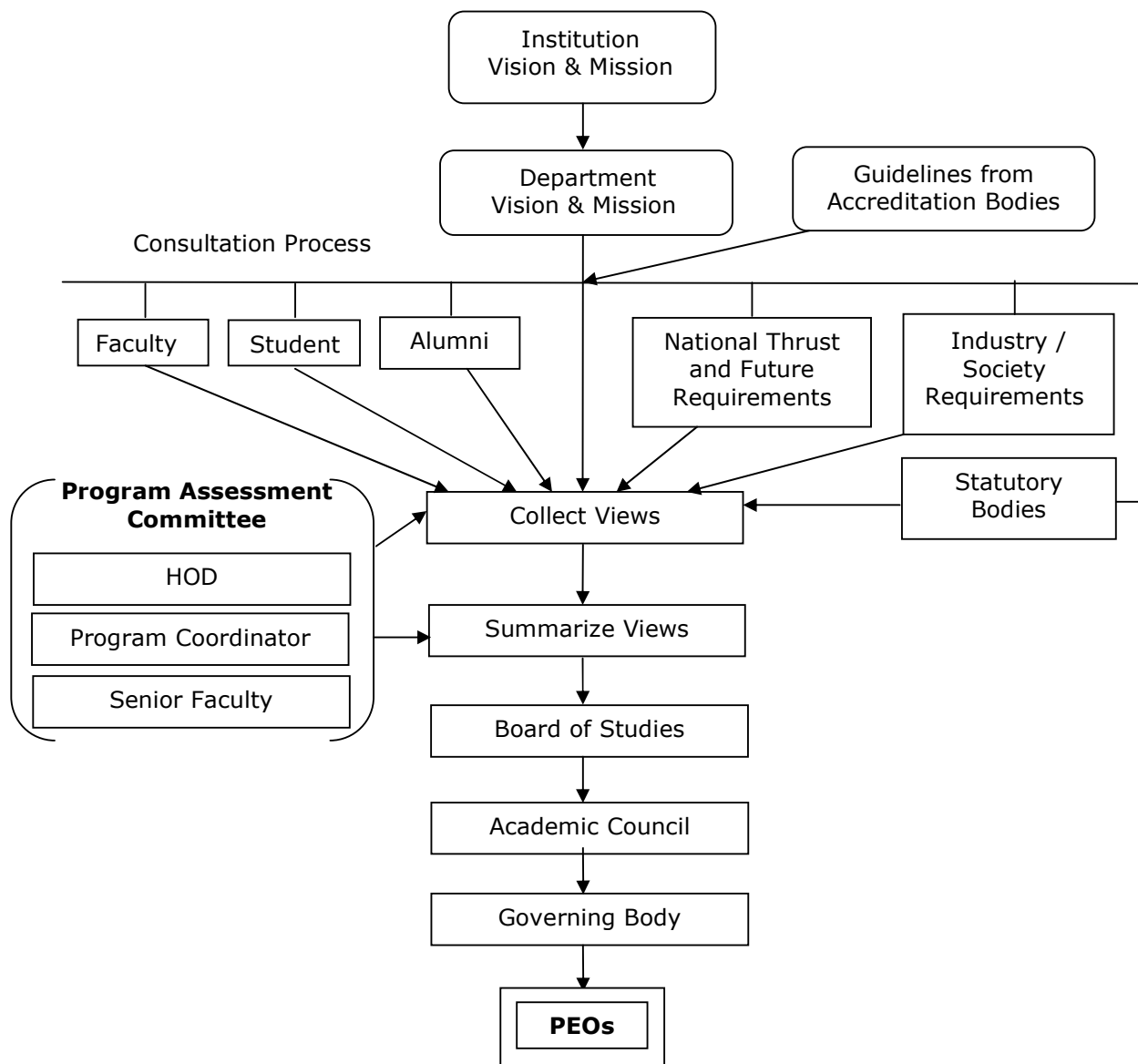


Fig.: Process of Establishing PEOs

Redefining of PEOs

The PEOs shall be redefined by obtaining the inputs from Alumni survey. The quantified data shall be thoroughly analyzed and review the results for redefining the PEOs, curriculum, Teaching-Learning methodologies, student evaluation methods, learning resources and faculty and student development programs.

The following flow chart illustrates the process of redefining PEOs.

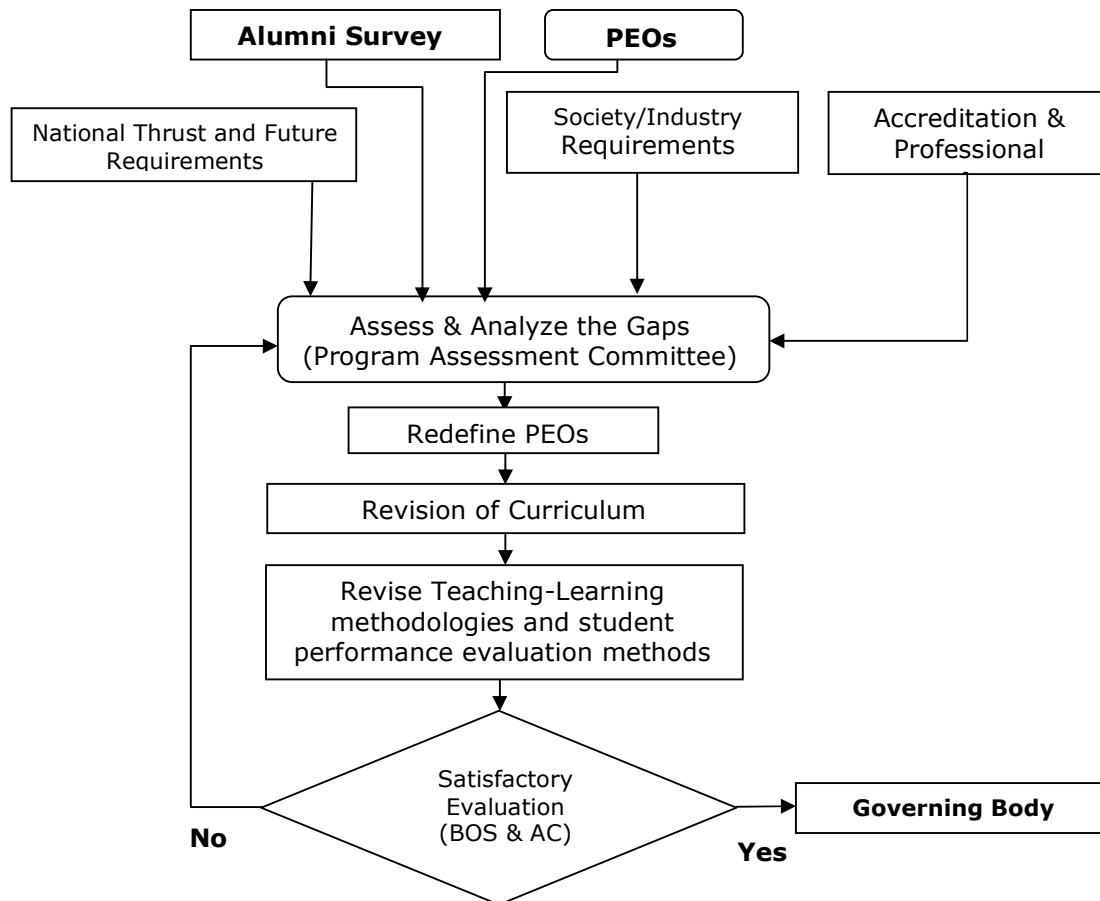


Fig. Process for Redefining PEOs

8. PROGRAM OUTCOMES (POs)

Program Outcomes are narrower statements that describe what students are expected to know and be able to do upon the graduation. These relate to the skills, knowledge, and behavior that students acquire in their matriculation through the program

After Successful completion of the Programme, Graduates will be able to:

- PO1: Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2: Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3: Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4: Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions
- PO5: Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO6: The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7: Environment and sustainability:** Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8: Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9: Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10: Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11: Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12: Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

9. PROGRAM SPECIFIC OUTCOMES (PSOs)

Program Specific Outcomes are the statements that describe the ability of the graduates of a specific engineering program.

Sample PSOs for B.Tech. Civil Engineering Program is given below:

- PSO1:** Apply knowledge of Construction Engineering, Environmental Engineering, Geotechnical Engineering, Structural Engineering, Surveying, Transportation Engineering and Water Resources Engineering in real time.
- PSO2:** Analyse a system, component or process in sub-disciplines of civil engineering in real time problems.
- PSO3:** Design a system, component, or process in more than one Civil Engineering context.
- PSO4:** Conduct investigations and address complex civil engineering problems; Utilize and develop novel tools and techniques that are appropriate in civil engineering practice.

10. COURSE OUTCOMES (COs)

Course Outcomes are the statements that describe what students are expected to know, and be able to do at the end of each course. These relate to the skills, knowledge, and behaviour that students acquire in their matriculation through the courses.

11. ASSESSMENT METHODS

Assessment shall be done using Direct and Indirect methods.

Direct Assessment: Direct assessment is for the direct examination or observation of student knowledge or skills against measurable learning outcomes.

Indirect Assessment: Indirect assessment is based on the Course End survey and Graduate Exit survey

12. CO, PO and PSO Assessment

Direct Method:

The internal and external marks of a batch of students secured in a course shall be tabulated as detailed below for assessment of CO, PO and PSO of a course.

The procedure for assessment of a course is illustrated below:

| S. No. | Roll No. | MID-I (30M) | | | | | MID-II (30M) | | | | | Sem End Exam (70M) |
|---|------------|-------------|---------|---------|---------|---------|--------------|---------|---------|---------|---------|--------------------|
| | | Q1 (6M) | Q2 (8M) | Q3 (8M) | Q4 (8M) | Q5 (8M) | Q1 (6M) | Q2 (8M) | Q3 (8M) | Q4 (8M) | Q5 (8M) | |
| | | CO1 | CO1 | CO2 | CO3 | CO4 | CO1 | CO1 | CO2 | CO3 | CO4 | |
| 1. | 16121AXX01 | 6 | 5 | 3 | 7 | 5 | 3 | 1 | 7 | | 4 | 42 |
| 2. | 16121AXX02 | 5 | 7 | 4 | 8 | 2 | 5 | 4 | 3 | 8 | 2 | 53 |
| 3. | 16121AXX03 | 1 | | 6 | 2 | 1 | 4 | 3 | 4 | 6 | | 28 |
| 4. | 16121AXX04 | 4 | 2 | | 7 | 2 | 3 | 3 | | 3 | 3 | 18 |
| . | . | . | . | . | . | . | . | . | . | . | . | . |
| . | . | . | . | . | . | . | . | . | . | . | . | . |
| . | . | . | . | . | . | . | . | . | . | . | . | . |
| 60 | 16121AXX60 | 4 | 3 | | 6 | 8 | 2 | 4 | 6 | | 8 | 46 |
| No. of students Attempted(N) | | 45 | 43 | 39 | 40 | 39 | 40 | 43 | 49 | 8 | 14 | 45 |
| No. of students secured marks 60% and above (A) | | 35 | 38 | 28 | 25 | 32 | 25 | 40 | 33 | 2 | 2 | 36 |
| % of students above 60% = (A/N)*100 | | 77.78 | 88.37 | 71.79 | 62.50 | 82.05 | 62.50 | 93.02 | 67.35 | 25.00 | 14.29 | 80.00 |

Mapping of Course to Program Outcomes and Program Specific Outcomes:

| | PO1 | PO2 | PO3 | PO5 | PSO1 | PSO2 | PSO3 | PSO5 |
|-----|-----|-----|-----|-----|------|------|------|------|
| CO1 | 3 | | | | 3 | | | |
| CO2 | | 3 | | | | 3 | | |
| CO3 | | | 3 | | | | 3 | |
| CO4 | | | | 3 | | | | 3 |

Course Outcome Assessment:

| Course Outcomes | | Questions | Percentage of students who got 60% and above marks | | | |
|---|--|-----------|--|-------|-------|-------|
| | | | CO1 | CO2 | CO3 | CO4 |
| CO1 | Gain Knowledge in: Mode theory of optical communication, Various losses occurring in optical fibers, Optical sources and detectors, Power Launching and coupling techniques, Optical links, WDM concepts & Optical Networks. | M1Q1 | 77.78 | | | |
| | | M1Q2 | 88.37 | | | |
| | | M2Q1 | 62.50 | | | |
| | | M2Q2 | 93.02 | | | |
| CO2 | Analyze single & multimode fibers and analog & digital links. | M1Q3 | | 71.79 | | |
| | | M2Q3 | | 67.35 | | |
| CO3 | Design and develop Optical sources, Detectors and links. | M1Q4 | | | 62.50 | |
| | | M2Q4 | | | 67.35 | |
| CO4 | Solve problems in optical fibers, sources and detectors for better optical communication systems. | M1Q5 | | | | 82.05 |
| | | M2Q5 | | | | 14.29 |
| CO Attainment through CIE | | | 80.42 | 69.57 | 65 | 48.17 |
| CO Attainment through SEE | | | 80 | 80 | 80 | 80 |
| Overall CO Attainment=(CIE+SEE)/2 | | | 80.21 | 74.79 | 72.50 | 64.09 |
| Course Attainment (Average of all CO attainment) | | | 72.90 | | | |

| | | | | |
|-----------------------------|------------|------------|------------|------------|
| Course Outcomes | CO1 | CO2 | CO3 | CO4 |
| Target for Attainment (%) | 60 | 60 | 60 | 60 |
| CO Attainment (%) | 80.21 | 74.79 | 72.50 | 64.09 |
| Outcome Attainment (Yes/No) | Yes | Yes | Yes | Yes |

Program Outcome and Program Specific Outcomes Assessment:

| | PO1 | PO2 | PO3 | PO5 | PSO1 | PSO2 | PSO3 | PSO5 |
|----------------------------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
| CO1 | 80.21 | | | | 80.21 | | | |
| CO2 | | 74.79 | | | | 74.79 | | |
| CO3 | | | 72.50 | | | | 72.50 | |
| CO4 | | | | 64.09 | | | | 64.09 |
| Average PO Attainment (%) | 80.21 | 74.79 | 72.50 | 64.09 | 80.21 | 74.79 | 72.50 | 64.09 |
| Target for Attainment (%) | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Outcome Attainment (Yes/No) | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

The process of converting CO/PO/PSO attainment percentage into correlation levels is illustrated in the table below:

| COs/POs/PSOs attainment % | | Correlation Level |
|----------------------------------|---|--------------------------|
| ≥ 75 | : | 3 |
| ≥ 60 to < 75 | : | 2 |
| < 60 | : | 1 |

CO Attainment level

| | CO1 | CO2 | CO3 | CO4 |
|------------|------------|------------|------------|------------|
| CO1 | 3 | | | |
| CO2 | | 2 | | |
| CO3 | | | 2 | |
| CO4 | | | | 2 |

PO and PSO Attainment level

| | PO1 | PO2 | PO3 | PO5 | PSO1 | PSO2 | PSO3 | PSO5 |
|-----|-----|-----|-----|-----|------|------|------|------|
| CO1 | 3 | | | | 3 | | | |
| CO2 | | 2 | | | | 2 | | |
| CO3 | | | 2 | | | | 2 | |
| CO4 | | | | 2 | | | | 2 |

Comments and Recommendations

Based on the CO attainment levels the course faculty shall provide the comments and recommendations for improvement.

Assessment of COs, POs & PSOs for Practical, Seminar, Project Work etc., Courses

The performance of students in the courses like Practical, Seminar, Project Work, etc., shall be evaluated through rubrics (Annexure –I). Evaluation rubrics shall be prepared for these courses on a 3-point scale. Each rubric should be mapped to corresponding CO. To assess the COs, rubric weights should be converted into marks.

The assessment of COs, POs and PSOs of these courses shall be assessed by adopting the same procedure used for Theory courses.

Indirect Method:

Indirect assessment shall be made through Graduate Exit Survey and Alumni Survey. Sample survey forms are given in Annexure –II.

13. OVERALL PO AND PSO ASSESSMENT

The attainment of the POs and PSOs for a batch of students in the program of study shall be obtained through Direct and Indirect methods. The following table illustrates the weightage applied to arrive at the final PO and PSO attainment of the program.

In Direct method, average of each PO and PSOs of the courses shall be taken. In Indirect method, the average of the surveys on the POs and PSOs shall be calculated as shown in the table below:

| Assessment Method | Weightage | |
|---------------------|-------------------------------|-----|
| Direct Assessment | Internal Evaluation (40%) | 80% |
| | External Evaluation (40%) | |
| Indirect Assessment | Graduate Exit Survey (10%) | 20% |
| | Alumni Survey (10%) | |

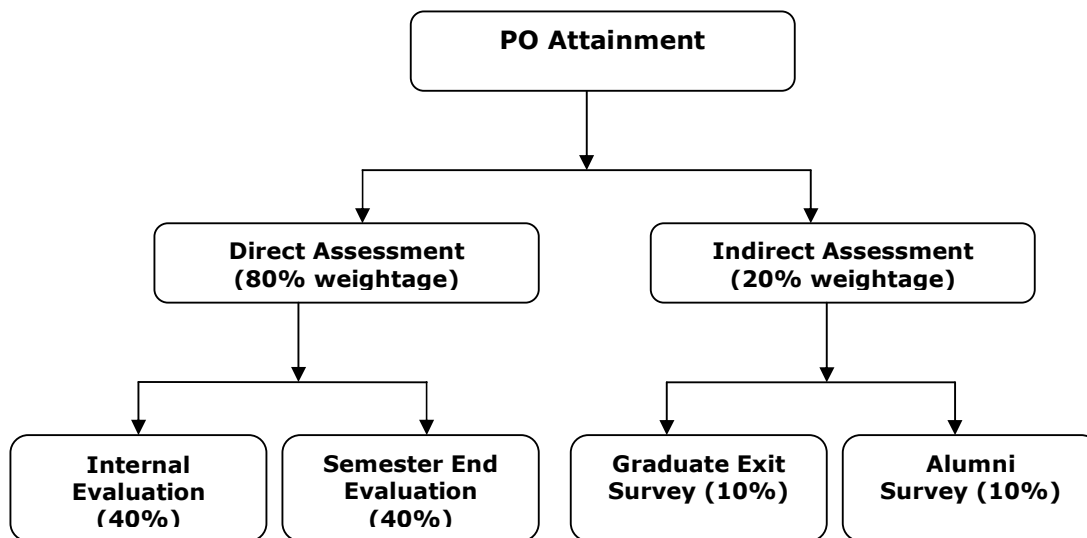


Fig. Weightage for Direct and Indirect assessment

Targets for attainment of COs, POs and PSOs

The targets for attainment of COs, POs and PSOs shall be decided by the Program Assessment Committee and BoS Chairperson of the respective program of study based on the quality of the student input, performance of the students of current batch, attainments of the previous batches.

Impact Analysis

The impact analysis on the results of evaluation of each of the COs, POs & PSOs shall be conducted by the Program Assessment Committee and BoS Chairperson. The weaknesses shall be identified and appropriate measures shall be suggested for improvements in curriculum design, pedagogical initiatives, support system, and student's performance evaluation.

ASSESSMENT RUBRICS FOR PROJECT WORK

| Rubric | Excellent (Wt = 3) | Good (Wt = 2) | Fair (Wt = 1) |
|--|--|--|--|
| Review-1 | | | |
| Selection of Topic | Selected a latest topic through complete knowledge of facts and concepts | Selected a topic through partial knowledge of facts and concepts | Selected a topic through improper knowledge of facts and concepts |
| Analysis and Synthesis | Thorough comprehension through analysis/ synthesis | Reasonable comprehension through analysis/ synthesis | Improper comprehension through analysis/ synthesis |
| Literature Survey | Extensive literature survey with standard references | Considerable literature survey with standard references | Incomplete literature survey with substandard references |
| Ethical Attitude | Clearly understands ethical and social practices. | Moderate understanding of ethical and social practices. | Insufficient understanding of ethical and social practices. |
| Independent Learning | Did literature survey and selected topic with little guidance | Did literature survey and selected topic with considerable guidance | Selected a topic as suggested by the supervisor |
| Oral Presentation | Presentation in logical sequence with key points, clear conclusion and excellent language | Presentation with key points, conclusion and good language | Presentation with insufficient key points and improper conclusion |
| Report Writing | Status report with clear and logical sequence of chapters using excellent language | Status report with logical sequence of chapters using understandable language | Status report not properly organized |
| Continuous Learning | Highly enthusiastic towards continuous learning | Interested in continuous learning | Inadequate interest in continuous learning |
| Review-2 | | | |
| Analysis and Synthesis | Thorough comprehension through analysis/ synthesis | Reasonable comprehension through analysis/ synthesis | Improper comprehension through analysis/ synthesis |
| Design Skills | Best design/modeling for the selected topic | Good design/ modeling for the selected topic | Moderate design/modeling for the selected topic |
| Literature Survey | Thorough comprehension about what is proposed in the literature papers | Reasonable comprehension about what is proposed in the literature papers | Improper comprehension about what is proposed in the literature |
| Usage of Techniques & Tools | Clearly identified and has complete knowledge of techniques & tools used in the project work | Identified and has sufficient knowledge of techniques & tools used in the project work | Identified and has inadequate knowledge of techniques & tools used in the project work |
| Project work impact on Society | Conclusion of project work has strong impact on society | Conclusion of project work has considerable impact on society | Conclusion of project work has feeble impact on society |

| Rubric | Excellent (Wt = 3) | Good (Wt = 2) | Fair (Wt = 1) |
|---|--|--|--|
| Project work impact on Environment | Conclusion of project work has strong impact on Environment | Conclusion of project work has considerable impact on environment | Conclusion of project work has feeble impact on environment |
| Ethical attitude | Clearly understands ethical and social practices. | Moderate understanding of ethical and social practices. | Insufficient understanding of ethical and social practices. |
| Independent Learning | Did literature survey and selected topic with little guidance | Did literature survey and selected topic with considerable guidance | Selected a topic as suggested by the supervisor |
| Oral Presentation | Presentation in logical sequence with key points, clear conclusion and excellent language | Presentation with key points, conclusion and good language | Presentation with insufficient key points and improper conclusion |
| Report Writing | Status report with clear and logical sequence of chapters using excellent language | Status report with logical sequence of chapters using understandable language | Status report not properly organized |
| Time and Cost Analysis | Comprehensive time and cost analysis | Moderate time and cost analysis | Reasonable time and cost analysis |
| Continuous learning | Highly enthusiastic towards continuous learning | Interested in continuous learning | Inadequate interest in continuous learning |
| External Examination | | | |
| Selection of Topic | Selected a latest topic through complete knowledge of facts and concepts | Selected a topic through partial knowledge of facts and concepts | Selected a topic through improper knowledge of facts and concepts |
| Analysis and Synthesis | Thorough comprehension through analysis/ synthesis | Reasonable comprehension through analysis/ synthesis | Improper comprehension through analysis/ synthesis |
| Design Skills | Best design/modeling for the selected topic | Good design/ modeling for the selected topic | Moderate design/modeling for the selected topic |
| Literature Survey | Thorough comprehension about what is proposed in the literature papers | Reasonable comprehension about what is proposed in the literature papers | Improper comprehension about what is proposed in the literature |
| Usage of Techniques & Tools | Clearly identified and has complete knowledge of techniques & tools used in the project work | Identified and has sufficient knowledge of techniques & tools used in the project work | Identified and has inadequate knowledge of techniques & tools used in project work |
| Project work impact on Society | Conclusion of project work has strong impact on society | Conclusion of project work has considerable impact on society | Conclusion of project work has feeble impact on society |
| Project work impact on Environment | Conclusion of project work has strong impact on Environment | Conclusion of project work has considerable impact on environment | Conclusion of project work has feeble impact on environment |
| Ethical attitude | Clearly understands ethical and social practices. | Moderate understanding of ethical and social | Insufficient understanding of ethical and social practices. |

| Rubric | Excellent (Wt = 3) | Good (Wt = 2) | Fair (Wt = 1) |
|-------------------------------|---|---|---|
| | | practices. | |
| Independent Learning | Did literature survey and selected topic with little guidance | Did literature survey and selected topic with considerable guidance | Selected a topic as suggested by the supervisor |
| Oral Presentation | Presentation in logical sequence with key points, clear conclusion and excellent language | Presentation with key points, conclusion and good language | Presentation with insufficient key points and improper conclusion |
| Report Writing | Status report with clear and logical sequence of chapters using excellent language | Status report with logical sequence of chapters using understandable language | Status report not properly organized |
| Time and Cost Analysis | Comprehensive time and cost analysis | Moderate time and cost analysis | Reasonable time and cost analysis |
| Continuous learning | Highly enthusiastic towards continuous learning | Interested in continuous learning | Inadequate interest in continuous learning |

ASSESSMENT RUBRICS FOR SEMINAR

| Rubric | Excellent (Wt=3) | Good (Wt=2) | Fair (Wt=1) |
|---|--|--|--|
| Selection of Topic | Selected a latest topic through complete knowledge of facts and concepts | Selected a topic through partial knowledge of facts and concepts | Selected a topic through improper knowledge of facts and concepts |
| Analysis and Synthesis | Thorough comprehension through analysis/ synthesis | Reasonable comprehension through analysis/ synthesis | Improper comprehension through analysis/ synthesis |
| Literature Survey | Extensive literature survey with standard references | Considerable literature survey with standard references | Incomplete literature survey with substandard references |
| Identification of Techniques & Tools | Clearly identified and has complete knowledge of techniques & tools used in the literature pertaining to seminar topic | Identified and has sufficient knowledge of techniques & tools used in the literature pertaining to seminar topic | Identified and has inadequate knowledge of techniques & tools used in the literature pertaining to seminar topic |
| Independent Learning | Did literature survey and selected topic with little guidance | Did literature survey and selected topic with considerable guidance | Selected a topic as suggested by the supervisor |
| Oral Presentation | Presentation in logical sequence with key points, clear conclusion and excellent language | Presentation with key points, conclusion and good language | Presentation with insufficient key points and improper conclusion |
| Report Writing | Report with clear and logical sequence of chapters using excellent language | Report with logical sequence of chapters using understandable language | Report not properly organized |
| Continuous learning | Highly enthusiastic for continuous learning | Interested in continuous learning | Inadequate interest in continuous learning |

ASSESSMENT RUBRICS FOR COMPREHENSIVE VIVA-VOCE

| Rubric | Excellent (Wt = 3) | Good (Wt = 2) | Fair (Wt = 1) |
|--|--|--|---|
| <i>Knowledge in the Program Domain</i> | Sound knowledge in the program domain | Adequate knowledge in the program domain | Inadequate knowledge in the program domain |
| <i>Analysis</i> | Thorough comprehension through analysis/ synthesis | Reasonable comprehension through analysis/ synthesis | Improper comprehension through analysis/ synthesis |
| <i>Design Skills</i> | Clear demonstration of design/modeling | Moderate demonstration of design/modeling | Partial demonstration of design/modeling |
| <i>Problem Solving</i> | Exhibit strong problem solving skills | Exhibit average problem solving skills | Exhibit limited problem solving skills |
| <i>Usage of Tools & Techniques</i> | Clearly identify and has complete knowledge of techniques & tools used in the program | Identify and has sufficient knowledge of techniques & tools used in the program | Identify and has inadequate knowledge of techniques & tools used in the program |
| <i>Solution to Society needs</i> | Clearly propose solution to the society needs | Propose reasonable solution to the society needs | Propose partial solution to the society needs |
| <i>Environment & sustainability</i> | Very conscious about giving solution with concerns on Environmental impacts and sustainability | Reasonably conscious about giving solution with concerns on Environmental impacts and sustainability | Limited conscious about giving solution with concerns on Environmental impacts and sustainability |
| <i>Ethical attitude</i> | Clearly understands ethical and social practices. | Moderate understanding of ethical and social practices. | Insufficient understanding of ethical and social practices. |
| <i>Function Individually</i> | Strong enough to face situations. | Reasonably strong to face situations. | Fair to Face situations |
| <i>Presenting views persuasively</i> | Presenting views clearly and accurately | Presenting views reasonable | Presenting views inadequately |
| <i>Exhibit professionalism</i> | Exhibit competent Professional manners for career progression | Exhibit reasonable Professional manners for career progression | Exhibit ordinary Professional manners for career progression |

Note: The evaluation rubrics for practical courses shall be formulated by the Department based on the Course Outcomes of respective courses.



SREE VIDYANIKETHAN ENGINEERING COLLEGE (AUTONOMOUS)

SREE SAINATH NAGAR, TIRUPATI-517 102

GRADUATE EXIT SURVEY (UG)

Name:
Roll Number:
Year/Semester:

Department:
Branch:

You are requested to give your prudent feedback on the following by marking (√) in the appropriate box.

Note: 1 is low and 5 is high

I. KNOWLEDGE

- i. Knowledge in the courses studied provides the depth for course progression and are relevant to career aspirations.

1 2 3 4 5

- ii. Teaching methods adopted help to acquire the knowledge.

1 2 3 4 5

- iii. The quality of teaching in linking the knowledge content to application.

1 2 3 4 5

II. SKILLS

Theory and Laboratory courses contain the content to develop :

- a. skills to Analyze problems and cases in the course / program

1 2 3 4 5

- b. Design and development of systems and processes

1 2 3 4 5

- c. Problem solving skills in the domain.

1 2 3 4 5

- d. Skills in devising experiment protocols/reports and communicate well with the domain experts.

1 2 3 4 5

III. APPLICATION

- i. Ability to apply new tools and software relevant to your laboratory sessions or in project work.

1 2 3 4 5

- ii. Ability to write case studies relevant to the course domain.

1 2 3 4 5

IV. ATTITUDE

a. Ability to work individually and in a team in a lab session and executing a project.

1 2 3 4 5

b. Course content prepares you to plan solutions for societal needs.

1 2 3 4 5

c. Course content help you understand and create eco- friendly solutions

1 2 3 4 5

d. Awareness to ethical code and practice.

1 2 3 4 5

e. Courses/Program stimulates you to further acquire skills and knowledge in the domain.

1 2 3 4 5

Suggestions for inclusion of new courses/technologies/tools etc to be included in the curriculum:

Date:

Time:

Signature

ALUMNI SURVEY (UG)

Name :
Program & Discipline:
Year of Graduation:

Organization :
Designation:
Experience:

You are requested to peruse the program education objectives, program outcomes and curriculum for giving your prudent feedback on the following by marking (√) in the appropriate box.

Note: 1 is low and 5 is high

I. KNOWLEDGE

- i. The extent of knowledge of mathematics and basic sciences useful in your career exploration and progression.
1 2 3 4 5
- ii. Depth of core courses relevant to your professional aspiration.
1 2 3 4 5
- iii. The diversity of electives offered helped in expanding the breadth of knowledge.
1 2 3 4 5

II. SKILLS

- The level of competence to
- a. Analyze complex engineering problems acquired during the program for providing solutions in your career.
1 2 3 4 5
 - b. Design solutions, system components or processes for complex engineering problems to meet the specified needs
1 2 3 4 5
 - c. synthesis of knowledge, design skills and analysis and interpretation of data to provide valid conclusions
1 2 3 4 5
 - d. The level of communication skills developed during the program useful in your profession.
1

III. APPLICATION

- i. Competency to apply modern tools and technologies in your profession.
1 2 3 4 5
- ii. The level of comfort in decision making and project management skills in your profession.
1 2 3 4 5

IV. ATTITUDE

i. Function effectively as an individual and as a member or leader in diverse teams

1 2 3 4 5

ii. Awareness to societal responsibilities relevant to the profession while providing solutions.

1 2 3 4 5

iii. Understanding of the impact of the professional engineering solutions in compliance to environmental consciousness

1 2 3 4 5

iv. Application of ethical principles and code in profession

1 2 3 4 5

v. Attitude to upgrade your skills and knowledge through quality improvement programs and higher education.

1 2 3 4 5

Suggestions for inclusion of new courses/ technologies/ tools etc to be included in the curriculum:

Date:

Time:

Signature

EMPLOYER SURVEY (UG)

Name:

Organization:

Designation:

Experience:

You are requested to peruse the program education objectives, program outcomes, curriculum and quality of students recruited in your organization for giving your prudent feedback on the following by marking (✓) in the appropriate box.

Note: 1 is low and 5 is high

I. KNOWLEDGE

- i. Program covers all the requisite knowledge content suitable for employment.
1 2 3 4 5
- ii. Broad curricular areas help the student in gaining knowledge for securing a job and subsequent progression.
1 2 3 4 5
- iii. Elective courses offered are contemporary enough to suit the needs of the organization.
1 2 3 4 5

II. SKILLS

- i. The standard of quality of skills to implement the project upon induction.
 - a. Analysis of critical real time problems
1 2 3 4 5
 - b. Design and development of systems, models and processes
1 2 3 4 5
 - c. Problem solving abilities to arrive at feasible solutions
1 2 3 4 5
- ii. Curricular components – projects, seminars help the students in gaining skills to prepare project proposals and reports.
1 2 3 4 5

III. APPLICATION

- i. Recruitree’s ability to apply their knowledge, skills and modern tools and software for appropriate solutions in the assigned project domain.
1 2 3 4 5
- ii. Applying managerial, administrative principles with financial literacy for successful project execution
1 2 3 4 5

IV. ATTITUDE

- i. The extent of individual skills and contribution to the Recruitree's team in the project.
 1 2 3 4 5
- ii. Recruitree's sensitivity to social needs in bringing innovative proposal and ideas
 1 2 3 4 5
- iii. Awareness to environmental issues, if any while implementing the project.
 1 2 3 4 5
- iv. Commitment and ethical values of the Recruitree
 1 2 3 4 5
- v. Recruitree shows enthusiasm to upgrade the skill set and knowledge for new assignments and professional development.
 1 2 3 4 5

Suggestions for inclusion of new courses/ technologies/ tools etc to be included in the curriculum:

Date:

Time:

Signature

COURSE-END SURVEY (UG)

Name:
Roll Number:
Year/Semester:

Department:
Branch:
Course:

You are requested to give your prudent feedback on the following by marking (√) in the appropriate box.

Note: 1 is low and 5 is high

Course Content and organization

i. Course objectives were clear and were specified in the beginning

1 2 3 4 5

ii. Attainment of course objectives achieved

1 2 3 4 5

Learning environment and teaching methods

i. The learning and teaching methods encouraged participation

1 2 3 4 5

ii. Overall environment in the class was conducive for learning

1 2 3 4 5

Learning resources

i. The provision of learning resources in the library was adequate and appropriate

1 2 3 4 5

Quality of delivery

i. Course stimulated interest and thought on the subject area

1 2 3 4 5

ii. Ideas and concepts were presented clearly

1 2 3 4 5

Assessment

i. The method of assessment was reasonable

1 2 3 4 5

ii. Feedback on assessment was helpful

1 2 3 4 5

iii. The teacher was responsive to student needs and problems

1 2 3 4 5

iv. Relevant topics for competitive examinations (NET, GATE etc.) were covered during the lectures

1 2 3 4 5

Suggestions for further improvement:

Date:

Place:

Signature



**SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)**

Sree Sainath Nagar, A. Rangampet – 517102

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

OVERALL PO ATTAINMENT OF (2015-2019) ATTAINMENTS

Direct Evaluation(through Internal & External Examinations)

| (2015-'19 batch) | | | | | | | | | | | | |
|-------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|
| Examination | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
| Internal | 74.67 | 78.61 | 94.80 | 76.60 | 77.60 | 79.60 | 81.00 | 90.25 | 92.39 | 92.11 | 89.15 | 83.48 |
| External | 75.96 | 76.25 | 75.23 | 77.16 | 78.93 | 73.20 | 83.00 | 88.75 | 93.43 | 88.04 | 98.03 | 99.88 |

Indirect Evaluation(through Surveys)

| SURVEYS | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|
| Alumni Survey | 79.7 | 81.9 | 87.8 | 85.6 | 84.7 | 89.4 | 83.8 | 79.1 | 80.3 | 83.1 | 84.4 | 82.5 |
| Student Exit Survey | 75.09 | 73.4 | 74.6 | 74.39 | 72.63 | 73.26 | 72.84 | 73.75 | 72.7 | 78.74 | 76.21 | 76.14 |
| Faculty Survey | 80 | 75.83 | 75.83 | 80.42 | 77.92 | 80.42 | 80.83 | 84.17 | 83.33 | 82.92 | 80.83 | 81.25 |
| Employer Survey | 93.75 | 90.5 | 90.3 | 93.54 | 94.53 | 92.5 | 93.5 | 91 | 89.98 | 91.31 | 92.1 | 88.89 |
| total | 82.14 | 80.41 | 82.13 | 83.49 | 82.45 | 83.90 | 82.74 | 82.01 | 81.58 | 84.02 | 83.39 | 82.20 |

Overall Attainment

| Evaluation type | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO7 | PO8 | PO9 | PO10 | PO11 | PO12 |
|----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 40%-INT | 29.87 | 31.44 | 37.92 | 30.64 | 31.04 | 31.84 | 32.40 | 36.10 | 36.96 | 36.84 | 35.66 | 33.39 |
| 40%-EXT | 30.38 | 30.50 | 30.09 | 30.86 | 31.57 | 29.28 | 33.20 | 35.50 | 37.37 | 35.22 | 39.21 | 39.95 |
| 20%-SURVEY | 16.43 | 16.08 | 16.43 | 16.70 | 16.49 | 16.78 | 16.55 | 16.40 | 16.32 | 16.80 | 16.68 | 16.44 |
| Final Attainment | 76.68 | 78.02 | 84.44 | 78.20 | 79.10 | 77.90 | 82.15 | 88.00 | 90.64 | 88.86 | 91.55 | 89.78 |
| Total PO attainment | 83.78 | | | | | | | | | | | |

Faculty Course Assessment Report

| | | | |
|----------------------|---|--------------------|------------------------|
| Course Code: | 16BT60409 | Program: | III B Tech, II Sem ECE |
| Course Title: | LIGHTWAVE COMMUNICATIONS (Professional Elective-2) | Acad. Year: | 2019-20 |
| Faculty : | Dr. P V RAMANA | Section: | A |

Course Outcomes

On successful completion of the course, students will be able to:

- CO1** CO1. Apply knowledge to understand
- Mode theory of optical communication.
 - Losses in optical fibers.
 - Optical sources and detectors.
 - Power Launching and coupling techniques.
 - Optical links.
 - WDM concepts.
 - Optical Networks.
- CO2** Analyze Problems in analog and Digital Links.
- CO3** Design and Develop Optical Sources, Detectors and Links.
- CO4** Provide valid solutions to overcome losses in optical fibers.
- CO5** Select appropriate optical components to suit advanced optical communications and Networks.
- CO6** Assess and propose cost effective solutions to minimize the radiation hazards caused by wireless links.

Program Outcomes

Engineering Graduates will be able to:

- PO1:** Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2:** Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3:** Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4:** Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5:** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO6:** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7:** Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8:** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9:** Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10:** Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
- PO11:** Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
- PO12:** Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

| Program Specific Outcomes | |
|---------------------------|---|
| PSO1: | Apply the knowledge of Electronics, Signal Processing, Communications, and VLSI & Embedded Systems to the solutions of real world problems. |
| PSO2: | Analyze, Design and Develop solutions in real time in the domains of Electronics, Signal Processing, Communications, and VLSI & Embedded Systems. |
| PSO3: | Conduct investigations and address complex engineering problems in the domains of Electronics, Signal Processing, Communications, and VLSI & Embedded Systems. |
| PSO4: | Apply appropriate techniques, resources, and modern tools to complex engineering systems and processes in the domains of Electronics, Signal Processing, Communications, and VLSI & Embedded Systems. |

Mapping of Course to Program Outcomes and Program Specific Outcomes:

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PSO1 | PSO2 | PSO3 | PSO4 |
|------------|-----|-----|-----|-----|-----|-----|------|------|------|------|
| CO1 | 3 | | | | | | 3 | | | |
| CO2 | 2 | 3 | | | | | | 3 | | |
| CO3 | 2 | 2 | 3 | | | | | 3 | | |
| CO4 | 2 | 2 | 1 | 3 | | | | | 3 | |
| CO5 | 2 | 2 | | | 2 | | | | | 3 |
| CO6 | 2 | 2 | 2 | 2 | | 2 | | | | |

3: High 2: Medium 1: Low

Course Outcomes Assessment:

| Course Outcomes | | Questions | Percentage of students who got 60% and above marks | | | | | | |
|---|---|---|--|-------------------------|-------|----------------|-------|-------|-------|
| | | | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 | |
| CO1 | CO2. Apply knowledge to understand <ul style="list-style-type: none"> • Mode theory of optical communication. • Losses in optical fibers. • Optical sources and detectors. • Power Launching and coupling techniques. • Optical links. • WDM concepts. • Optical Networks. | M1Q1 M1Q2 M1Q4 M1Q5B M2Q1 M2Q3 | 63.79 70.18 48.00 75.00 52.54 91.07 | | | | | | |
| CO2 | Analyze Problems in analog and Digital Links. | M1Q3A M1Q5A M2Q2B | | 80.00 84.62 94.12 | | | | | |
| CO3 | Design and Develop Optical Sources, Detectors and Links. | M2Q2A | | | 82.98 | | | | |
| CO4 | Provide valid solutions to overcome losses in optical fibers. | M1Q3B M2Q4 | | | | 41.94 88.89 | | | |
| CO5 | Select appropriate optical components to suit advanced optical communications and Networks | M2Q5A | | | | | 61.11 | | |
| CO6 | Assess and propose cost effective solutions to minimize the radiation hazards caused by wireless links. | M2Q5B | | | | | | | 66.67 |
| CO Attainment through CIE | | | 66.76 | 86.24 | 82.98 | 65.41 | 61.11 | 66.67 | |
| CO Attainment through SEE | | | 79.1 | 79.1 | 79.1 | 79.1 | 79.1 | 79.1 | |
| Overall CO Attainment=(CIE+SEE)/2 | | | 72.93 | 82.67 | 81.04 | 72.26 | 70.11 | 72.89 | |
| Course Attainment=Average of all CO attainment | | | 75.31 | | | | | | |

| | | | | | | |
|---------------------------|------------|------------|------------|------------|------------|------------|
| Course Outcomes | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 |
| Target for Attainment (%) | 60 | 60 | 60 | 60 | 60 | 60 |
| CO Attainment (%) | 72.93 | 82.67 | 81.04 | 72.26 | 70.11 | 72.89 |
| Outcomes satisfied | Yes | Yes | Yes | Yes | Yes | Yes |

Program Outcomes and Program Specific Outcomes Assessment:

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PSO1 | PSO2 | PSO3 | PSO4 |
|----------------------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
| CO1 | 72.93 | | | | | | 72.93 | | | |
| CO2 | | 82.67 | | | | | | 82.67 | | |
| CO3 | | | 81.04 | | | | | 81.04 | | |
| CO4 | | | | 72.26 | | | | | 72.26 | |
| CO5 | | | | | 70.11 | | | | | 70.11 |
| CO6 | | | | | | 72.89 | | | | |
| Average PO Attainment (%) | 72.93 | 82.67 | 81.04 | 72.26 | 70.11 | 72.89 | 72.93 | 81.86 | 72.26 | 70.11 |
| Target for Attainment (%) | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 | 65 |
| Outcomes satisfied | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

The process of converting CO/PO/PSO attainment percentage into attainment levels is illustrated in the table below:

| COs/POs/PSOs attainment % | | Attainment Level |
|----------------------------------|---|-------------------------|
| ≥ 75 | : | 3 |
| ≥ 60 to < 75 | : | 2 |
| < 60 | : | 1 |

COs, POs & PSOs Attainment:

| Course Outcomes | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 |
|------------------------|------------|------------|------------|------------|------------|------------|
| CO Attainment (%) | 72.93 | 82.67 | 81.04 | 72.26 | 70.11 | 72.89 |
| Level of Attainment | 2 | 3 | 3 | 2 | 2 | 2 |

| Program Outcomes | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PSO1 | PSO2 | PSO3 | PSO4 |
|-------------------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
| PO Attainment (%) | 72.93 | 82.67 | 81.04 | 72.26 | 70.11 | 72.89 | 72.93 | 81.86 | 72.26 | 70.11 |
| Level of Attainment | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 |

Comments

- The COs and corresponding POs for this course, attained the expected level of attainment.
- After analyzing the performance in the CIE, special emphasize are required on the following
 - ❖ Short answer questions
 - ❖ Losses in optical fibers
 - ❖ Methods to minimize losses in fibers.

Recommendations for Improvement

- Formative tests shall be focused more on short answer questions rather than other type for this course.
- Optical losses and methods to minimize losses should be discussed with more pictorial & video presentation for better understanding.

COURSE OUTCOMES & CORRESPONDING QUESTIONS

CO1: Apply knowledge to understand

- **Mode theory of optical communication.**
- **Losses in optical fibers.**
- **Optical sources and detectors.**
- **Power Launching and coupling techniques.**
- **Optical links.**
- **WDM concepts.**
- **Optical Networks.**

- M1Q1 a) Write an expression for snell's law of refraction in terms of refractive indices of dielectrics.
b) Write an expression for total number of guided modes in multimode step-index fiber.
c) List the types of fiber fabrication methods.
d) Draw the index profile of a step index and graded index fiber.
e) What are the types of dispersion in optical fiber?
f) What is fiber beat length?
- M1Q2 Derive expressions for ray theory transmission and make use of it to obtain Numerical Aperture.
- M1Q4 Categorize and Explain the scattering losses based on linear and non-linear process?
- M1Q5B What is the effect of intermodal delay in multimode fibers?
- M2Q1 a) Which optical source has narrow spectral emission width?
b) Write the expression for Responsivity of APD.
c) Draw one type of mechanical misalignment of fibers.
d) List the types of Fiber Connectors.
e) What is power penalty in optical fiber link?
f) What is Impact Ionization in avalanche effect?
- M2Q3 Demonstrate how temporary and permanent joints are made between two fibers using splicing techniques?

CO2: Analyze Problems in analog and Digital Links.

- M1Q3A A light wave is travelling in a semiconductor medium (GaAs) of refractive index 3.6. It is incident on a different semiconductor medium (AlGaAs) of refractive index 3.4 and the angle of incidence is 80° . Conclude whether this can result in Total Internal Reflection.
- M1Q5A Analyze how the dispersion limits the capacity of optical fibers.
- M2Q2B Compare Optical LED and Laser with any three parameters

CO3: Design and Develop Optical Sources, Detectors and Links.

- M2Q2A Design a structure for optical LED to achieve carrier and optical confinements.

CO4: Provide valid solutions to overcome losses in optical fibers.

- M1Q3B Analyze how the losses (any two losses) in optical fibers can be minimized.
- M2Q4 Estimate link power budget and rise time budget for point-to-point fiber optic link.

CO5: Select appropriate optical components to suit advanced optical communications and Networks

- M2Q5A Select appropriate optical components along with Fiber bragg grating and design optical demultiplexer.

CO6: Assess and propose cost effective solutions to minimize the radiation hazards caused by wireless links.

- M2Q5B Mention the optimal solution for reducing cost/hazards for joining two fiber.

Signature of the faculty

COURSE EVALUATION SHEET

| | |
|----------------------|---|
| Course Code: | 16BT60409 |
| Course Title: | LIGHTWAVE COMMUNICATIONS (Professional Elective-2) |
| Faculty : | Dr. P V RAMANA |

| | |
|-----------------------|------------------------|
| Program: | III B Tech, II Sem ECE |
| Academic Year: | 2019-20 |
| Section: | A |

| Roll Number | Name of the Students | M1Q1 | M1Q2 | M1Q3A | M1Q3B | M1Q4 | M1Q5A | M1Q5B | M2Q1 | M2Q2A | M2Q2B | M2Q3 | M2Q4 | M2Q5A | M2Q5B |
|-------------|-------------------------------|------|------|-------|-------|------|-------|-------|------|-------|-------|------|------|-------|-------|
| | | 6 | 8 | 3 | 5 | 8 | 4 | 4 | 6 | 5 | 3 | 8 | 8 | 4 | 4 |
| 17121A0401 | ACHUGATLA RAFATH | 2 | 6 | 3 | 2 | | | | 1 | 5 | 0 | 6 | 6 | | |
| 17121A0402 | ALLAM LOKESH NAIDU | | | | | 3 | 3 | | 3 | 5 | 3 | 7 | 0 | | |
| 17121A0440 | BYNA CHARANTEJ AKRI | | | | | | | | | | | | | | |
| 17121A0455 | DADU KIRAN KUMAR REDDY | 5 | 7 | 3 | 4 | 3 | | | 6 | 2 | 3 | 7 | 7 | | |
| 17121A0457 | DARAM RAMESH | | | | | | | | 5 | | | 3 | 2 | 1 | 1 |
| 17121A0461 | DEVATHOTI TONY | 5 | 3 | | | 5 | | 2.5 | 3 | 0 | 3 | 8 | 8 | | |
| 17121A0472 | EGA PAVAN | 4 | 4 | | | 4 | | 2 | 3 | 3 | 2 | | | 2 | 2 |
| 17121A0475 | ESLAVATH PAAVANI | 4 | 8 | 3 | 2 | 5 | | | 1 | 0 | 2 | 8 | 7 | | |
| 17121A0481 | GOPAVARAM MANOJ KUMAR REDDY | 5 | 6.5 | | | 3.5 | | | 3 | 4 | 3 | 8 | 8 | | |
| 17121A0484 | GORRE PREETHIRAJ | 5 | 8 | 2.5 | 4 | 7 | 3 | | 4 | 0 | 3 | 8 | | 0 | 3 |
| 17121A0492 | GULLAKUNTLA YASWANTH | 3 | 7 | 3 | 3 | 4.5 | | | 2 | 2 | 3 | 0 | 0 | | |
| 17121A0493 | GUMMA SATHYA SAI | 5 | 5 | | | 5 | | | 2 | 0 | 0 | 8 | 5 | | |
| 17121A0497 | JAKKARAJU DEEPIKA | 2 | 3.5 | | | 3.5 | | | 4 | 4 | 3 | 8 | | 0 | 1 |
| 17121A04A8 | KAMBAKA JAYA SARANYA | 3 | 7.5 | 3 | 2 | 2 | | | 5 | 3 | 2 | 7 | 7 | | |
| 17121A04B2 | KATIKA VISHNUVARDHAN | | | | | | | | 4 | | | 6 | 7 | 3 | 0 |
| 17121A04B5 | KINNERA VIDYA | 5 | 7.5 | 3 | 4 | 7.5 | | | 3 | 0 | 3 | | 5 | 2 | 2 |
| 17121A04C5 | KUNDAVARAM PREM SUKUMAR | 5 | 7.5 | 3 | 2 | 3.5 | | | 5 | 2 | 3 | 8 | 8 | | |
| 17121A04C6 | KURABALAKOTA MADHAVI | 6 | 7.5 | 1 | 2 | 3 | | | 4 | 3 | 3 | 8 | 8 | | |
| 17121A04C9 | LAKKAVARAM HEMANTH KUMAR | 5 | 7.5 | 3 | | 7 | | | | | | | | | |
| 17121A04D4 | MALLE ROSHINI | 2 | 5 | 3 | | 4 | | | 3 | | | 8 | 6 | 3 | 0 |
| 17121A04D7 | MANAGHANI MOUNIKA | 1.5 | | | | 1.5 | | | | | | | | | |
| 17121A04F7 | NITTURU NEHRUN BEE | 4 | 6 | 3 | 2 | 4.5 | | | | 4 | 1 | | | | |
| 17121A04G1 | PAMIDIKALVA SAIKRISHNA SARATH | 5 | | 2.5 | 2.5 | 3.5 | | | 2 | | 3 | 7 | | | 3 |
| 17121A04G8 | PENUKONDA SUDHARSHAN | | | | | | | | | | | | | | |
| 17121A04H9 | RASAPPA GOWTHAM | | 1 | | | | | | | 3 | 2 | 6 | 6 | | |

| | | | | | | | | | | | | | | | |
|------------|-------------------------------------|-----|-----|-----|-----|-----|---|-----|---|---|---|---|---|---|---|
| 17121A04J0 | RAVULA SIVA SANKAR | 4 | | 2 | 1 | 5 | | | 3 | 3 | 2 | 6 | | | |
| 17121A04J8 | SHAIK MASTHAN SHARIF | 4.5 | 4.5 | 3 | 3.5 | 6.5 | | | 5 | 3 | 3 | 8 | | 2 | 3 |
| 17121A04M7 | VATTAM MOHAN REDDY | 6 | 6.5 | 3 | 3.5 | 7 | | | | | | | | | |
| 17121A04M9 | VEMGAPATI NAGENDRA BABU | 3 | 5 | 3 | 2 | | | | 2 | | 3 | 7 | | 3 | 3 |
| 17121A04N4 | YANADI PRUDHVI | 6 | 8 | 3 | 4.5 | 7.5 | | | 5 | 4 | 3 | 8 | 8 | | |
| 17121A04N5 | YARAMALA LAKSHMI PAVAN KALYAN REDDY | 2 | | | | | | 1.5 | 3 | | | 4 | 4 | 3 | 3 |
| 17121A04N9 | YELLAM RAJU LIKHITHA | 4 | 7 | 3 | 2 | 4.5 | | | 5 | | | 8 | 8 | | 4 |
| 17121A04P7 | PEDDAKOTLA SIVA SAI | 2 | 1.5 | 3 | | | | | 3 | 3 | 2 | 4 | | | 3 |
| 17121A04P8 | VENNAPUSA MADHUSUDHAN REDDY | | | | | | | | | 3 | 3 | | 6 | | 3 |
| 17121A04P9 | KRISHNA RAJ ROKAYA | 4.5 | 7 | 3 | 3 | 5 | | | | | | | | | |
| 17125A0426 | MULA PRAVEEN KUMAR | 4 | 5 | | | 4 | | | | | 3 | | | | |
| 18125A0401 | A S POORNESH | 5 | 7.5 | 3 | 2 | 7 | | | 3 | 3 | 2 | | | | 4 |
| 18125A0402 | AKKUPALLI ANIL KUMAR | | | | | 1 | 2 | | 4 | 5 | 3 | 7 | 7 | | |
| 18125A0404 | AMBATI YASWANTH REDDY | 6 | 7.5 | 1 | 2 | 5.5 | 3 | 3 | 5 | 3 | 3 | 8 | 8 | | |
| 18125A0406 | AVULA RAMA KRISHNA | 3 | 4 | 3 | 2 | 4 | | | 3 | 5 | 3 | 8 | | | |
| 18125A0407 | B MEGHANA | 4.5 | 6 | 2 | | | 3 | | 3 | 3 | 3 | 5 | 5 | | |
| 18125A0408 | B V LAVANYA | 5 | 3 | | 3 | 5 | | | 2 | 4 | 3 | 4 | 4 | | |
| 18125A0409 | BALA KRISHNA VAMSI | | | | | | | | 3 | 3 | 3 | 5 | 5 | | |
| 18125A0411 | BASIREDDY PUJITHA | 3 | 3 | 1.5 | 1.5 | 5 | | | 3 | 4 | 3 | 7 | 6 | | |
| 18125A0412 | BAYAPUREDDY SRILAKSHMI | 5 | 7 | 3 | 4 | 7 | | | 6 | 5 | 3 | 6 | 6 | | |
| 18125A0413 | BOORSU VASU | 4 | 4.5 | 3 | 2 | 7 | | | 4 | 5 | 3 | 8 | | 1 | 3 |
| 18125A0414 | BOYA YOGESH | 5 | 7 | | 4 | 5 | | | 4 | 5 | 3 | 8 | 8 | | |
| 18125A0415 | CHALICHEEMALA SIVA PRASANNA KUMAR | 4 | 7 | 2 | | 5 | 3 | 1.5 | 5 | 5 | 3 | 7 | 6 | | |
| 18125A0417 | D JHANSI LAKSHMI | 2 | 3.5 | 2 | | | 3 | | 3 | 3 | 3 | 6 | 8 | | |
| 18125A0418 | DIBBISA JAYACHANDRA | 4 | 5 | | | 5 | | | 3 | | | 7 | 7 | | 3 |
| 18125A0420 | GIRIGILI BALAKRISHNA | 5 | 6 | 3 | 3.5 | | 4 | 3 | 2 | 3 | 2 | 8 | | | 4 |
| 18125A0421 | GOLLA SURESH | 2.5 | 3 | | 2.5 | | | | 4 | 4 | 3 | 8 | | | |
| 18125A0422 | GOOPURAPPAGARI MANJUNATHA | 2.5 | 5 | 2 | | 4.5 | | | 5 | 4 | 3 | | 7 | | |
| 18125A0423 | GUNTIKA SIREESHA | 3.5 | 5 | | 3 | 3.5 | 7 | | 6 | | | 8 | 6 | 4 | 3 |
| 18125A0424 | KALVA PURNA SAI | 3.5 | 3 | 1.5 | | 4.5 | | | 5 | | | 7 | 8 | 4 | 2 |
| 18125A0425 | KANDUKURI VAMSIKRISHNA | | | | | | | | | | | | | | |
| 18125A0427 | KOMMU PRASAD | 3 | 4 | 2 | | 2.5 | | | 4 | 3 | 3 | 7 | 8 | | |
| 18125A0428 | KUNDURU RAMMOHAN REDDY | 4 | 2 | 1 | 2 | 4.5 | | | 4 | 5 | 3 | 8 | 7 | | |
| 18125A0429 | KUNI HIMASREE | 5.5 | 5.5 | | | | | 3 | 3 | 5 | 3 | 7 | 7 | | |

| | | | | | | | | | | | | | | | |
|------------|--------------------------------|---|-----|-----|---|-----|-----|-----|---|---|---|---|---|---|---|
| 18125A0431 | MALLA RAVIPRAKASH REDDY | 3 | 6.5 | | | | 3 | | 4 | | 3 | 8 | 7 | | |
| 18125A0434 | PEMMAKA BALA SRAVANI | 6 | 8 | | | 7.5 | 3.5 | 3.5 | 4 | 3 | 3 | 8 | | 3 | 3 |
| 18125A0435 | PITTI NITHEESH KUMAR | 3 | 3.5 | | | 3 | | | 1 | | | 6 | 6 | 3 | 3 |
| 18125A0436 | PONNAPATI PAVAN KALYAN | | 5.5 | 1.5 | | 3.5 | | 2.5 | 4 | 4 | 3 | 8 | | 3 | 2 |
| 18125A0437 | RAGAVAREDDYGARI ANUSHA | 4 | 7 | 3 | | | | | 5 | 4 | 3 | 8 | | 3 | 3 |
| 18125A0439 | SIRVELU MOUNIKA | 3 | 5 | 1.5 | | 7.5 | 2 | 2.5 | 2 | 5 | 3 | 6 | 8 | | |
| 18125A0440 | TALARI RAVI TEJA | 3 | 4.5 | 3 | 2 | 4.5 | | | 5 | 5 | 3 | 6 | 5 | | |
| 18125A0442 | VANNAPPAGARI YUVAKISHORE REDDY | 5 | 7 | | | 6 | | 3 | 4 | 4 | 3 | 7 | 7 | | |
| 18125A0443 | VARADARAJU JASWANTH | | | | | | | | | | | | | | |
| 18125A0444 | VINUKONDA UDAYA KIRAN | | 5.5 | 0.5 | | | | | 4 | | | 6 | 7 | 3 | 2 |
| 18125A0446 | YALLALA SWETHA | 5 | 7.5 | | | 7 | 2.5 | | 5 | | | 8 | 6 | | 3 |
| 18125A0447 | YERRANAGULA PAVAN KUMAR | 4 | 6 | | | 4 | | 2.5 | 3 | | | 6 | 8 | | 3 |

| | | | | | | | | | | | | | | |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Total Attempted | 58 | 57 | 40 | 31 | 50 | 13 | 12 | 59 | 47 | 51 | 56 | 45 | 18 | 27 |
| No. of students secured ≥ 60% of marks | 37 | 40 | 32 | 13 | 24 | 11 | 9 | 31 | 39 | 48 | 51 | 40 | 11 | 18 |
| % of students secured ≥ 60% of marks | 63.79 | 70.18 | 80.00 | 41.94 | 48.00 | 84.62 | 75.00 | 52.54 | 82.98 | 94.12 | 91.07 | 88.89 | 61.11 | 66.67 |

| | CO1 | CO1 | CO2 | CO2 | CO3 | CO3 | CO4 | CO4 | CO5 | CO5 | CO6 | CO6 |
|----------------------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-------|--------------|-----|
| M1Q1 | 63.79 | M1Q3A | 80.00 | M2Q2A | 82.98 | M1Q3B | 41.94 | M2Q5A | 61.11 | M2Q5B | 66.67 | |
| M1Q2 | 70.18 | M1Q5A | 84.62 | | | M2Q4 | 88.89 | | | | | |
| M1Q4 | 48.00 | M2Q2B | 94.12 | | | | | | | | | |
| M1Q5B | 75.00 | | | | | | | | | | | |
| M2Q1 | 52.54 | | | | | | | | | | | |
| M2Q3 | 91.07 | | | | | | | | | | | |
| CO Attainment | 66.76 | | 86.24 | | 82.98 | | 65.41 | | 61.11 | | 66.67 | |

| | | | | | | |
|--|--------------|-------|-------|-------|-------|-------|
| Continuous Internal Evaluation (CIE) | 66.76 | 86.24 | 82.98 | 65.41 | 61.11 | 66.67 |
| Semester End Evaluation (SEE) | 79.1 | 79.1 | 79.1 | 79.1 | 79.1 | 79.1 |
| Average of CIE & SEE | 72.93 | 82.67 | 81.04 | 72.26 | 70.11 | 72.89 |
| Course Attainment (Average of COs attainment) | 75.31 | | | | | |

Faculty Course Assessment Report

| | | | |
|----------------------|--|--------------------|------------------------|
| Course Code: | 16BT70431 | Program: | IV B.Tech., I-Sem, ECE |
| Course Title: | Antennas and Microwave Engineering Lab | Acad. Year: | 2019-20 |
| Faculty : | Ms. K. Neelima | Section: | A,B,C & D |

COURSE : ANTENNAS AND MICROWAVE ENGINEERING LAB(16BT70431)

Course Outcomes

- CO1** Apply the knowledge of antennas and microwaves to understand the working of various devices.
Analyze the characteristics of different microwave components like
- CO2**
- Attenuators
 - Directional Couplers
 - Horn antennas etc.,
- CO3** Design various antennas for different communication needs.
- CO4** Solve problems using different antenna designs and microwave devices.
- CO5** Apply appropriate tools to design and analyze various antennas.
- CO6** Understand the working of various antennas and microwave components and provide engineering solutions for societal use.
- CO7** Commit to ethical principles in the design of antennas and microwave components.
- CO8** Work individually or in a group in the field of antennas and microwaves.
- CO9** Communicate effectively in verbal and written form in the area of antennas and microwaves.

Program Outcomes

Engineering Graduates will be able to:

- PO1:** Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- PO2:** Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- PO3:** Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- PO4:** Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- PO5:** Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
- PO6:** The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
- PO7:** Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
- PO8:** Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- PO9:** Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- PO10:** Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

| |
|--|
| PO11: Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. |
| PO12: Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. |
| Program Specific Outcomes |
| PSO1: Apply the knowledge of Electronics, Signal Processing, Communications, and VLSI & Embedded Systems to the solutions of real world problems. |
| PSO2: Analyze, Design and Develop solutions in real time in the domains of Electronics, Signal Processing, Communications, and VLSI & Embedded Systems. |
| PSO3: Conduct investigations and address complex engineering problems in the domains of Electronics, Signal Processing, Communications, and VLSI & Embedded Systems. |
| PSO4: Apply appropriate techniques, resources, and modern tools to complex engineering systems and processes in the domains of Electronics, Signal Processing, Communications, and VLSI & Embedded Systems. |

Mapping of Course to Program Outcomes and Program Specific Outcomes:

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO8 | PO9 | PO10 | PSO1 | PSO2 | PSO3 | PSO4 |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|
| CO1 | 3 | | | | | | | | | 3 | | | |
| CO2 | 2 | 3 | | | | | | | | | 3 | | |
| CO3 | 2 | 1 | 3 | | | | | | | | 3 | | |
| CO4 | 2 | 2 | 2 | 3 | | | | | | | | 3 | |
| CO5 | 2 | 1 | 1 | | 3 | | | | | | | | 3 |
| CO6 | 2 | | | | | 3 | | | | | | | |
| CO7 | 2 | | 2 | | | | 3 | | | | | | |
| CO8 | 1 | | | | | | | 3 | | | | | |
| CO9 | 2 | | | | | | | | 3 | | | | |

3: High 2: Medium 1: Low

Evaluation Rubrics (Microwave Engineering Lab)

| Rubric | Excellent (Wt=3) | Good (Wt=2) | Fair (Wt=1) |
|---|---|--|--|
| Experiment write-up (CO1) | Comprehensive write-up | Moderate write-up | Partial write-up |
| Analyze and use the Microwave Components (CO1 & CO2) | Best analysis and usage of the Microwave Components | Good analysis and usage of the Microwave Components | Moderate analysis and usage of the Microwave Components |
| Solve Problems in Leakage Power while interconnecting Microwave Components (CO4) | Exact Solution for leakage power while interconnecting Microwave Components | Small deviation in Solution for leakage power while interconnecting Microwave Components | Acceptable deviation Solution for leakage power while interconnecting Microwave Components |
| Understanding and Usage of Bench Setup (CO5 & CO6) | Optimal understanding and usage of Bench Setup | Alternative understanding and usage of Bench Setup | understanding and usage of Bench Setup without constraints |
| Follow Ethical Principles while Working and Communicating (CO7,CO8 & CO9) | Perfect Follow up of Ethical Principles while Working and Communicating | Correct Follow up of Ethical Principles while Working and Communicating | Poor Follow up of Ethical Principles while Working and Communicating |
| Viva-Voce (CO1) | Answered all questions | Answered majority of questions | Answered few questions |

Evaluation Rubrics (Antennas Lab)

| Rubric | Excellent (Wt=3) | Good (Wt=2) | Fair (Wt=1) |
|---|---|---|---|
| Experiment write-up (CO1) | Comprehensive write-up | Moderate write-up | Partial write-up |
| Analyze Antennas for Evaluation (CO1 & CO2) | Best analysis of Antennas for Evaluation | Good analysis of Antennas for Evaluation | Moderate analysis of Antennas for Evaluation |
| Design of various Antennas (CO3) | Precise Design of Antennas | Fine Design of Antennas | Fair Design of Antennas |
| Solve Problems in design of Structure & Feed for Antennas (CO4) | Exact Solution for design of Structure & Feed for Antennas | Small deviation in Solution for design of Structure & Feed for Antennas | Acceptable deviation Solution for design of Structure & Feed for Antennas |
| Understanding and Usage of CAD tools (CO5 & CO6) | Optimal understanding and usage of CAD tools | Alternative understanding and usage of CAD tools | understanding and usage of CAD tools without constraints |
| Follow Ethical Principles while Working and Communicating (CO7, CO8 & CO9) | Perfect Follow up of Ethical Principles while Working and Communicating | Correct Follow up of Ethical Principles while Working and Communicating | Poor Follow up of Ethical Principles while Working and Communicating |
| Viva-Voce (CO1) | Answered all questions | Answered majority of questions | Answered few questions |

Course Outcome Assessment:

| | Percentage of students who got 60% and above marks | | | | | | | | |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|
| | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 | CO7 | CO8 | CO9 |
| CO Attainment through day-to-day evaluation(CIE) | 98 | 99 | 96 | 94 | 98 | 98 | 99 | 99 | 99 |
| CO Attainment through Internal Examination(CIE) | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 | 99 |
| CO Attainment through SEE | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 | 98 |
| Overall CO Attainment=(CIE+SEE)/3 | 98.33 | 98.67 | 97.67 | 97.00 | 98.33 | 98.33 | 98.67 | 98.67 | 98.67 |
| Course Attainment=Average of all CO attainment | 98.26 | | | | | | | | |

| Course Outcomes | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 | CO7 | CO8 | CO9 |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Target for Attainment (%) | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| CO Attainment (%) | 98.33 | 98.67 | 97.67 | 97.00 | 98.33 | 98.33 | 98.67 | 98.67 | 98.67 |
| Outcomes satisfied | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Program Outcome and Program Specific Outcomes Assessment:

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO8 | PO9 | PO10 | PSO1 | PSO2 | PSO3 | PSO4 |
|----------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| CO1 | 98.33 | | | | | | | | | 98.33 | | | |
| CO2 | | 98.67 | | | | | | | | | 98.67 | | |
| CO3 | | | 97.67 | | | | | | | | 97.67 | | |
| CO4 | | | | 97.00 | | | | | | | | 97.00 | |
| CO5 | | | | | 98.33 | | | | | | | | 98.33 |
| CO6 | | | | | | 98.33 | | | | | | | |
| CO7 | | | | | | | 98.67 | | | | | | |
| CO8 | | | | | | | | 98.67 | | | | | |
| CO9 | | | | | | | | | 98.67 | | | | |
| Average PO Attainment (%) | 98.33 | 98.67 | 97.67 | 97.00 | 98.33 | 98.33 | 98.67 | 98.67 | 98.67 | 98.33 | 98.17 | 97.00 | 98.33 |
| Target for Attainment (%) | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 | 60 |
| Outcomes satisfied | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

The process of converting CO/PO/PSO attainment percentage into attainment levels is illustrated in the table below:

| COs/POs/PSOs attainment % | | Attainment Level |
|---------------------------|---|------------------|
| ≥ 75 | : | 3 |
| ≥ 60 to < 75 | : | 2 |
| < 60 | : | 1 |

COs, POs & PSOs Attainment:

| Course Outcomes | CO1 | CO2 | CO3 | CO4 | CO5 | CO6 | CO7 | CO8 | CO9 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| CO Attainment (%) | 98.33 | 98.67 | 97.67 | 97.00 | 98.33 | 98.33 | 98.67 | 98.67 | 98.67 |
| Level of Attainment | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

| Program Outcomes | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 | PO8 | PO9 | PO10 | PSO1 | PSO2 | PSO3 | PSO4 |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| PO Attainment (%) | 98.33 | 98.67 | 97.67 | 97.00 | 98.33 | 98.33 | 98.67 | 98.67 | 98.67 | 98.33 | 98.17 | 97.00 | 98.33 |
| Level of Attainment | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |

Comments

All course outcomes and corresponding program outcomes & Program Specific Outcomes are satisfied with the expected level of attainment.

Recommendations for Improvement

- ❖ As attainment values are highly satisfied, Design of Antennas can be carried out at the various operating frequencies and applications of Circulator and Magic Tee can be done as beyond syllabus experiments.

Signature of the faculty

SREE VIDYANIKETHAN ENGINEERING COLLEGE (Autonomous)

Sree Sainath Nagar, Tirupati – 517 102

Department of Electronics & Communication Engineering

IV B.Tech I Sem. ECE - A,B,C,D AY: 2019-20

ANTENNAS AND MICROWAVE ENGINEERING LAB (16BT70431) Evaluation Sheet (Internal)

Awarded Marks = Awarded Weight x Max. Marks / Max. Weight

Excellent (Weight=3); Good (Weight=2); Satisfactory (Weight=1); W=Weight; M= Max.Marks

Faculty Handling Course: Ms.K.Neelima

| S. No | Roll No | Exp1 | | | | | | | | | | | | Exp2 | | | | | | | | | | | | Exp3 | | | | | | | | | | | | Exp4 | | | | | | | | | | | | |
|-------|------------|------|---|-----|---|-----|---|---------|---|-------------|---|-----|----|------|-----|---|-----|---|-----|---|---------|---|-------------|---|-----|------|------|-----|---|-----|---|-----|---|---------|---|-------------|----|------|---|------|---|---|---|---|---|---|---|---|----|----|
| | | R1 | | R2 | | R3 | | R4 | | R5 | | R6 | | Tot. | R1 | | R2 | | R3 | | R4 | | R5 | | R6 | | Tot. | R1 | | R2 | | R3 | | R4 | | R5 | | R6 | | Tot. | | | | | | | | | | |
| | | CO1 | | CO2 | | CO4 | | CO5,CO6 | | CO7,CO8,CO9 | | CO1 | | | CO1 | | CO2 | | CO4 | | CO5,CO6 | | CO7,CO8,CO9 | | CO1 | | | CO1 | | CO2 | | CO4 | | CO5,CO6 | | CO7,CO8,CO9 | | CO1 | | | | | | | | | | | | |
| | | W | M | W | M | W | M | W | M | W | M | W | M | 30 | W | M | W | M | W | M | W | M | W | M | W | M | 30 | W | M | W | M | W | M | W | M | W | M | W | M | 30 | | | | | | | | | | |
| 1 | 14121A0447 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 2 | 6 | 2 | 4 | 1 | 3 | 3 | 3 | 3 | 22 | 3 | 3 | 3 | 6 | 1 | 3 | 3 | 7 | 3 | 3 | 3 | 25 | 3 | 3 | 3 | 6 | 2 | 6 | 0 | 0 | 3 | 3 | 3 | 21 | |
| 2 | 14121A0406 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 3 | 14121A04M6 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 2 | 2 | 3 | 27 | 2 | 2 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 29 | 2 | 2 | 3 | 6 | 2 | 6 | 2 | 5 | 3 | 3 | 3 | 25 | 3 | 3 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | |
| 4 | 15121A04A6 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 2 | 2 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 27 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 5 | 16121A0401 | 2 | 2 | 3 | 8 | 2 | 4 | 3 | 7 | 3 | 3 | 3 | 27 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 6 | 16121A0402 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 8 | 3 | 6 | 1 | 3 | 3 | 3 | 3 | 26 | 2 | 2 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 27 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 7 | 16121A0403 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 8 | 3 | 6 | 1 | 3 | 3 | 3 | 3 | 26 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 8 | 16121A0405 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 2 | 2 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 9 | 16121A0406 | 3 | 3 | 3 | 8 | 2 | 4 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 10 | 16121A0408 | 2 | 2 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 11 | 16121A0409 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 12 | 16121A0410 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 1 | 3 | 3 | 7 | 3 | 3 | 3 | 25 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 13 | 16121A0411 | 3 | 3 | 2 | 6 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 26 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 14 | 16121A0412 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 15 | 16121A0413 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 16 | 16121A0414 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 2 | 2 | 1 | 3 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 24 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 17 | 16121A0415 | 2 | 2 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 29 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 18 | 16121A0416 | 2 | 2 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 28 | |
| 19 | 16121A0417 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 2 | 2 | 3 | 29 | 3 | 3 | 2 | 4 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 28 | |
| 20 | 16121A0418 | 3 | 3 | 3 | 8 | 1 | 2 | 3 | 7 | 3 | 3 | 3 | 26 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 2 | 2 | 2 | 4 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 27 | 2 | 2 | 3 | 6 | 3 | 8 | 2 | 5 | 3 | 3 | 3 | 27 | |
| 21 | 16121A0419 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | |
| 22 | 16121A0420 | 3 | 3 | 2 | 6 | 2 | 4 | 3 | 7 | 3 | 3 | 3 | 26 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 2 | 2 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | |
| 23 | 16121A0421 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 24 | 16121A0422 | 0 | 0 | 3 | 8 | 2 | 4 | 3 | 7 | 3 | 3 | 3 | 25 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 25 | 16121A0423 | 1 | 1 | 3 | 8 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 26 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | |
| 26 | 16121A0424 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 2 | 2 | 3 | 27 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 2 | 2 | 3 | 6 | 2 | 6 | 2 | 5 | 2 | 2 | 3 | 3 | 24 |
| 27 | 16121A0425 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 2 | 5 | 3 | 3 | 3 | 28 | 2 | 2 | 3 | 6 | 3 | 8 | 2 | 5 | 3 | 3 | 3 | 27 | |
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|-----|------------|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|---|----|----|---|---|---|---|---|---|---|---|---|---|----|----|----|
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| 194 | 16121A04K7 | 1 | 1 | 3 | 8 | 2 | 4 | 2 | 5 | 3 | 3 | 3 | 3 | 24 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | |
| 195 | 16121A04K8 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 2 | 2 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 |
| 196 | 16121A04K9 | 2 | 2 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 2 | 2 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 29 | |
| 197 | 16121A04L0 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 2 | 2 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 29 | |
| 198 | 16121A04L1 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | |
| 199 | 16121A04L2 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 2 | 2 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | |
| 200 | 16121A04L3 | 3 | 3 | 3 | 8 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 3 | 28 | 2 | 2 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | |
| 201 | 16121A04L4 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 3 | 3 | 2 | 6 | 3 | 6 | 1 | 3 | 3 | 3 | 3 | 3 | 24 | 3 | 3 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 2 | 2 | 3 | 6 | 3 | 8 | 2 | 5 | 3 | 3 | 3 | 3 | 27 | |
| 202 | 16121A04L5 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | |
| 203 | 16121A04L6 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | |
| 204 | 16121A04L7 | 2 | 2 | 1 | 3 | 2 | 4 | 3 | 7 | 3 | 3 | 3 | 3 | 22 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | |
| 205 | 16121A04L8 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 2 | 5 | 3 | 3 | 3 | 28 | | |
| 206 | 16121A04L9 | 1 | 1 | 2 | 6 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 3 | 24 | 2 | 2 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 27 | 3 | 3 | 3 | 6 | 1 | 3 | 3 | 7 | 3 | 3 | 3 | 3 | 25 | 3 | 3 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | |
| 207 | 16121A04M0 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 2 | 2 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 29 | |
| 208 | 16121A04M1 | 3 | 3 | 3 | 8 | 3 | 6 | 2 | 5 | 3 | 3 | 2 | 2 | 27 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 2 | 5 | 3 | 3 | 3 | 3 | 28 | |
| 209 | 16121A04M3 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|------------|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|---|---|---|---|---|---|---|---|---|----|----|---|---|---|---|---|---|---|---|---|---|----|----|----|---|---|---|---|---|---|---|---|---|---|----|----|----|
| 237 | 17125A0403 | 3 | 3 | 2 | 6 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 3 | 26 | 2 | 2 | 3 | 8 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 3 | 27 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 2 | 2 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 29 |
| 238 | 17125A0404 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 |
| 239 | 17125A0405 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 |
| 240 | 17125A0406 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 |
| 241 | 17125A0407 | 2 | 2 | 2 | 6 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 3 | 25 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 |
| 242 | 17125A0408 | 2 | 2 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 2 | 4 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 2 | 2 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 29 |
| 243 | 17125A0409 | 2 | 2 | 2 | 6 | 0 | 0 | 3 | 7 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 6 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 3 | 25 | 3 | 3 | 3 | 6 | 1 | 3 | 0 | 0 | 3 | 3 | 3 | 3 | 18 | 3 | 3 | 2 | 4 | 2 | 6 | 1 | 3 | 2 | 2 | 3 | 3 | 21 | |
| 244 | 17125A0410 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 1 | 1 | 3 | 8 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 26 | 3 | 3 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 245 | 17125A0411 | 3 | 3 | 1 | 3 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 25 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 246 | 17125A0412 | 3 | 3 | 2 | 6 | 3 | 6 | 2 | 5 | 1 | 1 | 3 | 3 | 24 | 3 | 3 | 3 | 8 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | 8 | 2 | 5 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 2 | 2 | 29 | |
| 247 | 17125A0413 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 248 | 17125A0414 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | |
| 249 | 17125A0415 | 3 | 3 | 3 | 8 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | |
| 250 | 17125A0416 | 2 | 2 | 3 | 8 | 3 | 6 | 1 | 3 | 3 | 3 | 3 | 3 | 25 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 2 | 4 | 3 | 8 | 1 | 3 | 3 | 3 | 24 | 3 | 3 | 2 | 4 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 26 | | |
| 251 | 17125A0417 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 2 | 2 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 252 | 17125A0418 | 3 | 3 | 3 | 8 | 2 | 4 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 1 | 1 | 3 | 8 | 2 | 4 | 3 | 7 | 2 | 2 | 3 | 25 | 3 | 3 | 2 | 4 | 2 | 6 | 2 | 5 | 3 | 3 | 3 | 24 | 2 | 2 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 29 | | |
| 253 | 17125A0419 | 2 | 2 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 27 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | | |
| 254 | 17125A0420 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 255 | 17125A0421 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 256 | 17125A0422 | 0 | 0 | 1 | 3 | 2 | 4 | 3 | 7 | 2 | 2 | 3 | 3 | 19 | 3 | 3 | 3 | 8 | 3 | 6 | 1 | 3 | 3 | 3 | 3 | 26 | 0 | 0 | 2 | 4 | 2 | 6 | 2 | 5 | 2 | 2 | 3 | 20 | 3 | 3 | 3 | 6 | 2 | 6 | 1 | 3 | 3 | 3 | 3 | 3 | 24 | | |
| 257 | 17125A0423 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 2 | 4 | 3 | 7 | 3 | 3 | 3 | 28 | 2 | 2 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 29 | 3 | 3 | 3 | 6 | 3 | 8 | 2 | 5 | 3 | 3 | 3 | 3 | 28 | | |
| 258 | 17125A0424 | 3 | 3 | 3 | 8 | 3 | 6 | 1 | 3 | 3 | 3 | 3 | 3 | 26 | 3 | 3 | 3 | 8 | 2 | 4 | 2 | 5 | 3 | 3 | 3 | 26 | 2 | 2 | 2 | 4 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 27 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 259 | 17125A0425 | 1 | 1 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 26 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 260 | 17125A0427 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 2 | 2 | 3 | 3 | 27 | 3 | 3 | 3 | 8 | 3 | 6 | 2 | 5 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 261 | 17125A0428 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 262 | 17125A0429 | 1 | 1 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 1 | 3 | 3 | 7 | 3 | 3 | 3 | 25 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 263 | 17125A0430 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 264 | 17125A0431 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 3 | 3 | 2 | 6 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 265 | 17125A0432 | 3 | 3 | 2 | 6 | 2 | 4 | 2 | 5 | 3 | 3 | 3 | 3 | 24 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 2 | 6 | 3 | 7 | 3 | 3 | 3 | 28 | 2 | 2 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 29 | | |
| 266 | 17125A0433 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 267 | 17125A0434 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 268 | 17125A0435 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 269 | 17125A0436 | 3 | 3 | 3 | 8 | 2 | 4 | 3 | 7 | 3 | 3 | 3 | 3 | 28 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 270 | 17125A0437 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 271 | 17125A0438 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 272 | 17125A0439 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | | |
| 273 | 17125A0440 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 8 | 3 | 6 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | 3 | 3 | 6 | 3 | 8 | 3 | 7 | 3 | 3 | 3 | 30 | 3 | | | | | | | | | | | | | | |

2.2.1: The institution assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners (15)

INDEX

| S.No. | Title | Pg. No. |
|--------------|---|----------------|
| 1. | Sample copy of Diagnostic test schedule | -- 1 |
| 2. | Sample copy of Formative test schedule | -- 2 |
| 3. | Special Program for Slow learners | -- 4 |
| | i. Sample copy of Remedial Classes schedule | -- 4 |
| | ii. Sample copy of Reinforcement Classes schedule | -- 5 |
| | iii. Sample copy of Make-up/Extra classes schedule | -- 6 |
| 4. | Special Program for Advanced learners | -- 7 |
| | i. Sample Copy Mini-project | -- 7 |
| | ii. Sample Copy Hardware models | -- 9 |
| | iii. Sample Copy of Paper/Poster Presentation | -- 10 |
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Sample Copy Diagnostic test Schedule

SREE VIDYANIKETHAN ENGINEERING COLLEGE (Autonomous)

Sree Sainath Nagar, A.Rangampet-517 102

Department of Electronics and Communication Engineering

24-06-2019

Academic Year - (2019-20)

Circular

Faculty members are requested to conduct diagnostic test as per the schedule mentioned in Academic calendar. The question paper may be fill in the blanks or one mark question etc., After evaluation, submit the marks statement along with summary sheet and weak students list to the Department.



HOD, ECE

| SREE VIDYANIKETHAN ENGINEERING COLLEGE (AUTONOMOUS) SREE SAINATH NAGAR, TIRUPATI-517 102 (Approved by AICTE; Programs Accredited by NBA; NAAC with 'A' Grade) | | |
|--|-----------------------------------|---------|
| Academic Calendar for the Year 2019-20 For II B. Tech - I Semester | | |
| I Spell of Instruction | 24.06.2019 to 17.08.2019 | 8 weeks |
| Diagnostic Tests | From 04.07.2019 (3 working days) | |
| I Mid-term Examinations | 19.08.2019 to 26.08.2019 | 1 week |
| II Spell of Instructions | 27.08.2019 to 26.10.2019 | 9 weeks |
| Remedial Classes | From 03.09.2019 (12 working days) | |
| II Mid-term Examinations | 28.10.2019 to 02.11.2019 | 1 week |
| Preparation & Practical Examinations | 04.11.2019 to 16.11.2019 | 2 weeks |
| Semester-End Examinations | 18.11.2019 to 30.11.2019 | 2 weeks |
| Semester-Break | 01.12.2019 to 15.12.2019 | 2 weeks |
| Commencement of Class work for II B.Tech II- Semester | 16.12.2019 | - |
| II B. Tech - II Semester | | |
| I Spell of Instruction | 16.12.2019 to 08.02.2020 | 8 weeks |
| Diagnostic Tests | From 26.12.2019 (3 working days) | |
| I Mid-term Examinations | 10.02.2020 to 15.02.2020 | 1 week |
| II Spell of Instruction | 17.02.2020 to 18.04.2020 | 9 weeks |
| Remedial Classes | From 24.02.2020 (12 working days) | |
| II Mid-term Examinations | 20.04.2020 to 25.04.2020 | 1 week |
| Preparation & Practical Examinations | 27.04.2020 to 09.05.2020 | 2 weeks |
| Semester-End Examinations | 11.05.2020 to 23.05.2020 | 2 weeks |
| Summer Vacation | 24.05.2020 to 21.06.2020 | 4 weeks |
| Commencement of Class work for III B. Tech. I Semester | 22.06.2020 | - |
| Date: 13-05-2019 | | |
|  PRINCIPAL | | |

Sample Copy Formative test Schedule



SREE VIDYANIKETHAN ENGINEERING COLLEGE
(Autonomous)
Sree Sainath Nagar, Tirupati- 517 102

Department of Electronics and Communication Engineering

24.06.2019

Academic Year – (2019-20) **Schedule for submitting Formative Test Question Papers**

The faculty members who are handling subjects for **II, III & IV B. Tech., I-semester** are requested to submit the soft & Hard copy of formative tests Question paper to the Department to get multiple copies as per the following schedule.

| Sl. No. | TEST | Date |
|---------|--|------------|
| 1. | Formative Test - I (Unit - 1) | 29-07-2019 |
| 2. | Formative Test - II (Unit - 2) | 16-08-2019 |
| 3. | Formative Test - III (Unit - 3) | 18-09-2019 |
| 4. | Formative Test - IV (Unit - 4) | 04-10-2019 |
| 5. | Formative Test - V (Unit - 5) | 23-10-2019 |


HOD, ECE

Cc: 1. HOD – ECE.
2. Faculty circulation.

Department of Computer Science and Engineering

Dt: 02-02-2019

II B.Tech (CSE) – II Semester 2018-19

SUB: TIME TABLE FOR FORMATIVE TEST-II

Following is the schedule of Formative Test-II for II B.Tech (CSE) students. The tests will be conducted in respective classrooms for 20 minutes duration.

| Date & Time | CSE-A | CSE-B | CSE-C | CSE-D |
|------------------------|---|---|---|--|
| | Faculty | Faculty | Faculty | Faculty |
| 06/2/2019 Wednesday | Environmental Studies Dr. Y. Tharakeswar Rao | Environmental Studies Dr. Y. Tharakeswar Rao | Environmental Studies Mr. V. Raju | Environmental Studies Mr. V. Raju |
| 07/2/2019 Thursday | Computer Graphics Dr. K. Reddy Madhav | Computer Graphics Dr. V.V. Rama Prasad | Computer Graphics Dr. K.G. Suma | Computer Graphics Dr. K.S. Kannan |
| 08/2/2019 Friday | Database Management Systems Mr. R. Nagaraju | Database Management Systems Mr. B. Gurunadha Rao | Database Management Systems Mr. R. Nagaraju | Database Management Systems Mr. P. Jayaram |
| 06/2/2019 Wednesday | Design and Analysis of Algorithms Prof. C. Madhusudhana Rao | Design and Analysis of Algorithms Ms. V. Bhargavi | Design and Analysis of Algorithms Dr. K. Reddy Madhav | Design and Analysis of Algorithms Prof. C. Madhusudhana Rao |
| 07/2/2019 Thursday | Java Programming Mr. S. Bavaji | Java Programming Mr. I. Reddy Sekhar Reddy | Java Programming Mr. K. Siva Krishna Rao | Java Programming Mr. Shaik Salam |
| 08/2/2019 Friday | Software Engineering Mr. E.S. Phalguna Krishna | Software Engineering Mr. K. Jeevan Pradeep | Software Engineering Mr. D. Ganesh | Software Engineering Mr. T.M. Jaya Krishna |

Note: Faculty members of concerned subject are requested to prepare 20 questions (fill in the blanks type/one word answers) Softcopy & Hardcopy 3 sets Question paper should be submitted to HOD, CSE on or before 05.02.2019.


HOD, CSE

Special Programmes for slow learner

i. Sample Copy Remedial Classes Schedule



SREEVIDYANIKETHAN ENGINEERING COLLEGE (AUTONOMOUS)
Sree Sainath Nagar, Tirupati – 517 102, A.P.
DEPARTMENT OF CIVIL ENGINEERING

No. SVEC/CE/Remedial Classes/2019-20/03

09 September 2019

CIRCULAR

This is to inform that the Remedial Classes will be held from 12-09-2019 for the benefit of III B.Tech I Semester Civil Engineering students so as to enable them to understand the subjects as per the following schedule (2Hrs for each subject).

| Day | Time | Subject | Name of the Faculty | Signature |
|-----------|-------------------|---------------------------------------|---|-----------|
| Monday | 2.15 pm – 3.30 pm | Reinforced Cement Concrete Structures | Mr. V. Mahesh / Mr. M. P. Charan Sai | |
| Tuesday | 2.15 pm – 3.30 pm | Soil Mechanics | Mrs. G. Gnana Prasana / Dr. P. Ramesh | |
| Wednesday | 2.15 pm – 3.30 pm | Structural Analysis – II | Mr. D. V. Purushotham / Mr. M. Gokulnath | |
| Thursday | 2.15 pm – 3.30 pm | Wastewater Technology | Dr. Hemadri Prasad Raju / Mr. B. Sudhakar | |

Students who are in the list must attend to the classes without fail. Other students can also attend the classes

Copy to: The Principal
Dean (Academics)

Head of the Dept.
Civil Engineering
Sree Vidyanikethan Engineering College
(Autonomous)
Sree Sainath Nagar, Tirupati
Chittoor Dt. - 517 102, (A.P.)



SREE VIDYANIKETHAN ENGINEERING COLLEGE
(Autonomous)
Sree Sainath Nagar, Tirupati – 517 102
Department of EEE

SVEC/EEE/2019-20/B13

05th September, 2019

CIRCULAR

Students of II B.Tech EEE whose marks are less than 12 in MID-I examinations are requested to attend Remedial Classes Scheduled from 07.09.2019 to 23.09.2019 for the following courses in Room No. 324.

| | | |
|-----------------|---|--|
| ES | : | Environmental Studies |
| SFCA | : | Special Functions and Complex Analysis |
| DCM | : | DC Machines |
| EMF | : | Electromagnetic Fields |
| SS&N | : | Signals, Systems and Networks |
| AEC | : | Analog Electronic Circuits |

Students are requested to attend the classes regularly failing which disciplinary action will be taken.

Encl.: Remedial Class Time Table.

HOD, EEE

ii. Sample Copy Reinforcement Classes Schedule



DEPARTMENT OF CIVIL ENGINEERING
SREE VIDYANIKETHAN ENGINEERING COLLEGE (AUTONOMOUS)
Sree Sainath Nagar, Tirupati - 517 102 A.P.

No. SVEC/CE/Reinforcement Classes/2019-20/01

26 July 2019

CIRCULAR

This is to inform that the Reinforcement Classes will be held from 01-08-2019 (6 periods for each subject) onwards for the benefit of III B.Tech. I Semester Civil Engineering students (A&B Sections) so as to enable them to understand the subjects and to fare well in the university exams as per the following schedule.

| Date | Time | Subject | Name of the Faculty | Signature |
|-----------|-----------------------|--------------------------|-------------------------|-----------|
| Monday | 03:00 pm to 04:45 p.m | Engineering Geology | Mr.P.Anil Kumar | |
| Tuesday | 03:00 pm to 04:45 p.m | Concrete Technology | Mr. D V Purushotham | |
| Wednesday | 03:00 pm to 04:45 p.m | Engineering Hydrology | Dr. D Sreenivasulu | |
| Thursday | 03:00 pm to 04:45 p.m | Environmental Studies | Mr.M.Tharun Kumar | |
| Friday | 03:00 pm to 04:45 p.m | Structural Analysis-I | Mr. M Gokulnath | |
| Saturday | 03:00 pm to 04:45 p.m | Water Supply Engineering | Dr. Hemadri Prasad Raju | |

All the students shall attend the classes. Student(s) absconding the above classes will be viewed very seriously.

III-I [A] [B] [C] [D] [E] [F] [G] [H] [I] [J] [K] [L] [M] [N] [O] [P] [Q] [R] [S] [T] [U] [V] [W] [X] [Y] [Z] [AA] [AB] [AC] [AD] [AE] [AF] [AG] [AH] [AI] [AJ] [AK] [AL] [AM] [AN] [AO] [AP] [AQ] [AR] [AS] [AT] [AU] [AV] [AW] [AX] [AY] [AZ] [BA] [BB] [BC] [BD] [BE] [BF] [BG] [BH] [BI] [BJ] [BK] [BL] [BM] [BN] [BO] [BP] [BQ] [BR] [BS] [BT] [BU] [BV] [BW] [BX] [BY] [BZ] [CA] [CB] [CC] [CD] [CE] [CF] [CG] [CH] [CI] [CJ] [CK] [CL] [CM] [CN] [CO] [CP] [CQ] [CR] [CS] [CT] [CU] [CV] [CW] [CX] [CY] [CZ] [DA] [DB] [DC] [DD] [DE] [DF] [DG] [DH] [DI] [DJ] [DK] [DL] [DM] [DN] [DO] [DP] [DQ] [DR] [DS] [DT] [DU] [DV] [DW] [DX] [DY] [DZ] [EA] [EB] [EC] [ED] [EE] [EF] [EG] [EH] [EI] [EJ] [EK] [EL] [EM] [EN] [EO] [EP] [EQ] [ER] [ES] [ET] [EU] [EV] [EW] [EX] [EY] [EZ] [FA] [FB] [FC] [FD] [FE] [FF] [FG] [FH] [FI] [FJ] [FK] [FL] [FM] [FN] [FO] [FP] [FQ] [FR] [FS] [FT] [FU] [FV] [FW] [FX] [FY] [FZ] [GA] [GB] [GC] [GD] [GE] [GF] [GG] [GH] [GI] [GJ] [GK] [GL] [GM] [GN] [GO] [GP] [GQ] [GR] [GS] [GT] [GU] [GV] [GW] [GX] [GY] [GZ] [HA] [HB] [HC] [HD] [HE] [HF] [HG] [HH] [HI] [HJ] [HK] [HL] [HM] [HN] [HO] [HP] [HQ] [HR] [HS] [HT] [HU] [HV] [HW] [HX] [HY] [HZ] [IA] [IB] [IC] [ID] [IE] [IF] [IG] [IH] [II] [IJ] [IK] [IL] [IM] [IN] [IO] [IP] [IQ] [IR] [IS] [IT] [IU] [IV] [IW] [IX] [IY] [IZ] [JA] [JB] [JC] [JD] [JE] [JF] [JG] [JH] [JI] [JJ] [JK] [JL] [JM] [JN] [JO] [JP] [JQ] [JR] [JS] [JT] [JU] [JV] [JW] [JX] [JY] [JZ] [KA] [KB] [KC] [KD] [KE] [KF] [KG] [KH] [KI] [KJ] [KK] [KL] [KM] [KN] [KO] [KP] [KQ] [KR] [KS] [KT] [KU] [KV] [KW] [KX] [KY] [KZ] [LA] [LB] [LC] [LD] [LE] [LF] [LG] [LH] [LI] [LJ] [LK] [LL] [LM] [LN] [LO] [LP] [LQ] [LR] [LS] [LT] [LU] [LV] [LW] [LX] [LY] [LZ] [MA] [MB] [MC] [MD] [ME] [MF] [MG] [MH] [MI] [MJ] [MK] [ML] [MM] [MN] [MO] [MP] [MQ] [MR] [MS] [MT] [MU] [MV] [MW] [MX] [MY] [MZ] [NA] [NB] [NC] [ND] [NE] [NF] [NG] [NH] [NI] [NJ] [NK] [NL] [NM] [NN] [NO] [NP] [NQ] [NR] [NS] [NT] [NU] [NV] [NW] [NX] [NY] [NZ] [OA] [OB] [OC] [OD] [OE] [OF] [OG] [OH] [OI] [OJ] [OK] [OL] [OM] [ON] [OO] [OP] [OQ] [OR] [OS] [OT] [OU] [OV] [OW] [OX] [OY] [OZ] [PA] [PB] [PC] [PD] [PE] [PF] [PG] [PH] [PI] [PJ] [PK] [PL] [PM] [PN] [PO] [PP] [PQ] [PR] [PS] [PT] [PU] [PV] [PW] [PX] [PY] [PZ] [QA] [QB] [QC] [QD] [QE] [QF] [QG] [QH] [QI] [QJ] [QK] [QL] [QM] [QN] [QO] [QP] [QQ] [QR] [QS] [QT] [QU] [QV] [QW] [QX] [QY] [QZ] [RA] [RB] [RC] [RD] [RE] [RF] [RG] [RH] [RI] [RJ] [RK] [RL] [RM] [RN] [RO] [RP] [RQ] [RR] [RS] [RT] [RU] [RV] [RW] [RX] [RY] [RZ] [SA] [SB] [SC] [SD] [SE] [SF] [SG] [SH] [SI] [SJ] [SK] [SL] [SM] [SN] [SO] [SP] [SQ] [SR] [SS] [ST] [SU] [SV] [SW] [SX] [SY] [SZ] [TA] [TB] [TC] [TD] [TE] [TF] [TG] [TH] [TI] [TJ] [TK] [TL] [TM] [TN] [TO] [TP] [TQ] [TR] [TS] [TT] [TU] [TV] [TW] [TX] [TY] [TZ] [UA] [UB] [UC] [UD] [UE] [UF] [UG] [UH] [UI] [UJ] [UK] [UL] [UM] [UN] [UO] [UP] [UQ] [UR] [US] [UT] [UU] [UV] [UW] [UX] [UY] [UZ] [VA] [VB] [VC] [VD] [VE] [VF] [VG] [VH] [VI] [VJ] [VK] [VL] [VM] [VN] [VO] [VP] [VQ] [VR] [VS] [VT] [VU] [VV] [VW] [VX] [VY] [VZ] [WA] [WB] [WC] [WD] [WE] [WF] [WG] [WH] [WI] [WJ] [WK] [WL] [WM] [WN] [WO] [WP] [WQ] [WR] [WS] [WT] [WU] [WV] [WW] [WX] [WY] [WZ] [XA] [XB] [XC] [XD] [XE] [XF] [XG] [XH] [XI] [XJ] [XK] [XL] [XM] [XN] [XO] [XP] [XQ] [XR] [XS] [XT] [XU] [XV] [XW] [XX] [XY] [XZ] [YA] [YB] [YC] [YD] [YE] [YF] [YG] [YH] [YI] [YJ] [YK] [YL] [YM] [YN] [YO] [YP] [YQ] [YR] [YS] [YT] [YU] [YV] [YW] [YX] [YY] [YZ] [ZA] [ZB] [ZC] [ZD] [ZE] [ZF] [ZG] [ZH] [ZI] [ZJ] [ZK] [ZL] [ZM] [ZN] [ZO] [ZP] [ZQ] [ZR] [ZS] [ZT] [ZU] [ZV] [ZW] [ZX] [ZY] [ZZ]

Head of the Dept.

HOD, Dept. of Civil Engineering
SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)
Sree Sainath Nagar, TIRUPATI,
Chittoor Dt.-517 102. (A.P.).



SREE VIDYANIKETHAN ENGINEERING COLLEGE
(Autonomous)
Sree Sainath Nagar, A.Rangampet - 517102

Department of Electronics and Instrumentation Engineering

SVEC/EIE/ Reinforcement Classes/2019-20

08-08-2019

Notice

Sub: Reinforcement for II B.Tech. II Semester subjects- reg.

Timing: 2:30pm to 4:00pm

| Subject | Date | Name of the Faculty | Signature of the Faculty |
|--|------------|-----------------------------|--------------------------|
| Linear and Digital ICs | 19-10-2019 | Dr .P. Srinivasa Rao EEE | |
| | 21-10-2019 | | |
| | 22-10-2019 | | |
| | 23-10-2019 | | |
| Pulse and Digital Circuits | 07-10-2019 | Mr. K. Ayyappa Swamy | |
| | 14-10-2019 | | |
| | 15-10-2019 | | |
| Electronic Circuit Analysis and Design | 16-10-2019 | Ms. N. Harathi | |
| | 17-10-2019 | | |
| | 18-10-2019 | | |

iii. Sample Copy Make-up/Extra Classes Schedule

#42

SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)
Sree Sainath Nagar, Tirupati- 517 102
Department of Electronics and Communication Engineering

SVEC/ECE/2018-19 17-09-2018

Extra classes Timetable for III B.Tech

Room No: 321-A Sec., 201-B Sec., 301-C Sec., 302-D Sec.

| Date \ Hour | SECTION-A | | | SECTION-B | | | SECTION-C | | | SECTION-D | | |
|-------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| | 2:30PM - 3:20PM | 3:20PM - 4:10PM | 4:10PM - 5:00PM | 2:30PM - 3:20PM | 3:20PM - 4:10PM | 4:10PM - 5:00PM | 2:30PM - 3:20PM | 3:20PM - 4:10PM | 4:10PM - 5:00PM | 2:30PM - 3:20PM | 3:20PM - 4:10PM | 4:10PM - 5:00PM |
| 20/09/2018 | DC | PE-II | CS | MEPA | PE-II | DC | MPMC | PE-II | DC | DC | PE-II | MEPA |
| 22/09/2018 | LDICA/MPMC Lab | | | MPMC | CS | MEPA | MEPA | DC | CS | MPMC | CS | VLSID |
| 24/09/2018 | CS | MEPA | MPMC | DC | VLSID | MEPA | VLSID | CS | MPMC | LDICA/MPMC Lab | | |
| 25/09/2018 | DC | PE-II | PE-II | CS | PE-II | PE-II | MEPA | PE-II | PE-II | DC | PE-II | PE-II |
| 26/09/2018 | MPMC | MEPA | VLSID | DC | VLSID | MEPA | DC | VLSID | MEPA | MEPA | CS | MPMC |
| 27/09/2018 | DC | PE-II | CS | MEPA | PE-II | DC | MPMC | PE-II | DC | DC | PE-II | MEPA |
| 28/09/2018 | MEPA | DC | VLSID | MEPA | MPMC | DC | LDICA/MPMC Lab | | | DC | MPMC | MEPA |
| 29/09/2018 | MPMC | CS | DC | MPMC | VLSID | CS | MPMC | DC | MEPA | MPMC | VLSID | CS |
| 03/10/2018 | MEPA | MPMC | PE-II | MPMC | CS | PE-II | CS | VLSID | PE-II | CS | DC | PE-II |
| 04/10/2018 | PE-II | CS | DC | PE-II | MPMC | VLSID | PE-II | CS | DC | PE-II | MEPA | DC |
| 05/10/2018 | DC | VLSID | MEPA | DC | MEPA | MPMC | MEPA | CS | MPMC | MPMC | VLSID | DC |
| 08/10/2018 | CS | MEPA | VLSID | DC | VLSID | CS | LDICA/MPMC Lab | | | VLSID | CS | MPMC |
| 09/10/2018 | MPMC | PE-II | CS | CS | PE-II | VLSID | VLSID | PE-II | MPMC | MPMC | PE-II | VLSID |
| 10/10/2018 | VLSID | MEPA | DC | LDICA/MPMC Lab | | | CS | VLSID | DC | CS | VLSID | MEPA |
| 11/10/2018 | VLSID | CS | MPMC | LDICA/MPMC Lab | | | CS | DC | VLSID | DC | MEPA | CS |
| 12/10/2018 | LDICA/MPMC Lab | | | MPMC | DC | VLSID | MEPA | MPMC | VLSID | MEPA | MPMC | VLSID |
| 13/10/2018 | MPMC | VLSID | PE-II | CS | VLSID | PE-II | MEPA | CS | PE-II | CS | VLSID | PE-II |
| 15/10/2018 | MEPA | VLSID | MPMC | MEPA | CS | MPMC | MPMC | VLSID | MEPA | LDICA/MPMC Lab | | |

HOD, ECE
CC: Principal, Dean-Academics, NVA Coordinator-ECE, Examination Section, HODs- CSE, GEBN & Notice Board

Principal

SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)
SREE SAINATH NAGAR, TIRUPATI-517 102

SVEC/EEE/2018-19/D46 04-08-2018

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

II EEE – D Time Table for Extra Hours

From 06-08-2018 to 18-08-2018

| Day\Time | 8:00 AM to 9:00 AM | 9:00 AM to 10: 00 AM |
|-----------|--------------------|----------------------|
| Monday | SS&N | SS&N |
| Tuesday | DCM | EMF |
| Wednesday | ES | SFCA |
| Thursday | SFCA | AEC |
| Friday | EMF | DCM |
| Saturday | AEC | ES |

From 20-08-2018 to 25-08-2018

| Day\Time | 9:40 AM to 10: 30 AM |
|-----------|----------------------|
| Monday | SS&N |
| Tuesday | EMF |
| Wednesday | SFCA |
| Thursday | AEC |
| Friday | DCM |
| Saturday | ES |

T.N. Prasad
HOD, EEE

Special Programmes for advanced learner

i. Sample Copy Mini-project

Java Mini Project on **ONLINE EXAMINATION SYSTEM**

Submitted by

BATCH - #15

| Name of the student | Roll Number |
|---------------------|-------------|
| A K S Charan | 17121a1202 |
| B Harsha vardhan | 17121a1205 |
| B Sonia | 17121a1206 |
| K Sushma | 17121a1247 |

Department of Information Technology



SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)

(Affiliated to JNTUA, Ananthapuramu, Approved by AICTE, Accredited by NBA & NAAC)
Sree Sainath Nagar, Tirupati – 517 102, A.P., INDIA
2018 -2019

A MINI PROJECT ON
AGE CALCULATOR APPLICATION IN ANDROID STUDIO

Submitted by
BATCH NO: 02

| | |
|------------------|------------|
| N.SOWMYA SREE | 16121A1272 |
| P.DIVYA | 16121A1285 |
| V.TEJASREE | 16121A12B2 |
| K.B.HARI KRISHNA | 15121A1243 |

Under the Supervision of

A Ramprakash Reddy, M.Tech., (Ph.D)
Assistant Professor
Department of Information Technology



INFORMATION TECHNOLOGY

Name of the lab: MOBLIE APPLICATION DEVELOPMENT

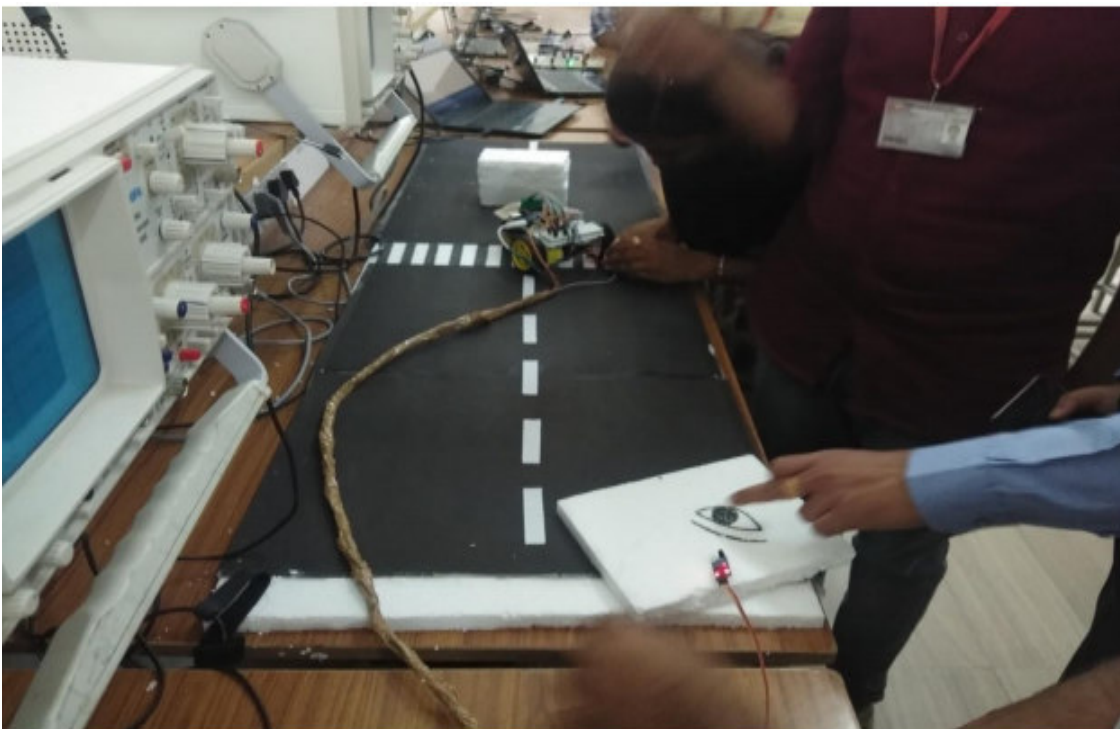
**SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)**

(Affiliated to JNTUA, Ananthapuramu, Approved by AICTE, and Accredited by NBA & NAAC)
Sree Sainath Nagar, Tirupati – 517 102, A.P., INDIA

ii. Sample Copy Hardware models



Students Demonstrating the Trainable Surgical Robotic Arm Hardware Model to Principal, SVEC



Students Demonstrating a Hardware Model

iii. Sample Copy of Paper/Poster Presentation



Student Demonstrating a Presentation at SVEC



Finalist Certification from L&T TECHgium on successful demonstration of the proof concept on "REAL TIME PEOPLE MOVEMENT TRACKING"



Meritorious Certification from NIT,Warnagal at Technozian'17



Students Explaining a Technical Poster Presentation at SVEC

IV. Sample Copy of Student participation in competition



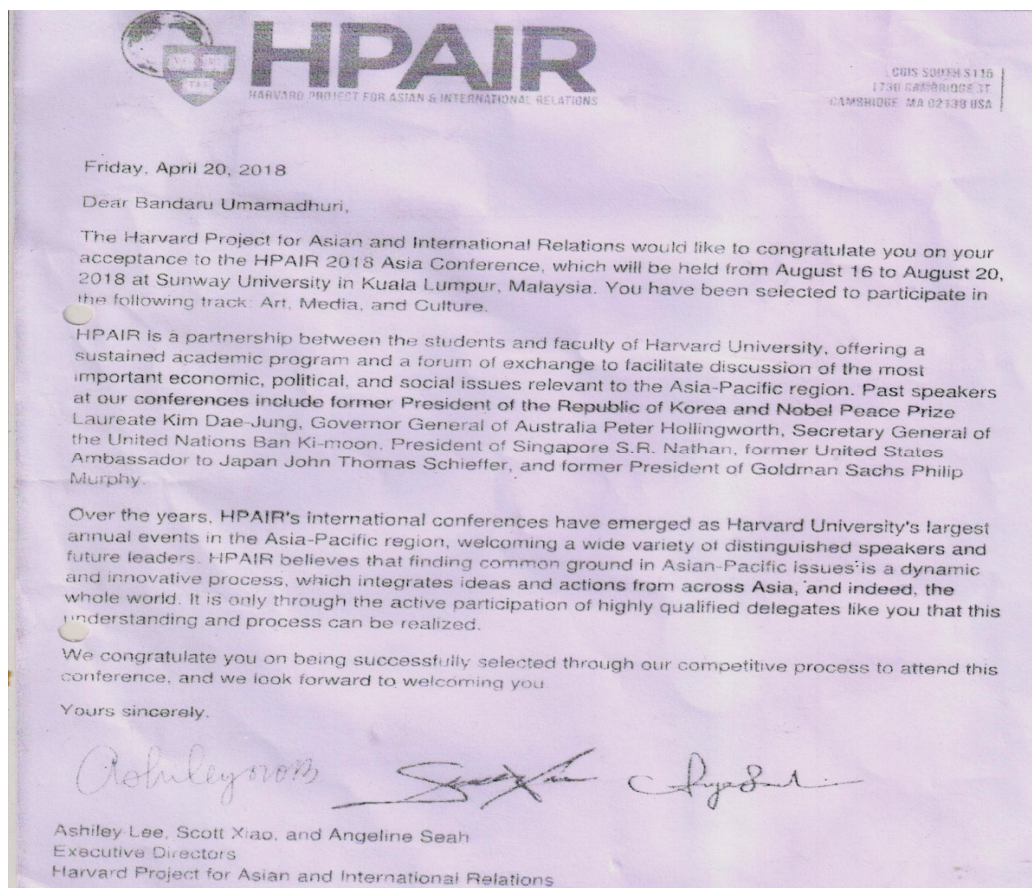
Meritorous Certification from InnovationCell IIT, Bombay at Robotic Workshop



Best Performer Certification in International Quiz League from Jointlook



Meritorous Certification from Shri RamaChandraMission at All India Essay Writing Event 2018



Letter of Invitation from HPAIR 2018 for participation in Track of Art, Media and Culture International conference held at Kuala Lumpur, Malaysia

V. Sample Copy of Student Internships



**Indian Institute of Information Technology
Design and Manufacturing (IIITDM) Kancheepuram**
Melakottaiyur, Off Vandalur – Kelambakkam Road
Chennai – 600 048, India
Fax: +91-044-2747 6301; <http://www.iiitdm.ac.in>

Dr NOOR MAHAMMAD SK
Assistant Professor
Computer Science and Engineering
Ph: +91-044-2747 6349
Email: noor@iiitdm.ac.in

Dr Noor Mohammad Sk
Assistant Professor

1 June 2020

CERTIFICATE

This is to certify that **Mr G DHARANI KUMAR (16121A0472)**, B. Tech., Electronics and Communication Engineering, student of Sree Vidyanikethan Engineering College, A Rangampet, Tirupati, has done his research internship from 10 December 2019 to 15 March 2020, at High Performance Reconfigurable Computing System Engineering group, in the department of Computer Science and Engineering, Indian Institute of Information Technology Design and Manufacturing (IIITDM) Kancheepuram under my supervision. During this period he got exposure to the concepts of Communication System Design using Software Defined Radio, RF Design techniques and Communication System Modeling and Testing. He has successfully completed the assigned work and submitted the report on "RF based drone detection system".

[Dr.Noor Mohammad Sk]

Research Internship Completion certification from IIITDM,Kancheepuram

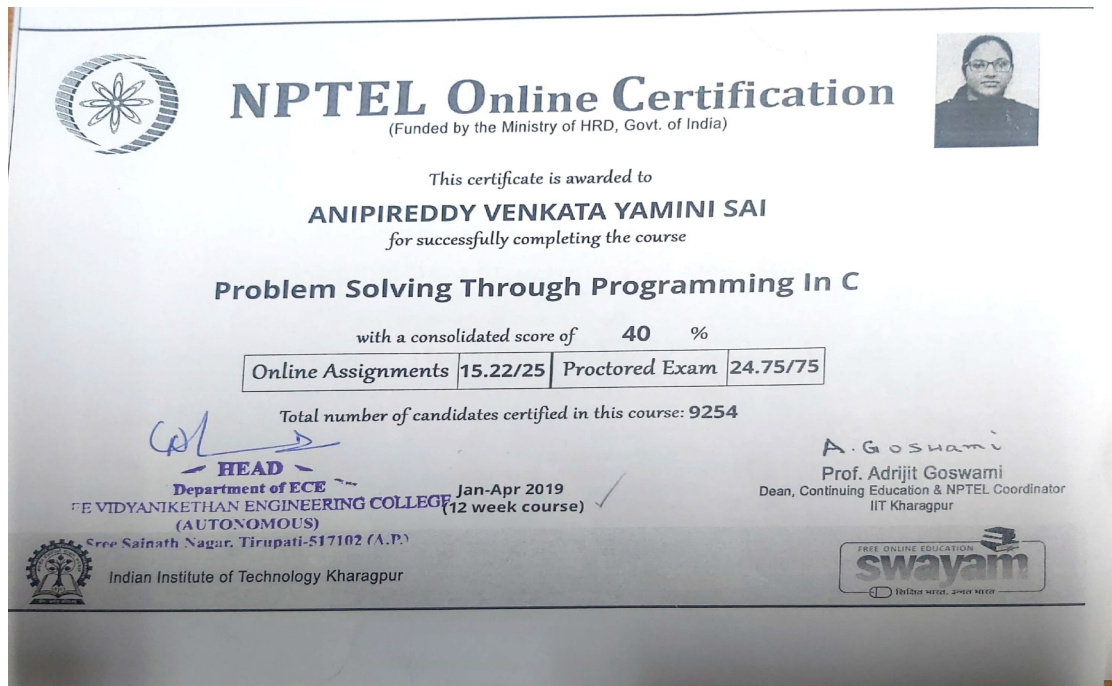


Internship Completion Certificate from INFOSYS Ltd.

V. Sample Copy of Certificate courses



Participation Certification from ICTACADEMY at NEW INDIA LEARNATHON2020



NPTEL SWAYAM Certification on Problem Solving through Programming In C from IIT, Kharagpur

2.3.1: Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences (15)

INDEX

| S.No. | Title | Pg. No. |
|--------------|---|----------------|
| 1. | Sample Copy of Student Project certificate | -- 1 |
| 2. | Sample Copy of Letter of Appreciation for Best Project | -- 2 |
| 3. | Sample Copy of Mini-project | -- 3 |
| 4. | Sample Photos of Hardware/Prototype Model | -- 4 |
| 5. | Sample Photos of Student-centric Model | -- 5 |
| 6. | Sample Copy of Internships | -- 6 |
| 7. | Sample Photos of Industry visit | -- 7 |
| 8. | Sample Photos of participation in Professional/Technical Association Events | -- 8 |

Sample Copy of Student Project certificate

SREE VIDYANIKETHAN ENGINEERING COLLEGE
(Autonomous)
A.Rangampet, Tirupati-517102
DEPARTMENT OF MECHANICAL ENGINEERING



CERTIFICATE

This is to certify that the project titled “ **DEVELOPMENT OF VIRTUAL ENVIRONMENT FOR AN ASSEMBLY OF MACHINE COMPONENTS** ”submitted by the following students in the Department of Mechanical Engineering, Sree Vidyanikethan Engineering College (Autonomous), A.Rangampet, Tirupati and is submitted in partial fulfillment for the award of B.Tech. in Mechanical Engineering to the Jawaharlal Nehru Technological University Anantapur, Anantapuramu is a record of bonafide work carried out by them under our guidance and supervision.

The results embodied in this thesis have not been submitted to any other University or Institute for the award of any degree or diploma.

| | |
|-----------------------------|-------------------|
| S MOHITH REDDY | 16121A03D7 |
| Y VIJAY SAI NATH | 16121A03F8 |
| A ARAVIND | 17125A0302 |
| B SAI LOHITH | 17125A0305 |
| D VASIF HUSSAIN | 17125A0314 |
| G JAYA PRAKASH REDDY | 17125A0317 |


GUIDE


HEAD OF THE DEPARTMENT

Sample Copy of Letter of Appreciation for Best Project



LETTER OF APPRECIATION

Date: 20.08.2020

To
Mr. K Gnaneswari
Batch Number: INT-INF-08
Sec: B
Year/Semester: IV B.Tech II Semester
Department of Computer Science and Engineering,
Sree Vidyanikethan Engineering College,
Tirupati.

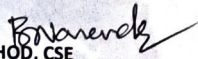
Dear Mr. K Gnaneswari and Teammates,

Sub: Project Work - Letter of Appreciation-reg.

This letter is to appreciate the hard work and diligent effort that you have put into completing the Project Work: INT-INF-08 with Title: Early Prediction Of Sepsis From Clinical Data. It was your persistent hard work and research towards the work that has given a fruitful result eventually. Your team's dedication to work, desire to experiment innovatively and out of the box thinking has won you the rewards.

In this regard this letter is to be considered as a token of recognition and appreciation from the department and we wish you all the best for your future endeavors.

Wish you Best of Luck.


HOD, CSE
PROFESSOR & HEAD
Dept. of Computer Science & Engineering
SREE VIDYANIKETHAN ENGINEERING COLLEGE
Sree Sainath Nagar, A. Rangampet
Chittoor (Dt.) - 517 102, A.P.

📍 Sree Sainath Nagar, Tirupati,
Andhra Pradesh - 517 102.
☎ +91-877-3066900/01
📠 0877 3066904

**JAVA MINI PROJECT ON
CURRENCY CONVERTER**

| NAMES | ROLLNUMBERS |
|--------------|--------------------|
| A.MOUNIKA | 17121a1203 |
| G.VENNILA | 17121a1223 |
| B.GOVARDHAN | 17121a1204 |
| G.JASHWANTH | 17121a1227 |

SUBMITTED BY

BATCH NUMBER :14



SREE VIDYANIKETHAN ENGINEERING COLLEGE

AUTONOMOUS

(Affiliated to J.N.T.U.A., Anantapur)

Sree sainathnagar, Tirupati-517102.

Sample Photos of Hardware/Prototype Model



Students demonstrating the working of model

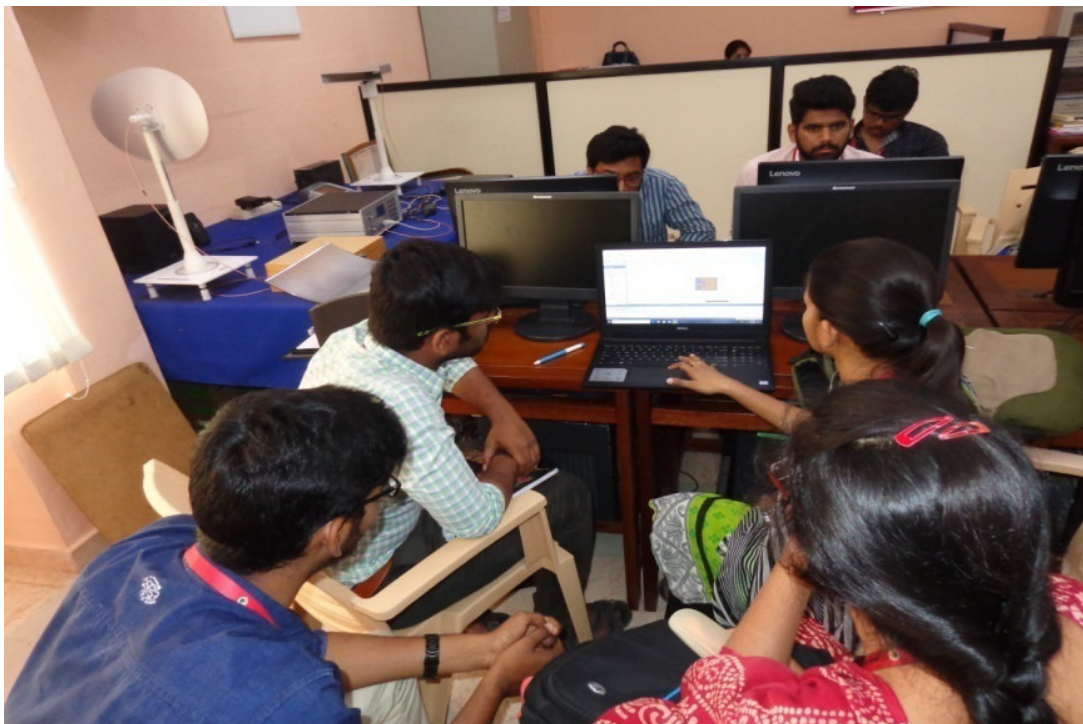


Students exhibiting the working of model

Sample Photos of Student-centric Model




Student-centric learning through practical sessions



Learning through student interactions


Sample Copy of Internships




**Deakin-IIT Madras Centre Of Excellence
In Advanced Materials & Manufacturing**

This is to certify that Mr. G. Sivaraja sekhar a student of Sree Vidyanikethan Engineering College, Tirupati has successfully completed the Natesan Summer Internship Program-2019 of this Centre of Excellence in Advanced Materials and Manufacturing from 1 June 2019 to 31 July 2019.


Title: A finite element analysis of laser welding of Advanced High Strength Steels



Prof. B.S. Murty
Head, Deakin-IITM CoE



Dr. Murugaiyan Amrithalingam
Guide, IIT Madras



Dr. K. Anand
Chief Manager, Deakin-IITM

Internship at Centre of Excellence in Advanced Materials and Manufacturing, IIT Madras

VENTILATION
AMAZE AIR
MTC CHILL
FILMORNERO

REFRIGERATION
GENC
U-3-0-0
Cellyour

AIR CONDITIONING
LG
KAWASU
SUNWAY

Authorized Dealer
THE K.S. GROUP
Engineering the elements since 1952 for better solutions in HVACR
HARDHIK ENTERPRISES & ESTIMAR SAF ENTERPRISES
Call : +91 98481 11878 e-mail : hardhik@ksgmail.com
Call : +91 98481 30041 e-mail : estimar@ksg11078@gmail.com

TO WHOMSOEVER IT MAY CONCERN

CERTIFICATE


This is to certify that **Mr. R.DINESH B.TECH** Student in Mechanical Engineering from **Sree Vidyanikethan Engineering College, Tirupathi**, has successfully completed the internship at **HARDHIK ENTERPRISES, Vijayawada-520 002**, during the period from 5-12-2018 to 18-12-2018.

He visited air conditioning, Ventilation project sites, cold rooms and submitted project report. They have taken guidance of project engineers and proprietor of this concern throughout their internship and implemented.

He is hardworking and quick learning throughout the internship with us.

We wish him all the best in future endeavors.

Thanking you,

Yours Sincerely
For **HARDHIK ENTERPRISES**

(A.P. RAO)
Proprietor

H.O. VIJAYAWADA :
II Floor, Sri Sai Datta Towers,
Seshadri Bستی St, Government,
VIJAYAWADA - 520 002.
Ph : 0866-2437349
Fax : 0866-2573568

SERVICE POINT :
16-7-130, 2nd St., Ramamurthy Nagar,
Near Binkumaran Hospital,
NELLORE - 524 001.
Call : 98488 81232

SERVICE POINT :
10-15-86, K.K. Layout,
THIRUPATHI - 517 501.
Call : 9912566499

Hardhik Tel No. 8772462278 EDWAR SAF Service Tax : AF1-PA 9296 USD 001 - Trl No. 37121459611

Internship at Hardhik Enterprises, Vijayawada

Sample Potos of Industry visit



Students visit to 93.5FM Radio station Tirupati



Field Visit to Kalyani Dam

Sample Photos of participation in Professional/Technical Association Events



Student participation in Group Discussion



Student participation in Technical Quiz



Student participation in Coding event



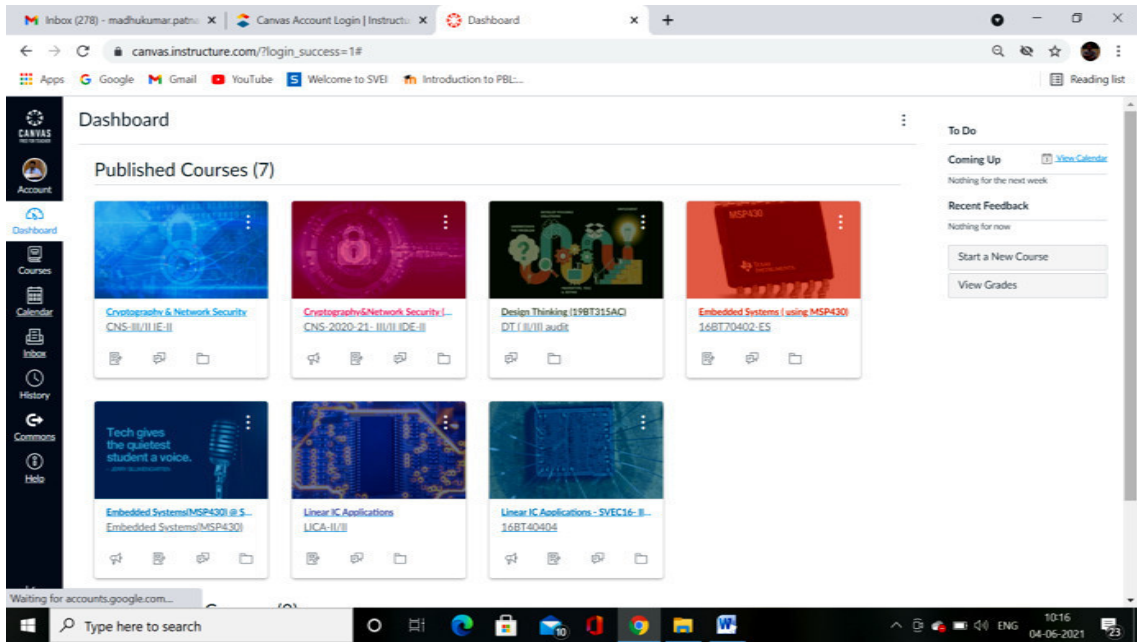
Student Presents Technical Poster and Paper

2.3.2: Teachers use ICT enabled tools including online resources for effective teaching and learning process

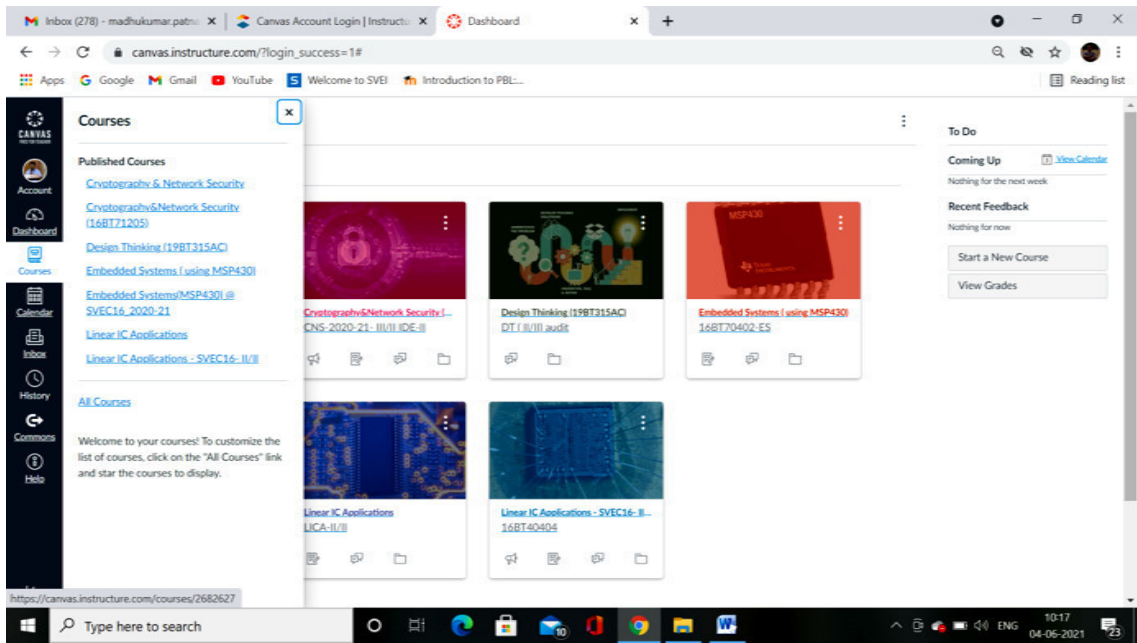
INDEX

| S.No. | Title | | Pg. No. |
|--------------|----------------------------------|----|----------------|
| 1. | Learning Management Systems | -- | 1 |
| 2. | Flipped Classroom | -- | 10 |
| 3. | Think Pair Share | -- | 12 |
| 4. | Blog, YouTube Channel, Socrative | -- | 13 |
| 5. | Working Models | -- | 20 |

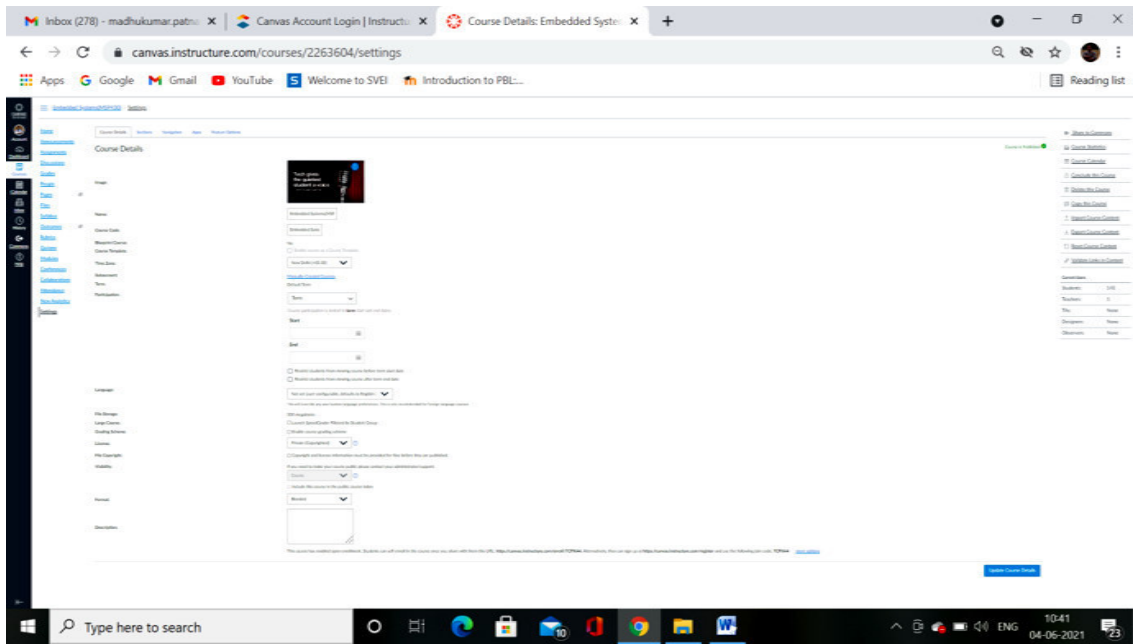
Learning Management Systems



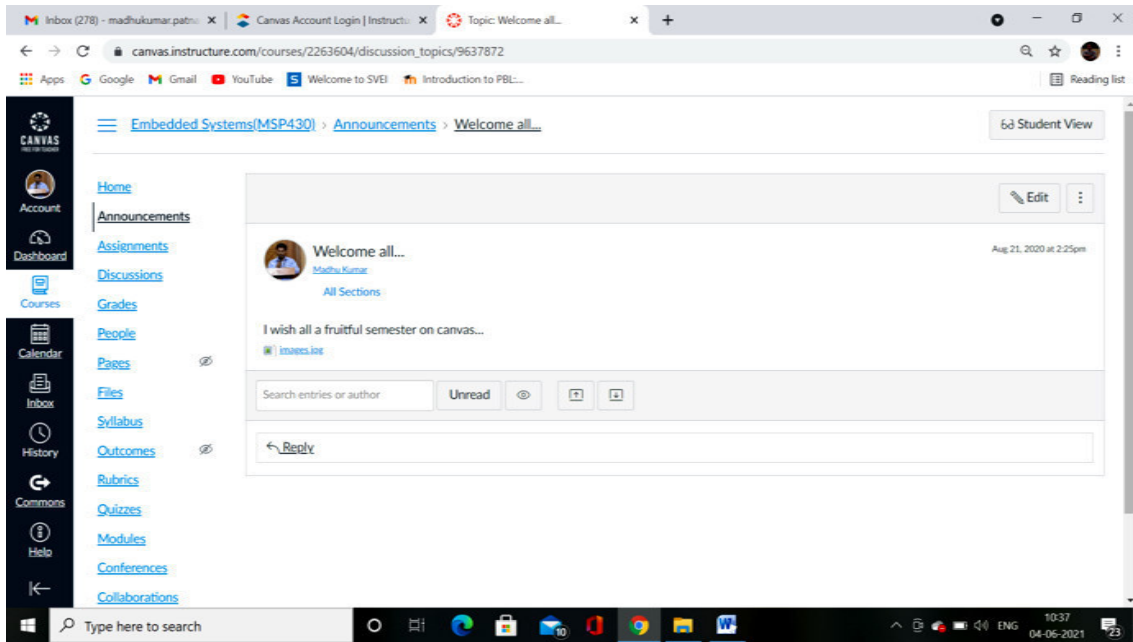
CANVAS Dashboard displaying list of all the courses (Card view) – delivered in blended mode



CANVAS Dashboard displaying list of all the courses (list View) – delivered in blended mode



Course Settings – Embedded Systems IV B.Tech I Sem.



CANVAS Model Announcement – open for student Reaction/Reply

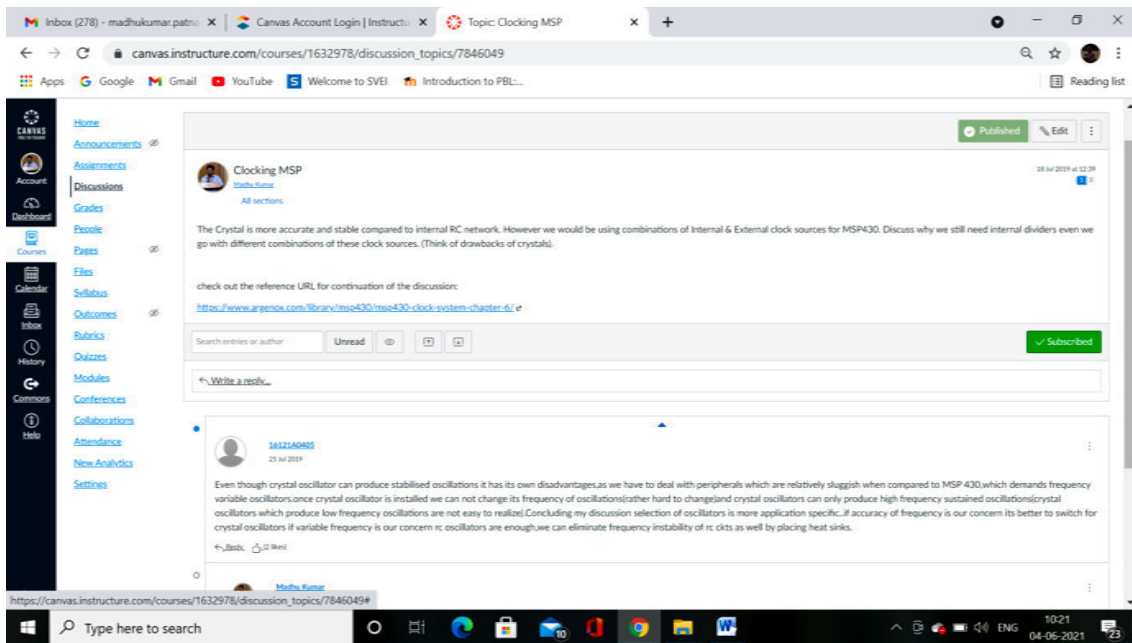
The screenshot shows the 'People' page in Canvas LMS for a course. The page displays a table of students with the following columns: Name, Login ID, SIS ID, Section, Role, Last Activity, and Total Activity. The table lists 12 students, all with the role of 'Student' and enrolled in 'Embedded Systems (using MSP430)'.

| Name | Login ID | SIS ID | Section | Role | Last Activity | Total Activity |
|------------|------------------------------|--------|---------------------------------|---------|----------------------|----------------|
| 14121A04D6 | venkatesh97767@gmail.com | | Embedded Systems (using MSP430) | Student | 17 Nov 2019 at 5:57 | 39:37 |
| 14121A0447 | kailashduggineni@gmail.com | | Embedded Systems (using MSP430) | Student | 24 Oct 2019 at 5:39 | 22:23 |
| 15121A04A6 | venkyrnan@gmail.com | | Embedded Systems (using MSP430) | Student | 29 Oct 2019 at 13:22 | 23:28 |
| 14121A04M7 | preethiabhlasha9@gmail.com | | Embedded Systems (using MSP430) | Student | 19 Nov 2019 at 22:05 | 01:48:11 |
| 14121A04M8 | tharun116@gmail.com | | Embedded Systems (using MSP430) | Student | 20 Nov 2019 at 12:28 | 03:09:15 |
| 14121A04M9 | vaddhinsanjai@gmail.com | | Embedded Systems (using MSP430) | Student | 5 Nov 2019 at 7:53 | 43:03 |
| 14121A04N0 | charanroyakadigaba@gmail.com | | Embedded Systems (using MSP430) | Student | 23 Oct 2019 at 20:18 | 40:05 |
| 14121A04N1 | reddypasad124@gmail.com | | Embedded Systems (using MSP430) | Student | 21 Nov 2019 at 12:38 | 53:30 |
| 14121A04N2 | vandiniashok661@gmail.com | | Embedded Systems (using MSP430) | Student | 4 Nov 2019 at 19:35 | 52:58 |
| 14121A04N3 | krishnak2016@gmail.com | | Embedded Systems (using MSP430) | Student | 27 Oct 2019 at 16:38 | 29:47 |
| 14121A04N4 | 113183076827736849900 | | Embedded Systems (using MSP430) | Student | 28 Oct 2019 at 16:37 | 23:40 |
| 14121A04N5 | saibhargavk7@gmail.com | | Embedded Systems (using MSP430) | Student | 21 Nov 2019 at 10:10 | 56:23 |

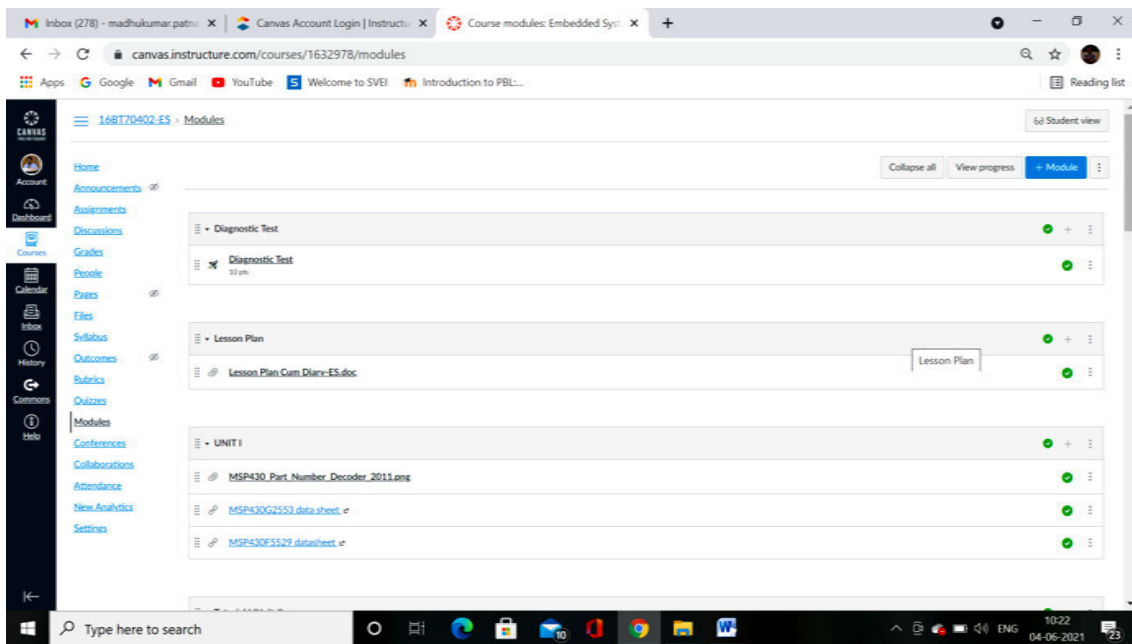
CAVAS – People (list of students added/participated in the course)

The screenshot shows the 'Discussions' page in Canvas LMS. The page is titled '16BT70402-ES > Discussions' and features a search bar and a '+ Discussion' button. The discussions are organized into two sections: 'Pinned discussions' and 'Discussions' (ordered by recent activity). The 'Pinned discussions' section includes a topic titled 'Clocking MSP' with 3 replies and a last post on 1 Aug 2019 at 12:45. The 'Discussions' section includes several topics such as 'Using Energy Trace Technology with CCS to study low power modes', 'MSP430 Communication modules - URLs for better understanding', 'Mid-1 QPs (Post Exam) - for Review', and 'Good news for those who hate programming'.

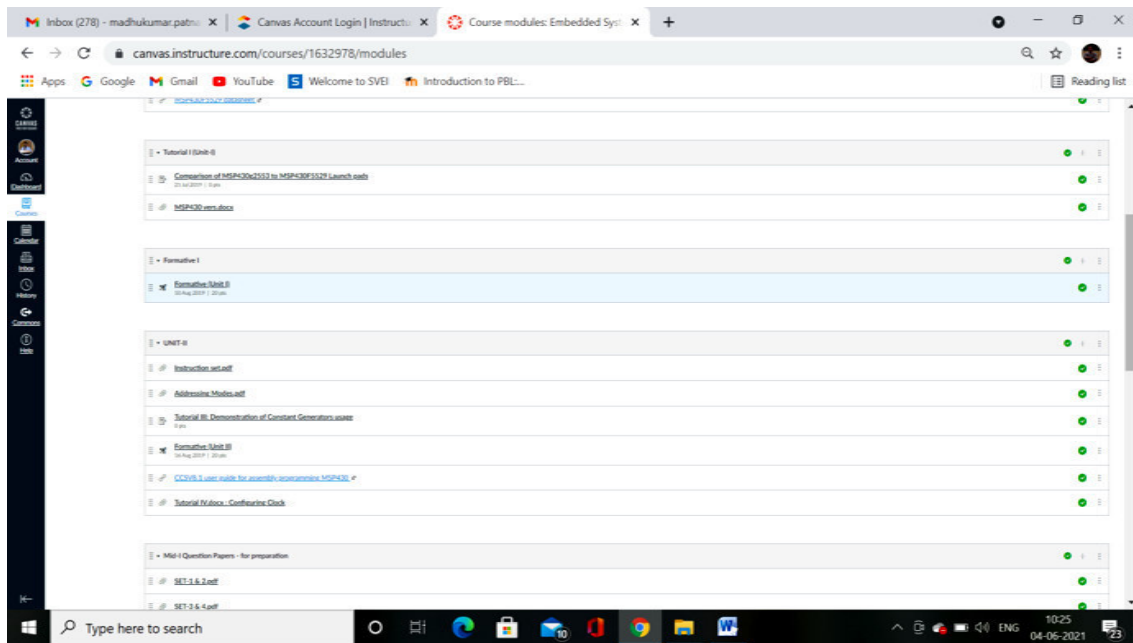
CANVAS – Discussions (list view) utilized for facilitating students with other links/e-learning sources/Tutorials involving them in order to promote self-learning



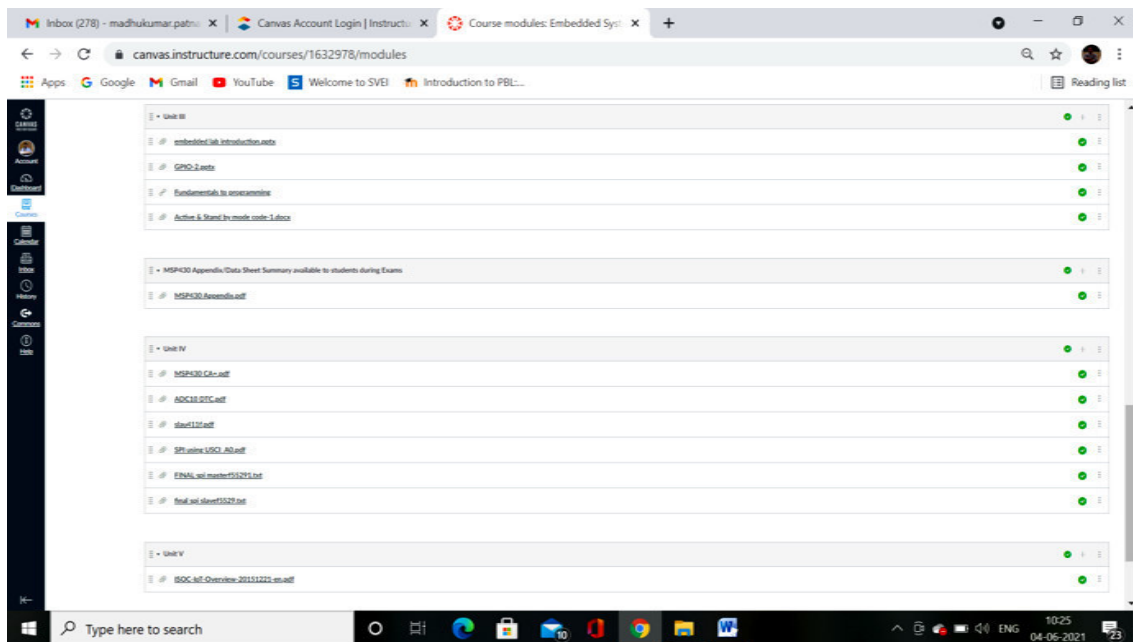
CANVAS Discussion – one in detail containing URL allowing students to participate in the brainstorming session provoking students submission of his observations/debate right below.



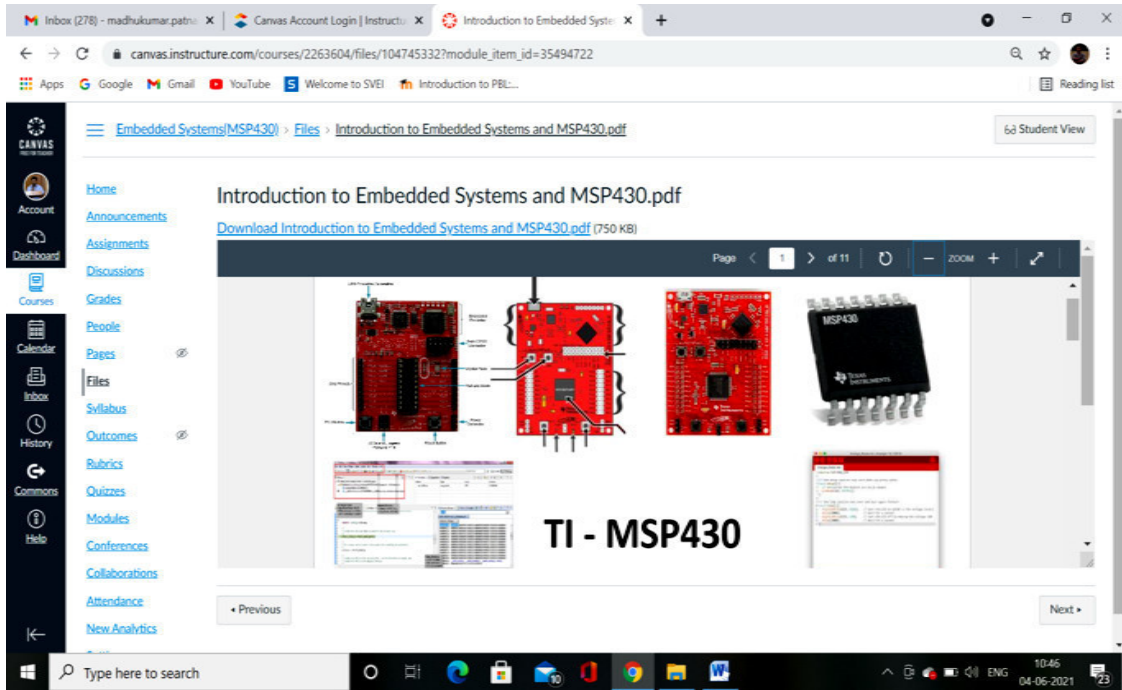
CANVAS – Modules (list view) – unit wise material/PPT/PDFs shared for letting students to go through them after class at their own pace.



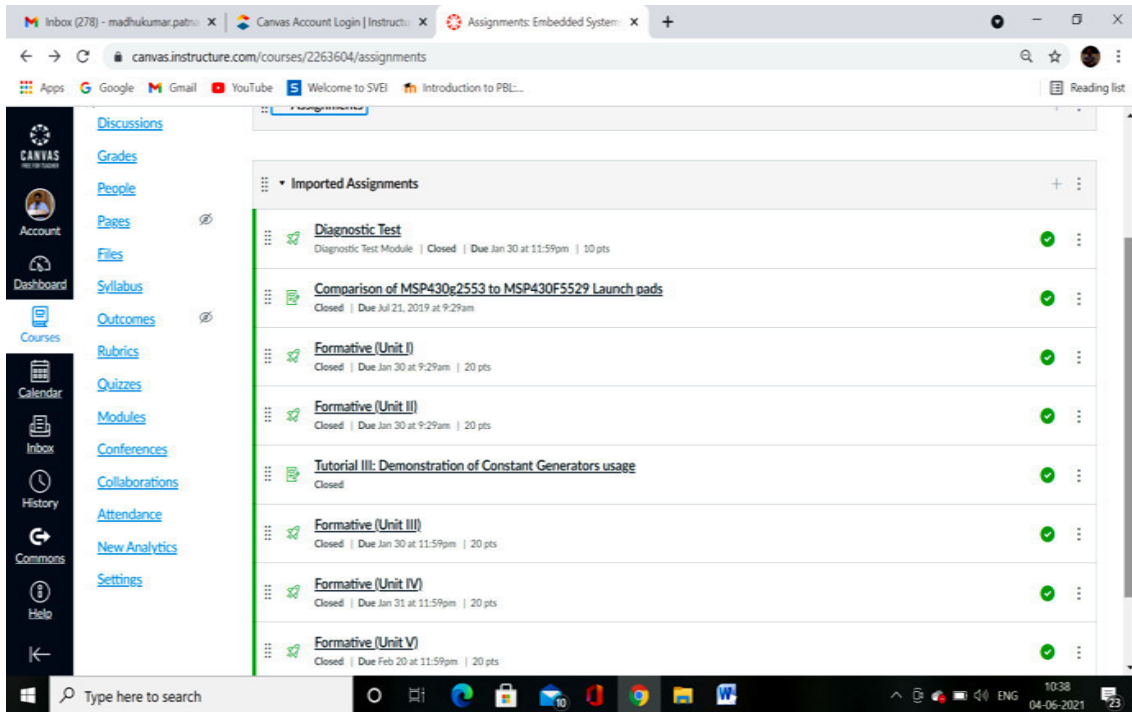
CANVAS – Modules (list view) continued including Tutorials/ Sample Question papers/including Formative Assessment tools for each unit.



CANVAS – Modules (list view) continued including Tutorials/ Sample Question papers/including Formative Assessment tools till last unit.



CANVAS sample file – PPT added at module level-uploaded by teacher and can be downloaded by the student



CANVAS – Assignments (list view) including Tutorials, Diagnostic and Formative Tests

This assignment does not count toward the final grade.

Comparison of MSP430g2553 to MSP430F5529 Launch pads

Check out the launchpad pinout videos available at the below mentioned urls as well as recent datasheets and prepare comparison chart in the mentioned format:

| Feature | MSP430G2553 | MSP430F5529 |
|------------------------------------|---|--|
| Pinout | 20 pin DIP | 80 Pin QFP |
| Supply Voltage range | 3.6 down to 1.8V | 3.6 down to 1.8V |
| Low power modes | 1 Active and 5 Low power modes (LPM0 to LPM4) | 1 active and 6 software selectable low power modes |
| Parallel ports | 3-8bit ports | 8-bit ports |
| Wakeup from low power/standby mode | <1micro second | <3.5 micro seconds |
| Capacitive touch enabled pins | 24 | 63 |
| ADC | 10 bit, 8-channel with auto scan | |
| Instruction set | 51 instructions (3 formats) with 7 source operand addressing modes and 4 destination operand addressing modes | |
| RAM | 512 bytes | 8KB |
| Flash | Information Memory:256B Mem: IVT + Code Mem: 16KB | 128KB |
| Timers (16-bit) | 2: Timer0_A & Timer1_A with 3 | 3: TA05, TA13, TA23, TB07 |

Points: 0
Submitting: a file upload
File types: doc and docx

Due: 21 Jul 2019 at 9:29
For: Everyone
Available from: 29 Jun 2019 at 9:30
Until: 31 Jul 2019 at 9:29

| Criteria | Ratings | Pts |
|--------------------------|---|-------|
| Description of criterion | This area will be used by the assessor to leave comments related to this criterion. | 5 pts |

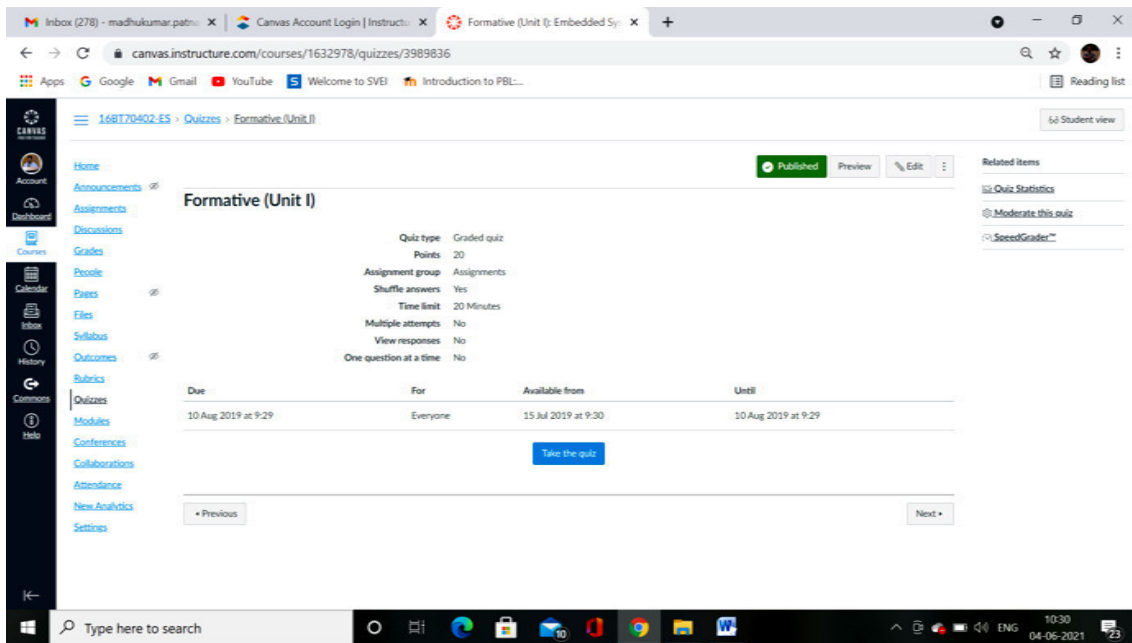
CANVAS Assignment – one in detail for submission with the points for evaluation using speed grader

MSP430 vers.docx

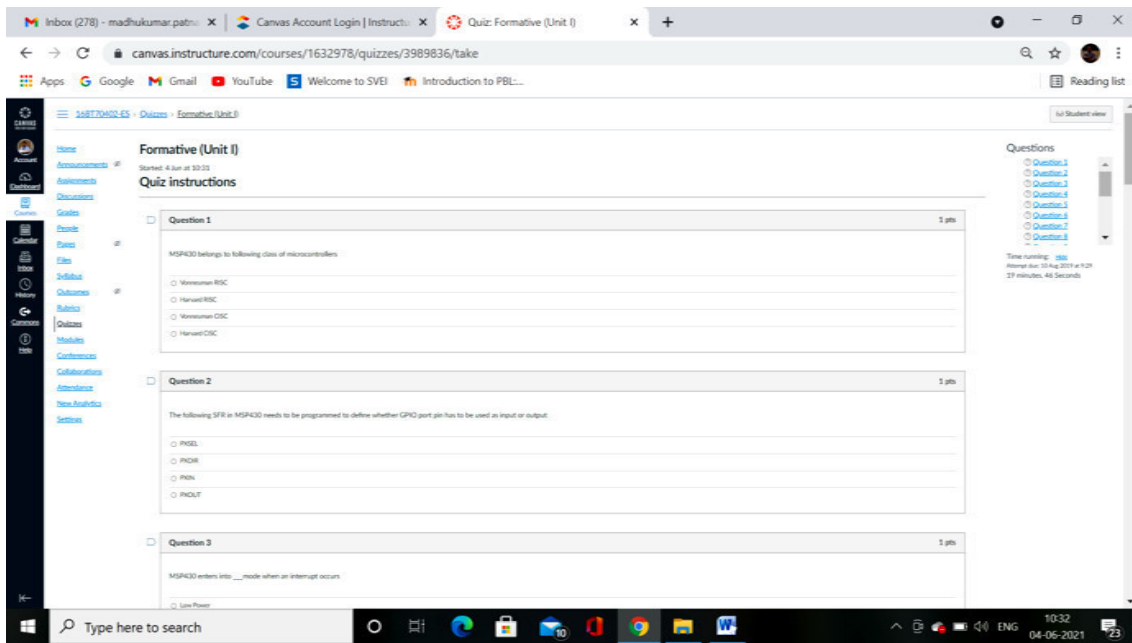
Download MSP430 vers.docx (12.2 KB)

| Feature | MSP430G2553 | MSP430F5529 |
|------------------------------------|---|--|
| Pinout | 20 pin DIP | 80 Pin QFP |
| Supply Voltage range | 3.6 down to 1.8V | 3.6 down to 1.8V |
| Low power modes | 1 Active and 5 Low power modes (LPM0 to LPM4) | 1 active and 6 software selectable low power modes |
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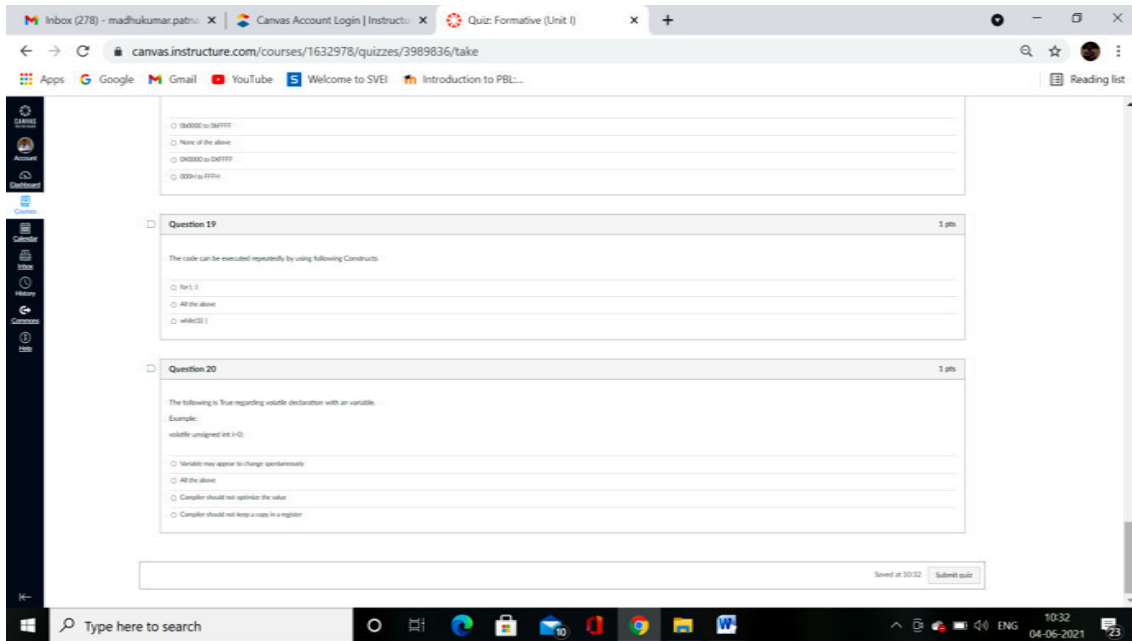
CANVAS- sample assignment file – uploaded by student in response for evaluation



Sample Formative Test – settings for getting published



Formative Test – Student View (Question wise MCQS) starting from Question 1



Formative Test – Student View (Question wise MCQS) continued to 20th Questions

| Student ... | Diags... Out of 10 | Exams... (Unit I) Out of 20 | Exams... (Unit II) Out of 20 | Exams... Out of 20 | E- Out... | E- Out... | Assign... | T... |
|-------------|-----------------------|--------------------------------|---------------------------------|-----------------------|--------------|--------------|-----------|--------|
| 14121A04D6 | - | - | 12 | 8 | 11 | 9 | 50% | 50% |
| 14121A0447 | 2 | 9 | 7 | - | - | - | 36% | 36% |
| 15121A04A6 | - | 6 | 3 | 9 | 8 | 12 | 38% | 38% |
| 16121A04M7 | 5 | 12 | 7 | 6 | 5 | 10 | 40.91% | 40.91% |
| 16121A04M8 | 4 | 9 | 10 | 2 | 8 | 6 | 35.45% | 35.45% |
| 16121A04M9 | 4 | 15 | 5 | 8 | 3 | 10 | 40.91% | 40.91% |
| 16121A04N0 | 5 | 12 | 11 | 10 | 9 | 14 | 55.45% | 55.45% |
| 16121A04N1 | 7 | 17 | 17 | 17 | 6 | 18 | 74.55% | 74.55% |
| 16121A04N2 | 2 | 7 | 7 | 6 | 6 | 12 | 36.36% | 36.36% |
| 16121A04N3 | - | 5 | 19 | 20 | 6 | 9 | 59% | 59% |
| 16121A04N4 | 4 | 11 | 4 | 6 | 12 | 11 | 43.64% | 43.64% |
| 16121A04N5 | 7 | 15 | 9 | 11 | 16 | 13 | 64.55% | 64.55% |
| 16121A04N6 | 10 | 12 | 10 | 6 | 7 | 11 | 50.91% | 50.91% |
| 16121A04N7 | - | - | - | - | - | - | - | - |

CANVAS – Consolidated Grade sheet – for all students (whereas individual view is also available). All the Didactics are automatically evaluated and left for the faculty to interpret.

Flipped Classroom

Course: Mobile Application Development (16BT71202)

Topic: Implementing Menu and sub menu items in Android studio.

PART 1- OUT-OF-CLASSACTIVITIES

Learning Objectives:

After watching the video, students will be able to:

- 1) Understand the user interface of Android studio (Understand level)
- 2) Design application of menu items. (Apply) Level)

Resources:

<https://www.youtube.com/watch?v=UXQRjpFEhDA&t=485s>

| Segment | Time Duration |
|---|---------------|
| Segment 1 – Android User Interface | 0:00 – 2:31 |
| Segment 2 – Creating menu items | 02:32 – 09:50 |
| Segment 3 – Writing java code for menu item | 09:51 – 21:34 |
| Segment 4 – Execution of menu items | 21:35 – 24:07 |

Notes are shared through email and Reference Text book chapter are provided as additional reference resources.

Assessment Questions:

1. Design application for employee details on creating menu item.
2. Design application for employee details on creating sub menu items.
3. Change icon for menu items

Instructions to the students for watching the video resource and attempting the assignment questions.

1. Watch video and link is provided in Part 1
2. Refer the notes provided on Menu items.
3. Submit the assignment within three days.

PART2- IN-CLASSACTIVITY

Higher Order Thinking skills (Analyze-Evaluate-Create) targeted within the in-class segment.

- Understand creating menu in an application in Android studio.
- Develop menu for an application in android studio.

Active Learning Strategy for achieving this objective.

AL Strategy: Think Pair Share

The Assessment strategy to ensure that higher order objectives are achieved:

If it is a positive feedback, i.e, more than 85% of the class are able to do 80% of assignment, then proceeded with two sets of PI questions which will take note more than 10 minutes.

Type I PI question (Knowledge):

Q1: Identify any one type of menu?

- a) Context
- b) Optional
- c) Floating
- d) **All**

Type II PI question (Apply):

Q2: Write java code for menu application.

Ans. Activity_main.java (submitted in lab)

Once you have completed the planning process, do a self-assessment using the rubric provided below and write down your scores.

Criteria 1- Exemplary (3)

Criteria 2- Inadequate (1)

Criteria 3- Adequate (2)

RUBRICFORASSESSINGOUT-OF-CLASSACTIVITY

| Criteria/Scale | Missing (0) | Inadequate (1) | Adequate (2) | Exemplary (3) |
|---|----------------------------------|---|--|--|
| 1. Learning Objectives for Out-of-class activity | Learning Objectives are missing. | Learning Objectives have been stated, however they are not properly constructed or are addressing higher order thinking skills. | Learning Objectives have been stated using specific and measurable action verbs at Lower Cognitive levels. | Learning objectives have been stated using specific and measurable action verbs with needed qualifiers to increase the clarity. |
| 2. Length of the Video | No video link is present. | The video is longer than 20 minutes. | The video length is between 3~15 minutes. If the total video is more than this time duration, then it has been split-up into multiple parts to satisfy the 3~15 minutes criterion. | The video length is around 10 minutes. If the original video was having more length then it has been split into separate parts to satisfy 10 minute criterion using editing software |
| 3. Instructions to students for doing out of class activity | No instructions are present | The instructions just merely suggest them to watch video and perform the activity. | The instructions go beyond mere suggestions, and specifically provide instructions | The instructions go beyond suggestions on how to perform the activity |

Think Pair Share

Activity 1: Implement Menu and sub menu items in Android Studio

Q 1: Create an application on menu items in Android Studio

Think Phase : [3 minutes]

Teacher : Learn User interface in Android studio
Student : Discuss among themselves to understand Android studio based user requirements.
Deliverable : Understand the User interface of Android studio

Pair phase : [5 minutes]

Teacher : What is menu and sub menu and how to add menu items?
Student : Can pair with others to understand adding of menu items in Android studio?
Deliverable : Understands the adding of menu items in android studio.

Share phase : [8 minutes]

Teacher : Add menu items by using <item> and sub tags to create sub menu.
Student : Pair with others to understand and implement the menu and sub menu items.
Deliverable : Can able to implement menu and sub menu in android studio.

Blog, YouTube Channel, Socrative

Blog : ramprakasharava.wordpress.com

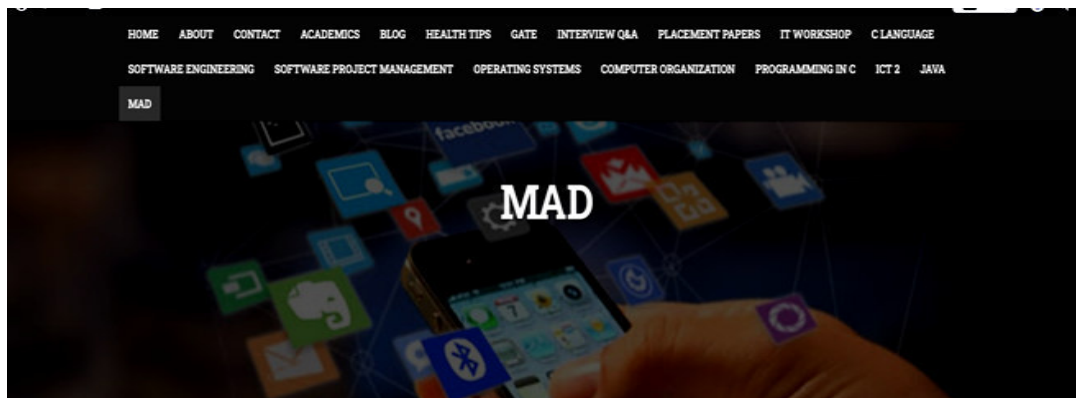
YouTube Channel : https://www.youtube.com/playlist?list=PL3l1g4zfSFqeE_qJkwPoU6rUjIQByLLbc

Assessment Website : Socrative

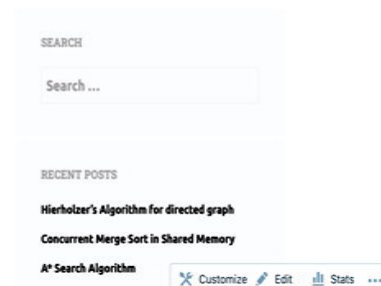
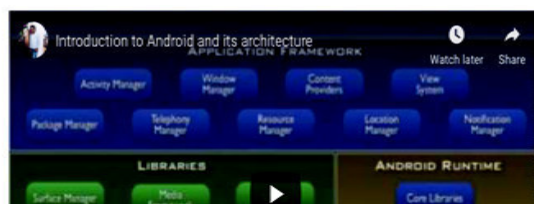
Activities:

1. Course material can be shared through blog.
2. Students can share their opinions through comments on material.
3. Video lectures can be given through youtube channel.
4. Practically applications can be shown through videos.
5. Assessments exams like formative and diagnostic tests can be conducted through Socrative teacher website.
6. Able to create and launch quiz in Socrative.
7. Results and reports can be downloaded and shared with students.

Course material can be shared through blog.



Introduction to Android and its architecture



Students can share their opinions through comments on material.



Android Activity Life Cycle



Android Application Structure



Edit

CONTACT US

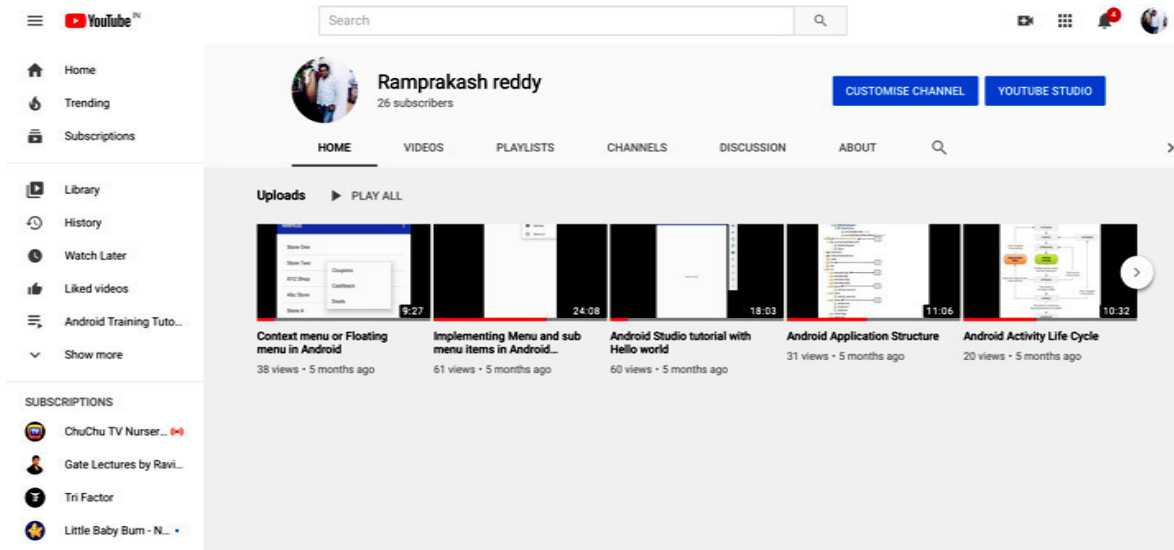


4 COMMENTS

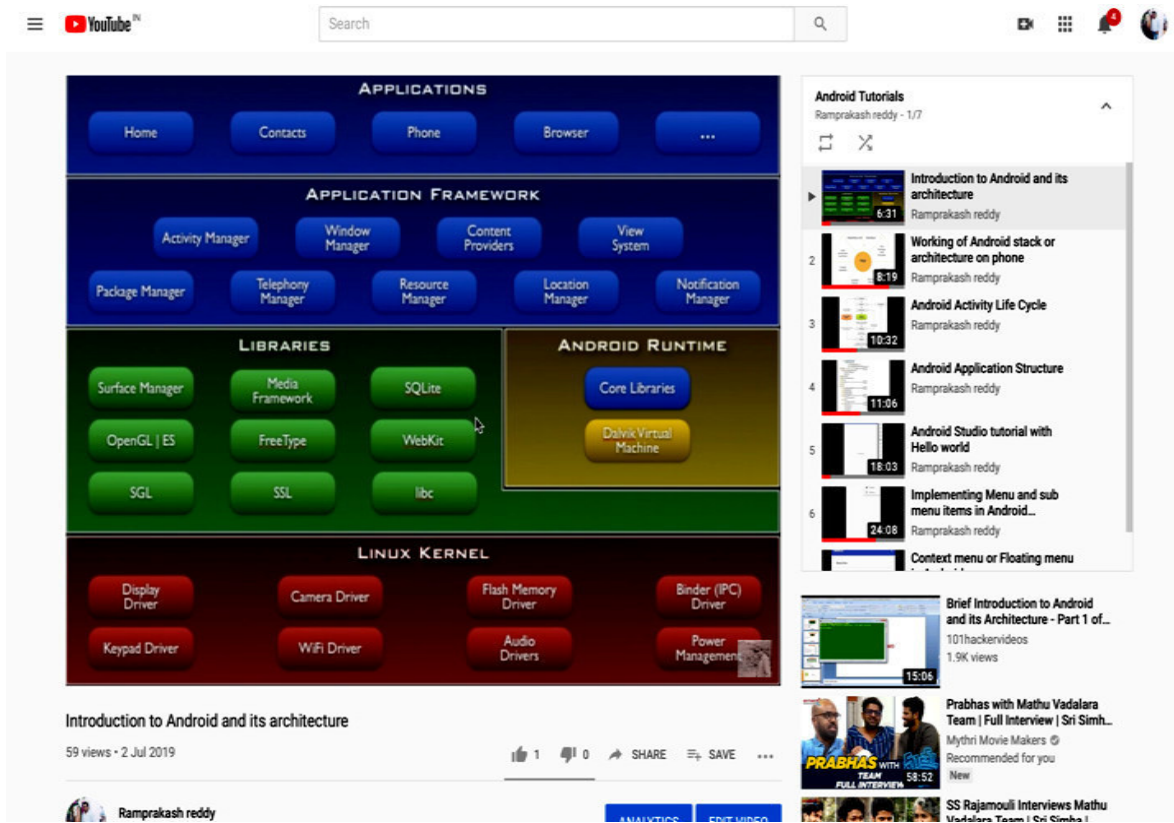


Bhojraj
March 6, 2019 at 8:58 pm / Edit

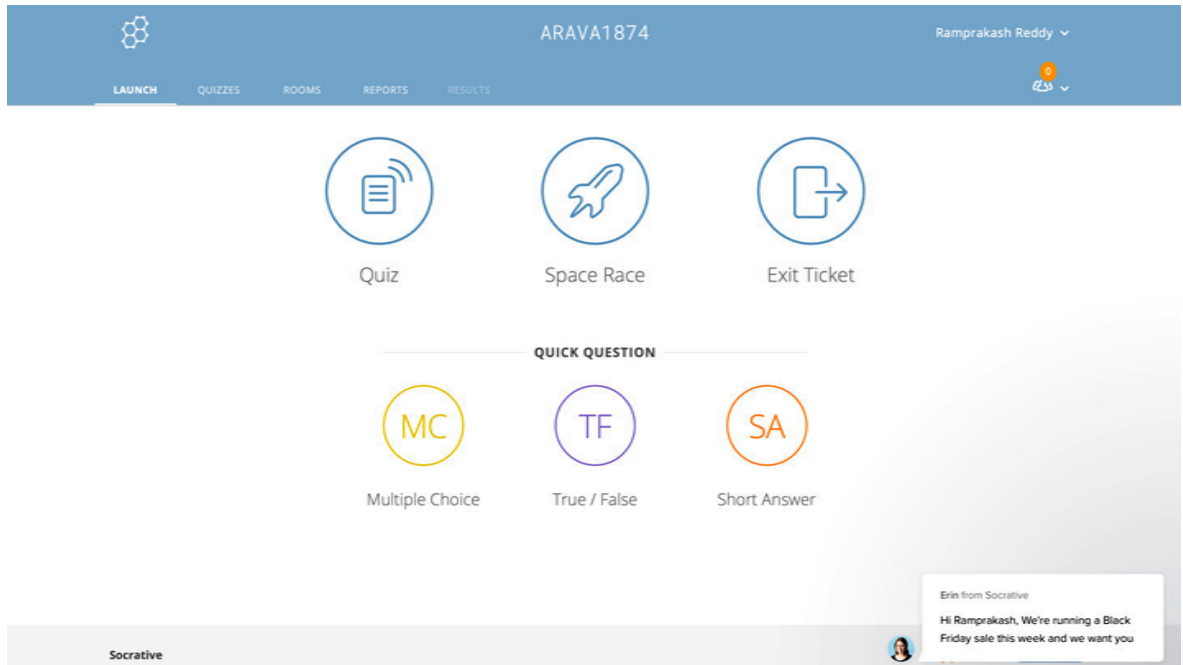
Video lectures can be given through YouTube channel.



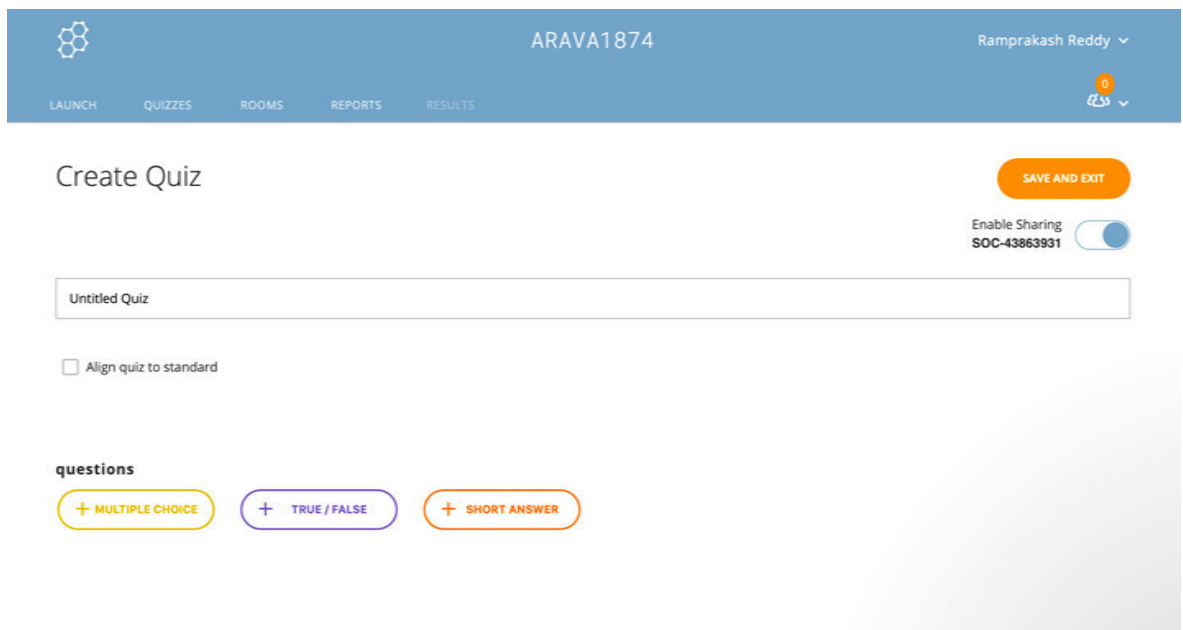
Practically applications can be shown through videos.



Assessments exams like formative and diagnostic tests can be conducted through Socrative teacher website.



Create and launch quiz in Socrative.



MAD Formative Test - 2

Align quiz to standard

#1

___ is a special view that can contain other views. Ex - LinearLayout, RelativeLayout etc

ANSWER CHOICE

- A** ViewGroup
- B** View
- C** LayoutView
- D** ViewLayout

#2

___ is a special type of button which has two states checked and unchecked

ANSWER CHOICE

- A** CheckBox

Quizzes

+ ADD QUIZ

Search Quizzes

FOLDERS

- Quizzes
- Trash

DELETE MERGE MOVE CREATE FOLDER

| <input type="checkbox"/> | ALL | NAME ↑ | DATE ↓ | COPY | DOWNLOAD | SHARE |
|--------------------------|-----|--|----------|------|----------|-------|
| <input type="checkbox"/> | | MAD Formative Test - 2 | 1/4/20 | | | |
| <input type="checkbox"/> | | TOC Diagnostic test | 12/18/19 | | | |
| <input type="checkbox"/> | | MAD Formative test - 3 | 10/22/19 | | | |
| <input type="checkbox"/> | | MAD Formative Test - 1 | 8/17/19 | | | |
| <input type="checkbox"/> | | MAD Diagnostic test | 7/29/19 | | | |
| <input type="checkbox"/> | | JP Formative Test - 3 | 4/18/19 | | | |
| <input type="checkbox"/> | | JP Formative Test - 2 | 3/21/19 | | | |
| <input type="checkbox"/> | | DS | 2/14/19 | | | |

Launch a quiz

Launch Quiz ✕

1 Choose Quiz Step 1 of 2

QUIZZES

| NAME ↑ | DATE ↓ |
|--|----------|
| <input type="radio"/> TOC Diagnostic test | 12/18/19 |
| <input type="radio"/> MAD Formative test - 3 | 10/22/19 |
| <input type="radio"/> MAD Formative Test - 2 | 10/16/19 |
| <input type="radio"/> MAD Formative Test - 1 | 8/17/19 |
| <input type="radio"/> MAD Diagnostic test | 7/29/19 |

2 Choose Delivery Method and Settings Step 2 of 2

Results and reports can be downloaded and shared with students.

Create Reports ✕

Whole Class Excel

Individual Student PDFs

Question-Specific PDF

Email Me

Email Students

Download

Save to Drive

ARAVA1874
Ramprakash Reddy ▾

LAUNCH
QUIZZES
ROOMS
REPORTS
RESULTS
 0

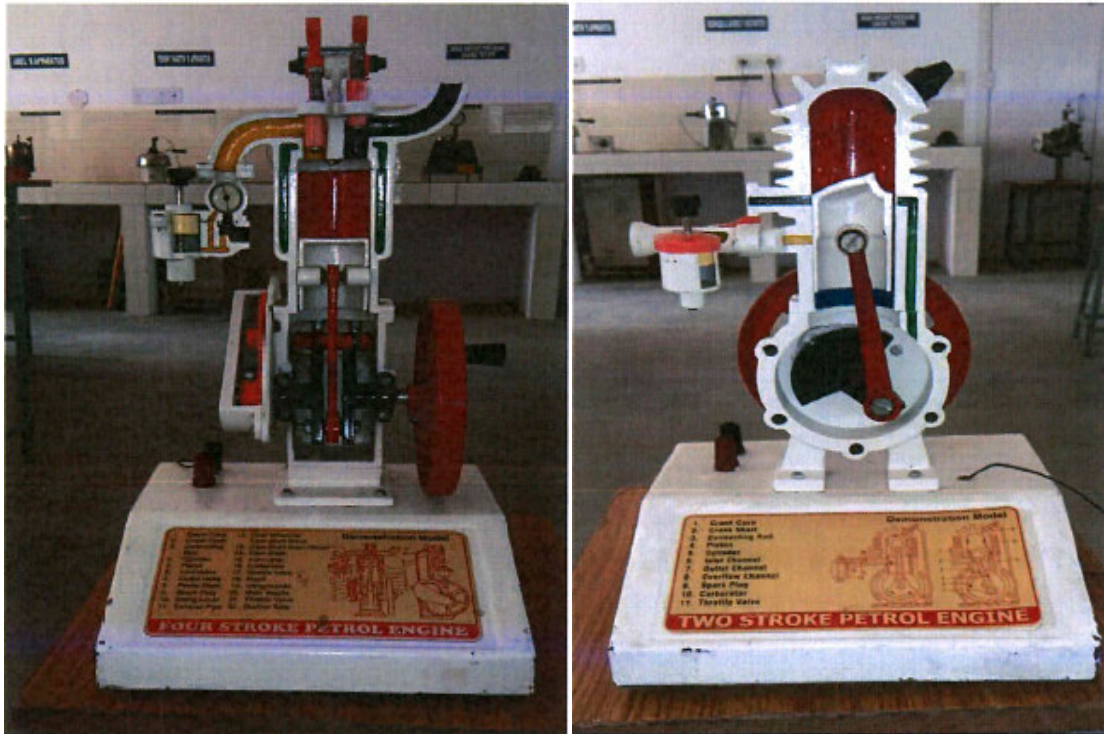
MAD Formative test - 3 - Wed Oct 16 2019

REPORTS

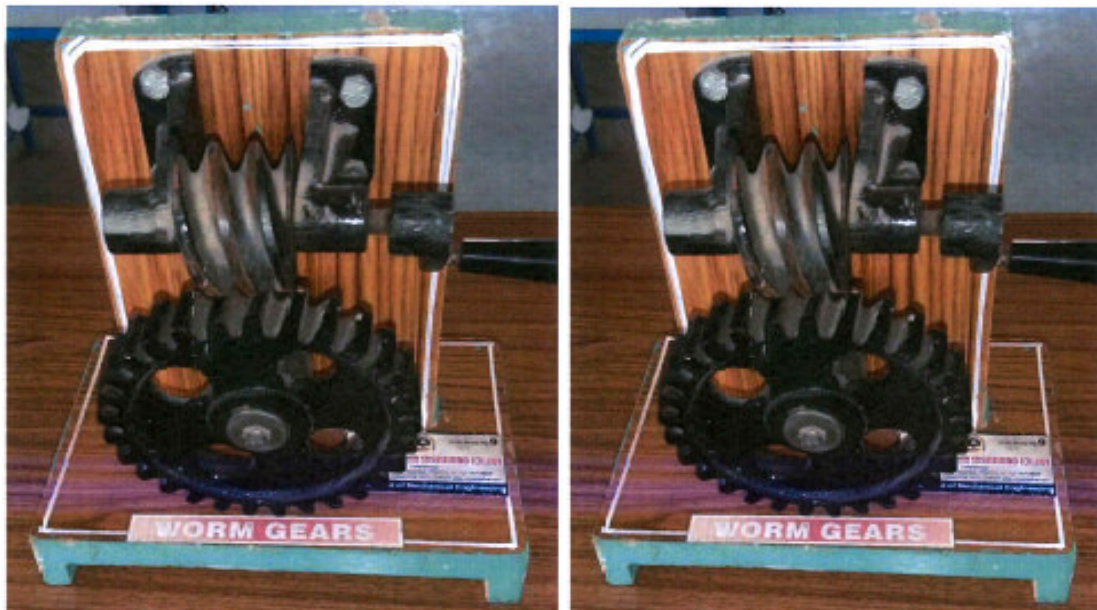
Show Names Show Answers

| Name ↑ | Score (%) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|------------|-----------|---|---|---|---|---|---|---|---|---|----|----|
| 16121A1261 | 20% | D | D | D | C | C | B | B | A | C | B | D |
| 16121a1262 | 20% | C | B | A | A | C | A | A | A | C | A | D |
| 16121a1263 | 25% | A | B | C | D | B | C | D | A | B | A | D |
| 16121a1264 | 25% | C | C | C | A | D | A | D | B | B | C | B |
| 16121a1265 | 35% | A | B | B | D | A | A | A | B | C | A | B |
| 16121a1267 | 25% | B | D | A | A | D | B | A | C | C | A | D |
| 16121a1269 | 40% | C | B | A | A | C | B | A | B | B | A | D |
| 16121a1270 | 45% | B | A | A | A | C | B | A | C | C | A | D |
| 16121a1272 | 20% | C | A | A | A | A | B | A | B | C | A | D |
| 16121a1273 | 55% | A | D | B | A | A | B | A | C | C | A | A |
| 16121a1277 | 25% | A | A | A | A | D | B | A | C | B | A | D |
| 16121a1278 | 15% | C | B | A | D | D | A | D | C | D | C | B |
| 16121A1279 | 25% | B | C | A | A | D | A | B | C | C | A | B |
| 16121A1281 | 25% | A | C | C | A | A | B | B | D | C | A | C |

Working Models



Four and Two Stroke Engine Working Model



Worm Gears Working Model



SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)

SREE SAINATH NAGAR, A.RANGAMPET – 517 102 (A.P.)
(AFFILIATED TO JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR,
ANANTHAPURAMU)

Examination

Automation System

Manual

CONTENTS

- I. **Registration of Courses by the students.**
- II. **Internal Examinations (Mid-term Examinations).**
 - A. Issue of Examination Notification.
 - B. Generation of Examination Timetables.
 - C. Nominal Rolls Finalization.
 - D. Human Resource Request.
 - E. Seating Plans generation.
 - F. Allotment of Examiners to conduct the examinations.
 - G. Conduction of Examinations.
 - i. Theory Examinations.
 - ii. Practical Examinations.
 - H. Posting of Attendance & Malpractice Cases.
 - I. Evaluation, Submission and Display of Marks.
 - J. Consolidation of Internal Marks.
 - K. Publication of Internal Marks.
- III. **External Examinations/Semester-end Examinations.**
 - A. Issue of Examination Notification..
 - B. Generation of Examination Timetables.
 - C. Declaration of Eligibility for Registration of Examinations.
 - D. Registration Process for Examinations.
 - E. Finalization of Nominal Rolls of the Candidates registered for Examinations.
 - F. Issue of Hall Tickets.
 - G. Conduction of Semester-end Practical Examinations and awarding of Marks.
 - H. Seating Plan generation for Theory Examinations.
 - I. Human Resource Request.
 - J. Allotment of Examiners for Conducting Theory Examinations.
 - K. Conduction of Theory Examinations.
 - i. Procedure for Collection of Question Papers.
 - ii. Generation of Question Papers.
 - iii. Posting of Attendance.
 - iv. Posting of Malpractice Cases.
 - v. Collection of Answer Books.
 - vi. Coding of Answer Books.

- IV. Collection of Comments on Question Papers & Scheme of Evaluation.
- V. Generation of Answer Books Spot Valuation Report.
- VI. Sending of Answer Books for External Evaluation.
- VII. Collection of Evaluated Answer Books and Scrutiny.
- VIII. Posting of Semester-end examinations Marks.
- IX. Consolidation of Semester-end examinations Marks.
- X. Tabulation of Marks and Generation of Reports.
- XI. Conduction of Results Committee Meeting.
 - A. Convening the Meeting.
 - B. Minutes of Meeting.
- XII. Publishing of Results.
- XIII. Issue of Notification for Recounting / Revaluation / Personal Verification / Challenging Evaluation.
- XIV. Students Registrations for Recounting / Revaluation / Personal Verification / Challenging Evaluation.
- XV. Generation of Nominal Rolls of Students Registered for Recounting/Revaluation/Personal Verification / Challenging Evaluation.
- XVI. Sending of Answer Books for Revaluation and Collection.
- XVII. Posting of Recounting / Revaluation / Personal Verification/ Challenging Evaluation Marks.
- XVIII. Tabulation of Marks and Generation of Reports for Revaluation Candidates.
- XIX. Publishing of Revaluation Results.
- XX. Preparation of Tabulated Sheets (T-Sheets).
- XXI. Generation of Grade Sheets.
- XXII. Issue of Grade Sheets to the students.
- XXIII. Notification for Issue of PC/CGS Certificates.
- XXIV. Generation of Provisional Pass Certificates.
- XXV. Generation of Consolidated Grade Sheets.
- XXVI. Conduction of Graduation Day.
 - A. Issue of Provisional Pass Certificates.
 - B. Issue of Consolidated Grade Sheets.
- XXVII. Sending of list of Graduates to the Affiliating University for award of original degree.

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The examination system should be fair, efficient, reliable and transparent. An important measure of the success of the examination system is its credibility. The conduct of examinations and declaration of results is one of the most important activities of the College. The smooth conduct of examinations is one of the major responsibilities of the College. The College has to declare the results of almost all examinations within 30 days from the date of completion of last examination. The current examination system is introduced to improve the efficiency, reliability and transparency in the conduct of the examinations.

The Main Objectives of this system is:

- To conduct all examinations as per the pre-published calendar of examinations.
- To curb malpractices and unfair means in the examinations.
- To maintain the confidentiality of the examination system.
- To increase reliability of the examination system.
- To increase the transparency in the examination system.
- To evaluate the answer books through Central Assessment Program in the minimum time period.
- To declare the result in the shortest possible time.
- To undertake verification, supply of the assessed answer books to the students and revaluation of the assessed answer books.
- To create confidence and trust amongst the students about the assessment system.

In the process of Automation of Examination System, the college is using the ERP package of NIVA. The examination and evaluation activities in the automation system are furnished bellow.

I. Registration of Courses by the students.

Students will be given option to register the courses in NIVA as per the curriculum in the beginning of a semester. Based on the registrations, the concerned HOD will finalize the courses to be studied by the students in a semester. They will also be given options to choose from a pool of electives if any being offered in a particular semester. Based on the registrations to an elective course the concerned HOD will finalize the electives to offer and the students will be moved to the respective finalized electives based on the priorities given in a group.

II. Internal Examinations (Mid-term Examinations).

A. Issue of Examination Notification.

The exam section will issue notification for Internal Examinations as per the Academic Calendar in NIVA. Information about the notification will reach to the students through SMS and E-mails.

B. Generation of Examination Timetables.

Based on the courses offered in a given semester by the departments, the examination section will generate timetable for Internal Exams in NIVA. The soft copy of timetables will be sent to the students through SMS and E-mails.

C. Nominal Rolls Finalization.

The Examination section coordinators of the respective departments will finalize the nominal rolls for the respective notification in NIVA to serve vide purposes viz., cross checking the total students and respective courses registered.

D. Human Resource Request.

Exam Section will send human resource request to the HOD's as per the requirement for invigilation duties and confidential invigilators duties. This process will be done through NIVA. Based on requirement the HODs will assign exam duties automatically in NIVA as per the request received from Exam section. The same information will send to the Examination section through NIVA. The Invigilator also receives the duty information through E-Mail.

E. Seating Plans generation.

Exam section will generate automatic seating plans in NIVA based on the total strength of students finalized in Point D.

F. Allotment of Examiners to conduct the examinations.

The Examination Section will auto assign the room numbers to the invigilators in NIVA to execute the invigilation duty. In the report of the invigilation duties, the invigilator will give his/her presence to the duty. The same will be entered in NIVA.

G. Conduction of Examinations.

i. Theory Examinations.

Theory Examinations will be conducted by the Examination Section with the support of Examination Section coordinators of the concerned departments.

ii. Practical Examinations.

Practical Examinations will be conducted by the concerned departments.

H. Posting of Attendance & Malpractice Cases.

After completion of the examination, the Examination Section will post the attendance in NIVA room wise and any malpractice cases if any will also be marked.

I. Evaluation, Submission and Display of Marks.

The concerned subject teacher will evaluate the answer scripts of the students and assign the marks based on the performance of the students in the examination. The evaluated answer scripts will be distributed to the students for verification and to address the grievances of the students. Then the teacher will finalize the marks and will post the marks in the NIVA. The marks reports generated from NIVA will be displayed to the students to address their grievances.

J. Consolidation of Internal Marks.

The Examination Section will consolidate the marks as per the formulae defined in NIVA after the completion of all Mid-term Examinations. The consolidated marks reports generated from NIVA will be displayed to the students to address and finalize their internal marks.

K. Publication of Internal Marks.

After addressing the grievances, the consolidated and finalized Internal Marks will be published in NIVA. The marks information will be received by the students through SMS and E-mails.

III. External Examinations/Semester-end Examinations.

A. Issue of Examination Notification.

The exam section will issue notification for semester end examination as per the Academic Calendar in NIVA. Information about the notification will reach to the students through SMS and E-mails.

B. Generation of Examination Timetables.

Based on the courses offered in a given semester by the departments, the examination section will generate timetable for Semester-end examinations in NIVA. The soft copy of timetables will be sent to the students through SMS and E-mails.

C. Declaration of Eligibility for Registration of Examinations.

As per the academic regulations, exam section will finalize the list of eligible students satisfying the attendance and academic requirements in NIVA. This information will be sent to the students through SMS and E-mails.

D. Registration Process for Examinations.

Based on the eligibility, the student can register for the semester-end examination in NIVA and make the payment of examination fee through online. Once the details submitted in NIVA, this information will be received by the students through SMS and E-mails.

E. Finalization of Nominal Rolls of the Candidates registered for Examinations.

After the last date of examination registration, examination section will finalize the nominal rolls of the students satisfying the attendance and academic requirements in NIVA.

F. Issue of Hall Tickets.

The examination section will be generated hall tickets in NIVA and issued to the students eligible to write Semester-end examinations.

G. Conduction of Semester-end Practical Examinations and awarding of Marks.

As per the notification, the Examination Section will generate the time-tables for semester-end practical examinations in NIVA. This information will be send to the students through SMS and E-mails. Then the concerned departments will conduct practical examinations by creating practical batches, assigning resources and labs in NIVA. The details of Marks secured by the students and absentees/ malpractices will be entered by the concerned examiner in NIVA.

H. Seating Plan generation for Theory Examinations.

The Examination Section will generate seating plan in NIVA based on the finalized Nominal Rolls. The seating plan report generated from NIVA will be displayed to the students to write their semester-end theory examinations.

I. Human Resource Request.

Exam Section will send human resource request to the HOD's as per the requirement for invigilation duties and confidential invigilators duties. This process will be done through NIVA. Based on requirement the HODs will assign exam duties automatically in NIVA as per the request received from Exam section. The same information will send to the Examination section through NIVA. The Invigilator also receives the duty information through E-Mail.

J. Allotment of Examiners for Conducting Theory Examinations.

The Examination Section will auto assign the room numbers to the invigilators in NIVA to execute the invigilation duty. In the report of the invigilation duties, the invigilator will give his/her presence to the duty. The same will be entered in NIVA.

K. Conduction of Theory Examinations.

i. Procedure for Collection of Question Papers.

Chairman, Board of Studies of concern departments submit the approved panels of examiners, model question papers and lesson plans to the principal. The Principal selects the examiners for subjects confidentially and communicates to the Controller of Examinations. The

controller of examinations will make the correspondence to get set the question papers from the paper setters. Sets of Question Papers from the Examiners/ Paper Setters are collected and stored electronically in a bank using NIVA ERP package.

ii. Generation of Question Papers.

The Question Paper generation process will start just one hour before of commence of the examination. Three sets of Question Papers are generated from the bank using 'question paper generation module' of NIVA ERP package. Out of which, the principal will select one set of question paper randomly. To make sufficient number of copies, the question paper will be Photo copied and arranges to distribute to the students with the help of Joint/Additional Controllers of examinations.

iii. Posting of Attendance.

After completion of the examination, the Examination Section will post the attendance of the student's room wise in NIVA.

iv. Posting of Malpractice Cases.

While conducting the examinations, if any student involve in malpractice, the same will be posted in NIVA and complete the documentation process. These cases will be tabled in the 'Malpractice and Redressal Committee' meeting to award punishment as per the academic regulations.

v. Collection of Answer Books.

After completion of the examination, the answer scripts will be collected and kept in the strong room for further process.

vi. Coding of Answer Books.

Concealing the identity of the answer books during the valuation at the spot valuation center is the primary goal of coding. The answers scripts will be encoded with numerical numbers and the identifiable parts (Top part containing students hall ticket number, student signature and invigilator signatures) of the answer books which are encoded are preserved at the examination section and the

rest of the booklets are bundled in the ascending order of the code and send them for evaluation at the spot valuation centre (at a reputed University). Further the coding numbers are electronically stored in NIVA ERP package in order to support the post process and enable consistent mapping of the evaluation details of each student.

IV. Collection of Comments on Question Papers & Scheme of Evaluation.

The Principal will get the comments on the question papers from the concerned faculty, who taught the subjects. These are useful to be presented at the Results Committee meeting. The Principal also appoint expert members of faculty to prepare Scheme of Evaluation. This will be given to the examiners at the spot valuation centers in order to enable them to evaluate the answers correctly.

V. Generation of Answer Books Spot Valuation Report.

After Coding and Bundling of Answer Books, spot valuation centre report will be generated in NIVA ERP package. This statement contains the details of number of answer books sent to the spot valuation and the remuneration to be paid to the examiners involved in the evaluation of answer books.

VI. Sending of Answer Books for External Evaluation.

The Controller of Examinations arrange for transit of the bundles of "Answer Books" to the Universities for carrying out the spot evaluation. The Controller of Examinations will appoint Spot Coordinator of the Universities to organize the spot evaluation at the University centers. Officials at the level of Controller of Examinations in the Universities are usually selected to act as Spot Coordinators.

VII. Collection of Evaluated Answer Books and Scrutiny.

Evaluated "Answer Books" are collected from the Spot Centers by the Controller of Examinations and assigns the duty of scrutinizing the "Answer Books" to the faculty, who will act as Scrutinizer. The Scrutinizers thoroughly scrutinize the "Answer Books" and notifies the anomalies of evaluations in the "Answer Books" and "Award Sheets" and brings the same to the notice of Controller of Examinations. He will be resolved the issues judiciously by initiating appropriate action. The "Award Sheets" that are certified by the

Scrutinizer and the Controller of Examinations are made ready for further process.

VIII. Posting of Semester-end examinations Marks.

The Marks in the certified Award Sheets will be posted in NIVA ERP Package using "External Marks Entry" module. In this module, the marks are entered based on the encoding sequence of Answer Books.

IX. Consolidation of Semester-end examinations Marks.

After entered the external marks for all courses in a given notification, the Examination Section will consolidate the marks with which all the internal, external marks will be mapped for students. This process will be done using the "External Marks Consolidation" module of NIVA ERP package.

X. Tabulation of Marks and Generation of Reports.

Reports consisting of the encoded number, student hall ticket number mappings with marks are generated using the "Marks Reports module" of NIVA ERP package. These reports are further verified, scrutinized by the supporting staff with the "Award Sheets" and ascertained. Other required reports will be generated in NIVA for analysis of performance and for approval of results.

XI. Conduction of Results Committee Meeting.

A. Convening the Meeting.

B. Minutes of Meeting.

A. Convening the Meeting

Results Committee consisting of Principal, Controller of Examinations, Dean Academics, H.O.D's, B.O.S. Chairmen's of concerned Departments and the nominee of the affiliating university will be called for meeting to take the decision on publishing the results. Results Committee pursues the comments on question papers and expert recommendations from the BOS Chairmen's of concerned departments. The Committee adjudicates the results and declares for publishing.

B. Minutes of Meeting

As per the decisions of the Results Committee, minutes will be prepared on Moderation procedures to be implemented for the examinations and signed by the members of the committee.

- XII. Publishing of Results.**
After performing the moderation as per the minutes of meeting mentioned in Point XI, Examination section will apply the moderation and do the process in NIVA ERP package and will publish the results. The students will receive the results information through SMS and E-mail.
- XIII. Issue of Notification for Recounting / Revaluation / Personal Verification / Challenging Evaluation.**
As part of publication of results, the notification for Recounting / Revaluation / Personal Verification / Challenging Evaluation will be issued in NIVA. The students will receive the notification information through SMS and E-mail.
- XIV. Students Registrations for Recounting / Revaluation / Personal Verification / Challenging Evaluation.**
The students can register for the Recounting / Revaluation / Personal Verification / Challenging Evaluation in NIVA and pay the fee online. Once the details submitted in NIVA, this information will be received by the students through SMS and E-mails.
- XV. Generation of Nominal Rolls of Students Registered for Recounting / Revaluation / Personal Verification / Challenging Evaluation.**
After the last date of notification, the Examination Section will finalize the list of students registered for Recounting / Revaluation / Personal Verification / Challenging Evaluation. A report indicating the course wise list of students registered for Recounting / Revaluation / Personal Verification / Challenging Evaluation will be generated in NIVA.
- XVI. Sending of Answer Books for Revaluation and Collection.**
The Controller of Examinations carrying out the "Answer Books" to the Universities for Revaluation. He will get evaluated the Answer Books with the help of Spot Coordinator at the University centers. Evaluated "Answer Books" are collected from the Spot Coordinator.
- XVII. Posting of Recounting / Revaluation / Personal Verification/ Challenging Evaluation Marks.**
For scrutiny, the revaluated "Answer Books" are issued to the examiners appointed by the Controller of Examinations. The Scrutinizers thoroughly scrutinize the "Answer Books" and notifies the anomalies of evaluations in the "Answer Books" and "Award

Sheets” and brings the same to the notice of Controller of Examinations. He will be resolved the issues judiciously by initiating appropriate action. The Marks in the certified Award Sheets will be posted in NIVA ERP Package using “Revaluation Marks Entry” module. In this module, the marks are entered based on the encoding sequence of Answer Books.

XVIII. Tabulation of Marks and Generation of Reports for Revaluation Candidates.

Reports consisting of marks before Revaluation and after Revaluation are generated using the “Revaluation Marks Reports module” of NIVA ERP package. These reports are further verified, scrutinized by the supporting staff with the “Award Sheets” and ascertained. Other required reports will be generated in NIVA for analysis of performance and for approval of results.

XIX. Publishing of Revaluation Results.

With the approval of Principal, Examination Section will process the Recounting / Revaluation / Personal Verification results as per the regulations and publish in NIVA ERP package. The students will receive the Recounting / Revaluation / Personal Verification results information through SMS and E-mail.

XX. Preparation of Tabulated Sheets (T-Sheets).

After Revaluation results, the Examination Section will generate the Tabulated Sheets (T-Sheets) of the students from the NIVA for record maintenance. These Tabulated Sheets (T-Sheets) contain the information of student’s performance in the examinations.

XXI. Generation of Grade Sheets.

The Examination Section will generate the semester-end Grade Sheets of the students from the NIVA to get print on the security paper. These Grade Sheets contain the information of student’s performance in the examinations.

XXII. Issue of Grade Sheets to the students.

Grade Sheets generated from NIVA will be printed on Preprinted Stationery (security paper). After attestation by the Principal and Controller of Examinations, the Grade Sheets are issued to the candidates.

XXIII. Notification for Issue of PC/CGS Certificates.

Exam Section will issue a notification to apply for Provisional Pass Certificate (PC) and Consolidated Grade Sheet (CGS) certificates. The students can apply for PC/CGS in NIVA and will pay the fee through online. Once the details submitted in NIVA, this information will be received by the students through SMS and E-mails.

XXIV. Generation of Provisional Pass Certificates.

After the last date of notification, the Examination Section will finalize the list of students registered for PC. The PC's of eligible students will be generated using "Provisional Certificate Generation" module in NIVA.

XXV. Generation of Consolidated Grade Sheets.

After the last date of notification, the Examination Section will finalize the list of students registered for CGS. The CGS's of eligible students will be generated using "Consolidated Grade Sheets Generation" module in NIVA.

XXVI. Conduction of Graduation Day.

A. Issue of Provisional Pass Certificates.

On Graduation day, the college will issue the Provisional Pass Certificates (PC's) to the eligible students.

B. Issue of Consolidated Grade Sheets.

On Graduation day, the college will issue the Consolidated Grade Sheets (CGS's) to the eligible students.

XXVII. Sending of list of Graduates to the Affiliating University for award of original degree.

The Examination section will generate the list of Graduates eligible to award Original Degree by the affiliating university from NIVA and send the list to the JNTUA, Ananthapuramu duly approved by the Principal.

The efforts taken through the new steps have improved the efficiency, reliability, transparency and accuracy in the examination system of this College. The uniformity in the assessment has improved to a considerable extent. The number of cases of malpractices has been reduced. The cases of errors have also been considerably reduced.

Research Centers

| Name of the Department | Name of the research centre | Name of the recognizing body |
|---|---|--|
| Institution | National MEMS Design Centre (NMDC) | National Program on Micro and Smart Systems (NPMASS) |
| Mechanical Engineering | Advanced CNC Lab (Industry grade) | Siemens India. |
| Mechanical Engineering | Advanced CAD Lab (CBT) | Siemens India. |
| Electrical and Electronics Engineering | Electrical Lab (Industry grade) | Siemens India. |
| Mechanical Engineering | Advanced welding Lab (Industry grade) | Siemens India. |
| Civil Engineering | Agro Lab | Siemens India. |
| Mechanical Engineering | Refrigeration & Air conditioning Lab (Industry grade) | Siemens India. |
| Institution | Atmospheric Research Lab | DST & Governing Body, SVET |
| Mechanical Engineering | Micro Machining Research Lab | Governing Body, SVET |
| Electronics and Communication Engineering | ECE Research Centre | JNTU Ananthapur, Ananthapuramu. |
| Electrical and Electronics Engineering | EEE Research Centre | JNTU Ananthapur, Ananthapuramu. |
| Computer Science and Engineering | CSE Research Centre | JNTU Ananthapur, Ananthapuramu. |
| Electronics and Communication Engineering | Nano Electronics Lab | Governing Body, SVET |
| Electronics and Communication Engineering | Antenna Research Lab | Governing Body, SVET |
| Computer Science and Systems Engineering | Cyber Security and Cryptology | Governing Body, SVET |
| Information Technology | Data Analytics Research Lab | Governing Body, SVET |
| Electronics and Instrumentation Engineering | Bio-Instrumentation Research Laboratory | Governing Body, SVET |
| Civil Engineering | Water and Environment Research Centre | Governing Body, SVET |
| Civil Engineering | Geotechnical Engineering Research Laboratory | Governing Body, SVET |

National MEMS Design Centre

MEMS Design Centre at our college was inaugurated on 30th March 2012 by Dr. V. Ramgopal Rao, IIT Bombay and Dr. S. Mohan, IISc Bangalore for the benefit of users from this region. Later the centre has been renamed as a national MEMS design Centre equipping with site licenses of software's programs such as COVENTOR MEMS+, Intellisuite and COMSOL (as a Class kit of 30 licenses) under National Program on Micro and Smart Systems (NPMASS). Also have collaboration with IITB, Mumbai and IISc, Bangalore. Centre motivates the research activity in the field of MEMS by proper utilization of the facilities provided by NPMASS from design to fabrication of prototype MEMS products and specific field applications.

SVEC will also facilitate external researchers from other interested institutes (academic or National labs subject to individual software licensing conditions) to use the design tools. In this centre all the departments share the simulation facility supported by NPMASS and fabrication will be done in IITB or IISc Bangalore. The departments are required to promote the area of MEMS through independent department course at UG/PG levels to involve students and faculties in developing MEMS related projects and research activities. In the absence of required in-house comprehensive facilities for complete fabrication of MEMS, the short term strategy is to focus on design modeling and characterization.

Many of the faculty members were chosen the specialized topics on their discipline and their work is under progress. In the Institution we were organized training programs on MEMS Design using COMSOL Multiphysics and MEMS Design using CoventorWare. Many faculties attended various programs like

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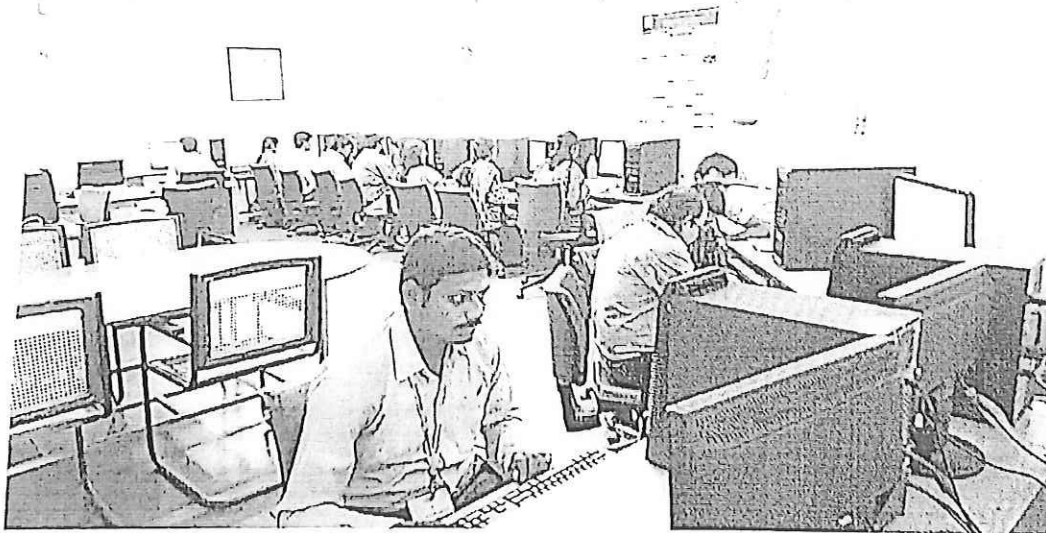
✉ svecp@vidyanikethan.edu

conferences/workshops/training programs in India. The output generated by the centre is in the form of Prototypes, two research projects were completed and two were under progression.

Objectives:

- To promote interdisciplinary research and to provide excellent opportunity for the faculty and students to endeavor innovation in MEMS.
- Further, to serve as a nodal centre of this region by extending facilities of National MEMS Design Centre to other Institutions.

**NATIONAL MEMS DESIGN CENTRE
(UNDER NPMASS)**



📍 Sree Sainath Nagar, Tirupati,
Andhra Pradesh - 517 102

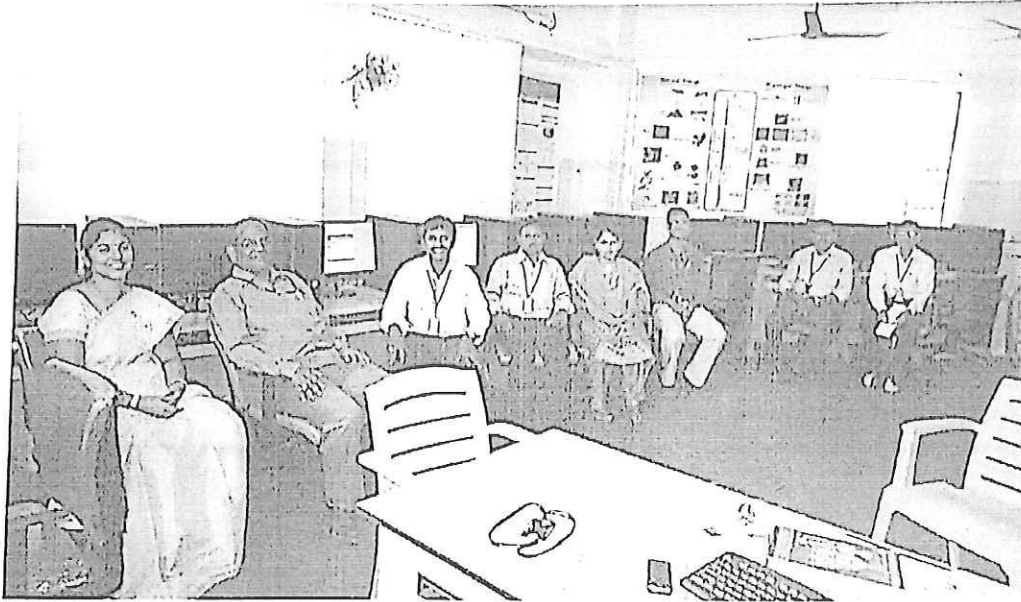
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Scanned by CamScanner



Lab In-charge

(Dr.V.R.Anitha)

HOD, ECE

Principal

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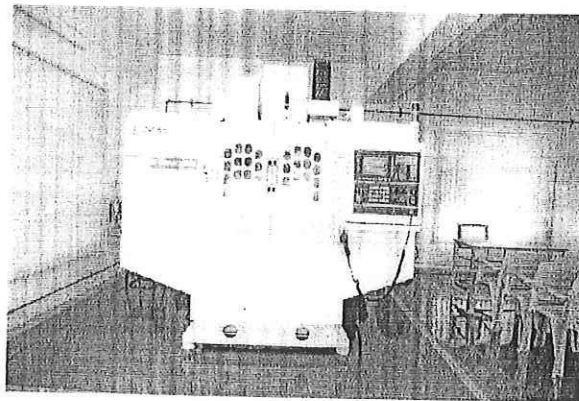
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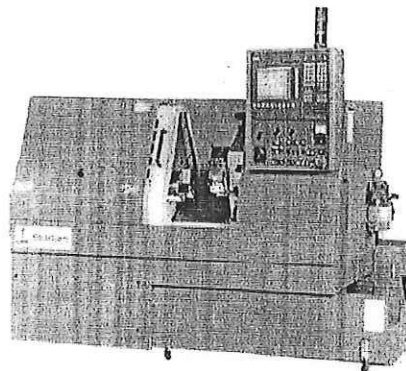
COMPUTER NUMERICAL CONTROL LAB

Description

The Computer Numerical Control (CNC) Laboratory is designed to facilitate the basic research support for faculty and students by providing fundamental knowledge and experience in CNC programming, understanding different machining processes and to implement the same in the areas of their research, career building and job. This lab consists of LMW VJ 55 Vertical Machining Centre (VMC), SMARTURN, MasterCAM software and Siemens Simulation controllers for programming.



LMW VJ 55 VERTICAL MACHINING CENTRE (VMC)



SMARTURN CNC LATHE

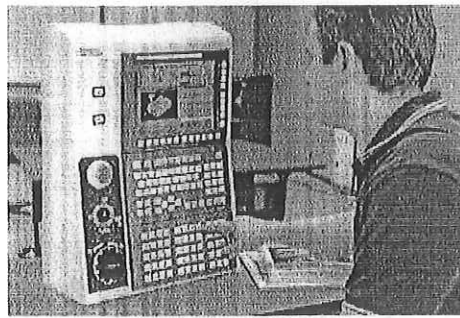
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SIEMENS SIMULATION CONTROLLERS

Objectives

The CNC laboratory aims to enhance the student's knowledge in development of practical knowledge on CNC machines and the lab caters the skills necessary for the development of a mechanical engineer pursuing further studies, research studies and a career in manufacturing area.

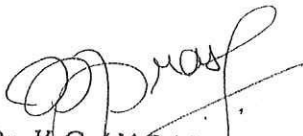
The following are the main objectives of CNC Lab:


- To provide basic research facility for programming by understanding the fundamentals of part programming in terms of the various steps needed to be taken for completing a successful CNC program.
- To introduce the basic advanced capabilities of CNC to increase productivity
- To use effectively CAD/CAM systems in order to produce the final NC code for the manufacturing of various mechanical parts and carry out exchange of data between CAD and CAM systems.

R&D Facilities:

1. Computer-aided manufacturing (CAM) (Manufacturing) softwares
2. CNC Milling Machine
3. CNC Lathe Machine
4. Sinumeric CNC Simulators (4 Nos.)
5. MasterCAM Software
6. Robotics Simulation Softwares

Lab Coordinator: **Mr.G.V.V.S.Reddy Prasad**


Dr. K.C. VARAPRASAD
Professor & Head
Dept. of Mechanical Engineering
Sree Vidyanikethan Engineering College
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ADVANCED COMPUTER AIDED DESIGN LAB

Description

Advanced Computer Aided Design Lab is designed to focus basic research facilities to analyze and comprehend diverse designs in nature that are time-tested and robust, and to implement assimilated concepts for optimal form design in engineering problems. The lab provides a facility to the faculty and students where the theory and tools of Computer Aided Design (CAD) for the product development cycle can be utilized during their research. The users are encouraged to learn, practice and apply the knowledge gained into their research areas.



Inside view of the advanced CAD Lab

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Objectives

Advanced Computer Aided Design lab provides a convenient mean to create designs for almost every engineering discipline. It can be used for mechanical, industrial design, and product design.

The following are the main objectives of CAD Lab:

- To provide basic research facility for design through quality graphics for the researchers
- To introduce the basic advanced capabilities of CADD to increase productivity
- Improve visualization ability of machine components and assemblies before their actual fabrication through modeling, animation, shading, rendering, lighting and coloring
- To provide the relevant software's to model complex shapes including freeform curves and surfaces.

Above all, the advanced CAD lab provides digitally integrated environment where the researchers can design, analyze, simulate and build components. The Laboratory has the following research areas:

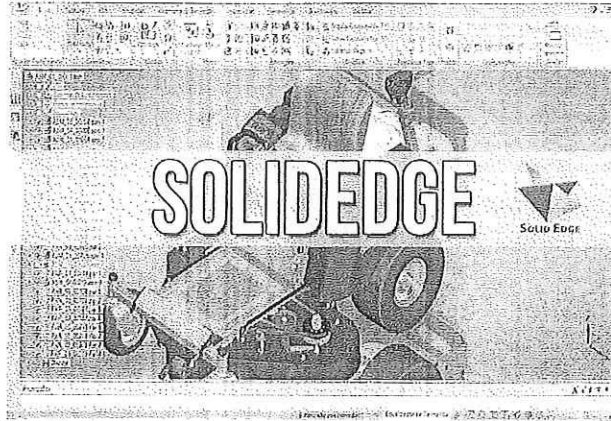
- Engineering graphics & Design
- Geometric Modeling
- Finite Element Analysis
- Product Development
- Rapid Prototyping

Software's Available

- Solid edge
- NX CAD
- Solidworks
- Creo 2.0
- AutoCAD 2016
- Siemens PLM Software
- 3D Printer

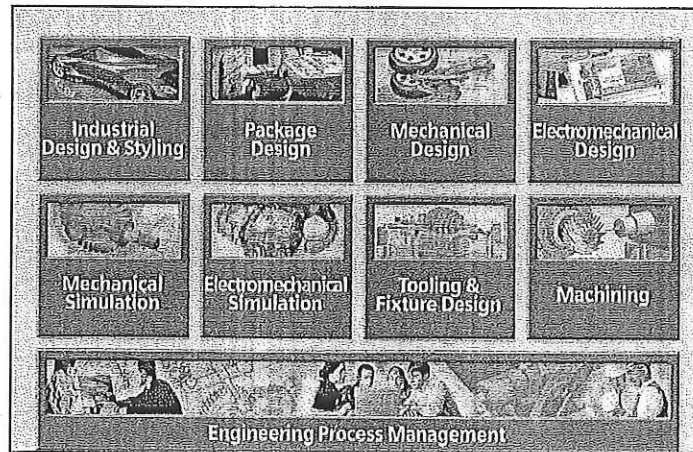
About Solidedge

Solid Edge is a 3D CAD, parametric feature (history based) and synchronous technology solid modeling software. It runs on Microsoft Windows and provides solid modeling, assembly modelling and 2D orthographic view functionality for mechanical designers. Through third party applications it has links to many other Product Lifecycle Management (PLM) technologies.



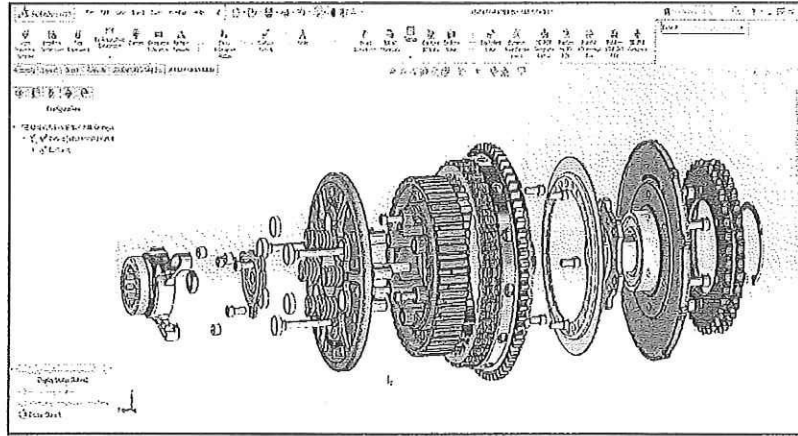
About NX CAD

Siemens NX software is an integrated product design, engineering and manufacturing solution that helps you deliver better products faster and more efficiently. NX for Design is an integrated product design solution that streamlines and accelerates the product development process for engineers who need to deliver innovative products in a collaborative environment.



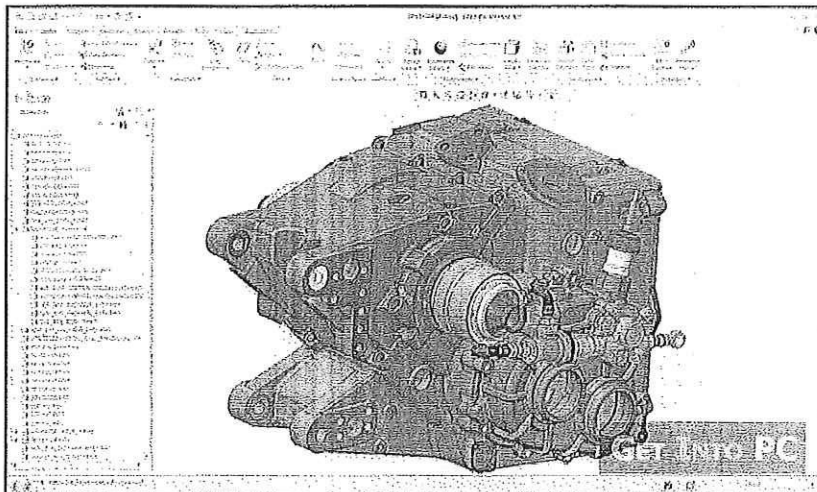
About Solid Works

SolidWorks is a solid modeling computer-aided design (CAD) and computer-aided engineering (CAE) computer program that runs on Microsoft Windows. SolidWorks is published by Dassault Systèmes.



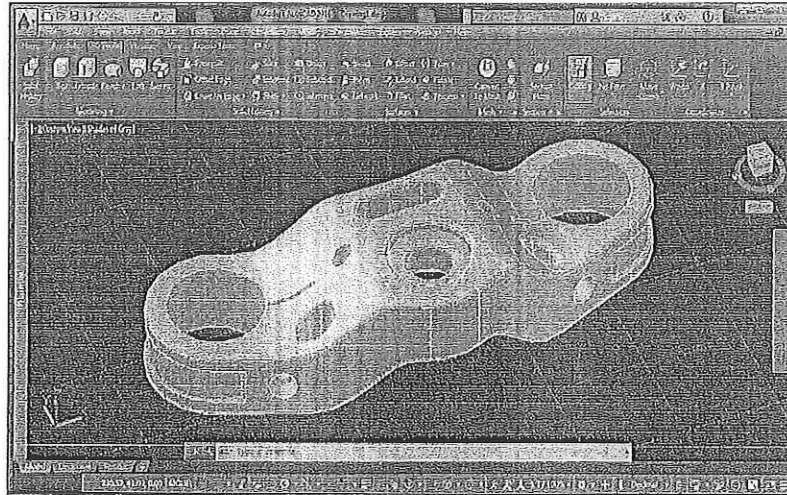
About Creo 2.0

Creo is a family or suite of Computer-aided design (CAD) apps supporting product design for discrete manufacturers and is developed by PTC. The suite consists of apps, each delivering a distinct set of capabilities for a user role within product development. Creo runs on Microsoft Windows and provides apps for 3D CAD parametric feature solid modeling, 3D direct modeling, 2D orthographic views, Finite Element Analysis and simulation, schematic design, technical illustrations, and viewing and visualization.



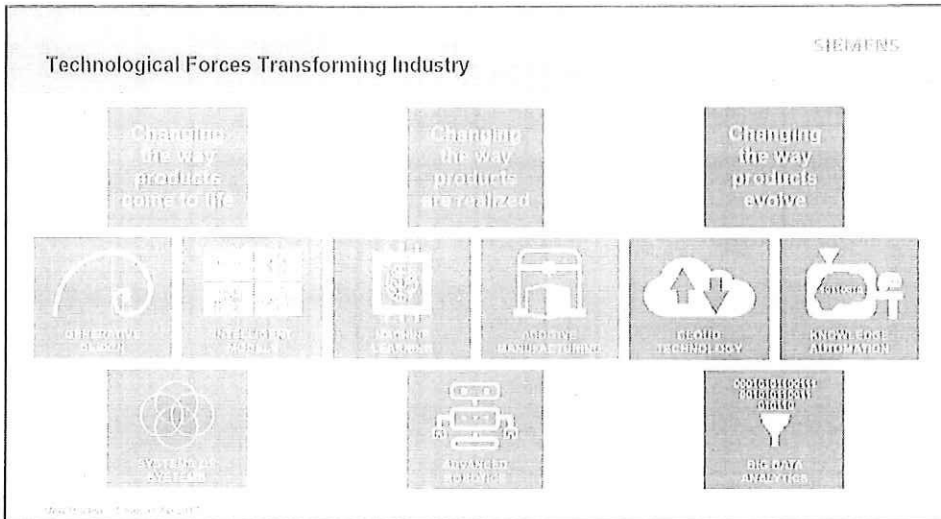
About AutoCAD 2016

AutoCAD is a commercial computer-aided design (CAD) and drafting software application. Developed and marketed by Autodesk, AutoCAD was first released in December 1982 as a desktop app running on microcomputers with internal graphics controllers. Before AutoCAD was introduced, most commercial CAD programs ran on mainframe computers or minicomputers, with each CAD operator (user) working at a separate graphics terminal.



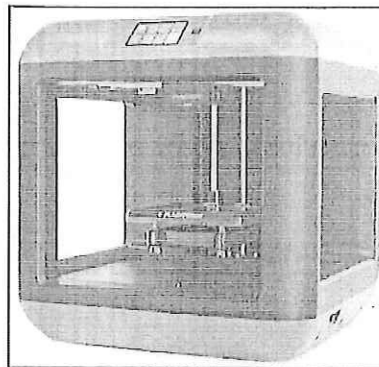
About Siemens PLM Software

Siemens PLM Software (formerly UGS) is a computer software company specializing in 3D & 2D Product Lifecycle Management (PLM) software. The company is a business unit of Siemens, and is headquartered in Plano, Texas. Siemens PLM Software is a world-leading provider of product lifecycle management and manufacturing operations management software. It helps to users to realize innovation by optimizing their processes, from planning and development through manufacturing, production and support. Siemens PLM Software, a business unit of the Siemens Digital Factory Division, works collaboratively with companies to deliver open solutions that help them realize innovation. Siemens PLM Software's products include NX, a CAD/CAM/CAE commercial software suite, Teamcenter, an integrated set of PLM and collaboration (cPD) tools, Tecnomatix, a manufacturing and factory planning suite and Velocity Series, an application bundle focused at the mid-market that includes Solid Edge.



About 3D Printer

3D printing is any of various processes in which material is joined or solidified under computer control to create a three-dimensional object, with material being added together (such as liquid molecules or powder grains being fused together). 3D printing is used in both rapid prototyping and additive manufacturing (AM). Objects can be of almost any shape or geometry and typically are produced using digital model data from a 3D model or another electronic data source such as an Additive Manufacturing File (AMF) file (usually in sequential layers). There are many different technologies, like stereolithography (SLA) or fused deposit modeling (FDM).



3-D Printer

Lab Coordinator: Mr.A.Venkatesh

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ELECTRICAL LAB

Objective:

The main objective of this lab is to provide research facilities with basic and advanced electrical control simulating devices.

Research Areas:

Electrical lab is designed to conduct various experiments related to Electrical technology with various tools of electrical in a safe manner as per the Indian electricity rules.

The following advanced research areas are focused in this lab:

- Read blueprints, designing basic and completed circuits.
- Selection and Installation procedures of wiring as per the drawing
- Study and application of suitable protective devices for circuit protection
- Safety precautions for avoiding accidents
- Conduct various research oriented simulating works

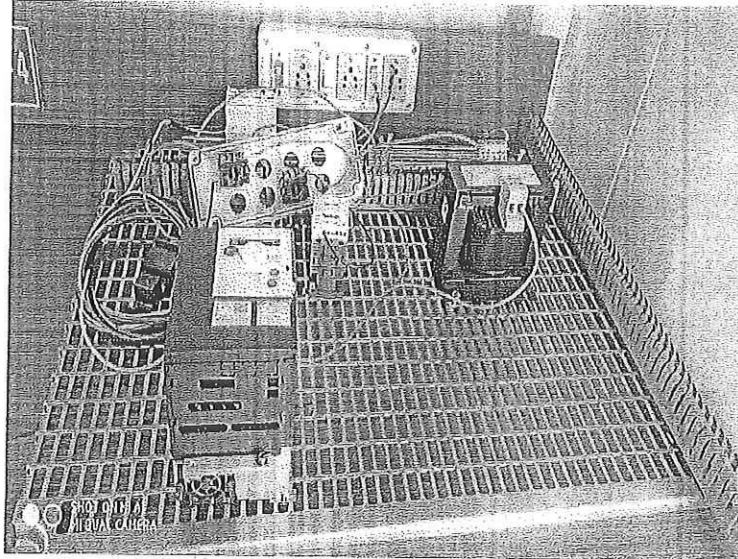
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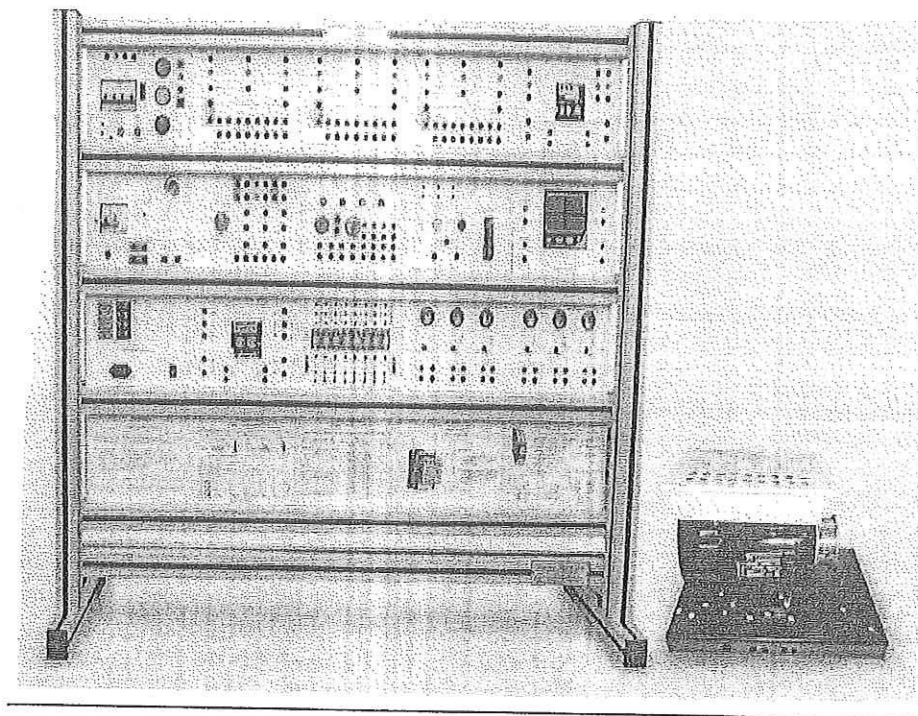
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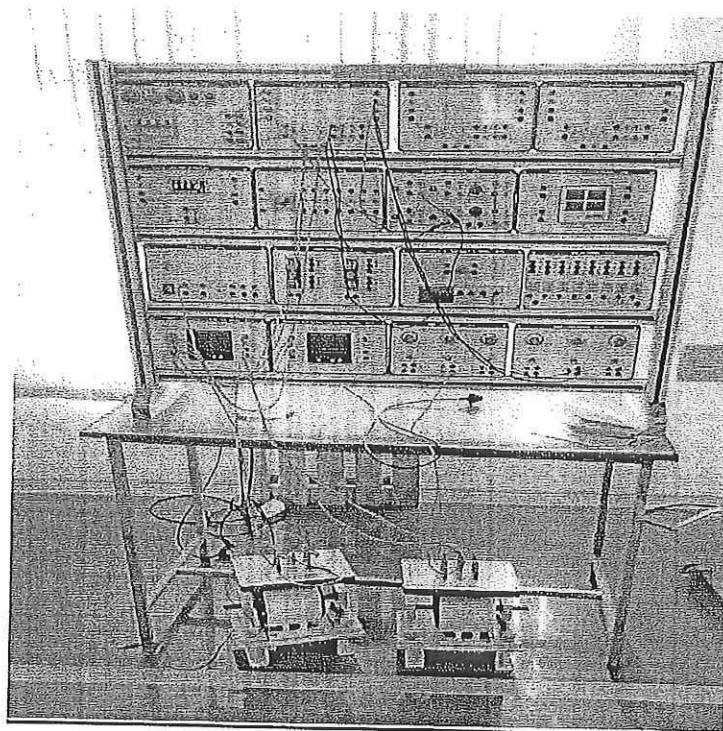
Read blueprints, designing basic and completed circuits



Study and application of suitable protective devices for circuit protection



Installation Trainer Kit




Trainer Kit with Motor-Generator Set Connections


Outcomes:

After completing this course, a student will be able to:

- Read blueprints or technical diagrams of electrical wiring.
- Select right and suitable components, devices for controlling and protecting the electrical items and peripherals
- Install and maintain electrical wiring circuits in a safe manner
- Inspect and make clearance for giving main supply by avoiding loose contacts in controllers, fuse and circuit breakers.
- Replace wiring, equipment and protective devices using hand tools and power tools.
- Learn and follow the Indian Electricity Rules during providing connection and in installation.

Lab Incharge : Mr.K.Kamal Kumar


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ADVANCED WELDING LAB

Objectives:

The activities in Advanced Welding lab are focused on developing cutting edge technologies in welding & allied areas through systematic welding techniques, providing welding technology solutions to all the students and researchers. The main objective of this lab is to provide advanced welding techniques and methods including safety precautions necessary while welding.

- Describe and demonstrate proper welding shop safety.
- Read and interpret symbols and plans utilized in the Welding industry.
- Demonstrate competency in shielded metal arc welding.
- Demonstrate competency in metal inert gas welding
- Demonstrate competency in flux cored arc welding
- Describe how the effects of heat, metal thickness and metal length influence welding/cutting techniques.
- Describe how the effects of heat, metal thickness and metal length influence cutting techniques.

Facilities

1. Auto K-400,
2. Easyweld 400-T,
3. RS 400,
4. Migmatic 250,
5. Transweld,
6. Gas welding,
7. Gas Cutting equipment,
8. Safety equipment and tools.

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Research Areas

The following advanced research areas are focused in this lab:

- Design and fabrication of semi-automatic fixture to weld pipes using MIG/TIG.
- Experimental study on microstructure and mechanical properties of AA6061/Ti-6Al-4V joints made by bypass-current MIG welding-brazing.
- Evaluation of MIG welding process parameter using Activated Flux on SS316L by using Taguchi method.
- Influence of low current auxiliary TIG arc on high speed TIG-MIG hybrid welding.
- A comparative study on the microstructure and properties of copper joint between MIG welding and laser-MIG hybrid welding.
- An investigation on butt joints of Ti6Al4V and 5A06 using MIG/TIG double-side arc welding-brazing.



Shielded Metal Arc Welding:

SMAW is one of the oldest, simplest and most versatile joining processes. The electric arc is generated by touching the tip of a coated electrode against the work piece. The electrodes are in the shape of a thin long stick (stick welding). The heat generated, melts a portion of the tip of the electrode, its coating, and the base metal in the immediate area of the arc. A weld will be formed the molten metal (a mixture of the work piece and the electrode metal) and substances from the coating of the electrode, solidifies in the weld area. The electrode coating deoxidizes and provides a shielding gas in the weld area to protect it from oxygen and nitrogen in the environment. Electrodes are available for welding most carbon, low alloy and stainless steels, some non-ferrous metals, and a wide range of maintenance and repair applications.

Gas Metal Arc Welding:

GMAW was developed in the late 1940's and is also called MIG/MAG Welding. Since then it unfolded into becoming a major element in industry today. It is suitable for welding a variety of ferrous and nonferrous metals. The arc continuously melts the wire as it is fed in the weld puddle. The weld area is shielded by a flow of gas such as argon, helium, carbon dioxide, or gas mixtures. The consumable bare wire is fed automatically through a nozzle into the weld area. Metal can be transferred into the weld-bead in three ways: Spray, Globular and Short circuiting. Each way has its own advantages and disadvantages. The process is rapid, versatile, economical and can easily be automated (continuous welding without electrode changing).

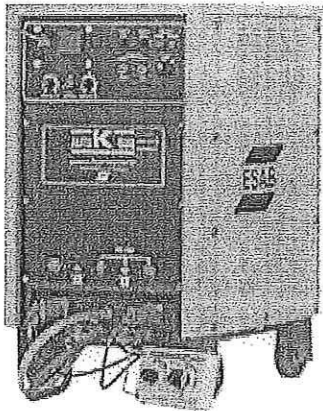
Gas Tungsten Arc Welding:

GTAW also known as TIG welding (Tungsten Inert Gas). The filler metal is supplied from a filler wire and is similar to the metals to be welded. The tungsten electrode is not consumed in this operation and the shielding gas is usually argon or helium or a mixture of it. Welding with GTAW can also be done without filler metals, as in welding close-fit joints. GTAW is used for a wide variety of metals and applications, particular aluminum, copper, brass, magnesium, titanium and high alloy metals. It is especially suited for thin metals. In general AC power supply is preferred for aluminum and magnesium because the cleaning action of AC removes oxides and improves weld quality. DC power supply is also possible. The cost of the inert gas

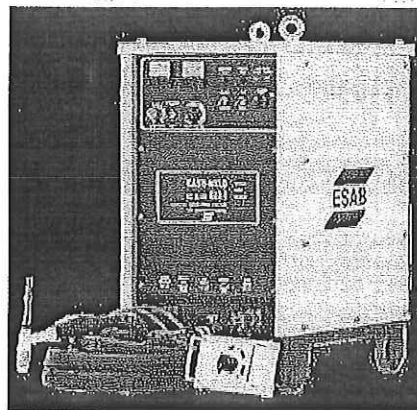
makes this process more expensive than SMAW, but it provides welds with very high quality and surface finish.

Gas Welding:

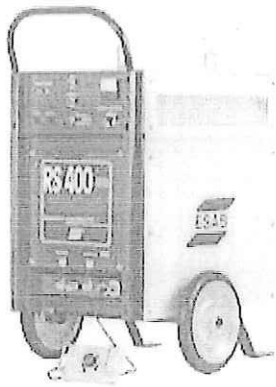
Oxy-Acetylene welding is developed in the 1900s and is the most common gas welding process. It uses acetylene fuel. The proportions of oxygen and acetylene are an important factor. At a ratio of 1:1, the burning gases get a neutral flame. If the supply of oxygen is lower it becomes a reducing flame. With a greater oxygen supply it becomes an oxidizing flame. Filler metals are used to bring additional material to the weld zone during welding. They are available as rods or wire, coated and uncoated, and are made of metals compatible with those to be welded. Oxyacetylene welding can be used with most ferrous and nonferrous metals for any thickness of workpieces, but the relatively low heat input limits the process economically to less than 6 mm. A variety of joints can be produced by this method. It is portable, versatile and economic for low quantity and simple work.



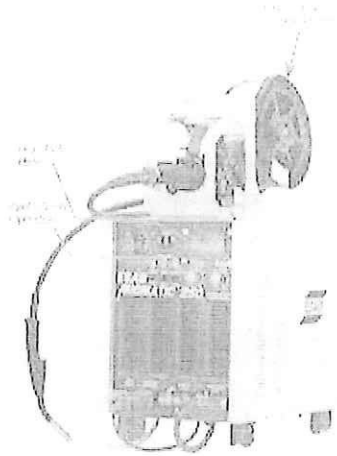
Auto K-400



Easyweld 400-T



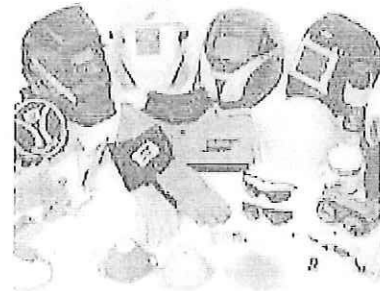
RS400



Migmatic 250



Gas Cutting equipment



Safety equipment and tools

Safety and Precautions:

As in any welding process, Gas Metal Arc Welding (GMAW) safety precautions are very important. All information relating to the safe operation of the welding equipment and the welding process must be fully understood before attempting to begin work. A careless welder who does not observe some simple rules can cause a dangerous situation for everyone in the area. The process of arc welding creates several hazards which must be guarded against. Useful safety information can be found in the Owner's Manual that comes with each item of welding equipment.

Lab Incharge : Dr. S. Ragu Nathan

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AGRO LAB



DESCRIPTION

Agro-Machinery lab is established in Sree Vidyanikethan Engineering College to provide a basic knowledge on soil and water testing equipment, irrigation equipment, seed drills, tillage equipment's, solar water pumping system, air-cooling system, IC engines parts and cultivators. Agro-Machinery lab is equipped with the machinery for soil preparations, seed plantation, inter-cultural operations, plant protection, harvesting and threshing. The laboratory is having tractor operated, power tiller operated, self-propelled, stationary engine operated, and manually operated equipment. The cut-sections of different machinery, drip and sprinkler system are the beauty of laboratory that helps to explain the students of the different modules. Consultancy services can be taken up with instruments to test water and soil properties.

| | | |
|---------------------------|---|--|
| Name of the Research Lab | : | Agro-Machinery lab |
| Name of the Coordinator | : | Dr.M.V.Subba Reddy |
| Aim of the Research Lab | : | To provide a basic knowledge about irrigation equipment, seed drills, tillage equipment's, solar water pumping system, air-cooling system, IC engines parts and cultivators. |
| Objectives of the Cluster | : | <ul style="list-style-type: none">• Learn about the basic sub-systems of a tractor and its functioning.• Perform basic servicing of tractor like brake pedal play adjustment,• Wheel replacement and fuel filter replacement• Perform basic inspection and maintenance of a tractor and troubleshooting of irrigation equipment• Learn about structure of irrigation system and functions of and their components• Learn maintenance and adjustment of components like dripper, seed drill sand filter etc.• Conduct experiments to test Water and Soil Testing• Study Drip and sprinkler Irrigation system |

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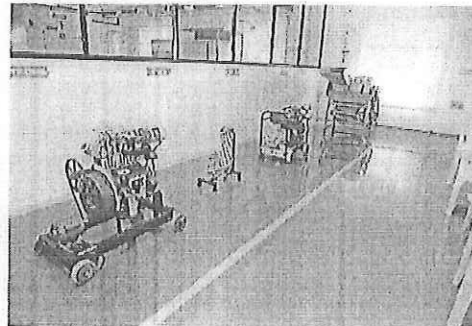
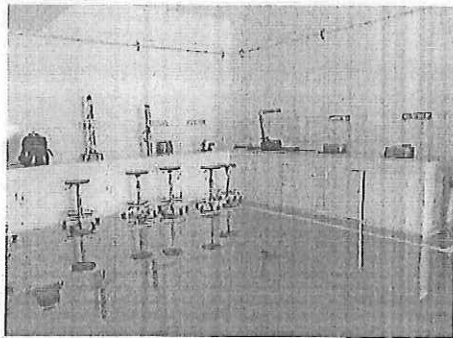
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Facilities Available in the Centre :

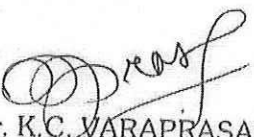
1. Tractor
2. Drip Irrigation system
3. Sprinkler Irrigation system
4. Cultivator
5. Disc-Cultivator
6. Seed Drill Threshing Equipment's
7. Multi crop thresher
8. Chara-cutter
9. Solar panel pumps
10. Submersible pumps
11. Centrifugal pumps
12. Generator
13. Water Testing Kit
14. Soil Testing Kit
15. Air Compressor
16. Tractor Engine cut-section

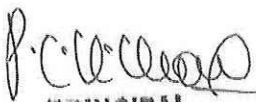
Action Plan of the Centre :

1. Reducing water footprint in agricultural sector
2. Agricultural soil testing consultancy in and around SVEC
3. Agricultural water testing consultancy in and around SVEC
4. Organize a outreach/extension activity to create awareness on agronomic strategy to overcome the challenges of climate change



Equipments in the research laboratory


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REFRIGERATION & AIR CONDITIONING LAB

Objective:

Provision of facilities and equipments to the researches working in the field of various refrigerating and air conditioning systems for comfort and industrial applications.

Facilities:

- Scroll Chiller (Air-cooled) 10 TR
- VRF IV Plus system 8 HP
- Ducted split unit 5.5 TR - Indoor, Outdoor
- Cassette unit 1.5 TR – (Indoor, Outdoor)
- High wall split (2 star) 1 tr – (Indoor, outdoor)
- Window unit (2 star) 1 tr – (Indoor, outdoor)
- Deep Freezer Hard Top 100 Litres
- Bottle Cooler Hard Top 300 Litres
- Water cooler 20/20 Litres
- Bottle Water Dispenser
- Cold room 6000 BTU/ Hr - Assembled Unit

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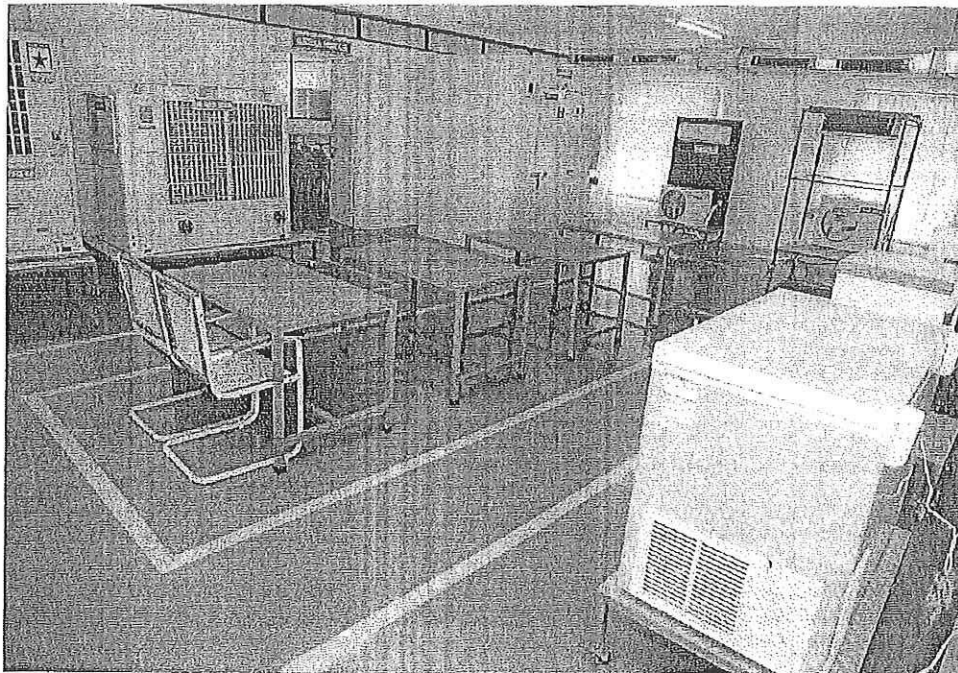
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Research Areas:

The following advanced research areas are focused in this lab:

- Alternate Refrigerants including Hydro carbon mixtures and olefins as refrigerant mixtures
- Improvement of efficiency of Refrigeration and Air conditioning Systems with sub-cooling and superheating technology
- Designing of new refrigeration & air conditioning systems which increase the cop of the system.



Outlook of Commercial Lab

Outcomes:

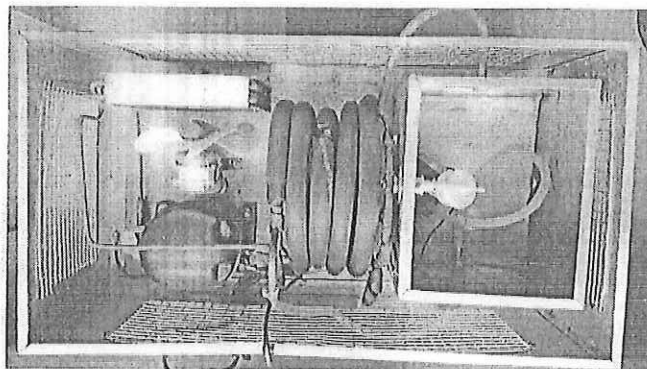
After completing this course, a student will be able to:

- Familiarize the components of refrigeration systems.
- Understand the principles of refrigeration and air conditioning.
- to understand vapour compression and vapour absorption system operation.
- Analyze the refrigeration cycles & methods for improving performance.

- Design refrigeration & air conditioning systems using cooling load Calculations.
- know the application of refrigeration and air conditioning.
- Energy Conservation and Management.

Project Work Carried Out

A chiller unit was fabricated in which the evaporator used was a helical coiled tube in tube heat exchanger. The design of the helical coiled tube in tube evaporator was also carried out. The experimental refrigeration unit that was fabricated was filled with the R134a working fluid and experiments were conducted to test the performance of the refrigeration system. The first conclusion inferred from the work was that the coefficient of performance of the system increased by suitably designing the evaporator. Analyzing the obtained value of COP, it was concluded that the design of the heat exchanger plays a major role in increasing the performance of the chiller unit. The temperature of the water is decreased with less time to get the desired cooling effect from the refrigeration system.



Fabricated water chiller unit

Coordinator: Dr.R.Satya Mehar

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ATMOSPHERIC RESEARCH LAB (ARL)

Atmospheric Research Lab (ARL) is the developing capability to predict the behavior of the atmosphere through Lidar and Radar observations and involved in carrying out fundamental and applied research in Atmospheric Sciences.

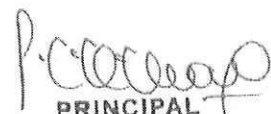
In ARL, the main objective is to study atmospheric gravity waves and their spectral characteristics in troposphere, stratosphere and mesosphere using a high power and highly sensitive coherent pulsed Doppler VHF radar and Lidar facilities located at Gadanki, a northern hemisphere and lidar at Reunion islands, France, a southern hemisphere site and also to study the wave coupling processes in the MLT region over a tropical station, Gadanki/Tirupati, which is located in the Northern hemisphere. No study exists to the best of our knowledge dealing the wave coupling between lower and MLT region during cyclone activity. Since our location is close to the Bay of Bengal (BoB), many episodes exist where the effect of tropical cyclones originated over BoB have signatures of GWs in the observations made over Gadanki using MST radar and Rayleigh lidar. Since Meteor radar is added to fill the gap region of 70-110 km, the proposed study is timely and will contribute to the better understanding both vertical and latitudinal coupling particularly during disturbed conditions.

Objectives:

- Study the gravity wave characteristics in terms of time (frequency) and height (wave number), associated Potential Energy and their seasonal dependences based on large data set (14 years) using lidars located at Gadanki and Reunion Islands, Reunion.
- Study to estimate gravity wave vertical wave number spectra and to compare them with model spectra using Indian MST radar observations of zonal, meridional and vertical winds.
- Climatological characteristics of the middle atmospheric temperature structure and its relation to different aspects, like, stratopause, tropopause, temperature warming and cooling.
- To investigate the tropical cyclone generated GWs and their role in altering the MLT dynamics and mean circulation.
- Identifying the exact source for the generation of various GWs that are propagated to the MLT region using Ray tracing technique (vertical coupling).

OUTCOMES

- Long term variability of gravity wave activity are also needed in order to have a better idea about the gravity wave variability in the low latitudes which may improve the perceptive of climatic models and atmospheric dynamics in the middle atmosphere.
- Simulation and Modeling of atmospheric gravity waves generated due to synoptic scale and mesoscale convective events and their propagation characteristics both in horizontal as well as in the vertical direction will be very much beneficial for the improvement of convective gravity wave parameterization scheme.
- Convective gravity wave parameterization scheme is improved we will have improved forecast predictions of severe weather events such as thunderstorms, flash floods, cyclones thereby protecting the society from the convective weather disasters


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MICROMACHINING RESEARCH LAB

There has been a rapid growth in the development of harder and difficult-to-machine metals, composites and alloys during the last two decades. Conventional edged tool machining to micro level is uneconomical for such materials and degree of accuracy, surface finish attainable is poor. The micro scale manufacturing poses unique challenges with respect to machine tool design, development and the process dynamics. Micro systems find wide applications in bio-medical electronics, optics, micro-mechanics, micro fluidics, dies, moulds etc. Component parts used in these systems have feature dimensions in micrometers and part volumes less than 1mm^3 . Manufacture of these miniature components with high accuracy is a challenge. Further, Micromachining is defined as:

- Material removal at Micro/Nano level with no constraint on the size of the component being machined.
- Creating micro features or surface characteristics (especially surface finish) in the Micro/Nano level.
- Removal of material in the form of chips or debris having the size in the range of microns.

OBJECTIVES

The main objective of Micromachining research lab in the Department of Mechanical Engineering at Sree Vidyanikethan is to perform a feasible study of modeling material removal processes (machining) at micro level on Electro Discharge Machining, Wirecut EDM machines, CNC Milling and turning with special attachments and to explore diverse areas of Micro/Nano technology with the aim of identifying potential applications of interest. The principal objective of this Micromachining research lab is to:

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- Perform a feasibility study of modeling material removal processes (machining) at the micro level and to explore diverse areas of Micro technology with the aim of identifying potential applications of interest.
- Machine alloys, composites at micron level surface finish on EDM (Electric Discharge Machining) for manufacturing micro components.
- Connect industry with academic world for collaboration with faculty and students.
- Provide solutions and technology transfer to support manufacturing industries.
- Explore the potential of manufacturing engineering in MEMS and NON-MEMS applications.
- To design and implement a complete solution for an inline topography measurement and analysis for monitoring before, during and after the micro machining.
- To identify the gap and perform a feasibility study of modelling and simulation of micro-machining for various applications.

DESCRIPTION OF THE LAB

The Micromachining research lab in the Department of Mechanical Engineering at Sree Vidyanikethan Engineering College, Tirupati draws upon expertise from academic faculty and interdisciplinary collaborative research and development group. With wide range of state-of-art high technology equipment and supported by specialist technicians/faculty of the department provides a unique opportunity to carry out activities from concept generation, simulation, micromachining extended to industrial applications and students/faculty research. The micromachining research laboratory facilities are continuously being enhanced to cater the ever expanding academic and research needs. The research lab is equipped with the latest technology incorporated micro machines, attachments and accessories to support production activities. The major equipment includes:

1. Electro Discharge Machine(EDM)
2. Wirecut EDM,
3. Micromachining attachment for micro milling
4. Micromachining attachment for micro turning
5. Trinocular Microscopes
6. Material Plus software
7. ANSYS Software
8. Rockwell Hardness Tester

9. Muffle Furnace
10. Mitutoyo surface roughness tester
11. Specimen development tools

EXPECTED OUTCOMES

1. Researcher will be able to develop knowledge driven micromachining and create high value products, materials, methods and processes.
2. Researcher will be able to machine to a micron level in developing MEMS and Non-MEMS devices.
3. Researchers will be able to develop and design special attachments to existing conventional machines to achieve surface finish at Micro/Meso levels.
4. Researchers will be able to apply their critical thinking skills and knowledge of engineering and technology to identify, analyze, and solve problems during the design, development, implementation and improvement phases of research projects.

THRUST RESEARCH AREAS

The Micromachining research lab builds research on the following three indigenous micro machines to design solutions to modern engineering challenges in MEMS and Non-MEMS and applies the Mechanical Engineering core strengths to key thrust areas of great current and future need.

1. Micro-Electro-Discharge Machining (ZNC)

Machining (micro-EDM) Micro EDM is a thermo-electric process for machining electrically conducting materials regardless of their mechanical properties. Being a noncontact process, micro-EDM is one of the best alternative methods that can be used for machining high aspect ratio 3D micro structures.

2. Micro-Wirecut Electro-Discharge Machining

Wire cut EDM machining is mainly used to process various punch die, plastic mold, Powder metallurgy mold and etc, which have 2D and 3D faces combined, or components. It can also

cut various sample plate, magnetic steel, Silicon Steel Sheet, semi-conductive material or precious metal. Furthermore, it is able to do tiny machining, abnormal shape groove or machining of standard defect of sample parts, widely used in electrics, precious machine tools, light industry, army industry and so on. The Wirecut Electric Discharge Machining (WEDM) is a variation of EDM and is commonly known as wire-cut EDM or wire cutting. In this process, a thin metallic wire is fed on-to the work piece, which is submerged in a tank of dielectric fluid such as deionized water. This process can also cut plates as thick as 300mm and is used for making punches, tools and dies from hard metals that are difficult to machine with other methods.

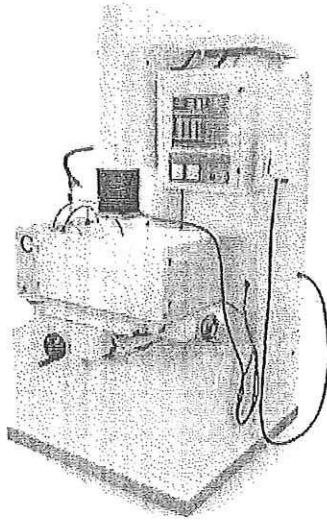
3. Tool based Mechanical Micromachining

The micro-products and micro-components are used in many industries especially related with micro-electromechanical, aerospace, medical, environment, biomedical and biochemical industries etc. Tool based mechanical micromachining technology is gaining importance in Micro-Electro Mechanical System device fabrication because of its ability to machine 3D micro features on different engineering materials. Micromachining with mechanical cutting tools is capable of producing high profile accuracy, surface finish quality, and sub-surface integrity at a reasonable cost. It is the primary choice amongst various manufacturing processes in fabricating micro components. Micro cutting and micro grinding are two typical micro mechanical machining processes that employ a defined cutting edge and an undefined cutting edge respectively. Many manufacturing methods have been developed to produce these micro-sized products, namely micro electro mechanical system (MEMS) based processes such as dry etching, lithography, electroplating, ultraviolet - lithographie galvanofornung abformung (UV-LIGA), non-conventional based micro-machining such as micro- electron discharge machining (EDM), and mechanicalmicro-machining Mechanical Micro-machining

RESEARCH FACILITIES

The mechanical micromachining research lab at Sree Vidyanikethan is established in an air-conditioned environment within an area of 900 sq ft. with machining, computing, characterization and data acquisition facilities.

1. EDM (ZNC)



Special Features

Travel X x Y x Z : 300 x 200 x 250 mm

Work tank : 800 x 500 x 350 mm

Programmable Z axis

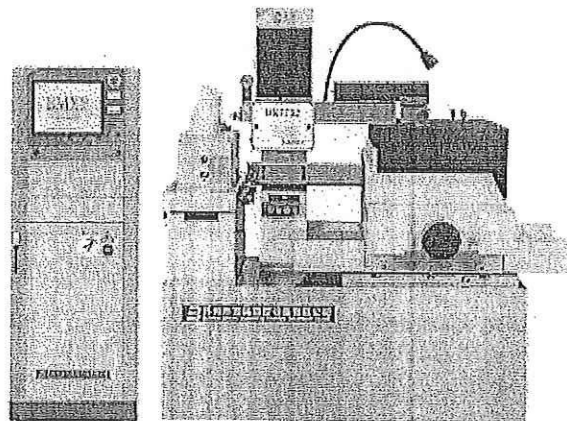
99 programs, 50 steps per program

Hand-held remote control

Built-in 'Ez - GURU'

Head orbital (optional)

2. Wire EDM



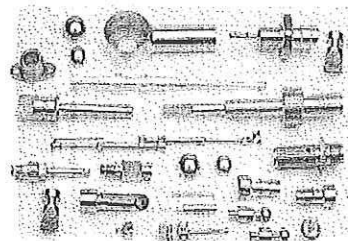
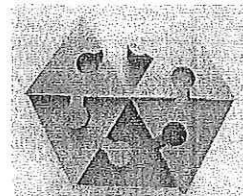
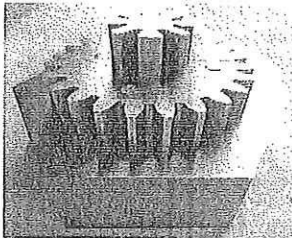
Specification of the Machine

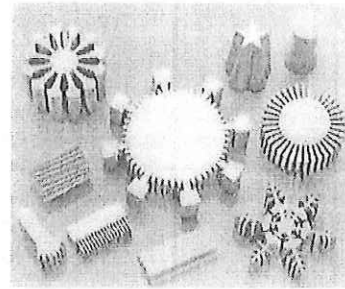
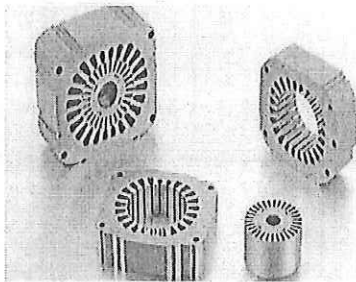
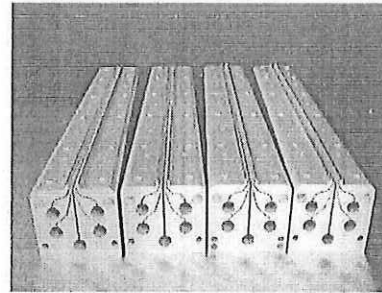
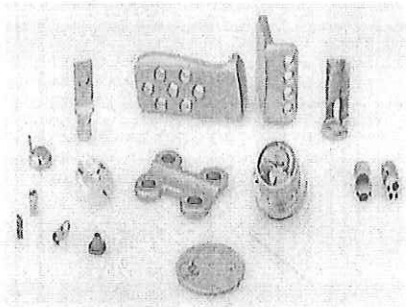
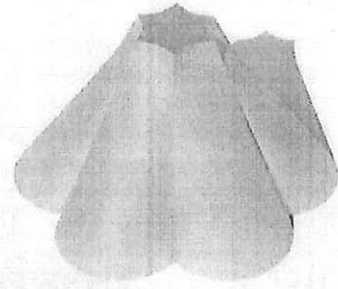
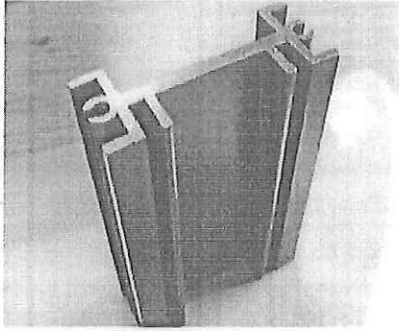
- Table Travel X,Y Axis (mm)
- Work Table Size L x W (mm)
- Maximum Work Piece Thickness (mm)
- Maximum Taper / 100 mm Thickness
- Maximum Work Piece Weight (kgs)
- Machine Weight (kgs)
- 250 x 320
- 380 x 525
- 300
- $\pm 3^\circ$ (Standard)
- $\pm 30^\circ$ (Optional)
- 300
- 1600

Standard Features

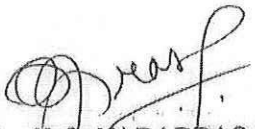
- Maximum Speed - 80mm²/Min.*
- Machining accuracy - 0.01mm *
- Best Surface Finish - Ra 1.25 to 1.75 *
- A.C. - Not Required up to 40° C
- BMXP pm-k system software controller works on Windows 7 operating platform
- Inbuilt database for cutting different materials.
- Coolant filtering system - Fine stainless steel wire mesh for coolant filter
- No need to change wire guide for different diameters
- Two axis DRO (Std.)
- 4-Axes synthesizer to cut different profiles at top and bottom
- Auto centre and auto stop at the end of the job

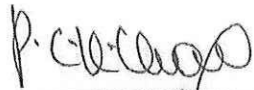
Possible types of profiles machined to EDM(ZNC) and Wirecut EDM





Lab Coordinator: **Dr.S.Ragunathan**


Dr. K.C. VARAPRASAD
Professor & Head
Dept. of Mechanical Engineering
Sree Vidyanikethan Engineering College
TIRUPATI - 517 102


PRINCIPAL
SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)
Sree Sainath Nagar, A. RANGAMPET
Chittoor (Dist.) - 517 102, A.P., INDIA.



JAWAHAR LAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
ANANTHAPURAMU - 515 002 (A.P)
RESEARCH & DEVELOPMENT

Prof.S.V.Satyanarayana
Ph.D., (ITK)
Professor of Chemical Engg. &
Director.

To
The Principal
Sree Vidyanikethan Engg. College
Sree Sainath Nagar, A.Rangampet,
Tirupathi - 517 102.

Rc.No. JNTUA/R & D/Ph.D/ Recognition/permission/2016-17
Dt. 22.12.2016

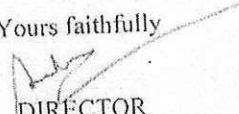
Sub: JNTUA - R & D - Ph.D - Recognition as Research Centre - ECE
EE, & CSE. - permission - Annual fee - requested - Reg.

It is informed that your Institution is provisionally selected as Recognized
Research Centre in the following disciplines for Ph.D. (Full Time) programme under JNTUA.

1. E.C.E.
2. Electrical Engineering
3. C.S.E.

Therefore, you are requested to send the demand draft for Rs.75,000/- (Rupees
seventy five thousand only) drawn in favour of the Registrar, JNTUA, Ananthapuramu towards
annual fee for the above disciplines.

Yours faithfully


DIRECTOR

D37
A



JAWAHAR LAL NEHRU TECHNOLOGICAL UNIVERSITY ANANTAPUR
ANANTHAPURAMU - 515 002 (A.P)
RESEARCH & DEVELOPMENT

Prof.S.Krishnaiah
Ph.D.
REGISTRAR.

To

The Principal
Sri Vidyanikethan Engineering College
Sri Sainath Nagar
A-Rangampet, Chandragiri Mandal
Near Tirupathi - 517 102.



Rc.No. JNTUA/R & D/Ph.D/RRC/Annual Registration fee/2014-15
Dt. 13.03.2015

Sir,

Sub: JNTUA - R & D - Recognition of Research Centre - Ph.D.
Programme - Annual Registration fee - requested - Reg.

Ref: 1) Note submitted by the Director, R & D, JNTUA, Ananthapuramu,
Dt.4.3.2015.
2) Note orders of the Vice-Chancellor dt.9.3.2015.

It is informed that your Institution has been recognized as Research Centers for Ph.D. programme (Full-Time) from the academic year 2013-14 in the discipline of (1) ECE (2) Electrical Engineering.

As per the note orders of the Vice-Chancellor, the Recognized Research Centre has to pay the annual registration fee of Rs.10,000/- (Rupees ten thousand only) for each department to the University before commencement of the every academic year.

Therefore, it is requested to pay an amount of Rs.40,000/- (Rupees forty thousand only) as registration for the academic year 2013-14 & 2014-15 by way of demand draft in favour of the Registrar, JNTUA, Ananthapuramu payable at JNTUA EC Branch (2723), Ananthapuramu.

Yours faithfully,


REGISTRAR

Nanoelectronics Lab

Objective:

To provide advanced and sophisticated equipment to researches who are working in the field of synthesis/fabrication of nanomaterials and nanoelectronics devices

Facilities

- **Thermal evaporation Unit** Hind High Vac. BC300
- **Spin coater** SPEKTRON Instruments Inc
- **Tubular furnace**
- **Vacuum Oven**
- **I-V Parameter analyzer**

Research Areas

The following advanced research areas are focused in this lab:

- Fabrication and characterization of high speed electronic devices based on the ZnO nanostructure e.g. MESFET, Schottky diode etc.
- Fabrication and characterization of high speed electronic devices based on the SnO₂ nanostructure e.g. MESFET, Schottky diode etc.
- Fabrication and characterization of high speed electronic devices based on the SnO₂ nanostructure e.g. MESFET, Schottky diode etc.

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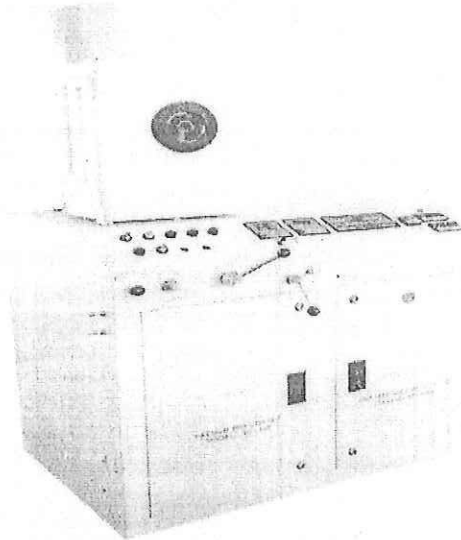
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➤ **Thermal evaporation Unit Hind High Vac. BC300**

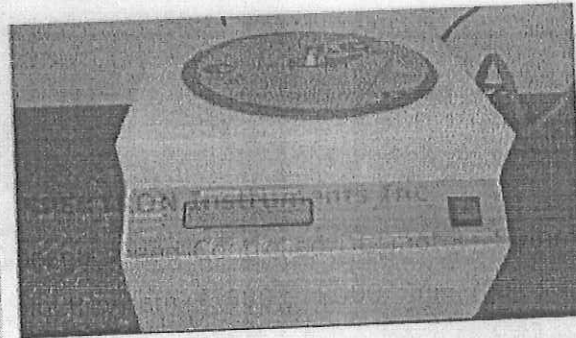
The vacuum chamber is made out of non magnetic stainless steel grade, AISI-304. D shaped chamber with water cooling having dimension (Approx.) 400mm (W) X 400mm (D) X 500mm (Ht). A front opening quick access door is provided for loading & unloading of the substrates. One high vacuum compatible, toughened glass view port provided on the front door. One set of thin stainless steel sheet liner to prevent the deposition on the chamber wall. Chamber is provided with ports to connect diffusion pump, rotary pump and gauges. Chamber is also provided with ports for evacuation, vacuum measuring gauge heads, gas feeding valves, etc. Chamber base plate is provided with necessary required Feedthrough ports for mounting magnetron sources, shutters etc. The chamber, all stainless steel components & sub-assemblies are electro-polished.

HHV make direct drive Rotary vacuum pump model FD-12 having a displacement capacity of 200 lit/min (12 m³/hr) giving an ultimate vacuum of 1×10^{-3} m.bar under no load condition on Mcled gauge with gas ballast in fully closed condition



➤ **Spin coater SPEKTRON Instruments Inc**

Actuator: PID based speed Controlled DC motor; Spinning speed max 8,000 RPM; Spin Program - 500 - 8000 RPM Multistep RPM / Time programming Speed accuracy - $\pm 0.1\%$ Time Prog : 10 - 1200 secs. Display - 2 Line LED digital display.of Real time Rpm / Time Spinning disk size - 50mm Various substrate sizes - 0.5 ,1 ,up to 2 inch Gas purging facility available as standard + V



➤ **Tubular furnace**

Furnace type :Horizontal Tube Type Furnace Overall Dimension :75 mm dia x 600 mm Length Hot Zone Length : 300 mm Isothermal Zone :~ 300 mm Max. Operating Temp. 1000 deg C Insulation : Imported high density high alumina content vacuum forming board. Accuracy :+/- 2 deg C Thermocouple : K type thermocouple of suitable diameter & length for controlling temperature. Max. Power Cons. :3000 Watts Heating Element :Kanthal A1 Control Panel Programmable Temperature Controller Tale make or Equivalent. 8 x 2 = 16 Programs along with Thyristor Pls not We have not Quoted for Quartz Tube.



➤ **Vacuum Oven**

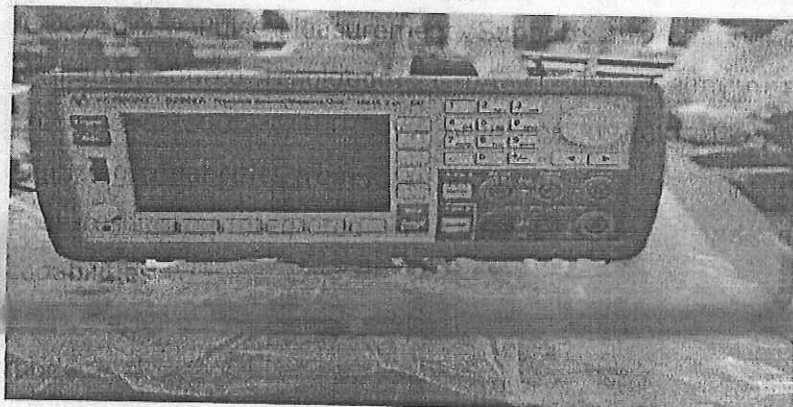
Furnace type :Horizontal Tube Type Furnace Overall Dimension :75 mm dia x 600 mm Length Hot Zone Length : 300 mm Isothermal Zone :~ 300 mm Max. Operating Temp. 1000 deg C Insulation : Imported high density high alumina content vacuum forming board. Accuracy :+/- 2 deg C Thermocouple : K type thermocouple of suitable diameter & length for controlling temperature. Max. Power Cons. :3000 Watts Heating Element :Kanthal A1 Control Panel Programmable Temperature Controller Taie make or Equivalent. 8 x 2 = 16 Programs along with Thyristor Pls not We have not Quoted for Quartz Tube

➤ **I-V Parameter analyzer**

Keysight(Agilent) B2902A 736,131.00.

Specifications: Precision Source/Measure Unit, 2 ch, 100 fA, 210 V, 3 A DC/10.5 A Pulse Measurement, Supports two-channel configuration, Minimum source resolution: 1 pA /1 μ V, Minimum measurement resolution: 100 fA/100 nV, Arbitrary waveform generation and digitizing capabilities from 20 μ s interval.

- Features:
1. Integrated 4-quadrant source and measurement capabilities
 2. The 4.3" color display supports both graphical and numerical view modes
 3. Free application software to facilitate PC-based instrument control,
 4. High throughput.



➤ **Magnetic Stirrer**

1MLH Magnetic stirrer 1Liter capacity with hot plate and digital speed indicator.

Make: Remi



➤ **Ultrasonicator**

Model: LMUC-4 Digital Ultrasonic Cleaner Tank & Outer body are of SS. Ultrasonic: 40 ± 3 KHz. Heating: ambient to 80C digital. Timer: 5-60min digital.

Make: Labman Tank Size: 235x135x150mm, Capacity: 4Li

Lab Incharge

A. B. Yadav
Dr. A. B. Yadav

P. C. C. Rao
HEAD
Department of PCE
SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)
Sree Sainath Nagar, Tirupati-517102 (A.P.)

P. C. C. Rao
PRINCIPAL
SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)
Sree Sainath Nagar, A. RANGAMPET
Chittoor (Dist.) - 517 102, A.P., INDIA.

ANTENNA RESEARCH LAB (ARL)

Main aim of the proposed initiative is to strengthen the activities in the field of Antenna systems & Propagation (A&P) within the department of Electronics and Communication Engineering. The role of lab can be further strengthened when Antenna lab is a Strategic Research Area (SRA) within the Sree Vidyanikethan Engineering College (SVEC).

Antenna lab focuses on the domain of Antenna systems & Propagation (A&P), including theory, experiments and applications. By cooperating with related disciplines such as signal processing, electronics, material sciences and mathematics - new breakthroughs can be created that will enable improvements in existing applications and will enable new application domains.

A&P play a key role in today's society. The number of wireless devices and application domains are growing exponentially. It is crucial to maintain and further expand our strong expertise in SVEC in the domain of A&P. This requires top-research in this domain that attracts talented students.

Research lab also will drive and align the academic research in A&P in SVEC. This should generate the required manpower and experimental facilities. In addition, Lab accomplishments will also be presented in various forums (eg. National and International conferences, workshops, etc). Hence, it will also provide an improved visibility on national and international level. ARL will support national industries, and research centers in R&D related to the field of A&P. In addition, ARL will help to develop human resources at master and Ph.D. levels.

Antenna systems and the associated propagation channel form an essential element in any system that makes use of electromagnetic waves. For the year 2020 the World Wireless Research Forum estimates that 7 trillion wireless devices will serve about 7 billion people, not only in telecommunication systems but also in new application areas such as IoT, e-health, traffic management and smart buildings. People will be served by

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many wireless devices, sensors and tags (e.g. in transport and weather systems), providing ambient intelligence and context sensitivity. This fast growth can only be enabled by developing smart antenna systems that can combat for spectrum and energy efficiency at low-cost and small size and can operate in variable embeddings (e.g. chip packaging or human body). The performance is also expected to increase significantly. Based on Edholm's law (increase of bandwidth by factor 2 each 18 month), we can expect Tbit/s data rates in wireless communication 10-15 years from now. This will require new concepts with electronic beam steering, operating at much higher frequencies as of today (e.g. 60 GHz up to THz). Also breakthroughs in other disciplines, like material sciences and nanostructures, will enable new antenna concepts.

Presently, most communication systems in the world are based on Wireless Systems, where Antennas are playing a vital role. In this context, Antennas form an interdisciplinary technology which covers electrical, electronics and communications engineering for various applications like IOT, smart buildings/cities, novel materials and their applications, etc.

The main **objective** of the centre is to coordinate and facilitate strategic collaboration and linkage between various research units, educational institutions, industrial sector by undergoing innovative application oriented research in the area of Antennas.

Based on the recommendations, the Institution was sanctioned an amount of Rs. 15 lakhs. An amount of Rs. 9.0 lakhs was released during the Academic Year 2017-18 to augment research facilities. **FIKO Simulation Software** was procured and installed. Students of UG, & PG are undertaking project works, PhD Scholars and Faculty are doing research by utilizing Simulation Software and EMI/EMC setup.

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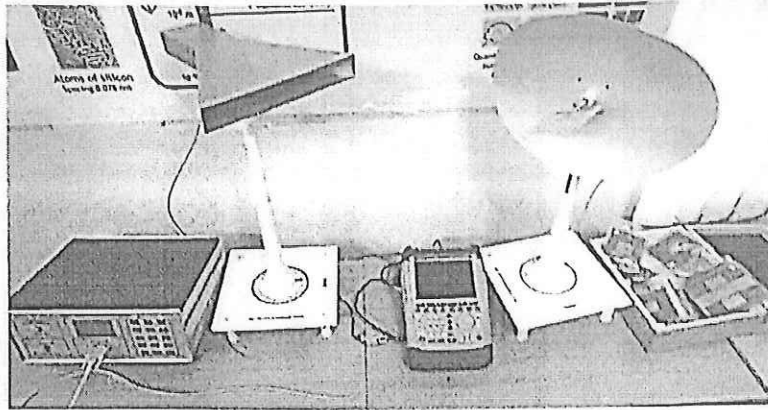
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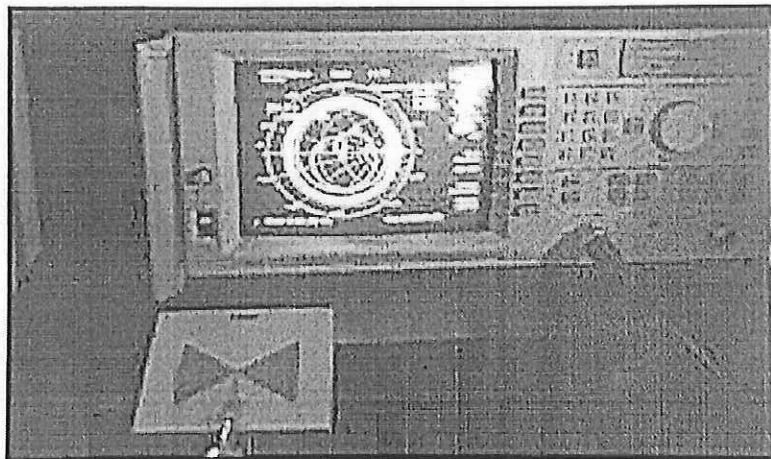
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Equipment photos/ Developed devices

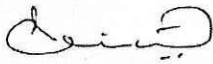


Complete EMI/EMC Setup



Characterization of the Developed Bow-Tie Antenna

Lab In-charge



(Dr.V.R.Anitha)



HOD, ECE



Principal

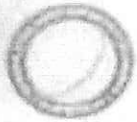
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Challenging today's world with
advanced Cyber Security and
Security Standards

SREE VIDYANIKETHAN ENGINEERING COLLEGE (AUTONOMOUS)

Sree Sainath Nagar, A.Rangampet, Tirupathi-517102



Department of Computer Science and Systems Engineering

Cyber Security and Cryptology Research Lab

Vision

To be identified as a prominent Cyber Security and Cryptology Centre for carrying out Research and Development.

Mission

The Cyber Security and Cryptology Research Lab of Sree Vidyanikethan Engineering College (Autonomous) will identify and address the grand challenges in Cyber Security and Privacy.

Educate and train students through professional degree and life-long learning programs.

Objectives

1. Implementation of existing ciphers
We will implement popular ciphers like DES, AES, IDEA, SIMON, SPECK, RSA, SALSALSA etc.,
2. Development of tools for cryptanalysis of the ciphers
We implement the existing attacks from the literature on the above mentioned ciphers.
3. Design, Development and analysis of new cryptosystems
We will develop new cryptosystems with security analysis
4. Cyber security education and awareness
To create awareness on cyber threats and educate the users to safe guards their infrastructure.
5. Research in Intrusion Detection
6. Training in Malware Analysis, Vulnerability Assessment and Penetration testing
7. R&D in cryptology and Cyber Security

Equipment

Hardware:

Desktops
i5/i3 with 16GB RAM, 1TB HDD, 19" Monitor

Software:

Ubuntu 16.04 -- 16nos
NS2
Virtual Box
OLLYDBG
IDAPRO

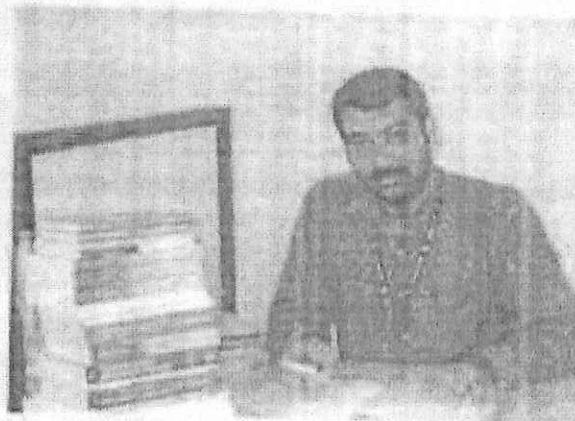
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- ☎ +91-0877 2236717
- * www.vidyanikethan.edu
- ✉ svccpl@vidyanikethan.edu



Cyber Security & Cryptology Research Lab



Students working in Research Lab



Lab Incharge: Dr.M.Naresh Babu

B. Narayana
HOD, CSSE
HEAD

Department of CSSE
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CHITTOOR (Dist.) - 517 102, A.P.

P. Chalapathi
PRINCIPAL
PRINCIPAL

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Chittoor (Dist.) - 517-102, A.P., INDIA.

DATA ANALYTICS RESEARCH LAB

| <p>Objectives of the lab</p> | <ul style="list-style-type: none"> To promote interdisciplinary research and to provide excellent opportunities for the faculty and students to endeavor innovations in Data Science and cloud computing areas. To conduct advanced Research & Development in Data Science and Cloud Computing and to solve the issues of Social Networks, Agriculture and Healthcare domains. To serve as a nodal lab of this region by extending facilities of Data Analytics and Cloud Computing tools to other Institutions. | | | | | | | | | | | | | | | | |
|---|---|-----------|-------|-------------|------------------------------------|---------------|-------------------|-------|----------------|-------------|-------------------|-----------|-------------------|-----------|-------------|--------------------|--------|
| <p>Facilities Available in the Lab</p> | <p style="text-align: center;">Desktop Systems – 20 No.s</p> <p style="text-align: center;">Hardware Configurations</p> <table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 50%;">EQUIPMENT</th> <th style="width: 50%;">MODEL</th> </tr> </thead> <tbody> <tr> <td>• Processor</td> <td>intel i5 – 7th Generation 3.00 GHZ</td> </tr> <tr> <td>• Motherboard</td> <td>Lenovo 3102 Model</td> </tr> <tr> <td>• RAM</td> <td>DDR4 12 GB RAM</td> </tr> <tr> <td>• Hard Disk</td> <td>1 TB Seagate-Blue</td> </tr> <tr> <td>• Monitor</td> <td>19.5 inch TFT LCD</td> </tr> <tr> <td>• Cabinet</td> <td>Lenovo V520</td> </tr> <tr> <td>• Keyboard + Mouse</td> <td>Lenovo</td> </tr> </tbody> </table> <p style="text-align: center;">List of Software</p> <ul style="list-style-type: none"> • WEKA 3.8.1 • XAMPP 5.6 • R STUDIO 1.1.4 • PYTHON 3.5 • ORACLE DATABASE 10G EXPRESS EDITION 10.2 • ANDROID STUDIO 1.0 • MONGO DB 3.2 • ARGO UML 0.34 • R for WINDOWS 3.4.1 • APACHE TOMCAT 7.0 • JAVA 8.0 • ECLIPSE JAVA EE IDE OXYGEN.3a Release (4.7.3a) • BOSS Linux 3.14 • Anaconda 5.2 • TensorFlow 1.9 • Keras 2.2.0 • Deepy 0.2.1 • Gensim 0.13.4 • PyML 7.3 • Pandas 0.22.0 • Matplotlib 2.2.2 • NumPy 1.11.3 | EQUIPMENT | MODEL | • Processor | intel i5 – 7th Generation 3.00 GHZ | • Motherboard | Lenovo 3102 Model | • RAM | DDR4 12 GB RAM | • Hard Disk | 1 TB Seagate-Blue | • Monitor | 19.5 inch TFT LCD | • Cabinet | Lenovo V520 | • Keyboard + Mouse | Lenovo |
| EQUIPMENT | MODEL | | | | | | | | | | | | | | | | |
| • Processor | intel i5 – 7th Generation 3.00 GHZ | | | | | | | | | | | | | | | | |
| • Motherboard | Lenovo 3102 Model | | | | | | | | | | | | | | | | |
| • RAM | DDR4 12 GB RAM | | | | | | | | | | | | | | | | |
| • Hard Disk | 1 TB Seagate-Blue | | | | | | | | | | | | | | | | |
| • Monitor | 19.5 inch TFT LCD | | | | | | | | | | | | | | | | |
| • Cabinet | Lenovo V520 | | | | | | | | | | | | | | | | |
| • Keyboard + Mouse | Lenovo | | | | | | | | | | | | | | | | |

K. Raj
HOD, IT
HEAD

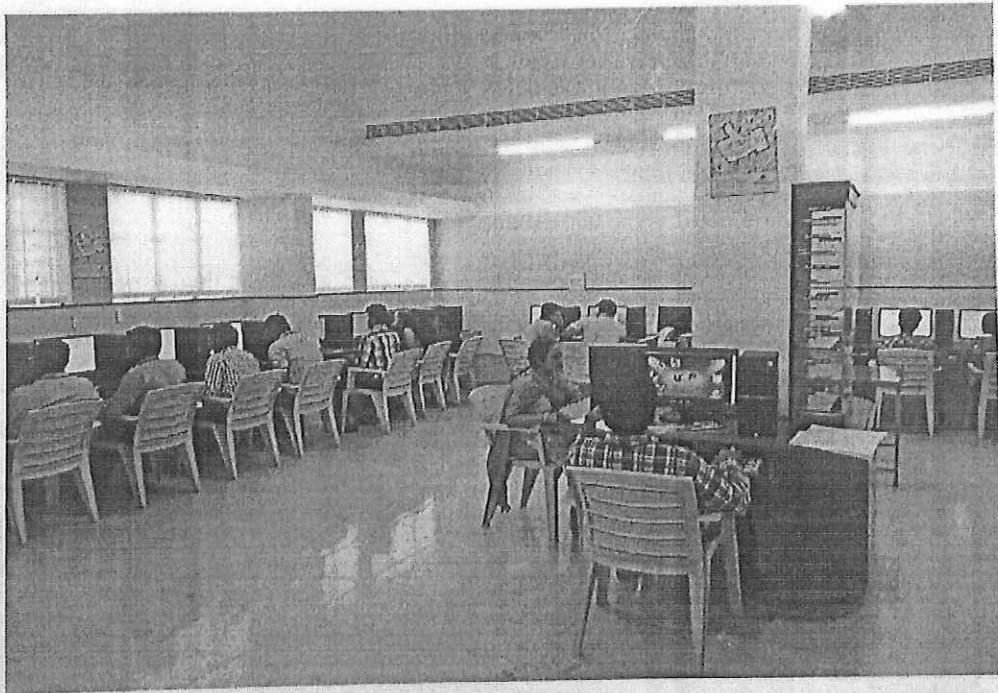
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Sree Sarathi Nagar, A. Rangampet
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P. C. Rao
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| | |
|--------------------------------|--|
| Name of the Coordinator | Dr. D. Obulesu, Associate Professor, Dept. of IT, SVEC |
| Total Number of Members | 22 |
| | <ol style="list-style-type: none"> 1. Dr. L. V. Reddy, Professor, IT 2. Dr. A. Srinivasulu, Professor, IT 3. Dr. K. K. Baseer, Assoc. Professor, IT 4. Dr. Vellingiri J, Assoc. Professor, IT 5. M. Thrilok Reddy, Asst. Professor, IT 6. M. Mahendra, Asst. Professor, IT 7. Ch. Prathima, Asst. Professor, IT 8. Ch. Sreenu Babu, Asst. Professor, IT 9. K. Lakshmi Prasanna, Asst. Professor, IT 10. G. M. Chanakya, Asst. Professor, IT 11. S. Bharath Bhushan, Asst. Professor, CSSE 12. B. Tharakeswara Raju, Asst. Professor, CSSE 13. Dr. G. Sunitha, Professor, CSE 14. Dr. J. Avanija, Assoc. Professor, CSE 15. Dr. K. Reddy Madhavi, Assoc. Professor, CSE 16. Dr. B. Uma Maheswara Rao, Assoc. Professor, CSE 17. Shaik Salam, Assoc. Professor, CSE 18. Dr. M. Lavanya, Asst. Professor (SL), MCA 19. M. Sowmya Vani, Asst. Professor, MCA 20. A. R. Kishore Kumar, Asst. Professor, MCA 21. Y. Klran Kumar, Asst. Professor, MCA |



Data Analytics Research Lab

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**HOD, IT
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Bio-Signal Research Laboratory

The Research lab was established with a motive of augmenting research activities in the field of Biomedical Engineering. In this regard, state-of-the-arts facilities are being provided at the laboratory for the benefit of the researchers.

Objectives:

- To educate/motivate the students to be significant contributors in health care, research and development in biomedical instrumentation.
- To motivate faculty to carry out research in the fields of biomedical instrumentation /Signal processing.
- To promote interdisciplinary research.
- To contribute the society by improving the health standards of the public.

Facilities

- ECG System -Recording and Analysis (Real time)
- EEG System -Recording and Analysis (Real time)
- EMG System -Recording and Analysis (Real time)
- EPR System- EPR Simulator
- BP Calibration and Measurement System
- Electrical Safety Analyzer

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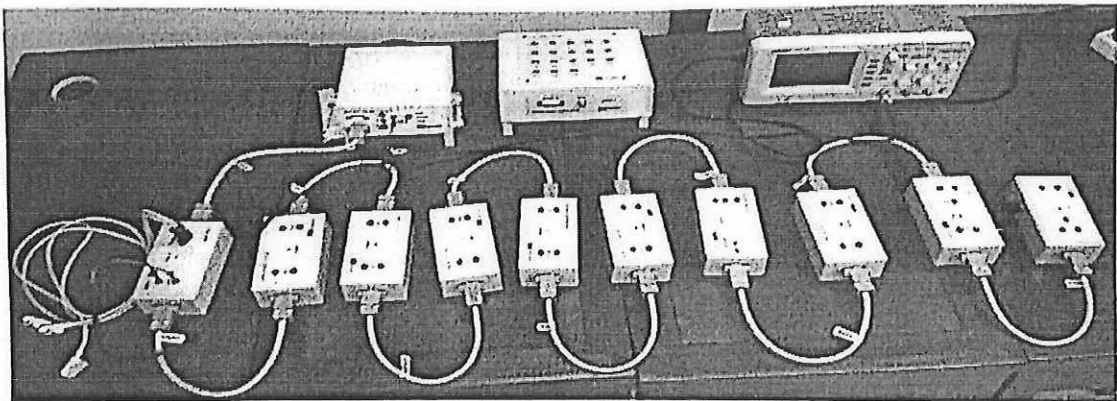
Research Areas

The following research areas are focused in this lab:

- Bio-Signal feature extraction.
- De-noising of Bio-Signals with statistical approaches.
- Compression of Bio-Signals.

- **ECG System -Recording and Analysis (Real time)**

ECG Heart Rate Alarm System



Modules:

- a) ECG Amplifier
- b) Low Pass Filter
- c) QRS Filter
- d) QRS Detector
- e) Refra Generator
- f) Synch Generator
- g) F to V Converter
- h) DVM
- i) Audio Buzzer
- j) High Alarm
- k) Low Alarm
- l) HRV
- m) Battery Power Supply

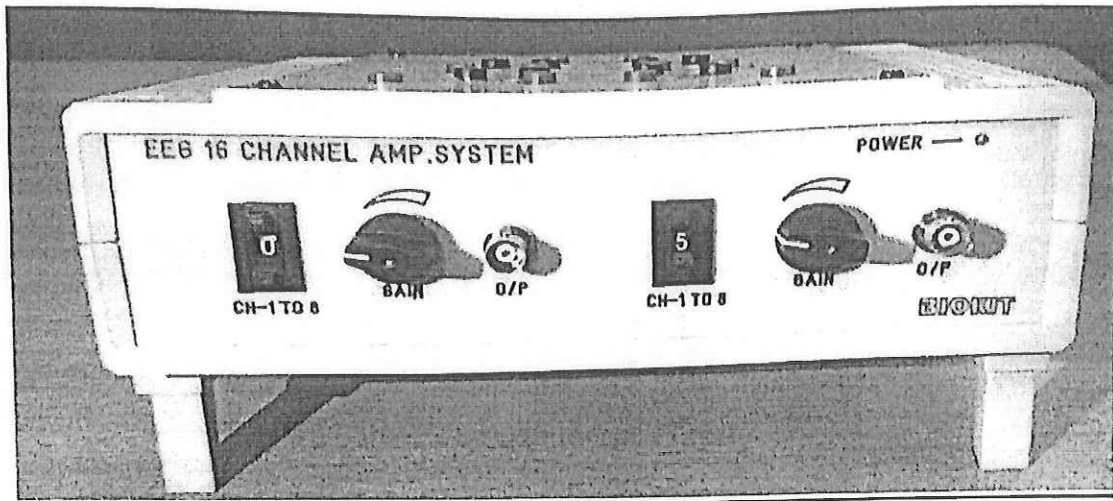
Arrhythmia Simulator



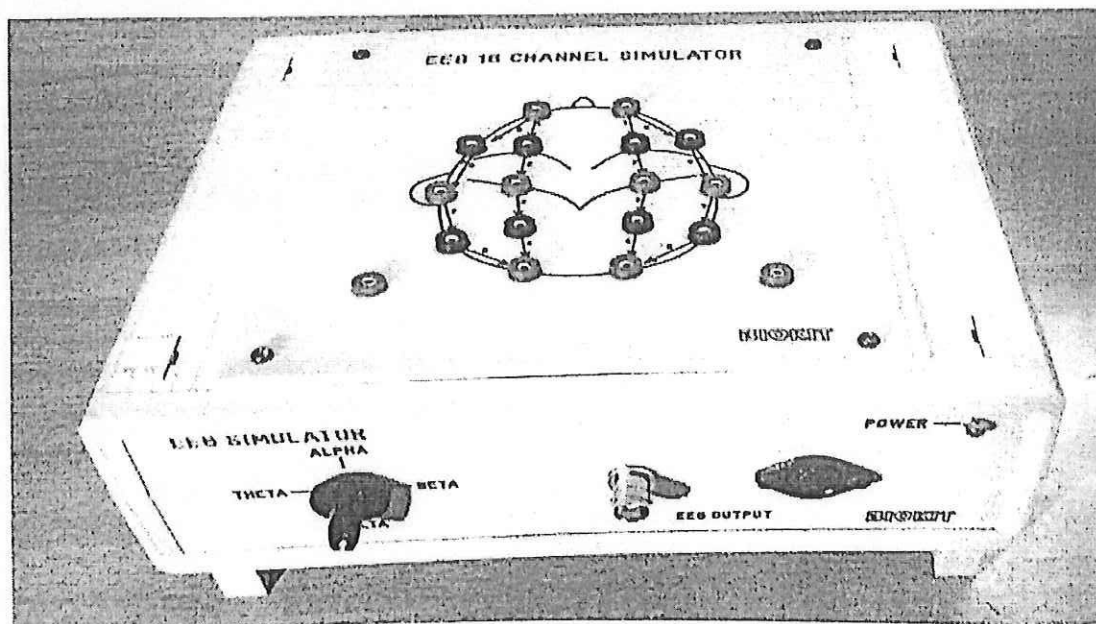
ECG is used on purpose to keep good health or monitor cardiac function of aged person as well as on purpose to diagnose the disease of heart patients. These systems can detect the temporary change of ECG that is very significant to diagnose heart disease such as myocardial ischemia, arrhythmia and cardiac infarction. ECG System monitor and plot the output waveform for each module on the same time axis and understand the relationship between them And also study various Arrhythmias associated with ECG using Arrhythmia Simulator.

➤ EEG System -Recording and Analysis (Real time)

16 Channel EEG Amplifier System

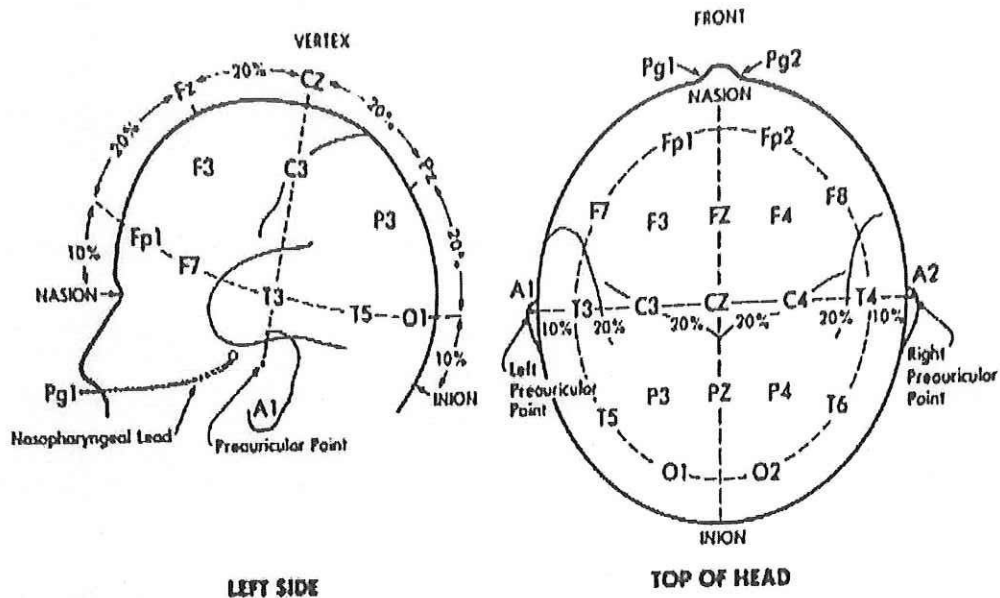


16 Channel EEG Simulator



In electroencephalography, the electrodes are placed in an arrangement referred to as the 10-20 system. This is a placement scheme devised by the International Federation of Societies of Electroencephalography.

- The electrodes are placed along a line drawn on the skull from the root of the nose, the nasion, to the inion ossification (bump on the occipital lobe).
- The first mark is placed 10% of the distance along this line and others are arranged at 20% intervals.

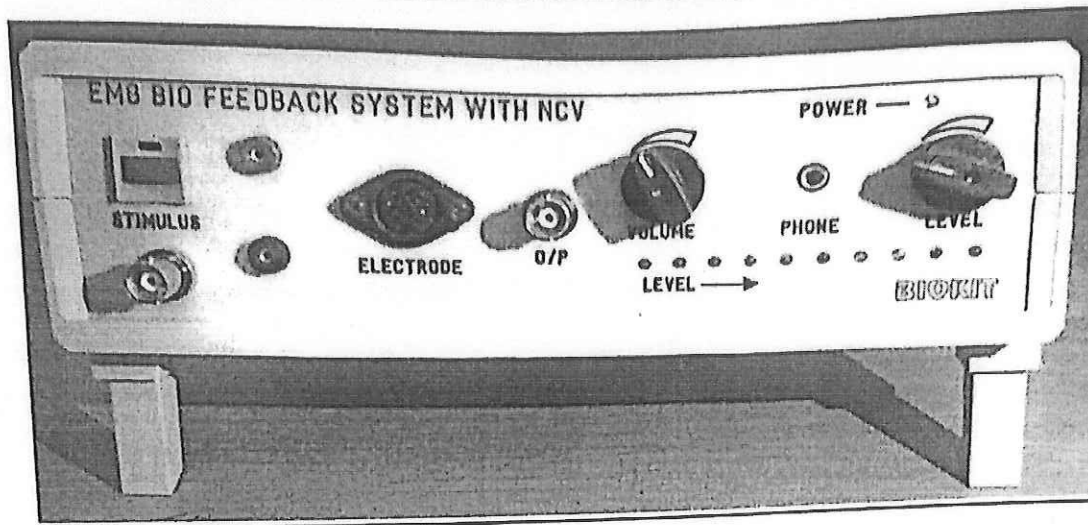


Diagrammatic representation of the International 10-20 system for EEG electrode placement on the scalp.

EEG Signals are used to diagnose Epilepsy, Sleep Disorders, Coma, Encephalopathies and Brain Death. Derivatives of the EEG technique include Evoked Potentials (EP), which involves averaging the EEG activity time-locked to the presentation of a stimulus of some sort (visual, Somatosensory or auditory). Event Related Potentials (ERPs) refer to averaged EEG responses that are time-locked to more complex processing of stimuli; this technique is used in Cognitive Science, Cognitive Psychology and Psychophysiological research.

➤ **EMG System -Recording and Analysis (Real time)**

EMG System for Nerve Conduction Velocity Measurement

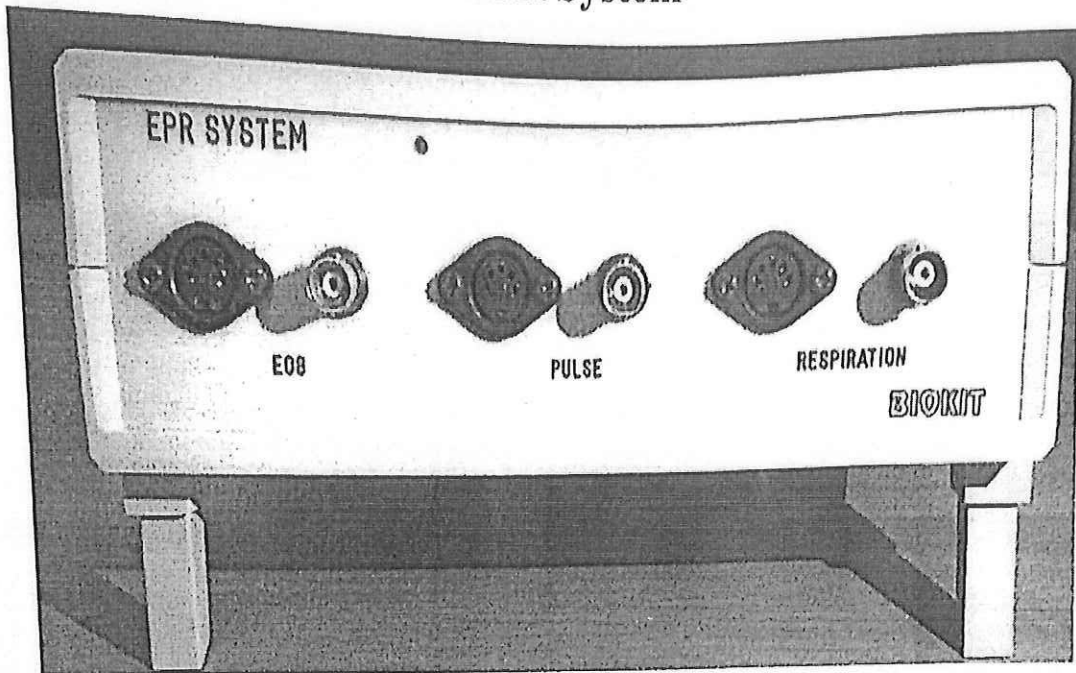


EMG is very useful for studying the neuromuscular function, neuromuscular condition, reflex responses and extent of nerve lesion and diagnosing the muscular diseases like myasthenia gravis which can produce highly damped impulses during contraction of the muscles due to too rapid fatigue of the neuromuscular synapses. To record the action potentials of individual motor units, the needle electrode is inserted into the muscle. Thus EMG indicates the amount of activity of a given muscle or a group of muscle and not an individual nerve fiber. Thus EMG appears, very much like a random noise wave form. The contraction of a muscle produces action potentials. When there is stimulation to a nerve fiber, all the muscle fibers contract simultaneously developing action potentials. In a relaxed muscle, there is no action potential. The nervous system is both the controlling and communications system of the body. This system consists of a large number of excitable connected cells called neurons that communicate with different parts of the body by means of electrical signals, which are rapid and specific.

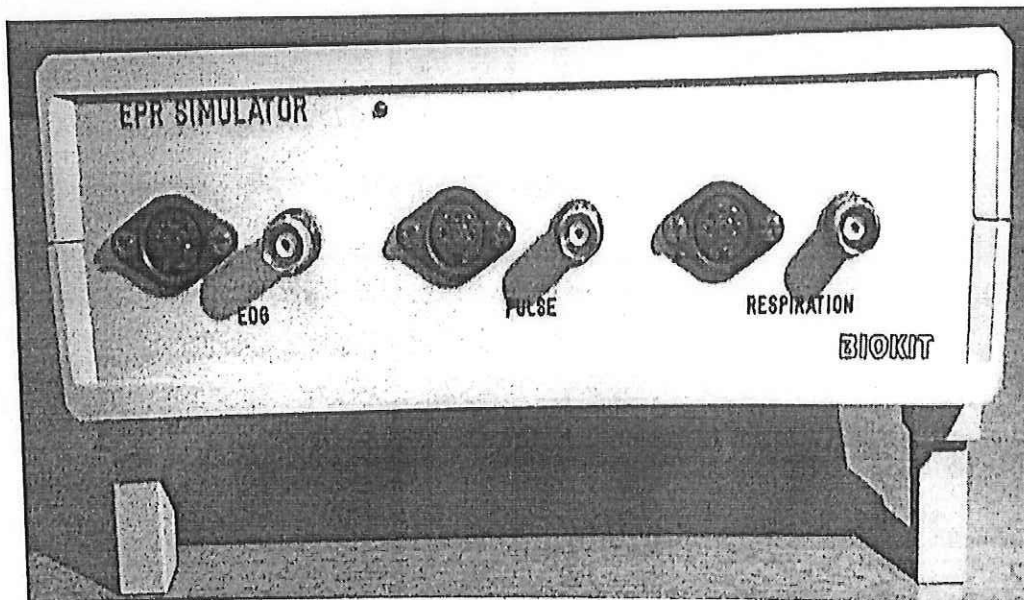
EMG signals can be analyzed to detect medical abnormalities, activation level, to analyze the Biomechanics of Humans.

➤ EPR System-EPR Simulator

EPR System



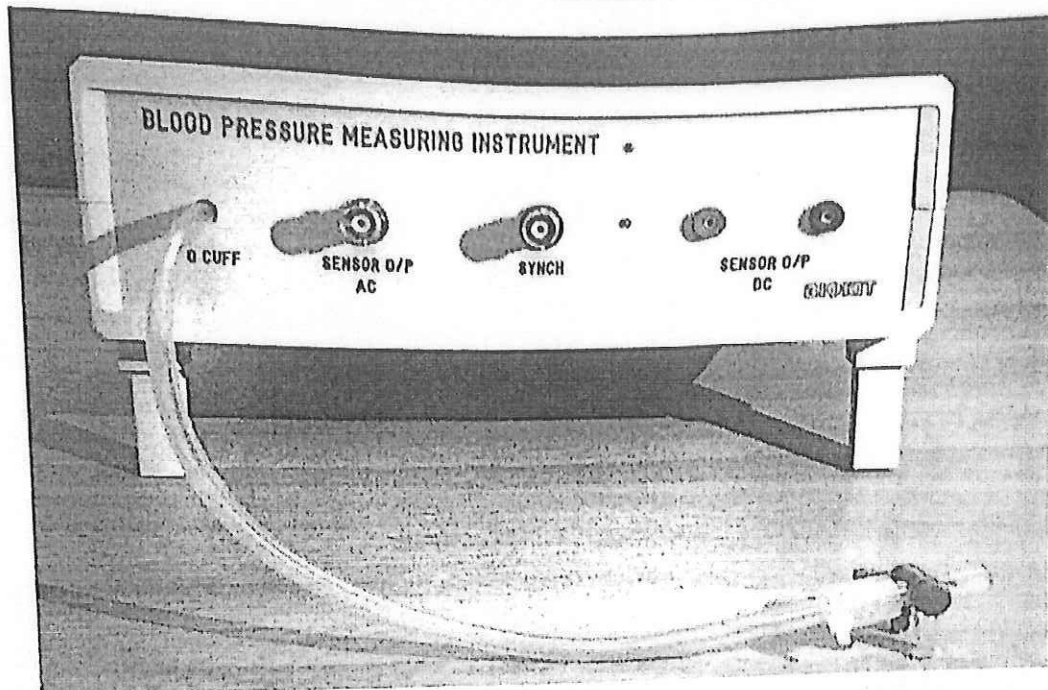
EPR Simulator



The EPR simulator outputs from each parameter can be fed as an input to the EPR Amplifier System, to the respective Amplifier.

➤ BP Calibration and Measurement System

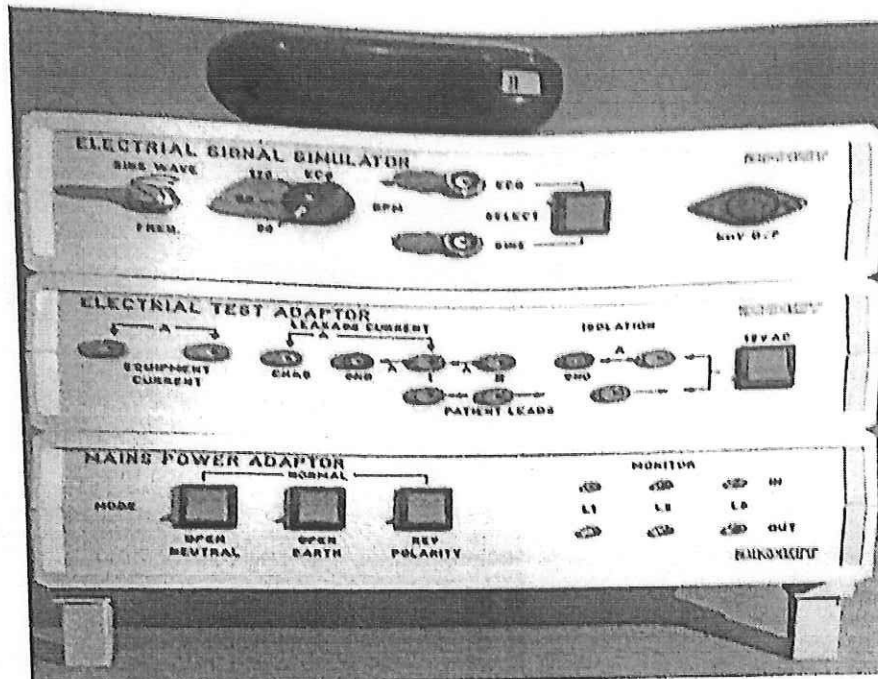
B.P. Measurement System



The standard location for blood pressure measurement is the brachial artery. Monitors that measure pressure at the wrist and fingers have become popular, but it is important to realize that systolic and diastolic pressures vary substantially in different parts of the arterial tree with systolic pressure increasing in more distal arteries, and diastolic pressure decreasing. BP is measured with the patient lying down or sitting. The cuff is placed on the arm in advance (1-2 min. without any inflation, - vascular and neural adaptation). Measurements are carried out with the patient sitting, his arm at an angle of 45° held against the chest. The cuff should be at the level of the heart. Ensure that the cuff is placed onto the upper arm tightly, while completely deflated. The cuff should take up 40% of the upper arm volume.

➤ Electrical Safety Analyzer

Electrical Safety Analyzer consists of 4 Modules:-



An Electrical safety analyzer is a device dedicated to a various range of electrical safety tests in order to check that the device under test is in compliance with electrical safety requirements.

The typical tests an electrical safety analyzer does are:

- Ground continuity test
- Insulation test
- High voltage test
- Line leakage test

Lab Incharge

Y. Dileep Kumar
Dr. Y.Dileep Kumar

[Signature]
HOD-EIE

P. Chalapathi
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Sree Sainath Nagar, Tirupati - 517 102, A.P.
DEPARTMENT OF CIVIL ENGINEERING

Water and Environment Research Center

Based on the recommendations, the Institution was sanctioned an amount of Rs. 20 lakhs. An amount of Rs. 6.98 lakhs was released during the Academic Year 2017-18 to augment research facilities. Aquachem software and Visual Modflow Software were procured and installed. Double Ring Infiltrometer, Water Level Indicator, Weather Monitoring Station, 5 in 1 Multi Enviro-meter and Ambient Fine Dust Sampler were purchased. Students of UG are undertaking project works and Faculty are doing research by utilizing Software and Equipments.

| | | |
|---|---|---|
| Name of the Research Lab | : | Water and Environment Center |
| Name of the Coordinator | : | Dr. M.V.Subba Reddy, Assistant Professor & Head, Dept. of CE, SVEC |
| Total Number of Faculty Members in the Team | : | 10 1. Dr. M. V. Subba Reddy Asst. Professor & Head 2. Dr. D. Sreenivasulu Assoc. Professor 3. Dr. Hemadri Prasad Raju Assoc. Professor 4. Mr. D. Srinivasa Murthy Asst. Professor 5. Mr. B. Hari Krishna Asst. Professor 6. Mr. P. Anil Kumar Asst. Professor 7. Mrs. C. Anjali Asst. Professor 8. Mr. B. Sudhakar Asst. Professor 9. Mr. K. Sandeep Kumar Asst. Professor 10. Dr. M. Kesavulu Assoc. Professor, Dept of GEBH |
| Aim of the Research Lab | : | To provide a platform for multidisciplinary research and consultancy through a collaboration and linkage between various research units, educational institutions and industries in the area of Water and Environment. |

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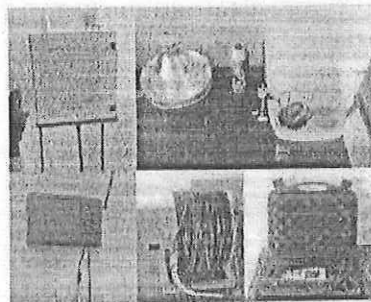
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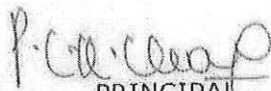
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| | |
|------------------------------------|---|
| Objectives of the Cluster | : a) To carry out research on quality of water, air and noise b) To offer consultancy services for various industries with regards to treatment of their effluents, solid waste and air pollution. c) To carry out research on reusability studies on industrial wastewater and solid waste. d) To carry out research on renewable energy like biogas generation To offer consultancy services with regards to availability of ground water and its quality. |
| Facilities Available in the Centre | : Softwares: 1. Aquachem Software 2. Visual Modflow Software Equipment: 1. Double Ring Infiltrometer 2. Water Level Indicator 3. Weather Monitoring Station 4. Multi Enviro-meter 5. Ambient Fine Dust Sampler |
| Action Plan of the Centre | : <ul style="list-style-type: none">• Publish research papers in reputed journals by each member.• Submit 3 research projects for external funding agencies.• Organize a Seminar/Guest Lecture on Water and Environment in every semester.• Plan to include student projects.• Guide minimum of 5 student (UG) projects.• Internal meetings to be conducted regularly to exchange ideas.• Initiate to collaborate with reputed Institutions across the India in both private and Govt. sectors. |



EQUIPMENTS IN THE RESEARCH CENTER


PRINCIPAL
Dr. P C KRISHNAMACHARY
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Chittoor (Dist.) - 517 102, A.P., INDIA.


Research Lab Coordinator
Dr. M V SUBBA REDDY

📍 Sree Sainath Nagar, Tirupati,
Andhra Pradesh - 517 102

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SREE VIDYANIKETHAN ENGINEERING COLLEGE (AUTONOMOUS)

Sree Sainath Nagar, Tirupati - 517 102, A.P.

DEPARTMENT OF CIVIL ENGINEERING

Geotechnical Engineering Research Lab

Geotechnical Engineering Research Lab (GTERL) will give an impetus to research and consultancy services in the field of geotechnical engineering. GTERL facilitates to conduct research in the major research areas of geotechnical engineering such as expansive soils, reinforced earth, soil dynamics, environmental geotechniques, foundation engineering and field investigation of soils to a reasonable. In addition, the lab will cater the needs of major consultancy and testing services in and around Tirupati. Based on the recommendations of the Geotechnical Engineering Research Group of Department of Civil Engineering, the Institution has sanctioned an amount of Rs. 20 lakhs. The establishment of the lab is in progress.

| | | |
|--------------------------|---|--|
| Name of the Research Lab | : | Geotechnical Engineering Research Lab |
| Vision | : | To be the research centre of excellence in the field of Geotechnical Engineering in general and Ground Improvement and Foundation Engineering in particular. |
| Mission | : | <ul style="list-style-type: none"> • Creating suitable environment for conducting research • Inspiring students to pursue research • Conducting internationally acceptable quality research • Writing proposals for external funding • Aliming at patents • Industrial consultancy and testing services |
| Objectives | : | <ul style="list-style-type: none"> • To cater the needs of geotechnical engineering research in general and Ground Improvement and Foundation Engineering in particular • To facilitate faculty and students to realize research in the field of geotechnical engineering • To motivate faculty and students to contribute to research • To create research atmosphere in the department • To become the centre of excellence in the field of geotechnical engineering for research and consultancy |

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| | | |
|---|---|---|
| Name of the Coordinator | : | Dr. O. Eswara Reddy Professor and BOS Chairman, Dept. of CE, SVEC |
| Total Number of Faculty Members in the Team | : | 06 <ol style="list-style-type: none"> 1. Dr. O. Eswara Reddy Professor and BOS Chairman, Department of Civil Engineering, SVEC. 2. Dr. P. Ramesh Assoc. Professor, Department of Civil Engineering, SVEC. 3. Mrs. P. Indiramma Associate Professor, Department of Civil Engineering, SVEC. 4. Mrs. G. Gnana Prasanna Asst. Professor, Department of Civil Engineering, SVEC. 5. Mr. R. Vinod Kumar Asst. Professor, Department of Civil Engineering, SVEC. 6. Mr. M.Tharun Kumar Asst. Professor , Department of Civil Engineering, SVEC. |
| Equipment | : | <ol style="list-style-type: none"> 1. Swelling Pressure By Constant Volume Method Apparatus 2. Digital Consolidation Apparatus (3 Gang) 3. Lateral Pressure Pressure Assembly 4. Compression Load Cell with Digital Indicator Unit 5. Compression cum Tension Load Cell 6. Hydraulic Extruder, Hand Operated 7. Sampling Tubes - 38 mm Inner Diameter 8. Sampling Tubes - 50 mm Inner Diameter 9. LVDT - 100 mm 10. LVDT - 50 mm 11. LVDT - 25 mm 12. Remotely Hand Operated Hydraulic Jack with Pumping Unit - 10 ton Capacity 13. Remotely Hand Operated Hydraulic Jack with Pumping Unit - 200 ton Capacity 14. DT 85G Series 3 - 8 channel Geotechnical Data Logger 15. Vacuum Pump/De Airing System 16. Portable Swelling Pressure and Heave Evaluating Apparatus (Digital) 17. Desiccator 18. Air Compressor - 10 kg/sq.m. 19. Standard Penetration Test Apparatus Miscellaneous Equipment |

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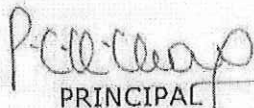
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| | | |
|-------------|---|---|
| Action Plan | : | <ul style="list-style-type: none"> • Publishing research papers in reputed journals by each member. • Submitting a minimum of two research projects per year for external funding agencies. • Organizing a minimum of one Seminar/Conference/Workshop per year in the field of geotechnical engineering. • Organizing a minimum of two Expert Lectures/Guest Lectures per year in the field of geotechnical engineering. • Plan to Include student projects. • Supervising a minimum of 6 UG Projects per year. • Conducting Internal meetings regularly to exchange ideas. • Attracting students to the field of Geotechnical Engineering. • Collaborating with reputed Institutions across India in both private and government sectors. • Visiting reputed geotechnical companies for technology updates and engineering challenges. |
|-------------|---|---|



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Research Lab Coordinator
Dr. O ESWARA REDDY

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AICTE-CII Survey

AICTE-CII Award - 2020

AICTE CII Survey Award Winners

| Sl. No. | Institution | Financing | Zone | State | Rank | Award |
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| 682 | SREE DATTA INSTITUTE OF ENGINEERING AND SCIENCE | Self-financing | South-Central | Telangana | 10 and below | Silver |
| 683 | SREE SARASWATHI THYAGARAJA COLLEGE | Self-financing | Southern | Tamil Nadu | Above 30 | Platinum |
| 684 | SREE SASTHA INSTITUTE OF ENGINEERING AND TECHNOLOGY | Self-financing | Southern | Tamil Nadu | 10 and below | Silver |

| | | | | | | |
|-----|---|----------------|---------------|----------------|-------------------|----------|
| 685 | SREE VIDYANIKETHAN COLLEGE OF PHARMACY | Self-financing | South-Central | Andhra Pradesh | Above 30 | Platinum |
| 686 | SREE VIDYANIKETHAN ENGINEERING COLLEGE | Self-financing | South-Central | Andhra Pradesh | Above 30 | Platinum |
| 687 | SREE VIDYANIKETHAN INSTITUTE OF MANAGEMENT | Self-financing | South-Central | Andhra Pradesh | Above 30 | Platinum |
| 688 | SREENIDHI INSTITUTE OF SCIENCE & TECHNOLOGY | Self-financing | South-Central | Telangana | Between 11 and 29 | Gold |
| 689 | SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES | Self-financing | South-Central | Andhra Pradesh | 10 and below | Silver |
| 690 | SRI SHAKTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY | Self-financing | Southern | Tamil Nadu | Above 30 | Platinum |

SURVEY 2020

- Winners
- Institute Ranking of AICTE CII Survey 2020

REPORTS FEED

- AICTE-CII Survey Report 2019
- ASHE 2019
- EdCII Survey on Internationalisation of Indian Campuses 2019
- CII PWC Note on Internationalisation 2019
- AICTE-CII Survey Report 2018
- AICTE-CII Survey 2017
- School Education Report 2017
- AICTE-CII Survey Report 2016
- AICTE-CII Survey Report 2015
- ASHE 2015
- Trends in Internationalisation of Higher Education in India 2015

B. Venkatesh

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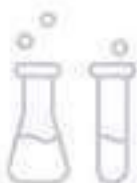


All India Council for Technical Education



Confederation of Indian Industry

AICTE – CII SURVEY OF INDUSTRY LINKED TECHNICAL INSTITUTES 2019





| S. No. | Name of Institute | Institute Type | AICTE Region | State | Score Band | Rating |
|--------|--|----------------|---------------|----------------|-------------------|----------|
| 574 | SIDDI VINAYAKA INSTITUTE OF TECHNOLOGY & SCIENCES (COLLEGE OF PHARMACY) | Self-financing | Central | Chhattisgarh | 10 and below | Silver |
| 575 | SIKKIM MANIPAL INSTITUTE OF TECHNOLOGY | Self-financing | Eastern | Sikkim | 10 and below | Silver |
| 576 | SILVER OAK COLLEGE OF ENGINEERING & TECHNOLOGY | Self-financing | Central | Gujarat | 10 and below | Silver |
| 577 | SINGARENI COLLIERIES POLYTECHNIC | Others | South-Central | Telangana | Between 11 and 29 | Gold |
| 578 | SINHGAD INSTITUTE OF MANAGEMENT | Self-financing | Western | Maharashtra | Above 30 | Platinum |
| 579 | SINHGAD INSTITUTE OF MANAGEMENT, (MBA PROGRAMME) | Self-financing | Western | Maharashtra | 10 and below | Silver |
| 580 | SINHGAD TECHNICAL EDUCATION SOCIETY'S SINHGAD COLLEGE OF PHARMACY | Self-financing | Western | Maharashtra | Between 11 and 29 | Gold |
| 581 | SIVA SIVANI INSTITUTE OF MANAGEMENT | Self-financing | South-Central | Telangana | 10 and below | Silver |
| 582 | SMRITI COLLEGE OF PHARMACEUTICAL EDUCATION | Others | Central | Madhya Pradesh | Above 30 | Platinum |
| 583 | SMT. B. SEETHA POLYTECHNIC | Self-financing | South-Central | Andhra Pradesh | 10 and below | Silver |
| 584 | SMT. KAMALA AND SRI VENKAPPA M AGADI COLLEGE OF ENGINEERING & TECHNOLOGY | Self-financing | South-West | Karnataka | Between 11 and 29 | Gold |
| 585 | SMT. KASHIBAI NAVALE COLLEGE OF PHARMACY | Self-financing | Western | Maharashtra | Above 30 | Platinum |
| 586 | SMT. KISHORITAI BHOYAR COLLEGE OF PHARMACY | Self-financing | Western | Maharashtra | Above 30 | Platinum |
| 587 | SMT. L. V. (GOVT.) POLYTECHNIC | Government | South-West | Karnataka | 10 and below | Silver |
| 588 | SMT. SHARADCHANDRIKA, SURESH PATIL COLLEGE OF PHARMACY, CHOPDA | Self-financing | Western | Maharashtra | 10 and below | Silver |
| 589 | SNGIST GROUP OF INSTITUTIONS | Self-financing | South-West | Kerala | Between 11 and 29 | Gold |
| 590 | SNS COLLEGE OF ENGINEERING | Self-financing | Southern | Tamil Nadu | Above 30 | Platinum |
| 591 | SNS COLLEGE OF TECHNOLOGY | Self-financing | Southern | Tamil Nadu | Above 30 | Platinum |
| 592 | SOLAMALAI COLLEGE OF ENGINEERING | Self-financing | Southern | Tamil Nadu | Between 11 and 29 | Gold |
| 593 | SOLAMALAI COLLEGE OF ENGINEERING | Self-financing | Southern | Tamil Nadu | 10 and below | Silver |
| 594 | SONA COLLEGE OF TECHNOLOGY | Self-financing | Southern | Tamil Nadu | Above 30 | Platinum |
| 595 | SREE SARASWATHI THIYAGARAJA COLLEGE | Self-financing | Southern | Tamil Nadu | Above 30 | Platinum |
| 596 | SREE SASTHA INSTITUTE OF ENGINEERING AND TECHNOLOGY | Self-financing | Southern | Tamil Nadu | Between 11 and 29 | Gold |
| 597 | SREE VIDYANIKETHAN COLLEGE OF PHARMACY | Self-financing | South-Central | Andhra Pradesh | Above 30 | Platinum |
| 598 | SREE VIDYANIKETHAN ENGINEERING COLLEGE | Self-financing | South-Central | Andhra Pradesh | Above 30 | Platinum |
| 599 | SREE VIDYANIKETHAN INSTITUTE OF MANAGEMENT | Self-financing | South-Central | Andhra Pradesh | Above 30 | Platinum |
| 600 | SREE VISVESVARAYA INSTITUTE OF TECHNOLOGY AND SCIENCE | Others | South-Central | Telangana | 10 and below | Silver |



All India Council for Technical Education



Confederation of Indian Industry

AICTE – CII Survey of Industry Linked Technical Institutes 2018



| S. No. | Name of Institute | Score Band | Rating |
|--------|--|-------------------|----------|
| 612 | SMRITI COLLEGE OF PHARMACEUTICAL EDUCATION | > 30 | Platinum |
| 613 | SMT. B.SEETHA POLYTECHNIC | Between 11 and 29 | Gold |
| 614 | SMT. KISHORITAI BHOYAR COLLEGE OF PHARMACY | > 30 | Platinum |
| 615 | SMT. VANITABEN BACHUBHAI NANDOLA M.B.A. COLLEGE | Below 10 | Silver |
| 616 | SMT. VANITABEN BACHUBHAI NANDOLA MCA COLLEGE | Below 10 | Silver |
| 617 | SMT.L.V.(GOVT.) POLYTECHNIC | Below 10 | Silver |
| 618 | SMT.SHARADCHANDRIKA SURESH PATIL COLLEGE OF PHARMACY, CHOPDA | Below 10 | Silver |
| 619 | SNGIST GROUP OF INSTITUTIONS | Between 11 and 29 | Gold |
| 620 | SNJBS LATE SAU. KANTABAI BHAVARLALJI JAIN COLLEGE OF ENGINEERING | Between 11 and 29 | Gold |
| 621 | SNS COLLEGE OF ENGINEERING | Between 11 and 29 | Gold |
| 622 | SNS COLLEGE OF TECHNOLOGY | > 30 | Platinum |
| 623 | SOCIETY OF ADVANCED MANAGEMENT STUDIES, INSTITUTE OF TECHNOLOGY | Below 10 | Silver |
| 624 | SONA COLLEGE OF TECHNOLOGY | > 30 | Platinum |
| 625 | SPHOORTHY ENGINEERING COLLEGE | Below 10 | Silver |
| 626 | SR GROUP OF INSTITUTIONS | Below 10 | Silver |
| 627 | SREE SARASWATHI THYAGARAJA COLLEGE | Between 11 and 29 | Gold |
| 628 | SREE SASTHA INSTITUTE OF ENGINEERING AND TECHNOLOGY | Between 11 and 29 | Gold |
| 629 | SREE VIDYANIKETHAN COLLEGE OF PHARMACY | Between 11 and 29 | Gold |
| 630 | SREE VIDYANIKETHAN ENGINEERING COLLEGE | > 30 | Platinum |
| 631 | SREENIDHI INSTITUTE OF SCIENCE & TECHNOLOGY | Between 11 and 29 | Gold |
| 632 | SRI SHAKTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY | Between 11 and 29 | Gold |
| 633 | SRI INDU COLLEGE OF ENGINEERING & TECHNOLOGY | Below 10 | Silver |
| 634 | SRI KALISWARI INSTITUTE OF MANAGEMENT AND TECHNOLOGY | > 30 | Platinum |
| 635 | SRI KARPAGA POLYTECHNIC COLLEGE | Below 10 | Silver |
| 636 | SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY | > 30 | Platinum |
| 637 | SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY | > 30 | Platinum |
| 638 | SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY | > 30 | Platinum |
| 639 | SRI KRISHNA COLLEGE OF TECHNOLOGY | > 30 | Platinum |
| 640 | SRI KRISHNA COLLEGE OF TECHNOLOGY | > 30 | Platinum |
| 641 | SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE | Below 10 | Silver |
| 642 | SRI MUTHUKUMARAN INSTITUTE OF TECHNOLOGY | Between 11 and 29 | Gold |
| 643 | SRI RAMACHANDRA COLLEGE OF PHARMACY | > 30 | Platinum |
| 644 | SRI RAMAKRISHNA ENGINEERING COLLEGE | > 30 | Platinum |
| 645 | SRI RAMAKRISHNA INSTITUTE OF TECHNOLOGY | Between 11 and 29 | Gold |



All India Council for Technical Education



Confederation of Indian Industry

AICTE – CII SURVEY OF INDUSTRY Linked Technical Institutes 2017



| S.No | Institute | Number of Disciplines they participated in | Score band | Category |
|------|--|--|------------|----------|
| 650 | SINHGAD INSTITUTE OF PHARMACY | 1 | 10 - 30 | Gold |
| 651 | SINHGAD TECHNICAL EDUCATION SOCIETY'S SINHGAD COLLEGE OF PHARMACY | 1 | <10 | Silver |
| 652 | SIR M VISVESVARAYA INSTITUTE OF MANAGEMENT STUDIES AND RESEARCH | 1 | 10 - 30 | Gold |
| 653 | SIVA SIVANI INSTITUTE OF MANAGEMENT | 1 | >30 | Platinum |
| 654 | SMT. KISHORITAI BHOYAR COLLEGE OF PHARMACY | 1 | >30 | Platinum |
| 655 | SMT.SHARADCHANDRIKA SURESH PATIL COLLEGE OF PHARMACY, CHOPDA | 1 | <10 | Silver |
| 656 | SNGIST GROUP OF INSTITUTIONS | 1 | 10 - 30 | Gold |
| 657 | SNJBS LATE SAU. KANTABAI BHAVARLALJI JAIN COLLEGE OF ENGINEERING | 5 | 10 - 30 | Gold |
| 658 | SNS COLLEGE OF ENGINEERING | 6 | 10 - 30 | Gold |
| 659 | SNS COLLEGE OF TECHNOLOGY | 6 | 10 - 30 | Gold |
| 660 | SONA COLLEGE OF TECHNOLOGY | 7 | >30 | Platinum |
| 661 | SOU.SUSHILA DANCHAND GHODAWAT CHARITABLE TRUST'S SANJAY GHODAWAT GROUP OF INSTITUTIONS | 6 | 10 - 30 | Gold |
| 662 | SR GROUP OF INSTITUTIONS | 12 | <10 | Silver |
| 663 | SREE CHITRA THIRUNAL COLLEGE OF ENGINEERING | 4 | <10 | Silver |
| 664 | SREE SARASWATHI THYAGARAJA COLLEGE | 1 | >30 | Platinum |
| 665 | SREE SASTHA INSTITUTE OF ENGINEERING AND TECHNOLOGY | 1 | >30 | Platinum |
| 666 | SREE SASTHA INSTITUTE OF ENGINEERING AND TECHNOLOGY | 12 | 10 - 30 | Gold |
| 667 | SREE SOWDAMBIKA COLLEGE OF ENGINEERING | 5 | <10 | Silver |
| 668 | SREE VIDYANIKETHAN ENGINEERING COLLEGE | 5 | >30 | Platinum |
| 669 | SREE VIDYANIKETHAN INSTITUTE OF MANAGEMENT | 2 | <10 | Silver |
| 670 | SREENIDHI INSTITUTE OF SCIENCE & TECHNOLOGY | 6 | 10 - 30 | Gold |
| 671 | SRI NALLALAGHU NADAR POLYTECHNIC COLLEGE | 5 | 10 - 30 | Gold |
| 672 | SRI SHAKTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY | 5 | >30 | Platinum |
| 673 | SRI ESHWAR COLLEGE OF ENGINEERING | 4 | >30 | Platinum |
| 674 | SRI JAYACHAMARAJENDRA COLLEGE OF ENGINEERING | 6 | >30 | Platinum |
| 675 | SRI KALISWARI INSTITUTE OF MANAGEMENT AND TECHNOLOGY | 1 | 10 - 30 | Gold |
| 676 | SRI KRISHNA COLLEGE OF ENGINEERING AND TECHNOLOGY | 6 | >30 | Platinum |
| 677 | SRI KRISHNA COLLEGE OF TECHNOLOGY | 5 | >30 | Platinum |
| 678 | SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE | 6 | 10 - 30 | Gold |
| 679 | SRI MUTHUKUMARAN INSTITUTE OF TECHNOLOGY | 6 | 10 - 30 | Gold |



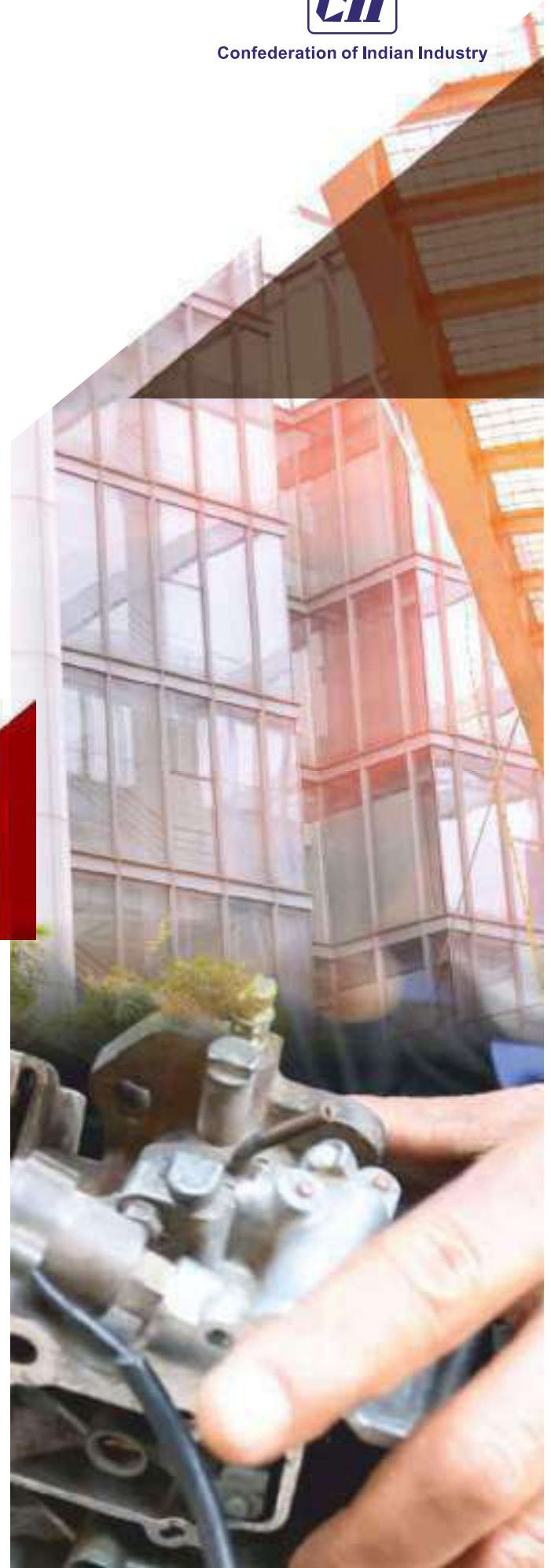
All India Council for Technical Education



Confederation of Indian Industry



AICTE-CII SURVEY OF INDUSTRY-LINKED TECHNICAL INSTITUTES 2016





| S.No | Name of Institute | Main Stream | Existing/ Emerging | Score Band | Ranking |
|------|---|-------------|-----------------------|---------------|----------|
| 727 | Siliguri Institute of Technology(MCA) | Engineering | Existing | 10-30 | Gold |
| 728 | Sinhgad Academy of Engineering | Engineering | Existing | 10-30 | Gold |
| 729 | Sinhgad Institute of Pharmaceutical Sciences, Lonavala | Pharmacy | Existing | 10-30 | Gold |
| 730 | Sinhgad Institute of Pharmacy | Pharmacy | Existing | 10-30 | Gold |
| 731 | Sinhgad Technical Education Society's Sinhgad College of Pharmacy | Pharmacy | Existing | <10 | Silver |
| 732 | Sinhgad Technical Education Society's Sou. Venutai Chavan Polytechnic | Engineering | Emerging | <10 | Silver |
| 733 | Sir C.V. Raman Institute of Technology & Sciences | Engineering | Emerging | 10-30 | Gold |
| 734 | Sir M. Visvesvaraya Institute of Technology | Engineering | Existing | 10-30 | Gold |
| 735 | Sir Vishveshwariah Institue of Science & Technology | Engineering | Emerging | <10 | Silver |
| 736 | Sir Visvesvaraya Institute of Technology | Engineering | Existing | 10-30 | Gold |
| 737 | Sityog Institute of Technology | Engineering | Emerging | 10-30 | Gold |
| 738 | Siva Sivani Institute of Management | Management | Existing | >30 | Platinum |
| 739 | SJM College of Pharmacy | Pharmacy | Existing | <10 | Silver |
| 740 | SKN Sinhgad Institute of Technology & Science | Engineering | Emerging | 10-30 | Gold |
| 741 | Smriti College of Pharmaceutical Education | Pharmacy | Existing | >30 | Platinum |
| 742 | SMT Siddamma Sanganna Meti Polytechnic | Engineering | Emerging | <10 | Silver |
| 743 | Smt.I.V.(Govt.) Polytechnic | Engineering | Existing | <10 | Silver |
| 744 | SNGIST Group of Institutions | Management | Existing | 10-30 | Gold |
| 745 | SNM Institute of Management And Technology | Engineering | Emerging | <10 | Silver |
| 746 | SNS College of Engineering | Engineering | Emerging | >30 | Platinum |
| 747 | SNS College of Technology | Engineering | Emerging | 10-30 | Gold |
| 748 | Sou. Sushila Danchand Ghodawat Charitable Trust's Sanjay Ghodawat Group of Institutions | Engineering | Emerging | 10-30 | Gold |
| 749 | Srajan Institute of Tech. Management & Science | Engineering | Emerging | <10 | Silver |
| 750 | Sree Buddha College of Engineering, Pattoor | Engineering | Existing | 10-30 | Gold |
| 751 | Sree Sastha College of Engineering | Engineering | Emerging | 10-30 | Gold |
| 752 | Sree Sastha Institute of Engineering and Technology | Engineering | Existing | 10-30 | Gold |
| 753 | Sree Sowdambika College of Engineering | Engineering | Emerging | <10 | Silver |
| 754 | Sree Vidyanikethan Engineering College | Engineering | Emerging | 10-30 | Gold |
| 755 | Sreenidhi Institute of Science & Technology | Engineering | Existing | >30 | Platinum |
| 756 | Sri Shakthi Institute of Engineering and Technology | Engineering | Emerging | >30 | Platinum |
| 757 | Sri Eshwar College of Engineering | Engineering | Emerging | >30 | Platinum |
| 758 | Sri Jayachamarajendra College of Engineering | Engineering | Existing | 10-30 | Gold |
| 759 | Sri Krishna Polytechnic | Engineering | Emerging | <10 | Silver |
| 760 | Sri Manakula Vinayagar Engineering College | Engineering | Emerging | 10-30 | Gold |
| 761 | Sri Polytechnic | Engineering | Emerging | <10 | Silver |
| 762 | Sri Ramachandra Polytechnic College | Engineering | Merging | 10-30 | Gold |
| 763 | Sri Ramakrishna Engineering College | Engineering | Existing | >30 | Platinum |
| 764 | Sri Ramakrishna Institute of Technology | Engineering | Existing | 10-30 | Gold |
| 765 | Sri Sai Ram Engineering College | Engineering | Emerging | >30 | Platinum |
| 766 | Sri Sai Ram Engineering College (MBA) | Engineering | Existing | >30 | Platinum |
| 767 | Sri Sai Ram Institute of Technology | Engineering | Emerging | 10-30 | Gold |
| 768 | Sri Shanmugha College of Engineering and Technology | Engineering | Emerging | 10-30 | Gold |
| 769 | Sri Sharada Institute of Indian Management Research | Management | Existing | >30 | Platinum |





Confederation of Indian Industry



AICTE-CII SURVEY OF INDUSTRY-LINKED TECHNICAL INSTITUTES 2015



| S. No | Name of Institute | AICTE Region | Category |
|-------|---|---------------|----------|
| 227 | SHRIDEVI INSTITUTE OF ENGINEERING AND TECHNOLOGY | South-West | Silver |
| 228 | SIDDHI VINAYAK COLLEGE OF SCIENCE & HR. EDUCATION | North-West | Gold |
| 229 | SIDDHI VINAYAK ENGINEERING & MANAGEMENT COLLEGE | North-West | Silver |
| 230 | SNS COLLEGE OF ENGINEERING | Southern | Gold |
| 231 | SNS COLLEGE OF TECHNOLOGY | Southern | Gold |
| 232 | SRAJAN INSTITUTE OF TECH. MANAGEMENT & SCIENCE | Central | Silver |
| 233 | SREE VIDYANIKETHAN ENGINEERING COLLEGE | South-Central | Gold |
| 234 | SRI SHAKTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY | Southern | Platinum |
| 235 | SRI ESHWAR COLLEGE OF ENGINEERING | Southern | Platinum |
| 236 | SRI MANAKULA VINAYAGAR ENGINEERING COLLEGE | Southern | Silver |
| 237 | SRI RAAJA RAAJAN COLLEGE OF ENGINEERING AND TECHNOLOGY | Southern | Gold |
| 238 | SRI RAMACHANDRA POLYTECHNIC COLLEGE | Southern | Silver |
| 239 | SRI VENKATESA PERUMAL COLLEGE OF ENGINEERING & TECHNOLOGY | South-Central | Gold |
| 240 | SRI VENKATESWARA COLLEGE OF ENGINEERING | Southern | Gold |
| 241 | ST. ANNE'S COLLEGE OF ENGINEERING AND TECHNOLOGY | Southern | Silver |
| 242 | SUNSHINE EXAMINERS SARWATHI EDUCATIONAL TRUST'S GROUP OF INSTITUTIONS | Northern | Silver |
| 243 | SVERI'S COLLEGE OF ENGINEERING, PANDHARPUR | Western | Gold |
| 244 | SVKM'S NARSEE MONJEE INSTITUTE OF MANAGEMENT STUDIES | Western | Gold |
| 245 | SVS COLLEGE OF ENGINEERING | Southern | Gold |
| 246 | SWAMI VIVEKANANDA INSTITUTE OF SCIENCE & TECHNOLOGY | Eastern | Silver |
| 247 | SYMBIOSIS INSTITUTE OF TECHNOLOGY | Western | Gold |
| 248 | SYNERGY INSTITUTE OF ENGINEERING & TECHNOLOGY | Eastern | Gold |
| 249 | SYNERGY INSTITUTE OF TECHNOLOGY | Eastern | Silver |
| 250 | T JOHN INSTITUTE OF TECHNOLOGY | South-West | Silver |
| 251 | TEEGALA KRISHNA REDDY ENGINEERING COLLEGE | South-Central | Gold |
| 252 | THEEM COLLEGE OF ENGINEERING | Western | Silver |
| 253 | TKR COLLEGE OF ENGINEERING & TECHNOLOGY | South-Central | Silver |
| 254 | TOC H INSTITUTE OF SCIENCE & TECHNOLOGY | South-West | Gold |
| 255 | TONTADARYA COLLEGE OF ENGINEERING | South-West | Silver |
| 256 | TRIGUNA SEN SCHOOL OF TECHNOLOGY | Eastern | Silver |
| 257 | TRIPURA INSTITUTE OF TECHNOLOGY | Eastern | Silver |
| 258 | TULSIRAMJI GAIKWAD-PATIL COLLEGE OF ENGINEERING AND TECHNOLOGY | Western | Gold |
| 259 | U. V. PATEL COLLEGE OF ENGINEERING | Central | Silver |

| S. No | Name of Institute | AICTE Region | Category |
|-------|--|---------------|----------|
| 260 | UNITED COLLEGE OF ENGINEERING & RESEARCH | Northern | Gold |
| 261 | UNITED INSTITUTE OF TECHNOLOGY | Southern | Gold |
| 262 | UNIVERSITY COLLEGE OF ENGINEERING KAKINADA | South-Central | Gold |
| 263 | UNIVERSITY INSTITUTE OF TECHNOLOGY | Eastern | Gold |
| 264 | USHA RAMA COLLEGE OF ENGINEERING AND TECHNOLOGY | South-Central | Gold |
| 265 | V V COLLEGE OF ENGINEERING | Southern | Gold |
| 266 | V.S.M. COLLEGE OF ENGINEERING | South-Central | Gold |
| 267 | VARDHAMAN COLLEGE OF ENGINEERING | South-Central | Gold |
| 268 | VEERAPPA NISTY ENGINEERING COLLEGE | South-West | Silver |
| 269 | VEL TECH | Southern | Platinum |
| 270 | VEL TECH HIGH TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE | Southern | Gold |
| 271 | VEL TECH MULTI TECH DR.RANGARAJAN DR.SAKUNTHALA ENGINEERING COLLEGE | Southern | Platinum |
| 272 | VELAGAPUDI RAMAKRISHNA SIDDHARTHA ENGINEERING COLLEGE | South-Central | Gold |
| 273 | VELAMMAL COLLEGE OF ENGINEERING & TECHNOLOGY | Southern | Gold |
| 274 | VELAMMAL INSTITUTE OF TECHNOLOGY | Southern | Gold |
| 275 | VIDYA COLLEGE OF ENGINEERING | Northern | Gold |
| 276 | VIDYA VIKAS INSTITUTE OF ENGINEERING & TECHNOLOGY | South-West | Silver |
| 277 | VIGNANA BHARATHI INSTITUTE OF TECHNOLOGY | South-Central | Silver |
| 278 | VINS CHRISTIAN WOMEN'S COLLEGE OF ENGINEERING | Southern | Gold |
| 279 | VISHNU INSTITUTE OF TECHNOLOGY | South-Central | Gold |
| 280 | VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY | Western | Gold |
| 281 | VISVESVARAYA NATIONAL INSTITUTE OF TECHNOLOGY | Western | Gold |
| 282 | VIVEKANANDA INSTITUTE OF TECHNOLOGY | North-West | Gold |
| 283 | VIVEKANANDA INSTITUTE OF TECHNOLOGY - EAST (FORMERLY VIVEKANANDA COLLEGE OF ENGINEERING) | North-West | Gold |
| 284 | YAMUNA INSTITUTE OF ENGINEERING & TECHNOLOGY | North-West | Gold |
| 285 | A. Y. DADABHAI TECHNICAL INSTITUTE | Central | Gold |
| 286 | ABDUL RAZZAK KALSEKAR POLYTECHNIC | Western | Gold |
| 287 | ABS ACADEMY OF POLYTECHNIC | Eastern | Silver |
| 288 | ABSS INSTITUTE OF TECHNOLOGY | Northern | Silver |
| 289 | ACHARYA POLYTECHNIC COLLEGE | Southern | Gold |
| 290 | ADVANCED TOOLING & PLASTICS PRODUCT DEVELOPMENT CENTRE | Southern | Gold |
| 291 | ALLAHABAD COLLEGE OF ENGINEERING AND MANAGEMENT | Northern | Silver |
| 292 | ATUL POLYTECHNIC | Central | Silver |

Extension activities carried out in the neighbourhood community during the Academic Year 2020-21

| S.No | Name of the activity | Organising unit/ agency/ collaborating agency | Number of students participated in such activities |
|------|---|---|--|
| 1 | International Yoga Day 2020 | NSS UNIT & Women empowerment cell, Sree Vidyanikethan engineering college. | 150 |
| 2 | 1 Day- Workshop on Social Entrepreneurship, Swachhta and Rural Engagement. | SESRE CELL | 177 |
| 3 | Cyber awareness Drive- for girl students by AP Police | AP Police -Govt of Andhra Pradesh | 370 |
| 4 | Health Camp | NSS UNIT and Department of CSE of Sree Vidyanikethan Engineering College in collaboration with AMARA HOSPITALS, Tirupati | 50 |
| 5 | Blood Donation Camp | NSS UNIT-Sree Vidyanikethan Engineering College | 136 |
| 6 | International Women's Day | NSS Unit, IEEE WIE and Women Empowerment Cell of Sree Vidyanikethan Engineering College. | 392 |
| 7 | WORLD WATER DAY 2021c An Awareness program on "Water Conservation" | SESRE CELL | 350 |
| 8 | NSS Orientation Program | NSS UNIT-Sree Vidyanikethan Engineering College | 250 |
| 9 | 3-DAY ONLINE GUIDED FREE WORKSHOP On ASANAS, PRANAYAMA & MEDITATION. | NSS Unit, IEEE WIE and Women Empowerment Cell of Sree Vidyanikethan Engineering College In association with "Art of Living Organization". | 300 |
| 10 | World Environment Day 2021 | Social Entrepreneurship, Swachhta, and Rural Engagement CELL. | 510 |
| 11 | International Yoga Day 2021 | NSS Unit, IEEE WIE and Women Empowerment Cell of Sree Vidyanikethan Engineering College In association with "Art of Living Organization". | 213 |
| 12 | Young calibre 2021 | NSS Unit and Dept. of ECE | 49 |
| 13 | Health Awareness Seminar | NSS Unit and Dept. of CSE in association with AMARA Hospitals | 300 |
| 14 | Health Awareness Campaign- Adopted Village (Kotala) - An Initiative of IQAC | NSS UNIT and Dept. of CSE | 70 |
| 15 | Managing Women's health issues in the pandemic times- Online Webinar- DRFHE | NSS UNIT and DRFHE(Dr.Reddys foundation for Health Education) | 80 |
| 16 | Swachh Bhatat Abhiyaan, clean and green Program on the occasion of NSS FOUNDATION DAY – An initiative of IQAC | NSS UNIT | 425 |

Extension activities carried out in the neighbourhood community during the Academic Year 2019-20

| S.No | Name of the activity | Organising unit/ agency/ collaborating agency | Number of students participated |
|------|--|---|---------------------------------|
| 1 | World Environment Day | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 150 |
| 2 | Plantation Drive-One Student One Tree | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 300 |
| 3 | NSS DAY& Preventive Health Checkup | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 200 |
| 4 | Health Camp | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati in association with CRD-ISR. | 300 |
| 5 | International Women's Day | NSS UNIT & Women empowerent cell, sree vidyanikethan engineering college | 350 |
| 6 | Feminine Self Defence Workshop in association with Beats Fitness Studio | NSS Unit & Feminine self defense in association with BEATS FITNESS STUDIO | 450 |
| 7 | Awareness program on solid waste management | Unnat bharaat abhiyan 2.0 in collaboration with Center for rural development- SVET | 250 |
| 8 | Awareness program on agriculture and water conservation | Unnat bharaat abhiyan 2.0 in collaboration with Center for rural development- SVET | 200 |
| 9 | Visit to Mathrusya-An Orphanage | NSS UNIT in collaboration with Team ACME (association of communication majors and enthusiasts) Sree Vidyanikethan Engineering College | 100 |
| 10 | "Career and Skill Development" to students/ 'career guidance program for ssc students' at zphs a.rangampeta | NSS UNIT in collaboration with Computer Engineers Technical Association, Sree Vidyanikethan Engineering College | 142 |
| 11 | Primary healt checkup camp at Kotala Village, A. Rangampet | NSS UNIT in collaboration with Instrumentation Majors(AIM), Sree Vidyanikethan Engineering College | 100 |
| 12 | Outreach Activity – An Awareness Program on "Role of Civil Engineering in Societal Development" at Govt. Junior college (Girls), Chandragiri | NSS UNIT in collaboration with ASCE SVEC Student Chapter, Sree Vidyanikethan Engineering College | 84 |
| 13 | Outreach Activity – A Program on "Save the Mother Earth by avoiding Soil Pollution" at Kuchivaripalli Village, Chandagiri Mandal | NSS UNIT in collaboration with IGS SVEC Student Chapter, Sree Vidyanikethan Engineering College | 80 |

Verified and found Correct



NSS Coordinator
NSS Programme Officer
Sree Vidyanikethan Engineering College
Sree Sainath Nagar, A. Rangampet
Chittoor (Dt.) - 517 102. A P


PRINCIPAL
PRINCIPAL
SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)
Sree Sainath Nagar, A. RANGAMPET
Chittoor (Dist.) - 517 102, A.P., INDIA.

Extension activities carried out in the neighbourhood community during the Academic Year 2018-19

| S.No | Name of the activity | Organising unit/ agency/ collaborating agency | Number of students participated |
|------|---|---|---------------------------------|
| 1 | Offline/online electoral registration process | NSS UNIT in collaboration with "SVEEP"- Election Commission of AP | 250 |
| 2 | Diabetes Camp | NSS UNIT in collaboration with ARH Diabetes Hospital, Tirupati | 280 |
| 3 | Awareness camp on cyber crime | NSS UNIT & Women's Grievance Cell in collaboration with 'MAHILA RAKSHAK SPECIAL TEAM'-AP Police, Tirupati. | 600 |
| 4 | International Women's Day | NSS UNIT & Women's Grievance Cell | 600 |
| 5 | Blood Donation Camp | NSS UNIT in association with SVIMS,SVRRGGH & Govt. General Hospital, SVS Charitable Trust | 400 |
| 6 | Nss special camp | In Collaboration with C2F | 150 |
| 7 | "Usage of Computers in Real World"/digital awareness campaign' | NSS UNIT in collaboration with Computer Engineers Technical Association, Sree Vidyanikethan Engineering College | 125 |
| 8 | "Personality Development" for 9 th & 10 th class students in Zilla parishad High school,/ personality development program for high school at zphs | NSS UNIT in collaboration with Computer Engineers Technical Association, Sree Vidyanikethan Engineering College | 190 |
| 9 | "Career and Skill Development" to students/ 'career guidance program for ssc students' at zphs a.rangampeta | NSS UNIT in collaboration with Computer Engineers Technical Association, Sree Vidyanikethan Engineering College | 150 |
| 10 | Health and hygiene survey at adopted villages | Unnat bharaat abhiyan 2.0 in collaboration with Center for rural development- SVET | 180 |
| 11 | Awareness program on digital literacy | Association of Instrumentation Majors(AIM) in collaboration with NSS UNIT, Sree Vidyanikethan Engineering College | 55 |
| 12 | Awareness program on mental health | Association of Instrumentation Majors(AIM) in collaboration with NSS UNIT, Sree Vidyanikethan Engineering College | 150 |

Verified and found Correct



NSS Coordinator

NSS Programme Officer
Sree Vidyanikethan Engineering College
Sree Sainath Nagar, A. Rangampeta
Chittoor (Dt.) - 517 102, A.P.

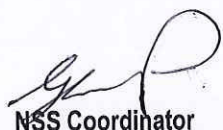


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PRINCIPAL
SREE VIDYANIKETHAN ENGINEERING COLLEGE
(AUTONOMOUS)
Sree Sainath Nagar, A. RANGAMPET
Chittoor (Dist.) - 517 102, A.P., INDIA

Extension activities carried out in the neighbourhood community during the Academic Year 2017-18

| S.No | Name of the activity | Organising unit/ agency/ collaborating agency | Number of students participated |
|------|--|--|---------------------------------|
| 1 | Vanamahosythavam mass tree plantation | NSS UNIT, Sree Vidyanikethan Engineering College. | 300 |
| 2 | Swachh Pakhawad | SWACHH BHARAT MISSION, Govt. of INDIA | 250 |
| 3 | ODF-Open Defecation Free Survey | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 400 |
| 4 | International Women's Day | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 60 |
| 5 | Blood Donation Camp | NSS UNIT in association with SVIMS, Govt. Maternity Hospital, SVRRGGH and SVS Charitable Trust | 650 |
| 6 | "Career and Skill Development" to students/ 'career guidance program for ssc students' at zphs A.Rangampet | NSS UNIT in collaboration with Computer Engineers Technical Association, Sree Vidyanikethan Engineering College | 180 |
| 7 | Open Day ' Showcasing engineering labs to Govt school children of adopted villages | NSS UNIT in collaboration with Computer Engineers Technical Association, Sree Vidyanikethan Engineering College | 250 |
| 8 | "Computer Applications in Real Life" | NSS UNIT in collaboration with Computer Engineers Technical Association, Sree Vidyanikethan Engineering College | 121 |
| 9 | "Skill Enhancement and Career Growth" | NSS UNIT in collaboration with Computer Engineers Technical Association, Sree Vidyanikethan Engineering College | 134 |
| 10 | Visit of Young Caliber team to Mathrusya, an orphanage | Team ACME (association of communication majors and enthusiasts) in collaboration with NSS UNIT, Sree Vidyanikethan Engineering College | 70 |
| 11 | NSS Special Camp | National Service scheme(NSS) | 100 |

Verified and found Correct



NSS Coordinator

NSS Programme Officer
Sree Vidyanikethan Engineering College
Sree Sainath Nagar, A. Rangampet
Chittoor (Dt.) - 517 102



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Extension activities carried out in the neighbourhood community during the Academic Year 2016-17

| S.No | Name of the activity | Organising unit/ agency/ collaborating agency | Number of students participated |
|------|---|---|---------------------------------|
| 1 | Swachha Bharath Door to door campaign | NSS UNIT, Sree Vidyanikethan Engineering College. | 50 |
| 2 | Financial Literacy Program(FLP) | APSSDC Govt of AP. & TAIT (Technical Association of Information Technology) Sree Vidyanikethan Engineering College, Tirupati. | 60 |
| 3 | International Literacy Week ,Kotala | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 85 |
| 4 | Cashless transaction Campaign | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 100 |
| 5 | Outreach Program on Online Bill payments | Technical Association of CSSE Sree Vidyanikethan Engineering College & PAYTM India Ltd., In Naravaripalli, A.Rangampet and Kandulavaripalli | 140 |
| 6 | Outreach programme on "Digital Literacy" | Z.P.High School, Narasingapuram Village & TAIT (Technical Association of Information Technology) Sree Vidyanikethan Engineering College , | 30 |
| 7 | An Expert Talk on Women Empowerment in Research and Engineering | NSS & Women's Protection Cell , Sree Vidyanikethan Engineering College | 65 |
| 8 | Gender Equality and Women Empowerment | NSS & Women's Protection Cell , Sree Vidyanikethan Engineering College | 300 |
| 9 | Seminar on Feminism in Contemporary India: Issues & Challenges | Women's Protection Cell , Sree Vidyanikethan Engineering College | 270 |
| 10 | An Expert Talk on Glass Ceiling | Women's Protection Cell , Sree Vidyanikethan Engineering College | 123 |
| 11 | 'VANAMAHOTHSAVAM WEEK', Mass Tree Plantation | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 100 |
| 12 | "Independence Day" at Govt.High School, Kotala Panchayat | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 100 |
| 13 | International Literacy Week Campaign | Bharath Nirman Society (NGO) & NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 85 |
| 14 | NSS Foundation Day | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 100 |
| 15 | "National Voter's Day" at SVEC campus | NSS UNIT, Sree Vidyanikethan Engineering College, Tirupati. | 100 |
| 16 | International Womens day | NSS UNIT in collaboration with Women's grievance cell | 150 |
| 17 | Blood donation camp | NSS UNIT in association with SVIMS, GOvt.Maternity Hospital, SVRRGGH and SVS Charitable Trust. | 250 |

Verified and found Correct



NSS Coordinator

NSS Programme Officer
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