



**St. Thomas College of Engineering & Technology**

Vellilode, Sivapuram PO. Mattanur. Kannur District, Kerala

Approved by AICTE New Delhi, Govt. Of Kerala and Affiliated to APJ Abdul Kalam Technological University

# GEEK-PRESS

Unveiling the World of Tech Wizards

**DEPARTMENT OF**  
COMPUTER SCIENCE & ENGINEERING



**Geekzone**  
COMPUTER SCIENCE AND ENGINEERING ASSOCIATION

**Volume 3 issue 2**  
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# GEEK-PRESS

UNVEILING THE WORLD OF TECH WIZARDS

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

VOL 3, ISSUE 2

AY-2024-2025



### VISION OF THE DEPARTMENT

To produce globally competent and socially responsible Computer Science Engineers.

### MISSION OF THE DEPARTMENT

#### M1: Professional Skills

Provide students with opportunities to become industry-ready professionals and entrepreneurs through analytical learning.

#### M2: Lifelong Learning

Maintain a lifelong learning attitude and stay current in their profession to foster personal and organizational development.

#### M3: Engage with Society

Encourage students to focus on sustainable solutions, to improve quality of life and social welfare.

### PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

#### PEO1. Professional Practices

Apply engineering practices required for Software development, Hardware development and Embedded systems.

#### PEO2. Intrapreneurial Skills

Exhibit innovation, Self – confidence and teamwork skills in the organization and society.

#### PEO3. Lifelong Learning

Offer continuing education programmes in the emerging areas for the knowledge upgradation of stakeholders.

### PROGRAM SPECIFIC OUTCOMES (PSOS)

**PSO1:** Computer Science and Engineering students can analyse, design, develop, test and apply management principles, mathematical foundations in the development of computational solutions, making them experts in designing computer hardware and software.

**PSO2:** Develop their skills to solve problems in the broad area of programming concepts and appraise environmental and social issues with ethics and manage different projects in interdisciplinary fields.

# PROGRAM OUTCOMES (POS)

**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.

# EVENTS

## OUTCOME BASED EDUCATION AND NBA ACCREDITATION PROCESS



The 3-day FDP on "Outcome Based Education and NBA Accreditation Process" was held on 1st, 2nd, and 4th November 2024 at St. Thomas College of Engineering & Technology, Kannur. It was jointly organized by the Department of Computer Science & Engineering and the Department of Electronics & Communication Engineering.

The program featured external experts Dr. X. Susan Christina, Dr. J. William, and Dr. P. Sooraj, who covered key topics such as OBE implementation, all NBA accreditation criteria, CO-PO attainment, and SAR preparation. Internal faculty, including the Principal and HODs, also conducted sessions on facilities, course design, and audit files. The event had 55 participants from various engineering colleges. The three-day FDP successfully provided participants with a comprehensive understanding of OBE principles and the NBA accreditation process. The sessions, led by experienced resource persons, equipped faculty members with practical knowledge and strategies to align their institutions with NBA standards. The program was well-received, as indicated by positive feedback, and was deemed informative and motivating, empowering attendees to contribute effectively to their institutions' quality enhancement and accreditation goals.



## EXPERT TALK ON INTRODUCTION TO 5G NR AND FEATURES OF 6G

The Expert Talk on "Introduction to 5G NR and Features of 6G" was jointly organized by the Departments of CSE and ECE on November 1, 2024. The resource person was Dr. J. William, Principal & Professor from the Department of ECE, Roever Engineering College, Tiruchirappalli. The event was attended by S7 CSE and ECE students. Key topics covered included advanced network capabilities, ultra-low latency, energy-efficient designs, and the integration of AI in communication systems. The program provided a detailed exploration of 5G NR fundamentals and an overview of cutting-edge 6G technologies, using detailed case studies, engaging Q&A sessions, and practical insights to bridge the gap between academic learning and real-world advancements.



The joint expert talk was highly successful, providing S7 CSE and ECE students with a comprehensive and in-depth understanding of both 5G New Radio capabilities and the visionary advancements of 6G technology. The interactive session, led by Dr. J. William, effectively bridged the gap between academic theory and real-world applications in areas like AI integration and ultra-low latency.

# MASTERING LATEX SOFTWARE: A SCIENTIFIC DOCUMENT APPROACH

The Department of Computer Science and Engineering at St. Thomas College of Engineering & Technology, in association with GEEKZONE, IEDC, and Fosscell, successfully concluded a three-day workshop on LaTeX for S6 CSE, S8 ME, and S6 ME students. Conducted on November 1, 2, and 4, 2024, in CSE Lab by Ms. Anu .C (Asst. Prof. CSE), the sessions ran from 1:30 PM to 4:30 PM and covered essential topics including an introduction to LaTeX, basic commands, figures, tables, equations, and Beamer presentations. The workshop was highly effective, successfully bridging a curriculum gap by equipping students with the skills to prepare standardized documentation, such as project and seminar reports in IEEE format, and directly contributed to attaining Course Outcome CO-2 of CST 309 - Management of Software Systems.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
PRESENTS

**MASTERING LATEX SOFTWARE: A SCIENTIFIC DOCUMENTATION APPROACH**

RESOURCE PERSONS

**Ms. DINLA O K**  
AP, CSE

**Ms. ANU C**  
AP, CSE

**STAFF COORDINATOR**  
Ms. DINLA O K, AP, CSE

**STUDENT COORDINATORS**  
Ms. AYSHA SHAMA M  
Mr. MUHAMMED HADHIF

7, 9 & 10 JANUARY 2025  
01:30 PM - 04:30 PM  
CSE LAB 1

IN ASSOCIATION WITH

**GEEKZONE** **FOSS CELL**

# INTRODUCTION TO PROJECT DEVELOPMENT

**St. Thomas College of Engineering & Technology**  
Vellilode, Sivapuram PO, Mattanur, Kannur District, Kerala  
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Department of Computer Science and Engineering  
In Association With CSI  
Presents

**Introduction to Project Development**

RESOURCE PERSONS

**Mr. Aswin Ratheesh D K**  
S8 CSE

**Mr. Crishin Joseph**  
S8 CSE

**Mr. Abhishek U K**  
S8 CSE

**Student Coordinators**  
Mr. Mohammed Riyad (S6 CSE)  
Ms. Rhuthoshika K (S6 CSE)

15 JANUARY 2025  
01:30 PM - 04:30 PM  
LECTURE HALL 2

**Staff Coordinator**  
Ms. Vaishakhi V K (Asst. prof. CSE)

ST. THOMAS COLLEGE OF ENGINEERING & TECHNOLOGY, Jan. 15, 2025: The Department of Computer Science and Engineering, in association with CSI and its student association GEEKZONE, successfully organized a seminar designed to bolster students' academic project development capabilities.



Notably, the session was led by senior students from the S8 CSE batch: Mr. Abhishek U K, Mr. Aswin Ratheesh D K, and Mr. Crisbin Joseph. The student resource persons shared their expertise on a range of topics including datasets, IoT, sensors, and the practical use of AI tools. The program successfully met its expected outcome, with many attendees gaining clear ideas for their own academic projects. Feedback from the respondents was very positive, confirming that the hands-on session provided valuable insights and practical skills for real-world applications in AI and IoT.

The event, coordinated by Ms. Vaishakhi V K (AP, CSE), focused on providing practical, hands-on experience with essential industry tools and technologies. Key objectives included learning various development platforms like Google Colab, Jupyter Notebook, VS Code, Android Studio, and the Arduino IDE. The seminar also delved into understanding datasets, exploring the Internet of Things (IoT), and applying hardware programming knowledge with platforms such as Arduino, ESP32, and Raspberry Pi.

## UNVEILING INNOVATION: A DEEP DIVE INTO PATENT FILING PROCESS

ST. THOMAS COLLEGE OF ENGINEERING & TECHNOLOGY, Feb. 17, 2025: To equip students and faculty with foundational and practical knowledge about the patent filing process, St. Thomas College of Engineering & Technology's CSE Department Association (GEEKZONE), jointly with other departments, organized an online expert talk on Monday.

The poster is for an expert talk titled "Unveiling Innovation: A deep dive into Patent Filing process". It is organized by St. Thomas College of Engineering & Technology, Sivapuram, Mattanur, Kannur Dist. The event is on February 17, 2025, at Seminar Hall 1 & 2, starting at 09:00 AM. The speaker is Dr. N. S. Sreekanth, Associate Professor & HOD (IT) at Kannur University. The event is in association with the Institution's Innovation Council (IIC). Staff coordinators listed are Asst. Prof. Sreetha Sreedhar K, Asst. Prof. Deepthi K, Asst. Prof. Saritha Narayanan, and Asst. Prof. Adithyaraj C P.

The event was a collaborative effort by the Departments of Computer Science, Electronics & Communication, Mechanical, and Civil Engineering, held in association with the Institution's Innovation Council (IIC). It aimed to foster a culture of innovation, intellectual property awareness, and research commercialization within the college.



The session was conducted by Dr. N. S. Sreekanth, Associate Professor & HOD (IT) at Kannur University. The talk, held via Google Meet from 9:00 AM to 10:30 AM and hosted in Seminar Halls 1 and 2, covered the procedural, legal, and strategic aspects of patent filing in India, including patent document structure, application steps, and types of patents. The event was successfully coordinated by faculty members Asst. Prof. Saritha Narayanan (CSE), Asst. Prof. Sreetha Sreedhar K (ECE), Asst. Prof. Deepthi K (CE), and Asst. Prof. Adithyaraj C P (ME).

# IGNITE 2k24

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# IUCE MAGICA 2k24



# **EDITORIAL TEAM**

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Dr. Amitha I C (Associate Professor)

Ms. Anju G (Assistant Professor )

Mr. Jithin S (Assistant Professor )

Ms. Anu C (Assistant Professor)

## **STUDENT EDITORS**

Ms. Yashika Prasanth ( S3 CSE )

Mr. Athul K Sandeep ( S3 CSE )

Mr. Athul Raj ( S3 CSE)

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