ABOUT THE UNIVERSITY

Delhi Technological University (formerly Delhi College of Engineering) is a key node in national and global knowledge network, thus empowering India with the wings of knowledge and power of innovation. Established in 1941 by Government of India, erstwhile DCE now DTU is one of the premier Institution of Engineering and Technology education in India. It has played unique and important roles in the advancement of Technical education in the country.

ABOUT THE DEPARTMENT

The aim of the Department of Applied Mathematics is to pursue excellence in Mathematics through teaching and research. The research output of the Department speaks clearly for the quality of work. The department offers UG, PG and Ph.D. programmes.

The students are being enriched with in-depth theoretical background and practical training in Numerical Computing, Operations Research, Computer Science and Mathematical finance by a team of committed faculty members from the disciplines of Pure Mathematics, Applied Mathematics, Computer Engineering, Information technology and Economics. Faculty members of the department have been regularly contributing towards International and National journals along with Proceedings of National and International Conferences. The Department regularly organizes seminars, workshops and training programs to keep pace with the new developments and recent trends in relevant technologies. **Chief Patron Prof. Yogesh Singh,** Vice Chancellor

Patron Prof. S.K. Garg, Pro-Vice Chancellor

Chairman Prof. Sangita Kansal, HOD, Department of Applied Mathematics

> Course Coordinator Prof. Anjana Gupta, Professor, Department of Applied Mathematics, DTU

Course Co-Coordinators Dr. C.P. Singh, Associate Professor Ms. Trasha Gupta, Assistant Professor Ms. Payal, Assistant Professor, Department of Applied Mathematics, DTU

VENUE Department of Applied Mathematics, DTU

IMPORTANT DATES Last date of Registration: 10th Nov, 2019 Intimation of Confirmation: 15th Nov, 2019

FOR ANY QUERIES, CONTACT

Prof.Anjana Gupta –9810751432 Dr. C.P.Singh –9811924894 Ms. Trasha Gupta – 9811978055 Ms. Payal – 8586095035 Email Id - <u>dtu.sttp.gtaia@gmail.com</u>

TEQIP III SPONSORED

ONE WEEK SHORT TERM TRAINING PROGRAM

ON

GRAPH THEORY AND ITS APPLICATIONS

November 25 – 29, 2019



Organized by

DEPARTMENT OF APPLIED MATHEMATICS DELHI TECHNOLOGICAL UNIVERSITY BAWANA ROAD, SHAHBAD, DAULATPUR, NEW DELHI—110042, INDIA

ABOUT THE PROGRAM

Graph Theory has enormous potential for applications in major fields such as computer science, communication networks, chemistry, fuzzy set theory. It is widely used to solve the realworld problems. It is one of the key subjects essential in mastering data science and helps to visualize and understand data concisely. This focus of the program is on the advances, vision and major challenges of the future in Graph Theory, its variants and its applications.

OBJECTIVES OF THE PROGRAM

- 1. To introduce the basic concepts and the state of the art in the field of graph theory.
- 2. To provide a forum to solve challenging network related problems arising in various fields using graph optimization techniques.
- 3. To be able to represent systems with uncertainty and impreciseness using graphs.
- 4. To utilize the concepts of graph theory in analyzing Online Social Networks (OSN) and Natural Language Processing(NLP) Techniques.
- 5. To create graphs and understand and analyze them using Graph Theory based software.

PROGRAM CONTENT

The content includes theory and practical aspects of following topics:

- Graph theory and network science
- Communication Networks
- Fuzzy Graph Theory
- Signed Graphs
- Probabilistic Graphical Models
- Graphical Tools
- Graph Optimization

Applications like in Online Social network analysis, Natural Language Processing Techniques, etc.

PROGRAM OUTCOMES

After the course completion, the participants will be able to:

- 1. Understand the state of the art in graph theoretic approaches and its variants.
- 2. Apply graph theoretical approaches and optimize computer and communication networks.
- 3. Model various applications of Natural Language Processing, Online Social Networks into graphs and analyze them using software
- 4. Be guided with future research directions in the area of graph theory.

PARTICIPATION

The program is open to the faculty members, research scholars and P.G. students, who wish to enhance their skills in the field of Graph Theory and its variants. The interested candidates should fill the registration form attached in brochure and mail the scanned copy of duly filled form approved by competent authority on/before 10th November, 2019 to dtu.sttp.gtaia@gmail.com. Confirmation of participants would be intimated though email by 15th November, 2019. Submit the form in original at the time of registration for STTP on 25th November 2019. Also fill the corresponding available google form at https://forms.gle/RXvPRgUm5zowU9oP8

There is no registration fee and no TA/DA will be paid to the participants.

REGISTRATION FORM

TEQIP III Sponsored One Week Short Term Training Program On Graph Theory and Its Applications Organized by DEPARTMENT OF APPLIED MATHEMATICS, DTU November 25-29, 2019

Name:
Designation:
Organization:
Professional Field:
Mailing Address:
E-mail Address:
Mobile No. :

Signature of the applicant

Note: The application is hereby should be recommended and applicant is permitted to attend the program. Signature of the Head of the Department / Organization.

Date

Signature and Seal of Head of Institution