



Adi Shankara

INSTITUTE OF ENGINEERING AND TECHNOLOGY

Approved by AICTE & Affiliated to APJ Abdul Kalam Technological University
Vidya Bharathi Nagar , Mattoor, Kalady, Ernakulam District, Kerala State Pin: 683574



CRITERION 1 - CURRICULAR ASPECTS

1.2 Academic Flexibility



MOOC Course on Problem solving through Programming in C



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Vidya Bharathi Nagar, Kalady, Ernakulam, Kerala

www.adishankara.ac.in

Course Code:noc22-cs101

Problem solving through Programming in C



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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

NPTEL COURSE DETAILS	
Course Code: noc22-cs101	
Course Title: Problem solving through Programming in C	
Course Duration: 12 weeks	
Course Start Date: 25 July 2022	
Course End Date: 14 October 2022	
No of Students Enrolled: 1	
No of Students passed: 1	
Course Instructor : Prof.Anupam Basu	

NPTEL COORDINATOR

Prof.Manesh T
HOD, CSE

noc22-cs101: Problem solving through Programming in C

COURSE ENROLLMENT DETAILS

Sl No	Roll No	Name of student	Department
1	ASI21CS015	ALFRED ANTONY	CSE



NPTEL COORDINATOR



Prof. Manesh T
HOD, CSE

COURSE DETAILS



ABOUT THE COURSE :

This course is aimed at enabling the students to

1. Formulate simple algorithms for arithmetic and logical problems
2. Translate the algorithms to programs (in C language)
3. Test and execute the programs and correct syntax and logical errors
4. Implement conditional branching, iteration and recursion
5. Decompose a problem into functions and synthesize a complete program using divide and conquer approach
6. Use arrays, pointers and structures to formulate algorithms and programs
7. Apply programming to solve matrix addition and multiplication problems and searching and sorting problems
8. Apply programming to solve simple numerical method problems, namely root finding of function, differentiation of function and simple integration

COURSE LAYOUT

Week 1 : Introduction to Problem Solving through programs, Flowcharts/Pseudo codes, the compilation process, Syntax and Semantic errors, Variables and Data Types

Week 2 : Arithmetic expressions, Relational Operations, Logical expressions; Introduction to Conditional Branching

Week 3 : Conditional Branching and Iterative Loops

Week 4 : Arranging things : Arrays

Week 5 : 2-D arrays, Character Arrays and Strings

Week 6 : Basic Algorithms including Numerical Algorithms

Week 7 : Functions and Parameter Passing by Value

Week 8 : Passing Arrays to Functions, Call by Reference

Week 9 : Recursion

Week 10 : Structures and Pointers

Week 11 : Self-Referential Structures and Introduction to Lists

Week 12 : Advanced Topics

COURSE INSTRUCTOR



Anupam Basu is Professor in the Dept. of Computer Science & Engineering, IIT Kharagpur, and has been an active researcher in the areas of Cognitive and Intelligent Systems, Embedded Systems and Language Processing, Presently he is acting as the Chairman and Head of the Center for Educational Technology, IIT Kharagpur. He has developed several embedded system based tools empowering the physically challenged and has led several national projects in the area.

He has taught at the University of California, Irvine at the Center for Embedded Systems. He is an Alexander von Humboldt Fellow and a Fellow of the Indian National Academy of Engineering. The awards won by him include the State Award for the Best Contribution to the Cause of Empowerment of the Disabled (2014), Universal Design Award 2011, for contributions in design for the disabled, by National Council for Promotion of Employment of Disabled Persons, India, the National Award for the Best Technology Innovation for the Physically Disabled (2007) and the Da-Vinci Award 2004 from the Engineering Society of Detroit.

noc22-cs101: Problem solving through Programming in C

Student Mark Details

Sl No	Roll No	Name of student	Score	Certificate Type
1	AS121CS015	ALFRED ANTONY	78	Elite with Silver



NPTEL COORDINATOR



Prof. Manesh T
HOD, CSE

noc22-cs101: Problem solving through Programming in C

Student Assignment Details

Sl No	Roll No	Name of student	Assignment score
1	ASI21CS015	ALFRED ANTONY	24.75



NPTEL COORDINATOR



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HOD, CSE



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)



This certificate is awarded to

ALFRED ANTONY

for successfully completing the course



Problem Solving Through Programming in C

with a consolidated score of **78** %

Online Assignments	24.75/25	Programming Assignment	25/25	Proctored Exam	28.5/50
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Total number of candidates certified in this course: **2015**

Jul-Oct 2022

(12 week course)

Prof. Debjani Chakraborty
Coordinator, NPTEL
IIT Kharagpur



Indian Institute of Technology Kharagpur



Roll No: NPTEL22CS101S33440135

To validate the certificate



No. of credits recommended: 3 or 4