

# Value Added Course

on

## Problem Solving using C Language



### Gokaraju Rangaraju

Institute of Engineering and Technology  
(Autonomous)

Bachupally, Hyderabad,

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### About the Institute

Gokaraju Rangaraju Institute of Engineering and Technology (GRIET) is established in 1997 by Dr. G Gangaraju as a self-financed institute under the aegis of Gokaraju Rangaraju Educational Society. GRIET is approved by AICTE, New Delhi, permanently affiliated to and autonomous under JNTUH, Hyderabad. GRIET is committed to quality education and is known for its innovative teaching practices.

The mission of GRIET is to achieve and impart quality education with an emphasis on practical skills and social relevance. Presently GRIET has 9 UG and 6 PG programs. The programs are NBA accredited in CE, CSE, ECE, EEE, IT, and ME. CSBS, AI&ML, DS are new college. The institute is accredited by NAAC with 'A++' grade.

### About the Department

The Department of Civil Engineering is established in the year 2008, with an intake of 60 students. It is a fast-growing discipline in tune with the infrastructure growth.

The department has master's program in Structural Engineering, established in the year 2014 with an intake of 18 students which is further increased to 30 students from the academic year 2017. The department has well equipped laboratories with an emphasis on practical skills and fundamentals. The Department has well experienced and talented faculty which includes nine doctorates.



## Course Objective:

The objective of the course is to equip the student with problem solving skills using C Language.

## Course Outline:

The students are made to write C programs on their own for sets of both mathematical and other engineering problems after exposing them to the different constructs of C language namely Input/output, assignments, iteration and control structures. Basic understanding of File handling using c, Structures and Unions.

1. Practice Sessions Conducted in Moodle.
2. Regular assignments and quizzes are also conducted in Moodle

## Course Contents

1. Introduction and Real time applications of C language,
2. Basics of C language , C-tokens, Variables and basic datatypes.
3. Different types of Operators like Arithmetic, relational, and logical operators, Increment and decrement operators, conditional, assignment, bitwise and special operators.

4. Functions –Basic concepts, Types, Categories of functions, Recursive Function – Introduction, Examples
5. Introduction to Arrays- 1D Arrays, 2 D Arrays, linear search, binary search and basic sorting technique using bubble sort etc.,
6. Introduction to Strings, description and use of various string functions of string library
7. Introduction to pointers and basic File operations

## Important Dates

### VAC Duration :

04<sup>th</sup> January to 02<sup>nd</sup> February 2023

(Daily 02:30 PM – 04:00PM)

## Targeted Audience

Students of II B. Tech Civil Engineering

## Resource Person

1. Mrs. Geeta Mahadeo Ambildhuke,  
Assistant Professor, CSE Department
2. Mr. Arun Kumar  
Assistant Professor, CSE Dept.

## Patrons

Dr. Jandhyala N. Murthy,  
Director, GRIET

Dr. J. Praveen,  
Principal, GRIET

Dr. K. V. S. Raju,  
Senior Administrative officer, GRIET

## Convenor

Dr. C. Lavanya,  
Professor & HOD, CE, GRIET

## Coordinators

1. Mr. Akula Prakash  
Assistant Professor, CE, GRIET
2. Ms. K. Hemalatha  
Assistant Professor, CE, GRIET

