Call for Participation in One Week Summer Training Program
On
"Competitive Programming for Problem Solving"
(CPPS – 2024)

15th to 19th July 2024

Organized by
Department of Computer Science & Engineering
&
Institute Innovation Council, IIIT Nagpur

About IIIT Nagpur

Indian Institute of Information Technology Nagpur (IIITN), is one of the Indian Institutes of Information Technology (PPP) in the country, set up with the objective of making available facilities for higher education, research and training in various fields of Information Technology. To address the challenges faced by the Indian IT industry and growth of the domestic IT market, the MoE, Government of India has established IIIT's. IIIT Nagpur is established in the year 2016 by the MoE, Government of India, Government of Maharashtra and Industry Partner Tata Consultancy Services (TCS), Mumbai. IIITN currently offering B. Tech. and PhD. programs in CSE and ECE.

Training Program Objective

- To design the efficient algorithms using appropriate data structures for competitive programming.
- To design and develop the efficient algorithms methodology for competitive programming.
- To solve real-life problems by using suitable data structures and appropriate algorithm technique.

Training Program Contents

- **Preliminaries**: Algorithm & Data structure Overview, Computational & space complexity, mathematical overview, Elementary data structures
- **Linear data structure:** Two sum Problem, sliding window problem, two pointer techniques, slow and fast pointer
- **DAC:** Sorted Array problems: Median, merge k sorted lists, maximum subarray, rotation, shifting and Tiling
- **Greedy Approach:** Activity selection, Huffman coding, Egyptian fraction, Minimum product subset of an array, Partitioning array problems,
- **Dynamic Programming**: Maximal subarray, Maximum product subarray, Subset sum, Pascal's Triangle, coin change

Important Points

- Last Date of Online Registration: 11th July 2024
- Intimation to participants: 12th July 2024
- Registration Form: **https://tinyurl.com/cpps2023**
- Registration Fees: INR 2000/-

About Training Program

This summer training program is targeted for the engineering students and offer them to improve on the coding or programming aspects required in the following points;

- To participate in various coding competitions
- To fetch better internship and placement opportunities
- To start good start-up based on the programming skills
- To fetch Master's admission in better Foreign universities.

Target Audience

Undergraduate and Graduate Students from the Engineering, Technology and interdisciplinary courses.

Eligibility

Applicants must belong to UGC recognized university / Deemed university / AICTE approved colleges / Institutes of national importance or Research Institutes only can apply for the summer training program.
Registration will be done strictly on **First Come First Serve (FCFS)** as limited seats are available. **Training is in Offline Mode.**

Training Program Coordinator(s)

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