

Department of Mathematics

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY WAKNAGHAT

Workshop Report

One-Week Workshop on Combinatorics and Graph Theory in Science and Engineering

CGSE-2014

November 3-8, 2014

The Department of Mathematics organized a One-Week Workshop on “Combinatorics and Graph Theory in Science and Engineering” during November 3 – 8, 2014. There were 52 registrations in the workshop including faculty members, research scholars, M Tech and B Tech students from all over India.

The workshop was conducted by our guest speaker Dr. Ashish Srivastava, Department of Mathematics & Computer Science, Saint Louis University; Saint Louis, MO, USA. His research interests include combinatorics, graph theory, non-commutative algebra and applied algebra.

The aim of the workshop was to familiarize the participants with the basic tools of combinatorics and graph theory, like Pigeonhole Principle, Generating Functions, Polya's Theory of Counting, Graphs, Trees, Euler Path and Cycle, Hamiltonian Path and Cycle, Planarity, Graph Decomposition. Specific topics in Coloring, Matching, Ramsey Theory and algorithmic aspects of graph theory were introduced along with various applications.





About the Workshop

The purpose of the workshop is to create opportunities for graduate, post-graduate students and faculty from various engineering disciplines to explore the basic tools of combinatorics and graph theory along with discussion on the latest developments as well as future directions. Discussion and interaction among the participants will have a high priority.

The workshop will be conducted by Dr. Ashish Srivastava, Department of Mathematics & Computer Science, Saint Louis University; Saint Louis, MO, USA. His research interests include combinatorics, graph theory, non-commutative algebra and applied algebra.

Objective of the Workshop

The objective of the workshop is to familiarize audience with basic tools of combinatorics and graph theory, for example, Pigeonhole Principle, Generating Functions, Polya's Theory of Counting, Graphs, Trees, Euler Path and Cycle, Hamiltonian Path and Cycle, Planarity, Graph Decomposition. Some specific topics in Coloring, Matching, Ramsey Theory and algorithmic aspects of graph theory will be covered in more detail. Various applications of these topics will also be discussed.

Learning Outcomes of the Workshop

Upon successful completion of this workshop, the participants will be able to write precise and accurate mathematical definitions of objects in graph theory; use mathematical definitions to identify and construct examples and to distinguish examples from non-examples; validate and critically assess a mathematical proof; use a combination of theoretical knowledge and independent mathematical thinking in creative investigation of questions in graph theory; write about graph theory in a coherent and technically accurate manner.



Important Dates

Last Date for registration: 10th October 2014
 Workshop: November 3-8, 2014.

Registration Fee

Candidate from	Reg. Fee (₹)
Faculty/Others	₹ 4000/-
Students (UG/PG, PhD)	₹ 2000/-
JUIT Faculty	₹ 1000/-
JUIT Students	₹ 500/-
Faculty from Sister Institute	₹ 2000/-

The registration fee includes accommodation on sharing basis in the university hostels and boarding.
 **Local participants from JUIT, Waknaghat may please contact the organizing secretary for information regarding registration.

Payment of Registration Fee

Participants can use one of the following modes for paying registration fee:
Demand Draft/Multicity Cheque at par:

Demand Draft /Multicity Cheque at par should be in favour of "Jaypee University of Information Technology" payable at Shimla, Himachal Pradesh, India. Demand Draft/Multicity cheque at par along with Registration form duly completed should be sent **ONLY BY INDIAN SPEED POST** to:

Dr. R K Bajaj,
 Associate Professor, Jaypee University of Information Technology,
 P.O. Waknaghat, Via Kandaghat, District Solan-173234,
 Himachal Pradesh, INDIA

For Online Payment of Registration Fee

Name of the Bank	Punjab National Bank, The Mall, Shimla (H.P)
Name of Beneficiary	Jaypee University of Information Technology, Waknaghat
Account No. of Beneficiary	0427002100682105
IFSC Code	PUNB0042700
TYPE OF ACCOUNT	Current

Workshop Committee

Patron

Prof. S.K. Kak, The Vice-Chancellor, JUIT, Waknaghat.

Convenor

Prof. Harinder Singh,
 Head, Department of Mathematics, JUIT, Waknaghat.

Resource Person/Advisor

Dr. Ashish Srivastava,
 Department of Mathematics & Computer Science,
 Saint Louis University; 221 N. Grand Blvd.
 St. Louis, MO-63103, USA
<http://math.slu.edu/~srivastava>

Finance Chair

Brig.(Retd.) Balbir Singh, Director (Admn.), JUIT, Waknaghat.

Organizing Secretary

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 Associate Professor
 Department of Mathematics
 Jaypee University of Information Technology
 Waknaghat, Solan (HP) – 173234
 Ph: (O) 01792-239229
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 E-mail: rakesh.bajaj@juit.ac.in; rakesh.bajaj@gmail.com

**JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY
WAKNAGHAT
Department of Mathematics**

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on
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Important Dates

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Registration Fee

Candidate from	Reg. Fee (INR)
Faculty/Others	4000/-
Students (UG/PG, PhD)	2000/-

The registration fee includes accommodation on sharing basis in the university hostels and boarding.

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- **For Online Payment of Registration Fee**

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<http://math.slu.edu/~srivastava>
Tel: 1-740-707-6489
- **Finance Chair**
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REGISTRATION FORM

Participant's Name (Capital Letter) : _____

Gender (Please Tick) : MALE / FEMALE

Designation : _____

Organisation/Institute : _____

Category (Please Tick) : FACULTY/RESEARCH SCHOLAR / UG/ PG Students

If Others, Please Specify : _____

Address for Communication : _____

Mobile : _____

Landline Phone : _____

Email : _____

Accommodation Required (Please Tick) : YES / NO

PAYMENT DETAILS

A. Demand Draft/Cheque:

Bank :
Dated :
Amount :
Draft/Cheque No. :

DD/Cheque should be made in favour of "Jaypee University of Information Technology", payable at Shimla.

B. Online Payment

Remittance Reference No. : _____ Date: _____

You can send the soft copy of the completely filled registration form and the cyber receipt to rakesh.bajaj@gmail.com or rakesh.bajaj@juit.ac.in

Please send the form to:

Dr. Rakesh Kumar Bajaj
Associate Professor, Department of Mathematics
Jaypee University of Information Technology, Wagnaghat, Solan (HP) – 173234
Mob: 98163-37725; 9805078221; Email: rakesh.bajaj@gmail.com ; rakesh.bajaj@juit.ac.in

Signature