

# Annexure

## A. Vision of the Department:

To become a center of excellence and a pioneering research center in Computer Science and Engineering.

## B. Mission of the Department:

To provide quality education and training to the students, through academic and research oriented activities in Computer Science and Engineering, for transforming them to committed technical personnel, which can contribute to the social and economic betterment of the society.

## C. Program Educational Objectives(PEOs)

PEO-1: To empower students to identify, formulate and solve computing problems by applying their knowledge in mathematics, theoretical computing and computer programming.

PEO-2: To develop industry focused skills and leadership qualities to become successful engineers and entrepreneurs.

PEO-3: To enable students to acquire skills to communicate effectively with the society and the constituents which enable them to collaborate as team members and team leaders.

PEO-4: To instil professional work ethics and social responsibilities so that they can contribute the betterment of the society as committed technical personnel.

PEO-5: To inculcate a passion towards higher education, research and lifelong learning in the Computer Science and Engineering.

## D. Program Outcome (POs)

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.

### **E. Program Specific Outcome**

- PSO 1: Problem Solving Skills: Ability to design and develop computer programs and computer based systems of moderate complexity in the areas pertaining to system software, multimedia, database, networking, web design and information security.
- PSO 2: Professional Skills: Ability to apply standard practices and methods in software project management and software development using suitable programming environments to deliver quality product for the industry.

Head of the Department  
Department of Computer Science and Engineering  
Government Engineering College Thrissur,  
Kerala, Pin:680009