



Convener
Dr. V.Gomathi, M.Tech.,Ph.D
Professor and Head/CSE

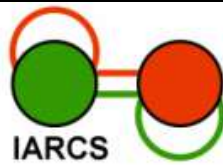
Coordinator
Dr.M.Bhuvaneshwari
Assistant Professor (SG)/CSE
Computer Science and Engineering

Mr.K Rajkumar
Assistant Professor/CSE
Computer Science and Engineering

Organised By
Department of Computer Science and Engineering
National Engineering College
(An Autonomous Institution affiliated to Anna University Chennai)
K.R.Nagar, Kovilpatti, Thoothukkudi District
Tamil Nadu - 628 503
www.nec.edu.in

Details for Communication
Email – ID.: hodcse@nec.edu.in

For Further Details Contact:
Dr.M.Bhuvaneshwari : 9944944457
Mr.K.Rajkumar : 9789655284



Indian Association for Research in Computing Science (IARCS)
Technically Sponsored Online Instructional Workshop



on
Randomized Algorithms, Derandomization and Applications
(21.01.2022-22.01.2022 and 28.01.2022-29.01.2022)
Session time: 10:00 AM to 11:15 AM (FN)
03:15 PM to 04:30 PM (AN)



About the Department

The department was started in the year 1984. The department offers B.E and M.E in Computer Science and Engineering. It has stable well qualified and experienced staff members. This department is fully equipped with modern Hardware and Software to cater to the academic needs of students and cater the research aspirants of faculty.

The credentials of the Department

- Accredited by NBA, New Delhi under Tier 1 Category.
- Recognized Research Centre by Anna University, Chennai.
- MoUs with Reputed Companies like VVDN Technologies Pvt. Ltd., Chennai, Adroit soft (I) Pvt. Ltd., Chennai, Bizpluss India Pvt Ltd.,Chennai and Viable Technologies Pvt. Ltd., Chennai.
- Granted with NVIDIA DLI Ambassadorship in Deep Learning.
- Established CISCO Networking Academy, Red Hat Academy.
- Research Area: Image Processing, Computer Networks and Security, Deep Learning, Data Analytics
- Focus Groups: Artificial Intelligence & Deep Learning, Data Science, Theory and Algorithms, Network, Application Development.
- 95% Consistent Placement records with highest salary 9 LPA.
- Industrial Inhouse incubation/ research centres.

Important Dates

Last date for Registration : 17.01.2022

Intimation of Selection : 19.01.2022

Registration Link

<https://forms.gle/qVHLeJRMwdMs72zr6>

Participants will be selected on first come first serve basis

Mode of Workshop : Online

The E-certificates shall be issued to those participants who have attended all the technical sessions and Scored minimum 60% marks in the Online assessment at the end of the instructional workshop.

Resource persons



Dr. Sandeep Sen

Professor
Department of CSE,
IIT, New Delhi



Dr. Surender Baswana

Professor
Department of CSE,
IIT, Kanpur

About the Programme

Nowadays randomization plays a major role in theoretical computer science and mathematics related problems. Randomized algorithm uses random numbers during its execution to determine what to do next. It employs a degree of randomness as part of its procedure. The inclusion of randomness is used to reduce time complexity or space complexity in other standard algorithms. It is successful when dealing with huge-data matrix computation problems. When considering a randomized algorithm, it usually cares about its expected worst-case performance, which is the average amount of time it takes on the worst input of a given size. It has been proposed in the past as a simple and efficient solution for computing controllable, reachable, and controllers' terminal region sets of nonlinear systems. Especially in computer science, randomized algorithms are widely used in computer networks, algorithms, data structures, matrix computations, and data analysis. The emerging research also reveals that the randomization and derandomization shows much promising results in understanding the complex interactions in highly dynamic and distributed environments. The instructional course planned to introduce the basic concepts in the design and analysis of randomized algorithms. The topics of the course are as follows

Focus Areas

- Introduction and motivation for Randomized Algorithms
- Randomized Algorithms Classification and Applications
- Randomized Divide and Conquer
- Randomized Monte Carlo algorithm for Min-Cut
- Random walks/Markov chains
- Pseudorandomness and derandomization
- Derandomization techniques

Target Audience

- Faculty members of AICTE approved Engineering Colleges and PG / PhD Scholars pursuing their degree in related domains.

Outcomes

- Recognize the concepts and paradigms of randomization techniques in estimating the expected running time. (K2)
- Apply randomized algorithms for solving complex problem drawn from your research area. (K3)