

The undergraduate curriculum in engineering and science considers programming as a compulsory course during the initial semesters. It has been observed that an introductory course of one semester is not enough to develop programming skills. This requires regular problem-solving. The short-term course “Problem Solving using C Programming” is an initiative to enhance the programming skills of undergraduate students. The basic concepts of the C language as well as programming logic will be explained through solving problems related to various disciplines of knowledge. This course will empower the students to use programming as a tool in their field of study.

Course Outline

- ❖ Introduction to C language
Identifiers, keywords, data types, constants, comments, operators
- ❖ Program control
If-else, switch-case, while, for and do-while loop, break, continue
- ❖ Formatted input-output
- ❖ Array, matrix, string and pointers
- ❖ Pointer Arithmetic
- ❖ Dynamic memory allocation
- ❖ Functions and recursion
- ❖ Storage specifiers
- ❖ Structure, union and enumeration
- ❖ File programming
- ❖ Command line argument
- ❖ Linked list, tree and graph
- ❖ Preprocessors and macros
- ❖ Bitwise operators

Course Instructor

Dr. Sumanta Pyne, NIT Rourkela

Class hours

05:30 PM – 07:30 PM daily (except Saturdays and Sundays)



National Institute of Technology

Rourkela

**Skill Development Program
on
Problem Solving using C Programming
(An initiative for enhancing coding skills)
September 2-20, 2024**

Patron

Prof. Umamaheswar Rao,
Director NIT Rourkela

Chairman

Prof. Bibhudatta Sahoo

Principal Coordinator

Dr. Sumanta Pyne

Organized by

Dept. of Computer Science & Engineering
National Institute of Technology, Rourkela

Introduction

Domain specific software design of modern era requires programming knowledge. Thus it is essential for students, technologists and scientists to be good programmers. This course will introduce basic concepts of C programming. Special care will be taken to write correct programs, and check the correctness of the programs through dry runs and traces. Management of larger programs will be demonstrated by means of real life examples.

Online Account Details:

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About the Institute:

National Institute of Technology (NIT) Rourkela is an institute of importance funded by the Ministry of Education. NIT Rourkela was established as Regional Engineering College (REC) on August 15, 1961. NIT Rourkela was ranked 601-800 in the world by the times Higher Education World University Ranking of 2018 and 126th in Asia.

For details about the institute Please visit <https://www.nitrkl.ac.in/>

About the Department:

The department of Computer Science and Engineering (CSE) was established with the vision to prepare its students for professional employment and graduate education through study and implementation of the fundamental principles of theory, abstraction, and software design. The department offers B.Tech in CSE and AI, and M. Tech in Computer Science, Information Security, and Software Engineering; and Ph. D for regular as well as sponsored candidates. Please visit <https://website.nitrkl.ac.in/CS/> to know more about the department.

Online Registration Form:

<https://forms.gle/7ZC8rQeRC6BEeJ2XA>

Registration Details:

Category	Online registration Fee in INR (including 18% GST)
Research scholar UG/PG student	2,360/-
Engineers/Scientists from Industry and R&D Organizations	4,720/-
No registration fee for students / staffs of NIT Rourkela	

Contact us:

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