

# **Event Report**

## **“ From Zero to Hero ”**

***- C Programming KTU S2 Bootcamp***

# 1. Introduction to C Programming

*C programming is one of the foundational languages in the B.Tech Computer Science and Engineering curriculum. Known for its simplicity, speed, and efficiency, C lays the groundwork for understanding key programming concepts and system-level architecture.*

*Developed by Dennis Ritchie, C serves as the base for many modern languages like C++, Java, and Python. It is widely used in system programming, embedded systems, operating systems, and performance-critical applications. By learning C, B.Tech students gain a strong grasp of algorithms, memory management, and problem-solving techniques — essential skills for academic projects, coding competitions, and professional software development.*

*Building a solid foundation in C prepares students for advanced subjects like Data Structures, Operating Systems, and Computer Architecture, making it a crucial part of every engineering student's journey in computer science.*

## **2. About the Event**

The **C Programming KTU S2 Bootcamp** titled “*From Zero to Hero*” was conducted on **April 23, 24, and 25, 2025**, from **7:00 PM to 9:00 PM** through **YouTube Live**. The event was organized by **TACS MEA**, with active participation from **S2 B.Tech students** across various departments. The session was mentored by **Dr. Shanid Malayil**, under the guidance of **Mrs. Rajeena M**, Staff Coordinator, TACS.

The bootcamp was designed to provide students with a strong foundation in C programming, starting from the basics and progressing to advanced topics. Aligned with the KTU B.Tech S2 curriculum, the sessions covered key programming concepts including variables, data types, control structures, functions, arrays, strings, and pointers. Each session featured hands-on demonstrations and coding exercises to strengthen conceptual clarity and practical skills.

Delivered in an interactive and beginner-friendly format, the sessions aimed to enhance problem-solving ability, coding confidence, and logical thinking among participants. The use of YouTube Live enabled real-time engagement, wider accessibility, and flexibility for students to revisit the sessions for revision.

The bootcamp received positive feedback from attendees for its structured approach, clarity of instruction, and practical focus. It significantly contributed to building a strong programming foundation among first-year students.

### **3. Program Outcomes**

1. **PO1 – Engineering Knowledge:**

Students apply the fundamentals of mathematics, science, and engineering to understand and solve basic and intermediate programming problems using the C language.

2. **PO2 – Problem Analysis:**

The bootcamp enhances students' ability to identify, formulate, and analyze computational problems and implement logical solutions using structured programming techniques.

3. **PO3 – Design/Development of Solutions:**

Students gain hands-on experience in writing and testing C programs, developing algorithms, and creating structured code for specific engineering problems.

4. **PO5 – Modern Tool Usage:**

Students are introduced to modern development tools and IDEs for C programming (such as Code::Blocks, GCC, online compilers), improving their technical proficiency and productivity.

5. **PO9 – Individual and Team Work:**

Through peer-learning and interaction during the bootcamp, students develop their ability to function effectively as individuals and as members of a technical team.

6. **PO10 – Communication:**

Students improve their ability to communicate ideas clearly through code documentation, problem discussions, and peer interactions during mentoring sessions.

7. **PO12 – Life-long Learning:**

The bootcamp fosters self-driven learning by encouraging students to explore programming beyond the classroom and continuously enhance their technical skills.

## **4. Financial Summary**

<b>SI No</b>	<b>Item</b>	<b>Estimate Amount (INR)</b>
1	Guest	0
2	Travel	0
3	Sweets or Food	0
4	Certificates, Awards or Gifts	0
5	Games Items	0
6	Printing	0
7	Miscellaneous	0
<b>Total Expenditure</b>		<b>0</b>

## 5. Photographs

### Control Structures Overview

#### Control Structures in C:

- Control the flow of execution based on conditions or repetitions.

- **Types of Control Structures:**

1. Conditional Statements
2. Looping Constructs



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main.c Run

```
1 #include <stdio.h>
2
3 void main()
4 {   int x;
5     float y;
6     printf("STRING");
7
8 }
```

Output Clear

STRING  
  
=== Code Exited With Errors ===

