

## REGISTRATION FEE

### All Participants: Rs 1000/-

Fee to be sent by DD drawn in favor of  
"Registrar TU", payable at State Bank of  
Patiala, (SBoP) Patiala, Punjab

*Photocopy of this form can be used for  
registration purpose*

## IMPORTANT DATES

Last date for receipt of registration form	05-03-2010
Intimation of selection	12-03-2010
Confirmation from the participants	17-03-2010

## RESOURCE PERSONS

1. Dr. R. K. Sharma  
Professor and Dean Academics  
S M C A, Thapar University
2. Dr. O. P. Gandhi  
Professor, ITMMEC  
I I T Delhi
3. Dr. V. P. Agrawal  
Visiting Professor  
M E D, Thapar University

## CONTACT ADDRESS:

**Dr. V.P Agrawal, Visiting Professor**  
Mechanical Engineering Department  
Thapar University, Patiala

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## Course Highlights

### SESSION I

- Fundamentals of graph theory
- Graph theory versatility in solving real life problems considering interrelationship between vertices
- Graph theory for combinational problems

### SESSION II

- Engg. applications related to modeling, analysis, characterization, wear, reliability, failure and manufacturing of mechanical system
- Discussion with few live research projects
- Graph theory approach for industrial engineering problems

### SESSION III

- Integration of first two sessions and extend its application to solve variety of research problems
- Methodology will be generalized to help participants to make meaningful contribution in the research area of their interest

The course is likely to be followed by another course of longer duration to discuss different case studies of graph theory applications and assist participants to apply the methodology fully in their areas of research.

ONE DAY SHORT TERM COURSE  
ON

## ENGINEERING APPLICATIONS OF GRAPH THEORY

(27<sup>th</sup> MARCH, 2010)

### CO-ORDINATORS

Prof. V. P. Agrawal  
Mr. Devender Kumar



Organized by

**DEPARTMENT OF MECHANICAL  
ENGINEERING**

**THAPAR UNIVERSITY**

Post Box No. 32, Patiala (Punjab) – 147004

(Established under section 3 of UGC Act, 1956 vide  
Notification No F-9-12/84 –U3 of GOI)

**OBJECTIVES**

A one day short term course on "Engineering Applications of Graph Theory" is aimed at exposing M.Tech student and young faculty to versatile graph theoretic system approaches. This will directly benefit them to pursue their Ph.D program efficiently. The course is also useful to those faculty who are already guiding Ph.Ds but do not have access to large experimental and computational facilities. The graph theory may show new direction to make significant research contributions. The course is useful to understand products and processes in totality and design and develop a variety of high quality products and processes in less time and less cost for highly competitive global market.

Graph theory has been applied in social science, electrical engineering, computer science, engineering material and other disciplines to solve a variety of problems in the past. In recent past, these system approaches have been exploited by a number of researchers and made significant contributions in the area like kinematic chains and mechanisms, tribology, failure analysis, quality, reliability, automobile vehicle design, reinforced polymer composites, electroplating, mechatronic products, MEMS, thermal power plant, manufacturing systems, total quality management, etc. It is hoped that this course will motivate researchers to apply graph theory more effectively in a number of new research areas.

## THE UNIVERSITY

Thapar University formerly known as Thapar Institute of Engineering and Technology (TIET) is a premier institute of technical education known for its excellence in teaching and research in the Northern Region. It runs academic programmes from undergraduate to doctoral level in all the major fields of Science and Engineering and is ISO certified.

Thapar University has been ranked ninth amongst top ten Technical Schools of India and third best in North India according to Dataquest-IDC-NASSCOM survey for Best Technical Schools. Thapar University also has been ranked fourth amongst private engineering colleges in India by outlook. The University has been accredited by NAAC with A grade recently. Department of Mechanical Engineering is the oldest department of the university aims to produce quality professionals in Mechanical Engineering to compete globally and excel by carrying out basic and applied research in emerging areas by forging strong industry-institute interaction. The department offers B.E. Mechanical Engineering, BE (IE)-MBA, M.E. (CAD/CAM & Robotics), M.E. (Production & Industrial Engineering) and Doctoral programmes leading to Ph.D. degree. The department also offers B.E. Mechanical Engineering in distance mode for in service diploma holders. The U.G. programme of the department has been accredited for five years by National Board of Accreditation.

## ONE DAY SHORT TERM COURSE

ON

## ENGINEERING APPLICATIONS OF GRAPH THEORY

(27<sup>th</sup> MARCH, 2010)

### REGISTRATION FORM

Name : \_\_\_\_\_

Designation : \_\_\_\_\_

Institution : \_\_\_\_\_

Address for correspondence: \_\_\_\_\_

Phone (O) : \_\_\_\_\_

(M) : \_\_\_\_\_

E-mail : \_\_\_\_\_

Qualification : \_\_\_\_\_

Teaching Experience: \_\_\_\_\_

Draft No. \_\_\_\_\_ dated \_\_\_\_\_

amount \_\_\_\_\_ drawn on \_\_\_\_\_

Accommodation required: YES/NO

### Signature of Applicant

The applicant is a permanent faculty member of the institute and he/she is permitted to attend the short term course.

Signature of Head of the Institute with seal