Amrutvahini Sheti & Shikshan Vikas Sanstha's

## Amrutvahini College of Engineering, Sangamner Department of Electronics and Telecommunication Engineering

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To create opportunities for rural students to become able engineers and technocrats through continual excellence in engineering education.

Our mission is to create self-disciplined, physically fit, mentally robust and morally strong engineers and technocrats with high degree of integrity and sense of purpose who are capable to meet challenges of ever advancing technology for the benefit of mankind and nature.

We, the management, the faculty and staff, therefore promise to strive hard and commit ourselves to achieve this objective through a continuous process of learning and appreciation of needs of time.



To excel in modern trends of Electronics and Telecommunication Engineering through continuous teaching and learning process for nurturing promising engineers





1. To excel as state of art technological hub in the field of Electronics and Telecommunication Engineering.

2. To enrich the students by adopting professional skill sets according to modern technological development.

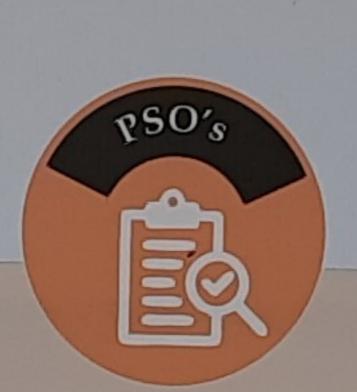
3. To develop society oriented value based learning.



1. To develop technically competent graduates with strong background in basic sciences and mathematics with complex problem solving ability in their selected field.

2. To prepare graduates having professional skills viz. ability to communicate, to work individually as well as in multidisciplinary team, to manage the projects with lifelong learning.

3. To develop graduates with high degree of integrity and commitment to society ensuring ethical, moral behaviour and environmental consciousness.



1. Apply principles, concepts and knowledge of science and mathematics for solving Electronics and Telecommunication Engineering problems.

2. To identify, design, develop and analyze solutions for given specifications by applying fundamentals of Electronics and Telecommunication engineering

3. To develop graduates with ability to use modern hardware and software tools in electronics and telecommunication domain.

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.

PO9: Individual and teamwork

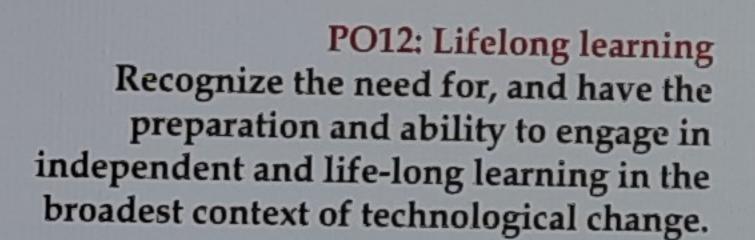
Function effectively as an individual,

and as a member or leader in diverse

teams, and in multidisciplinary settings.

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 problems.

PO1: Engineering Knowledge
Apply the knowledge of
mathematics, science, engineering
fundamentals, and an engineering
specialization to the solution of
complex engineering problems



PO11: Project Management and Finance
Demonstrate knowledge and
understanding of the engineering and
management principles and apply these to
one's work, as a member and leader in a
team, to manage projects and in
multidisciplinary environments.

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.

PO4: Complex problem investigation

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.

Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activity with an understanding of the limitations.

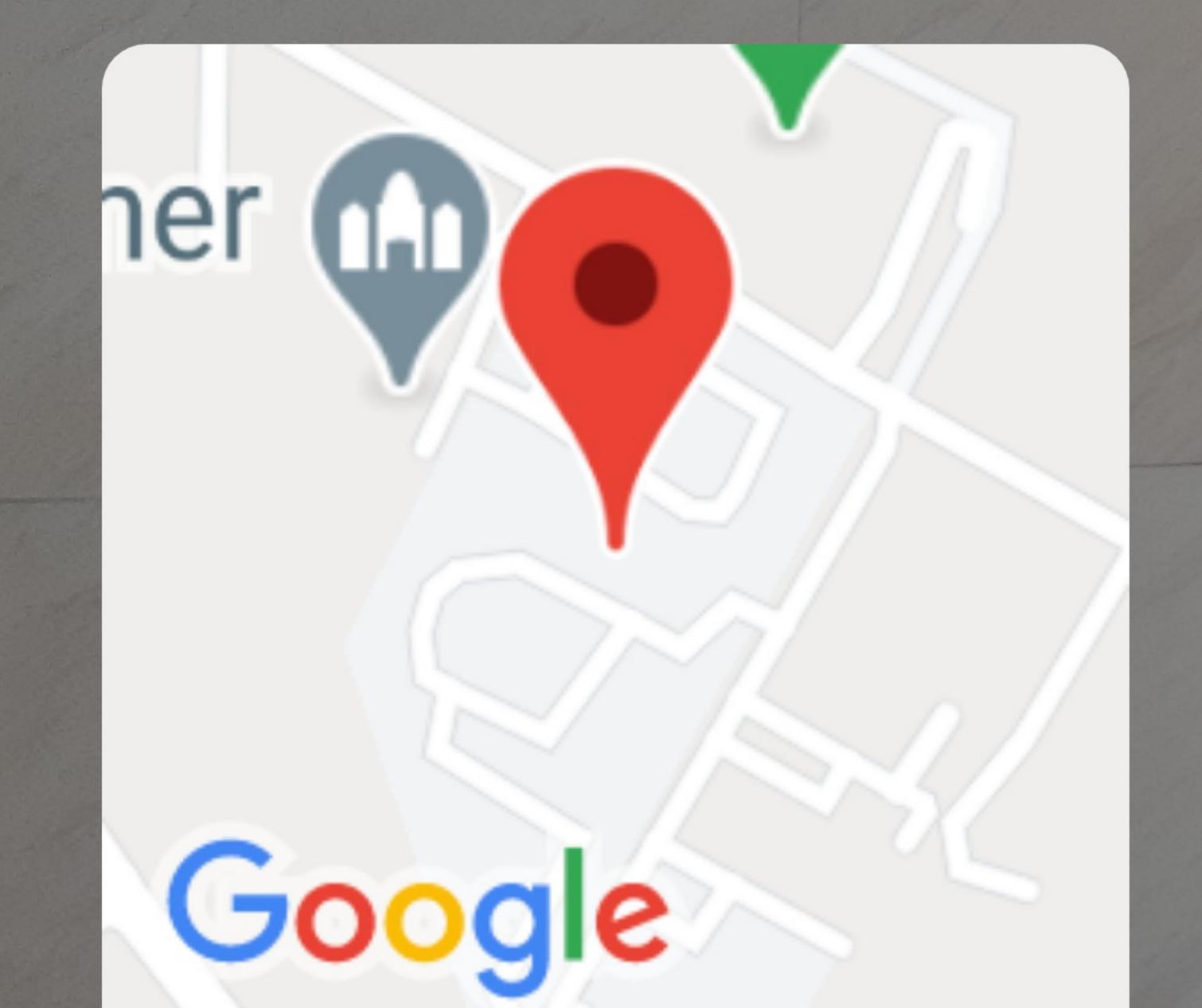
Apply reasoning information by the contextual knowledge to assess societal, health, safety, legal and cultural issues, and the consequent responsibilities relevant the professional engineering practice.

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.



Ghulewadi, Maharashtra, India Avcoe Campus Rd, Ghulewadi, Maharashtra 422608, India

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Amrutvahini Sheti & Shikshan Vikas Sanstha's

Amrutvahini College of Engineering, Sangamner Department of Computer Engineering



To create opportunities for rural students to become able engineers and technocrats through continual excellence in engineering education.



Our mission is to create self-disciplined, physically fit, mentally robust and morally strong engineers and technocrats with high degree of integrity and sense of purpose who are capable to meet challenges of ever advancing technology for the benefit of mankind and nature. We, the management, the faculty and staff, therefore promise to strive hard and commit ourselves to achieve this objective through a continuous process of learning and



The Amrutvahini College of Engineering is committed to develop in young minds the state-of-the art technology and high academic ambience by synergising spiritual values and technological competence continually, in a learning environment.



- 1. To strive hard for academic excellence & synergising spiritual & moral values.
- 2. To improve overall development of student.
- 3. To enhance industry-institute interaction.
- 4. To provide assistance for placement & entrepreneurship development.
- 5. To promote and encourage R&D activities.



To serve the needs of society through excellent technical education, promoting Industry -Institute Interaction and develop competent and cultured Computer Engineers.



M1. - The Mission of Computer Engineering Department is to effectively develop and channelize creative talents of students to face challenges posed by everchanging computing industry with enhancement in Industry Institute interaction.

M2. - The Head and the staff of Computer Engineering Department commit themselves to inculcate good moral values and shape a strong academic background of the pupil so important to work towards the betterment of the society as able technocrat and responsible citizen.



Program Educational Objectives:

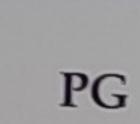
PEO-1. To prepare globally competent graduates having strong fundamentals, domain knowledge, updated with modern technology to provide the effective solutions for engineering problems.

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PEO-2. To prepare the graduates to work as a committed professional with strong professional ethics and values, sense of responsibilities, understanding of legal, safety, health, societal, cultural and environmental issues.

PEO-3. To prepare committed and motivated graduates with research attitude, lifelong learning, investigative approach, and multidisciplinary thinking.

PEO-4. To prepare the graduates with strong managerial and communication skills to work effectively as individual as well as in teams. PEO-5. To Provide opportunities of Industryinstitute interactions and to promote Enterpreneurship and Start-ups.



Program Educational Objectives:

PEO-1. To prepare globally competent post graduates with enhanced domain knowledge and skills attaining professional excellence and updated with modern technology to provide effective solutions for engineering and research problems.

PEO-2. To prepare the post graduates to work as a committed professionals with strong professional ethics and values, sense of responsibilities, understanding of legal, safety, health, societal, cultural and environmental issues.

PEO-3. To prepare motivated post graduates with research attitude, lifelong learning, investigative approach, and multidisciplinary thinking to succeed in the career in industry/academia/research

PEO-4. To prepare post graduates with strong managerial and communication skills to work effectively as an individual as well as in teams.



Program Specific Outcomes: A graduate of the Computer Engineering

Program will demonstrate:-PSO-1. Professional Skills -The ability to PSO-1: Professional Skills:- The ability to understand, analyze and develop computer programs in the areas related to algorithms, system software, multimedia, web design, big data analytics, and networking for efficient design of computer-based systems of varying complexities.

PSO-2. Problem-Solving Skills- The ability to apply standard practices and strategies in software project development using open-ended programming environments to deliver a quality product for business success.

PSO-3. Successful Career and Entrepreneurshipentrepreneur and to have a zest for higher studies. research.

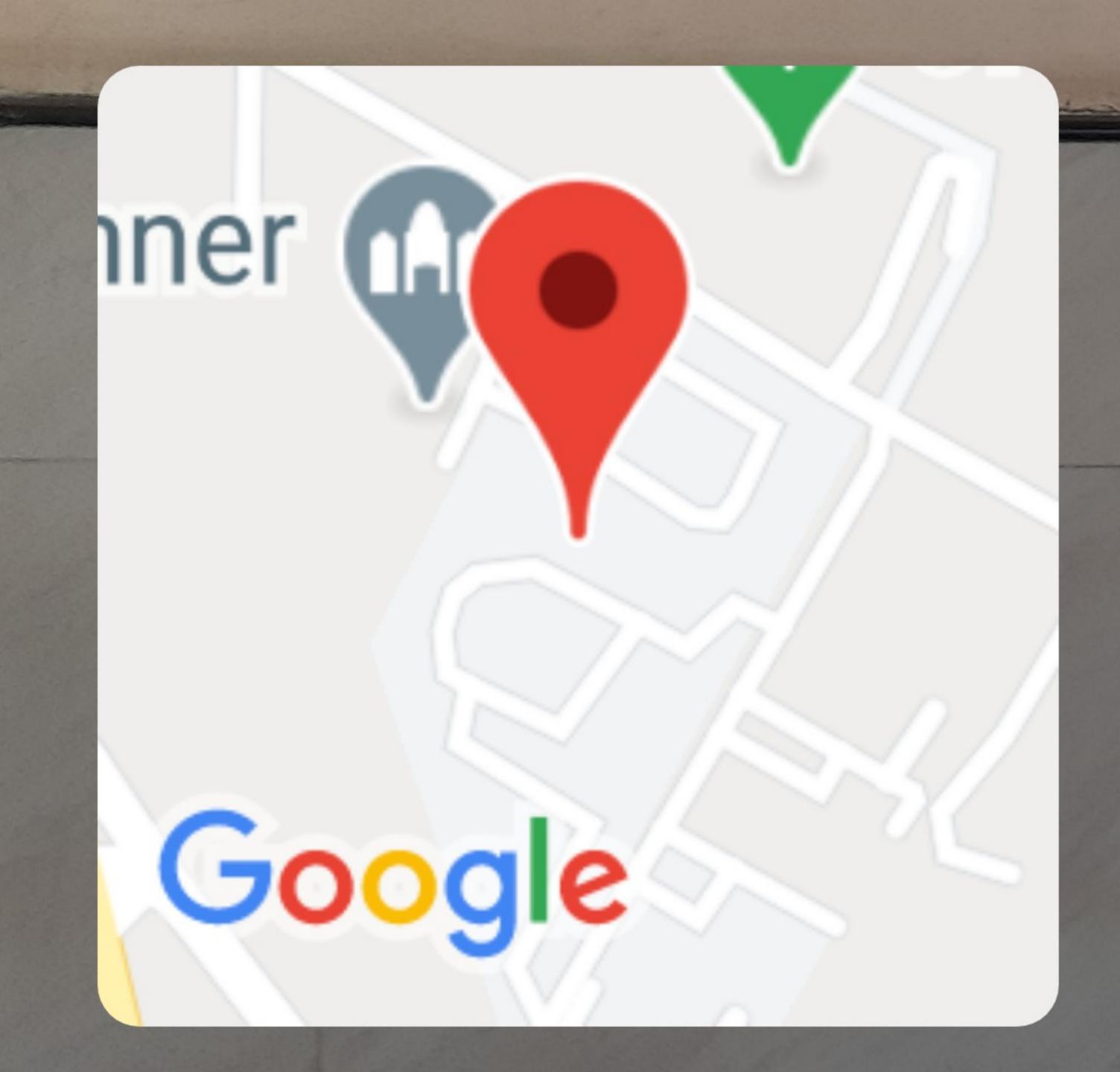
Program Specific Outcomes (PSO): A post graduate of the Computer Engineering Program will demonstrate-

understand, analyze and develop software in the areas related to system software, multimedia, web design, big data analytics, networking, and algorithms for efficient design of computer-based systems of varying complexities.

PSO-2: Problem-Solving Skills:- The ability to apply standard practices and strategies in software project development using open-ended programming environments to deliver a quality product for

PSO-3: Successful Career and Entrepreneurship:-The ability to employ modern computer The ability to employ modern computer languages, languages, environments and platforms in environments, and platforms in creating innovative creating innovative career paths to be an career paths to be an entrepreneur, with zest for

PSO-4: Research Skills:- The ability to study, experiment, interpret, analyze and explore the solutions to the engineering problems which are effective, efficient, optimized and feasible.



## Ghulewadi, Maharashtra, India

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## Amrutvahini College of Engineering, Sangamner Department of Computer Engineering

### 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: Complex problem investigation

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.

### 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 problems.

Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of

### PO1: Engineering Knowledge

complex engineering problems

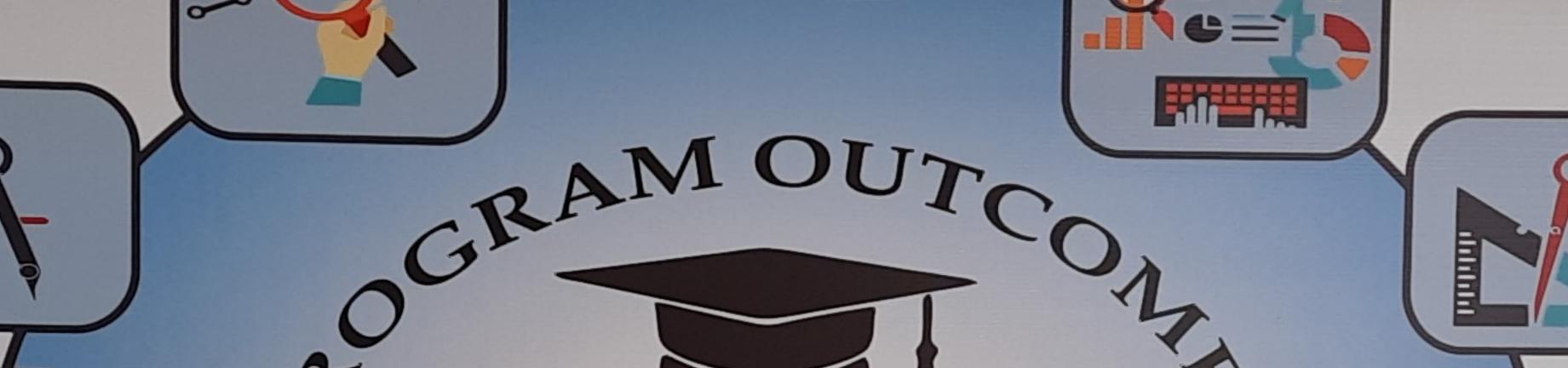
PO12: Lifelong learning Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

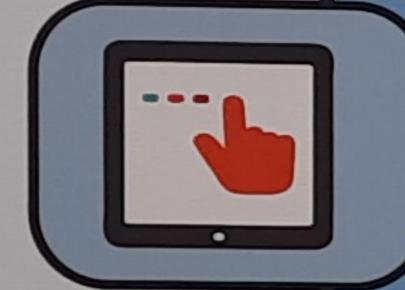
### PO11: Project Management and Finance

Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

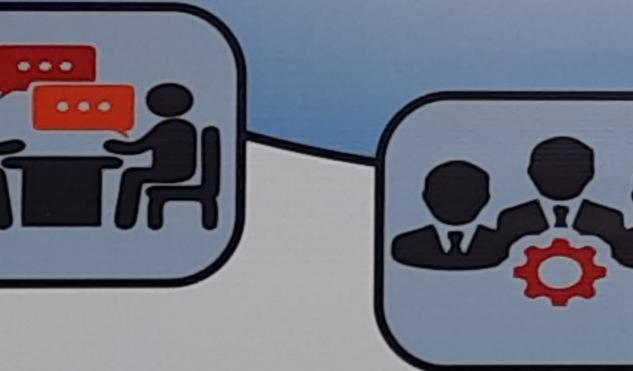
### PO10: Communication

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.

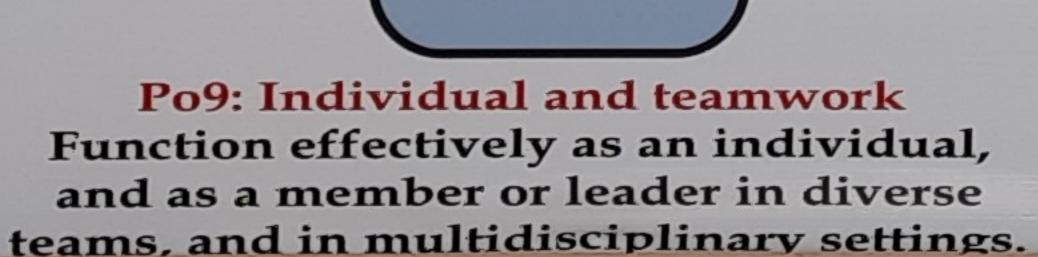












### PO5: Modern tool usage

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: 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.

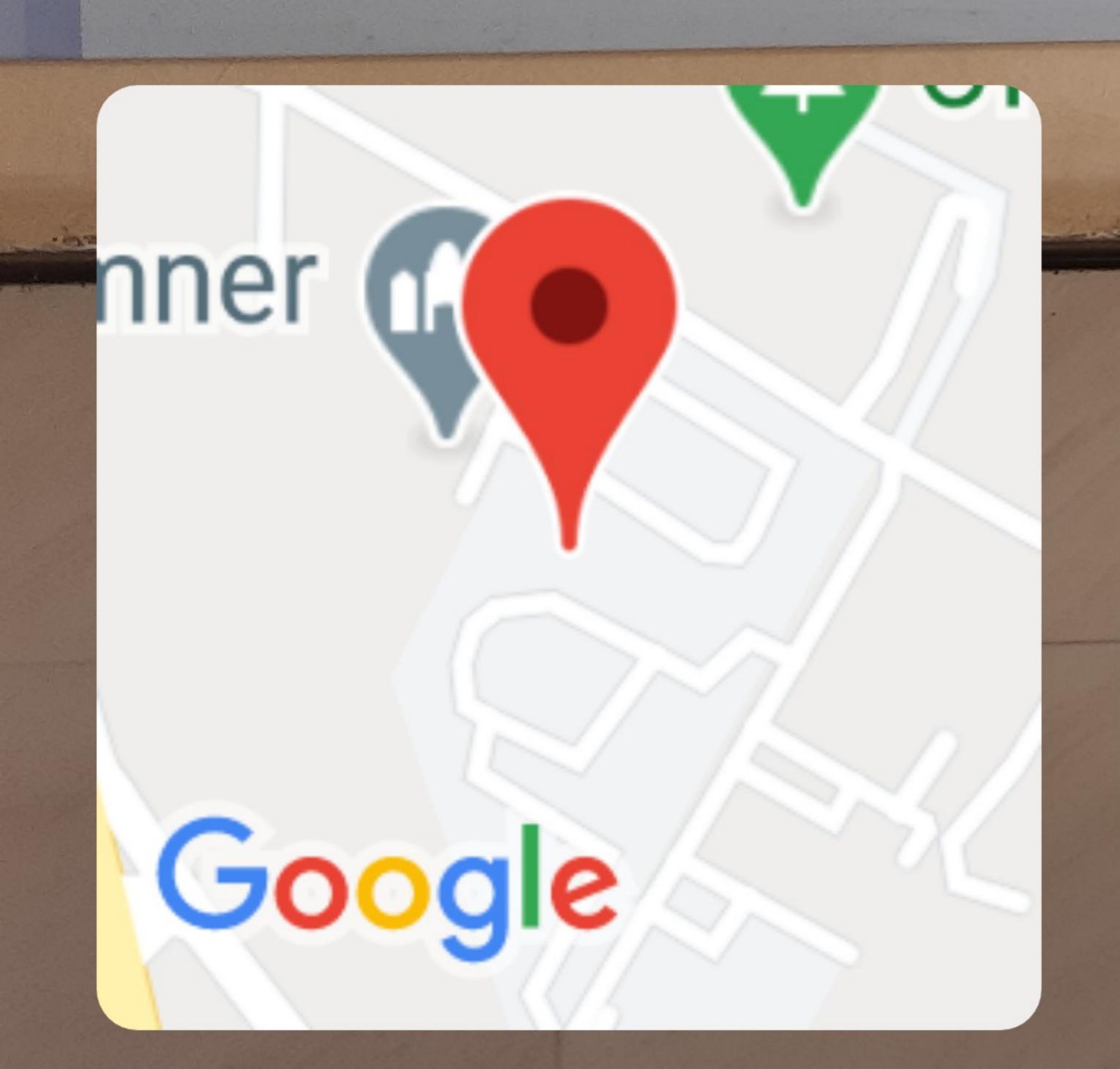
### PO7: Environment and Sustainability

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.



Ghulewadi, Maharashtra, India

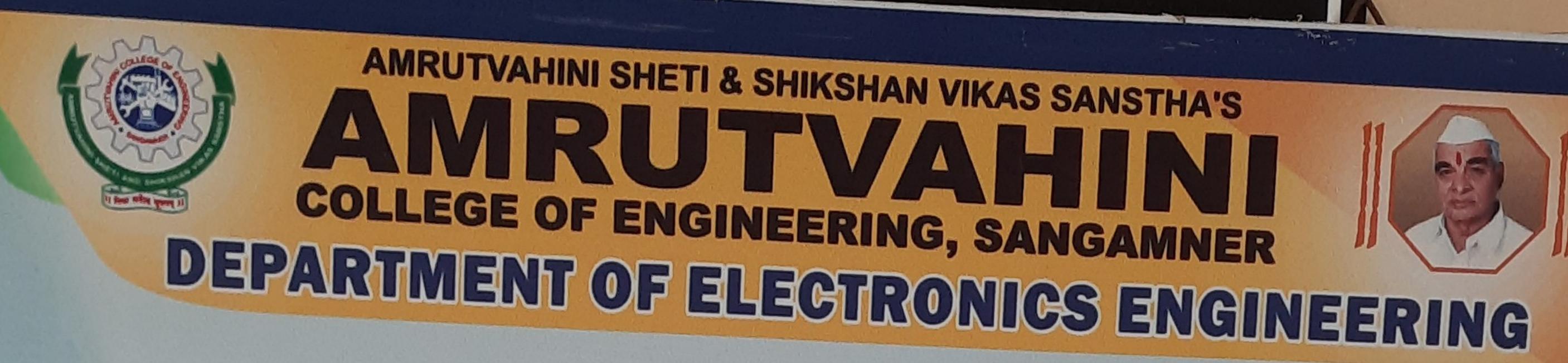
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# Department of Electronics Engineering



## VISION

To contribute for improving wellbeing of the students from rural background by imparting quality education in the field of Electronics Engineering.

### MISSION

- To impart basic understanding of Electronics Engineering built on a foundation of basic sciences, mathematics.
- The faculty and staff of the department is committed to train the students to become proficient at putting theory into practice, capable of lifelong learning and be aware of the social and environmental issues.
- The department is dedicated to endow students with the knowledge, technical skills and values that prepare them to excel as engineers and leaders in their profession.

## PROGRAMME SPECIFIC OUTCOMES (PSOs)

## The graduate is expected to acquire -

- An ability to identify, formulate and solve electronics engineering problems.
- An ability to design electronics circuits, conduct experiments, analyse and interpret data.
- Skill to use modern electronics engineering tools, software and equipment.

## PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

## Electronics engineering graduates will be able to -

- Demonstrate the ability to analyse and solve engineering problems through application of knowledge of mathematics, science, and engineering.
- Design, test and implement electronic systems using modern tools and technologies.
- Demonstrate leadership, understand professional and ethical responsibilities and contribute for the betterment of the society.
- Communicate effectively and function well as a team member and be able to manage projects in a multi-disciplinary environment.
- Pursue lifelong learning in the broadest context of ever advancing technological change and the needs of time.



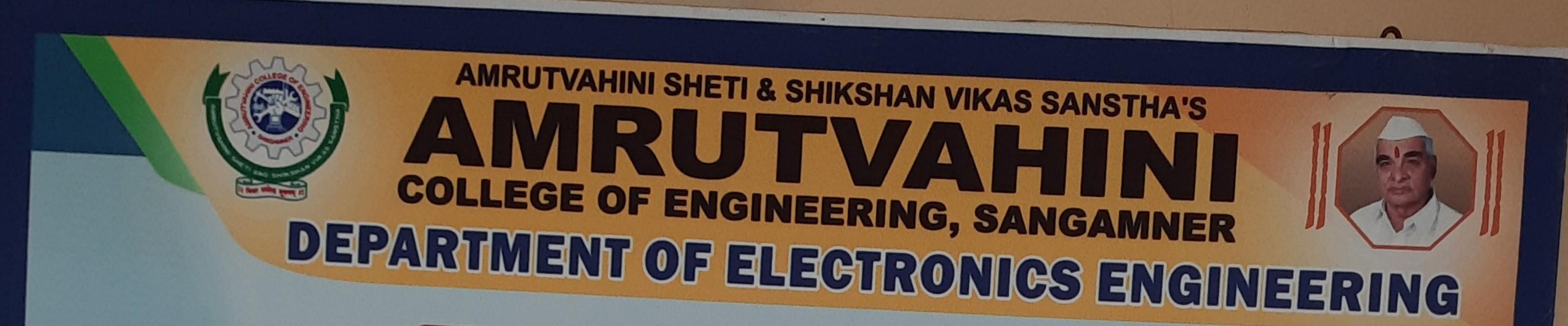
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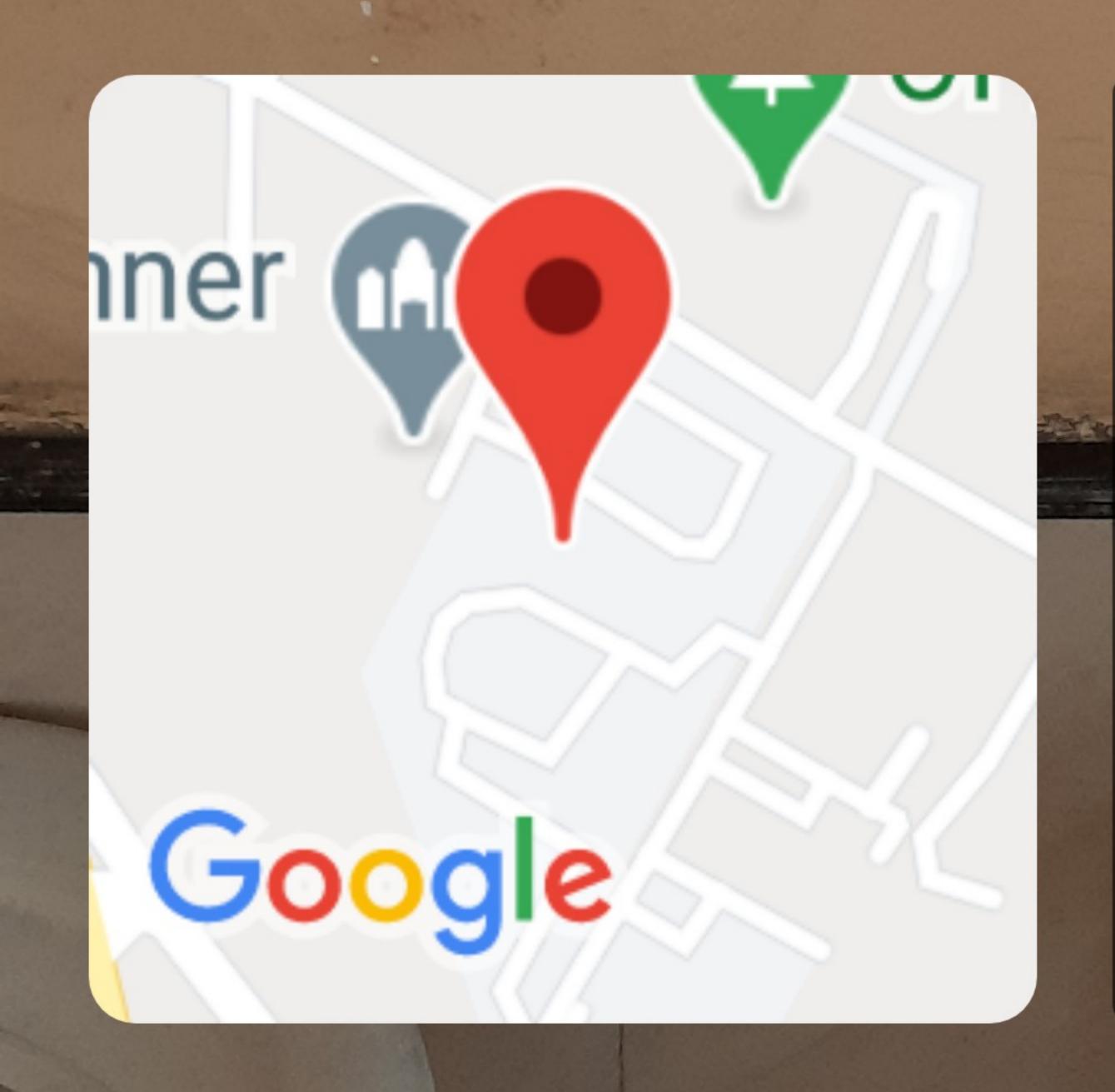
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## PROGRAM OUTCOMES (POS)

## Engineering Graduates will be able to:

- 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,
- 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.
- Conduct investigations of complex problems: Use research-based knowledge and research methods 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
- 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
- Environment and sustainability: Understand the impact of the professional engineering solutions in development.
- Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the
- Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
- 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.
- Project management and finance: Demonstrate knowledge and understanding of the engineering and manage projects and in multidisciplinary environments.
- 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.



## Ghulewadi, Maharashtra, India

Ratangadh hostel, Ghulewadi, Maharashtra 422608, India

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