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P.P.Colony (Po.), Peddabonkuru (Vill), PEDDAPALLI (Mdl. & Dist.) - 505174, Telangana State.

Website: www.mtec86.ac.in E-mail: mtec.86@gmail.com Contact: +91 9849472523, +91 9542709545, +91 9989959556.

#### DISPLAY VISION, MISSION, PO's, PEO's, PSO's &CO's

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#### MOTHER THERESSA COLLEGE OF ENGINEERING & TECHNOLOGY

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#### Display OF Vision, Mission In College Brochure



Fostering a culture of educational excellence, empowering engineers through innovation and collaboration for a brighter, sustainable future

#### MORE INFORMATION

mtec.56@gmail.com

**U** 8728222844

www.mtec56.ec.in

#### MISSION

IMI: To provide high-quality education that equips engineers with the knowledge and skills to excel in a rapidly changing technological landscape.

M2: To encourage innovation through research and practical applications, promoting a spirit of creativity and problem-solving. M3: To foster collaboration by building strong partnerships with industry, academia, and the community to address real-world challenges.

M4: To instill a sense of responsibility for sustainability and environmental awareness, preparing engineers to contribute to a greener, more sustainable future



#### philosophy

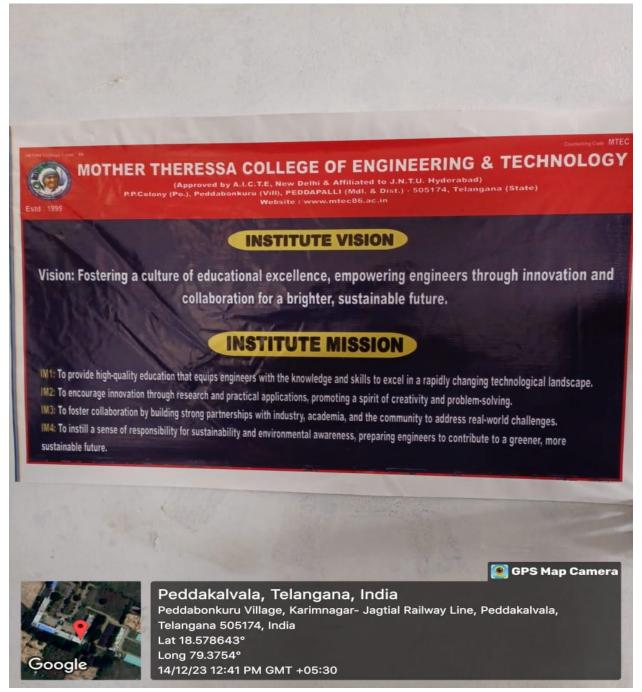
Our College Has Endeavored To Ensure Quality Education And Has Ever Since Been Excelling In Every Aspect. The Brisk Of This Able Of Institute Are The Experience Faculty, The Selfless Non-Teaching Staff And Of Course The Students.



#### Display OF Vision, Mission in CEO Room







Display Of Vision , Mission In Outside Board Room

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#### Display Of Vision , Mission In Outside Board Room



Counselling Code: MTEC

Estd: 1999

JNTUH College Code: 86

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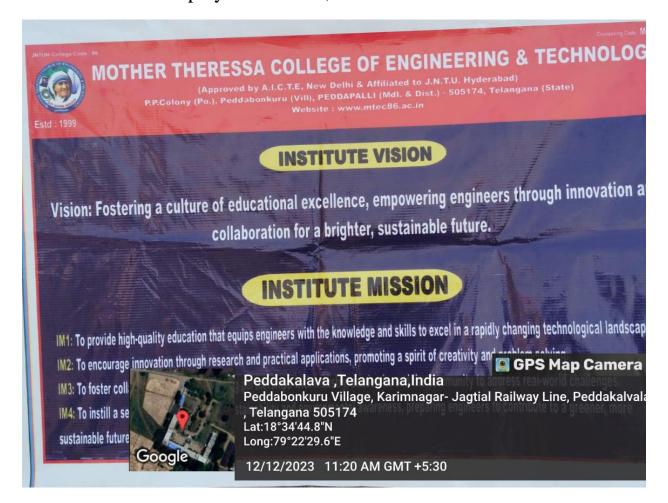
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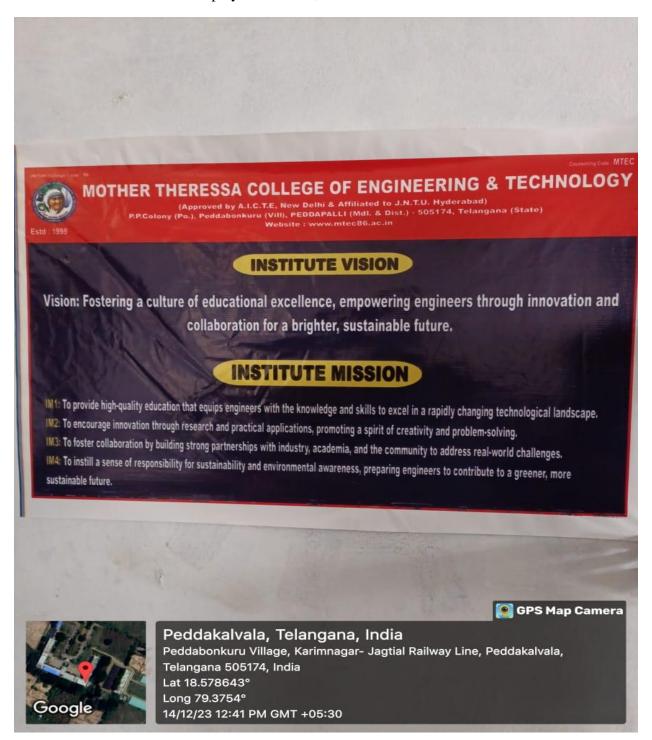
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#### Display OF Vision, Mission In Corridors





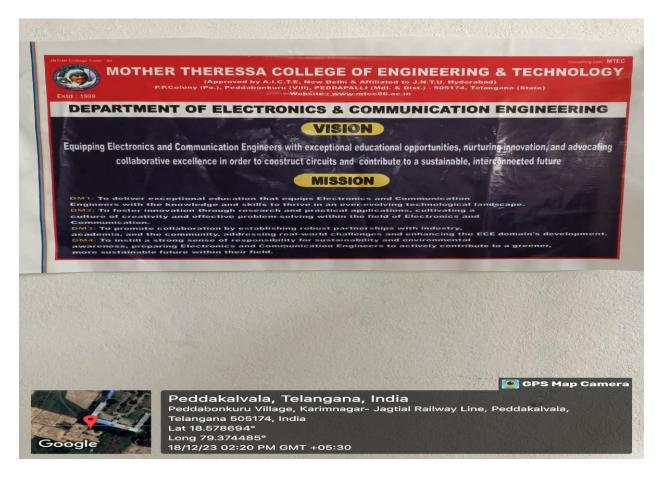
#### Display OF Vision, Mission Seminar Hall





Display OF Vision, Mission & PSO, PEO'S, PO In Respective Department Staff Room

#### **Electronic And Communication Engineering**

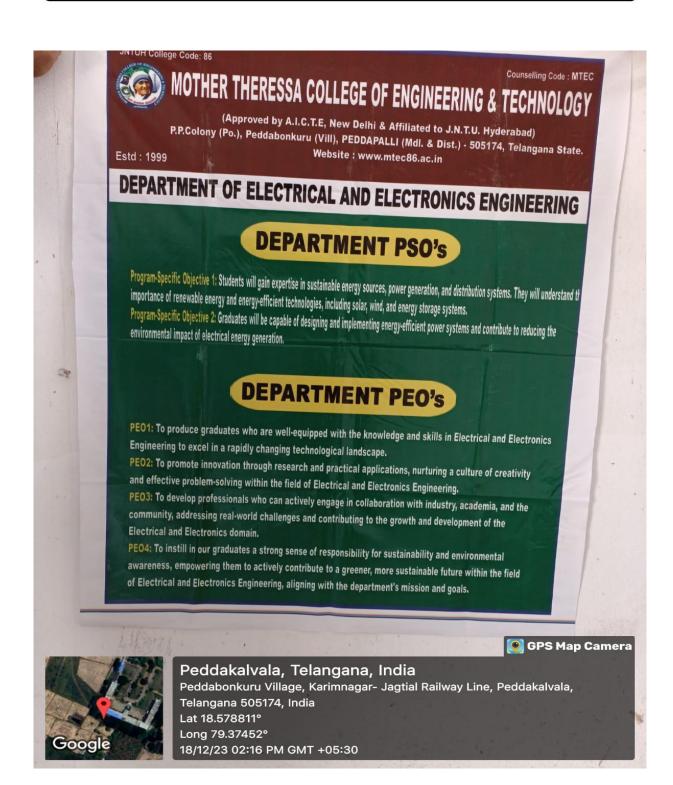


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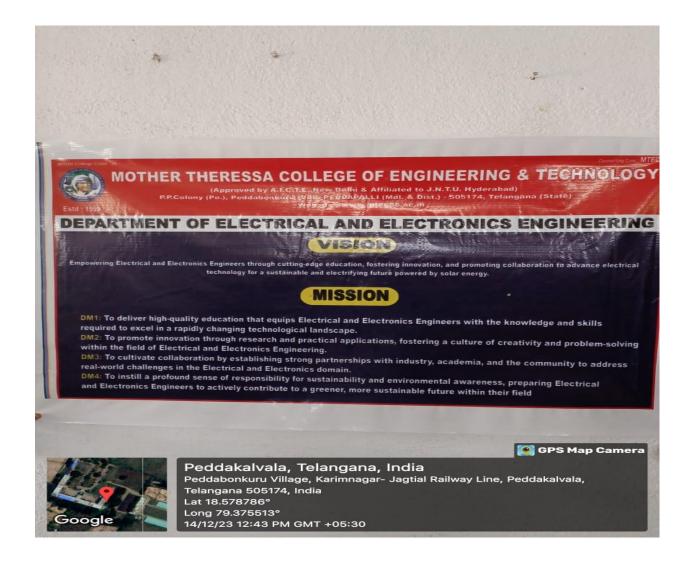
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#### **Electrical And Electronic Engineering**

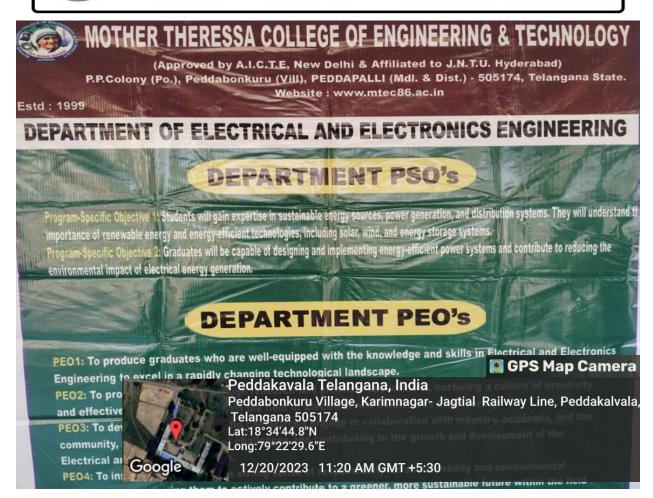


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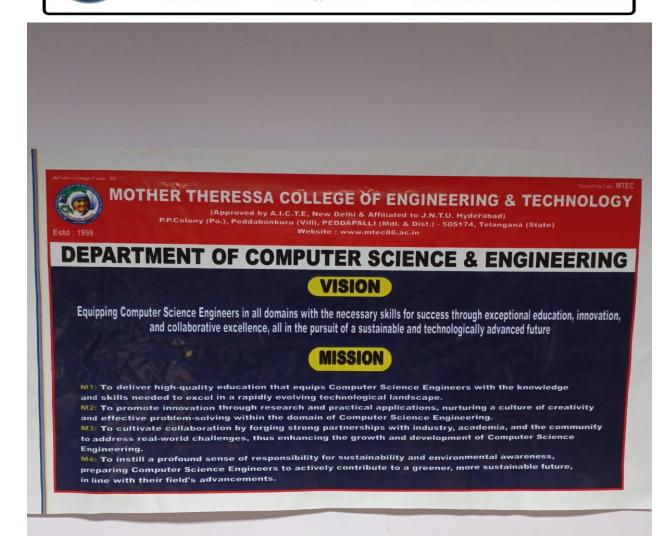


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Peddakalvala, Telangana, India

Peddabonkuru Village, Karimnagar- Jagtial Railway Line, Peddakalvala, Telangana 505174, India

🎑 GPS Map Camera

Lat 18.57859°

Long 79.375364°

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JNTUH College Code: 86

Counselling Code: WILEC



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Website: www.mtec86.ac.in

Estd: 1999

#### **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

### DEPARTMENT PSO's

Program Specific Objective 1: "Enable Computer Science Engineering graduates to leverage their knowledge in computer science and engineering fundamentals to develop innovative solutions for real-world computational challenges, fostering a culture of problem-solving and creativity."

Program Specific Objective 2: "Equip graduates with the skills and ethical principles to contribute to the development of advanced technology and its responsible use in society, emphasizing the importance of professional ethics and societal responsibilities in the field of Computer Science Engineering."

### **DEPARTMENT PEO's**

PEO1: To produce graduates who are well-equipped with the knowledge and skills in Computer Science Engineering to excel in a rapidly evolving technological landscape.

PEO2: To foster innovation through research and practical applications, nurturing a culture of creativity and effective problem-solving within the domain of Computer Science Engineering.

PEO3: To develop professionals who can actively engage in collaboration with industry, academia, and the *community*; addressing real-world challenges and contributing to the growth and development of Computer Science Engineering.

PEO4: To instill in our graduates a strong sense of responsibility for sustainability and en GPS Map Camera

Peddakalvala, Telangana, India
Peddabonkuru Village, Karimnagar- Jagtial Railway Line, Peddakalvala,
Telangana 505174, India
Lat 18.578541°

Long 79.375071°

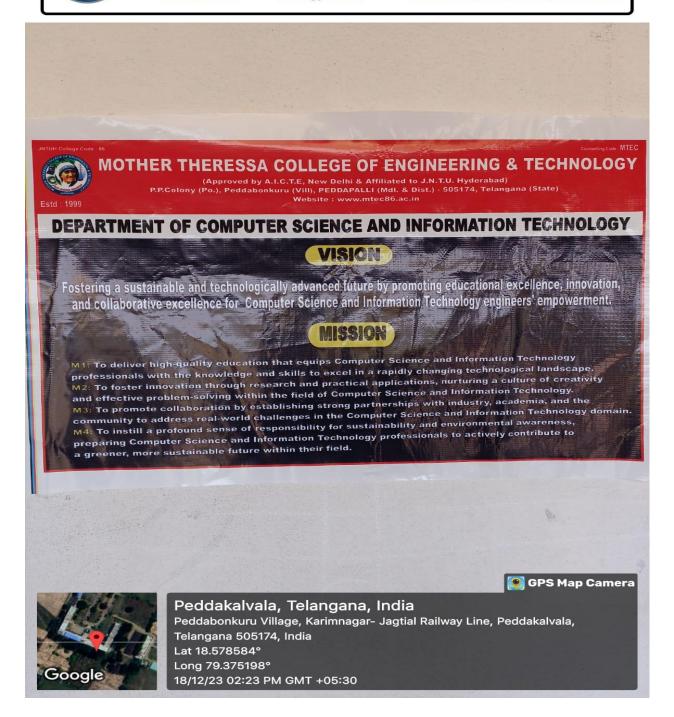
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Estd: 1999

#### DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY

#### **DEPARTMENT PSO's**

Program Specific Objective 1 (PSO1): "Empower graduates in Computer Science to excel in software development, data analysis, and artificial intelligence, equipping them to create innovative solutions to complex computational challenges." Program Specific Objective 2 (PSO2): "Enable graduates in Information Technology to specialize in IT infrastructure, cybersecurity, and network management, ensuring that they can design and implement secure, efficient, and scalable technology solutions for organizations."

#### **DEPARTMENT PEO's**

PEO1: To produce graduates who are well-equipped with the knowledge and skills in Computer Science and Information Technology to excel in a rapidly changing technological landscape.

PEO2: To foster innovation through research and practical applications, nurturing a culture of a effective problem-solving within the field of Computer Science and Information Technol. GPS Map Camera

PEO3: To develop community, addre Computer Science PEO4: To instill in awareness, empor of Computer Scien Google Peddakavala Telangana, India

Peddabonkuru Village, Karimnagar- Jagtial Railway Line, Peddakalvala, Telangana 505174

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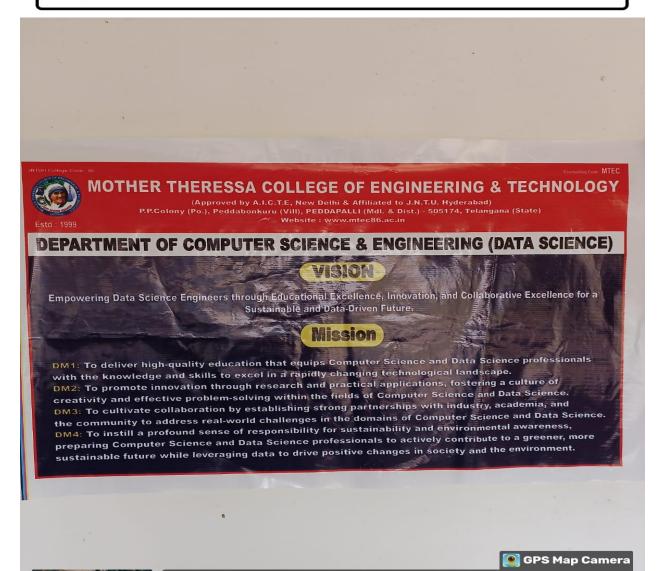
12/20/2023 11:20 AM GMT +5:30 mission and goals

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JNTUH College Code: 86



## OTHER THERESSA COLLEGE OF ENGINEERING & TECHNO

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Estd: 1999

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING (DATA SCIENCE)

### DEPARTMENT PSO's

Program-Specific Objective 1: Students will develop expertise in advanced data analysis techniques, including machine learning and statistical modeling. They will be proficient in using data analytics tools and methodologies to extract meaningful insights from complex datasets, and they will be able to build and deploy predictive models for real-world applications.

Program-Specific Objective 2: Graduates will have a strong foundation in handling and managing large volumes of data including big data technologies and data engineering practices.

### **DEPARTMENT PEO's**

PEO1: "Produce Computer Science Engineering graduates with expertise in Data Science, well-versed in computer science, statistical analysis, and data processing, enabling them to excel in the ever-changing tech landscape through data-driven problem-solving."

PEO2: "Cultivate innovation in our graduates, inspiring them to push the boundaries of Data Science through research, practical applications, and creative problem-solving, contributing to the advancement of data-driven technologies."

PEO3: "Nurture collaboration among our graduates by fostering partnerships with industry, academia,

and the community, enabling them to engage in multidisciplinary projects and address rea 🎑 GPS Map Camera

Counselling Code: MTEC

Peddakalvala, Telangana, India

Peddabonkuru Village, Karimnagar- Jagtial Railway Line, Peddakalvala,

Telangana 505174, India

Lat 18.578894°

Long 79.374587°

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18

#### **MOTHER THERESSA COLLEGE OF ENGINEERING & TECHNOLOGY**

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Counselling Code : MTEC



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Website: www.mtec86.ac.in

Estd: 1999

### DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING (CYBER SECURITY)

### **DEPARTMENT PSO's**

Program-Specific Objective 1: Students will be able to develop and implement comprehensive cybersecurity strategies for organizations,

taking into account risk assessment, threat modeling, and compliance with legal and regulatory requirements...

Program-Specific Objective 2: Students will be proficient in handling cybersecurity incidents and conducting digital forensics investigations.

### **DEPARTMENT PEO's**

**PEO1:** To produce graduates who are well-equipped with the knowledge and skills in Computer Science and Cyber Security to excel in a rapidly changing technological landscape while ensuring the security of digital systems and data.

PEO2: To foster innovation through research and practical applications, nurturing a culture of creativity and effective problem-solving within the field of Computer Science and Cyber Security.

PEO3: To develop professionals who can actively engage in collaboration with industry, academia, and the community, addressing real-world challenges and contributing to the growth and development of the Computer Science and Cyber Security domain.

GPS Map Camera
To instill in our graduates a strong sense of responsibility for sustainability and environmental

Peddakalvala, Telangana, India

Peddabonkuru Village, Karimnagar- Jagtial Railway Line, Peddakalvala,

Telangana 505174, India lent with the department's mission and goals
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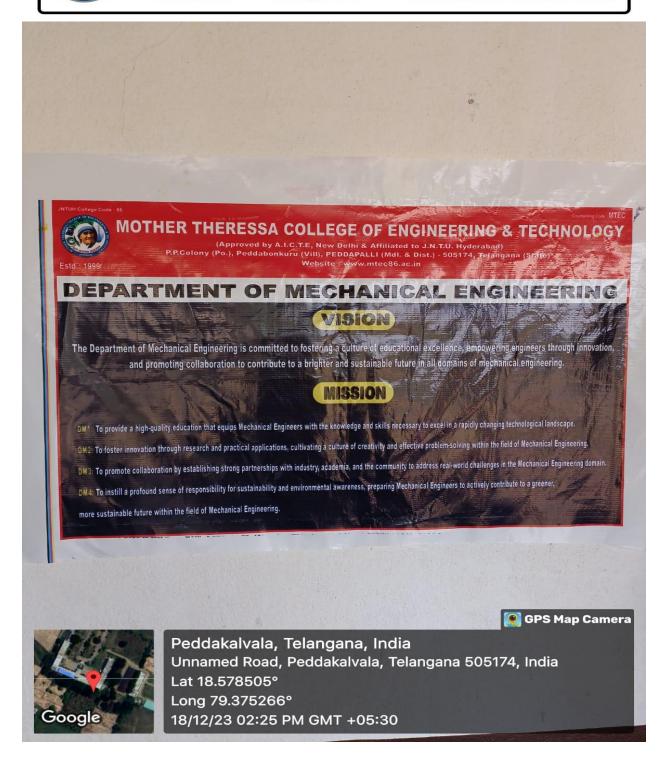
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Website: www.mtec86.ac.in

## DEPARTMENT OF MECHANICAL ENGINEERING

### DEPARTMENT PSO's

Program-Specific Objective 1: Students will be proficient in designing and optimizing advanced mechanical systems, including components and machinery, for a wide range of applications. They will acquire in-depth knowledge of cutting-edge design tools, materials, and manufacturing processes Program-Specific Objective 24 Graduates will be well-versed in sustainable engineering principles and green technologies. They will be capable of incorporating sustainability into mechanical engineering practices by designing energy-efficient systems, reducing waste and minimizing the environmental impact of mechanical processes.

### **DEPARTMENT PEO's**

PEO1: To produce graduates who are well-equipped with the knowledge and skills in Mechanical Engineering to excel in a rapidly changing technological landscape.

PEO2: To foster innovation through research and practical applications, nurturing a culture of creativity and

effective problem-solving within the field of Mechanical Engineering.

PEO3: To develop professionals who can actively engage in collaboration with industry, academia, and the community, addressing real-world challenges and contributing to the growth and development of the GPS Map Camera

Counselling Code: MTEC

gin Peddakalvala, Telangana, India, sustainability and environmental

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p Lat 18.57851 vively contribute to a greener, more sustainable further indiathe field

Long 79.375257 the department's mission and goals.

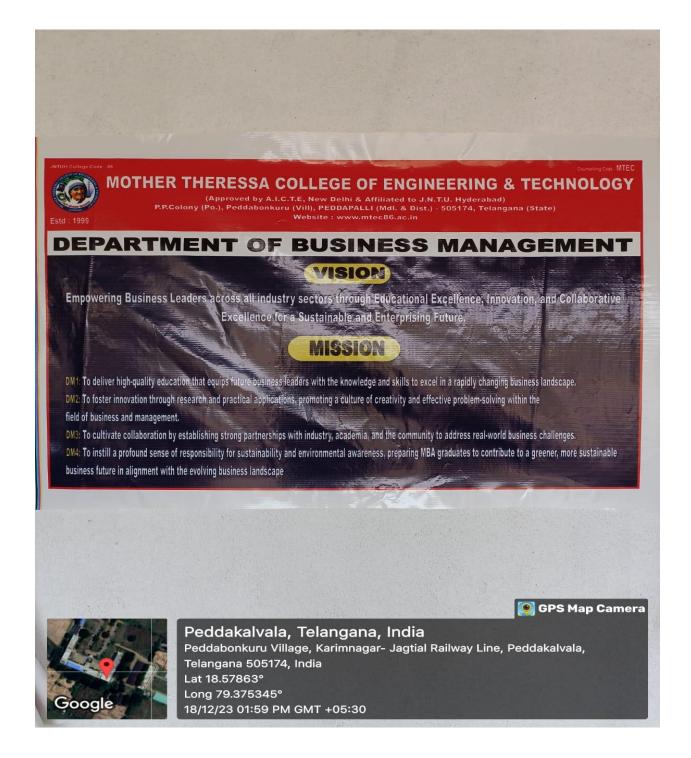
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Estd: 1999

### DEPARTMENT OF BUSINESS MANAGEMENT

#### **DEPARTMENT PSO's**

Program-Specific Objective 1: Graduates will develop strong leadership and decision-making skills, allowing them to analyze complex business problems, make strategic decisions, and effectively lead teams and organizations.

Program-Specific Objective 2: Students will gain the knowledge and skills necessary to navigate the global business landscape. They will develop cultural competence and adaptability to effectively work in diverse, international business environments...

#### **DEPARTMENT PEO's**

EO1: To produce graduates who are equipped with the knowledge and skills necessary to excel as future usiness leaders in a dynamic and evolving business landscape.

E02: To foster a culture of creativity, effective problem-solving, and innovation among our graduates,

th an emphasis on research and practical applications in the field of business and [9] GPS Map Camera

O3: To develop production the community, and the community, and the community of the control of

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Peddakalava ,Telangana,India Peddabonkuru Village, Karimnagar- Jagtial Railway Line, Peddakalvala , Telangana 505174 Lat:18°34'44.8"N Long:79°22'29.6"E

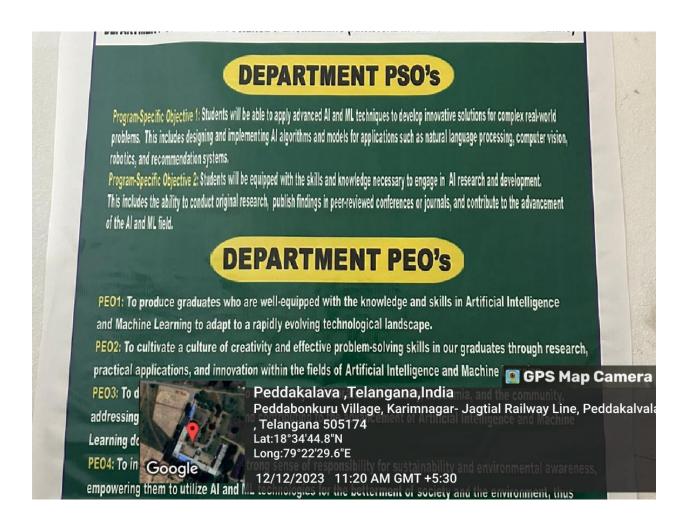
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#### Display OF Vision, Mission & PSO, PEO'S , PO In Institutions Website

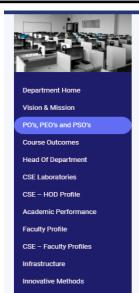
#### COMPUTER SCIENCE AND ENGINERRING



#### MOTHER THERESSA COLLEGE OF ENGINEERING & TECHNOLOGY

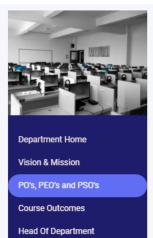
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#### PROGRAM OUTCOMES

- Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an
  engineering specialization to the solution of complex engineering problems.
- 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.
- 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
- 4. 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.
- 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.
- 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.
- 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.
- Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
- Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 10. 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.
- 11. 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.
- 12. Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.



**CSE Laboratories** 

P0's

⊕PE0's

@PS0's

**PEO1:** To produce graduates who are well-equipped with the knowledge and skills in Computer Science Engineering to excel in a rapidly evolving technological landscape.

**PEO2**: To foster innovation through research and practical applications, nurturing a culture of creativity and effective problem-solving within the domain of Computer Science Engineering.

**PE03:** To develop professionals who can actively engage in collaboration with industry, academia, and the community, addressing real-world challenges and contributing to the growth and development of Computer Science Engineering.

**PEO4:** To instill in our graduates a strong sense of responsibility for sustainability and environmental awareness, empowering them to actively contribute to a greener, more sustainable future, in alignment with the advancements in the field of Computer Science Engineering and the department's mission.

#### MOTHER THERESSA COLLEGE OF ENGINEERING & TECHNOLOGY

(Approved by A.I.C.T.E, New Delhi & Affiliated to J.N.T.U Hyderabad)

P.P.Colony (Po.), Peddabonkuru (Vill), PEDDAPALLI (Mdl. & Dist.) - 505174, Telangana State.

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PEO's and PSO's

⊕P0's ⊕PS0's

**PS01**: "Enable Computer Science Engineering graduates to leverage their knowledge in computer science and engineering fundamentals to develop innovative solutions for real-world computational challenges, fostering a culture of problem-solving and creativity."

**PS02**: "Equip graduates with the skills and ethical principles to contribute to the development of advanced technology and its responsible use in society, emphasizing the importance of professional ethics and societal responsibilities in the field of Computer Science Engineering."

#### **Cyber Security**

#### **Vision & Mission**

#### Vision:

The Vision of the department is to produce competent graduates suitable for industries and organizations at global level including research and development with Social responsibility.

#### Mission:

To provide an open environment to foster professional and personal growth with a strong theoretical and practical background having an emphasis on hardware and software development making the graduates industry ready with social ethics.

Further the Department is to provide training and to partner with Global entities in education and research.

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#### Artificial intelligence & Machine Learning

#### Vision:

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#### Mission:

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#### INFORMATION TECHNOLOGY

#### **Vision & Mission**

#### Vision:

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#### Mission:

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#### ELECTRICAL AND ELECTRONIC ENGINEERING

#### **Vision & Mission**

#### Vision:

The Vision of the department is to produce competent graduates suitable for industries and organizations at global level including research and development with Social responsibility.

#### Mission:

To provide an open environment to foster professional and personal growth with a strong theoretical and practical background having an emphasis on hardware and software development making the graduates industry ready with social ethics.

Further the Department is to provide training and to partner with Global entities in education and research.

#### **ELECTRONIC AND COMMUNICATION ENGINEERING**

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(Approved By AICTE New Delhi & Affiliated to JNTUH, Affiliated to SBTET - HYD) PEDDAPALLI, PEDDAPALLI(DIST), TELANGANA.

College Code:

D:1999

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Vision & Mission

#### Vision:

The Vision of the department is to produce competent graduates suitable for industries and organizations at global level including research and development with Social responsibility.

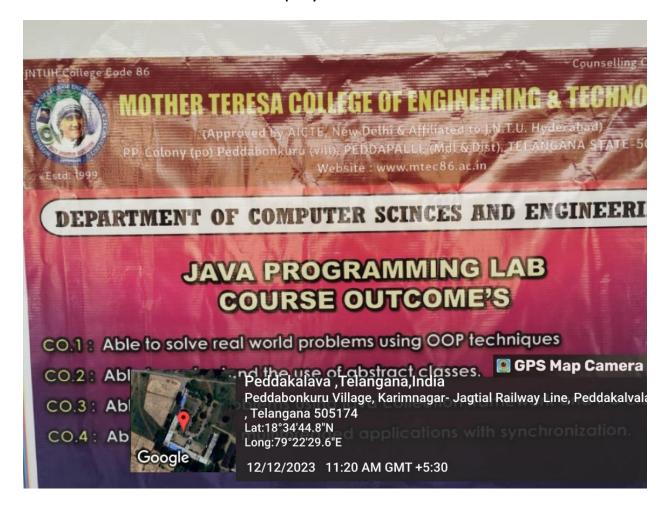
#### Mission:

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Further the Department is to provide training and to partner with Global entities in education and research.



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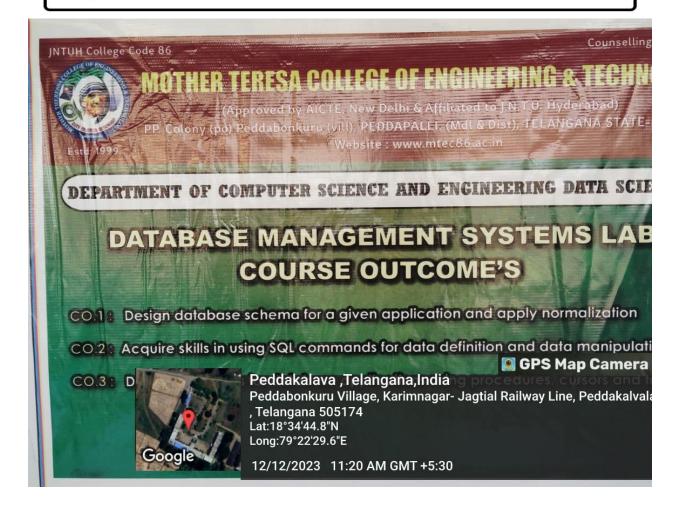


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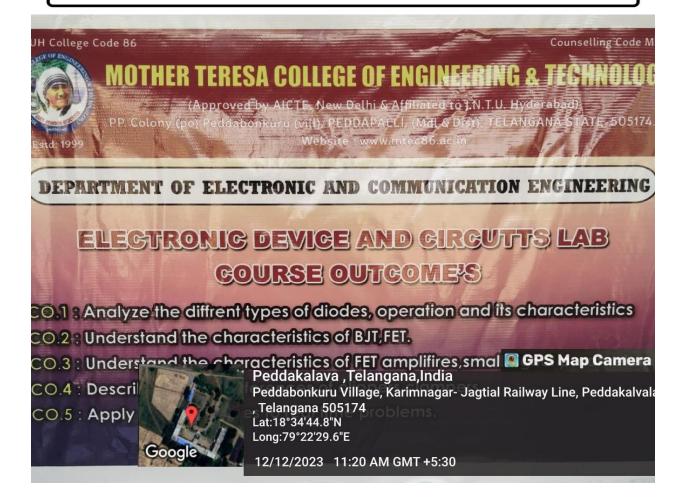


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Counselling Code: MTEC

Estd: 1999

JNTUH College Code: 86

MOTHER THERESSA COLLEGE OF ENGINEERING & TECHNOLOGY

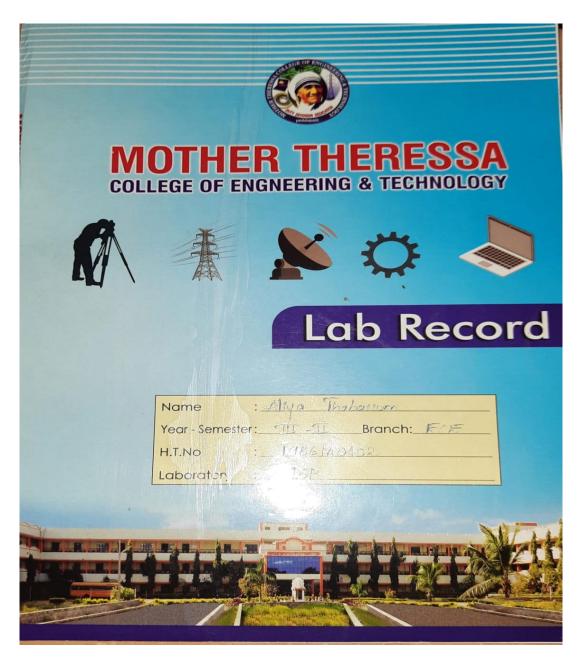
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# Certificate

| Name: Aliya Thabassum Cli | ass : B- | tech |
|---------------------------|----------|------|
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Group : #. C. F Roll No: 1986 140402

Institution Mother Theressa college of Engineering & Technology

This is to certified to be the bonafied work of the student in the

DSP Laboratory during the academic year 20121 / 20122

No. of Practicals certified \_\_\_\_\_ out of \_\_\_\_ in the

subject of \_\_\_\_\_\_ DSP

Signature

Head of the Department Signature

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# Vision and Mission Instruction & Department Instruction Vision

Fostering a culture of educational excellence, empowering engineers through innovation and collaboration for a brighter, sustainable future.

#### Instruction Mission

IM1: To provide high-quality education that equips engineers with the knowledge and skills to excel in a rapidly changing technological landscape.

IM2: To encourage innovation through research and practical applications, promoting a spirit of creativity and problem-solving.

IM3: To foster collaboration by building strong partnerships with industry, academia, and the community to address real-world challenges.

IM4: To instill a sense of responsibility for sustainability and environmental awareness, preparing engineers to contribute to a greener, more sustainable future

#### Department vision

Empowering Electrical and Electronics Engineers through cutting-edge education, fostering innovation, and promoting collaboration to advance electrical technology for a sustainable and electrifying future powered by solar energy.

#### Department Mission

DM1: To deliver high-quality education that equips Electrical and Electronics Engineers with the knowledge and skills required to excel in a rapidly changing technological landscape.

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DM2: To promote innovation through research and practical applications, fostering a culture of creativity and problem-solving within the field of Electrical and Electronics Engineering.

DM3: To cultivate collaboration by establishing strong partnerships with industry, academia, and the community to address real-world challenges in the Electrical and Electronics domain.

DM4: To instill a profound sense of responsibility for sustainability and environmental awareness, preparing Electrical and Electronics Engineers to actively contribute to a greener, more sustainable future within their field

#### PROGRAM SPECCIFIC OBJECTIVE (PSO's)

Program Specific Objective 1: "To empower Electronics and Communication Engineers with a comprehensive understanding of advanced electronic circuit design, analysis, and implementation, enabling them to develop innovative solutions for modern communication systems.

Program Specific Objective 2: "To foster a collaborative and interdisciplinary mindset among Electronics and Communication Engineering graduates, enabling them to work effectively with professionals from various fields and contribute to the development of sustainable, interconnected communication technologies for a rapidly evolving digital world."

### PROGRAM EDUCATIONAL OBJECTIVES (PEO's)

PEO1: To produce graduates who are well-equipped with the knowledge and skills in Electronics and Communication Engineering to excel in a constantly evolving technological landscape.

PEO2: To cultivate a culture of creativity, effective problem-solving, and innovation among our graduates, with an emphasis on research and practical applications within the Electronics and Communication Engineering field.

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#### PROGRAM OUTCOMES

- Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- 2. 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.
- 3. 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.
- 4. 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.
- 5. 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
- 6. 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.

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| 7. Environment and sustainability: Understand t solutions in societal and environmental contexts, a for sustainable development.                                     | he impact of the professional engineering<br>nd demonstrate the knowledge of, and need |
| 8. Ethics: Apply ethical principles and commit to process of the engineering practice.   | professional ethics and responsibilities and   |
| <ol> <li>Individual and team work: Function effectively<br/>in diverse teams, and in multidisciplinary settings.</li> </ol>  | as an individual, and as a member or leader  |
| 10. Communication: Communicate effectively on engineering community and with society at large, suffective reports and design documentation, make elear instructions. |  |
| Project management and finance: Demonstrate ngineering and management principles and apply the eader in a team, to manage projects and in multidiscent.              |  |
| 2. Life-long learning: Recognize the need for, and   | have the preparation and ability to engage in ntext of technological change            |

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#### Course Objectives

- To provide background and fundamental material for the analysis and processing of digital signals.
- 2. To understand the fast computation of DFT and appreciate the FFT processing.
- 3. To study the designs and structures of digital (IIR and FIR) filters and analyze and synthesize for a given specifications.
- 4. To acquaint in Multi-rate signal processing techniques and finite word length effects.

#### Course Outcomes

Upon completing this course, the student will be able to

- 1. Understand the LTI system characteristics and MultiMate signal processing.
- 2. Understand the inter-relationship between DFT and various transforms.
- 3. Design a digital filter for a given specification.
- 4. Understand the significance of various filter structures and effects of round off errors