## Training program on "Optimization and its Applications"

Optimization is a mathematical technique of obtaining the greatest or least possible value of a function of one or several variables. This becomes more difficult in the presence of certain constraints imposed on the variables. Optimization techniques are needed in various disciplines of science and engineering e.g. Physical Sciences, Pattern recognition, Economics, Finance, Production management etc. In fact, the optimization techniques are being applied to every sphere of human activity which can be modeled in a mathematical model. This subject is extensively studied in some parts of the country and abroad, however not much work is being done in western India in general and Rajasthan in particular. This training program intended to develop and promote research interest in optimization and its various applications.

#### **Topics to be covered** :

- 1. Introduction to Optimization Techniques
- 2. Linear Programming
  - i. Duality
  - ii. Transportation Problem
  - iii. Assignment Problem
  - iv. Integer Programming
- 3. Nonlinear Programming
- 4. Convex and Generalized Convex Programming
- 5. Multicriterion Decision Making
- 6. Fuzzy Optimization
- 7. Applications of Optimization Techniques

The workshop is intended for young faculty and researchers from Mathematical sciences, Computer Science having interest in this area.

Eminent National experts in the area of Optimization have been invited to be resource persons in the workshop:

- 1. Professor Davendra Bhatia, Department of Operation Research, Delhi University
- 2. Prof. GSR Murthy, ISI, Hyderabad.
- 3. Dr. A. Rajagopal, Head SQCOR Unit, ISI Coimbatore.
- 4. Dr. Aparna Mehra, Department of Mathematics, IIT Delhi.
- 5. Dr. Pankaj Gupta, Department of Operation Research, Delhi University
- 6. Dr. C.S. Lalita, Rajdhani College, Department of Mathematics, Delhi University.

#### ADVISORY COMMITTEE

Prof. Aditya Shastri Vice Chancellor, Banasthali University

Prof. S.B. Rao Director, C.R. Rao institute, Hyderabad

> Prof. Sharad Shane University of Mumbai

Prof. B. K. Das Delhi University, New Delhi

Prof. Umesh Singh Coordinator-CIMS, BHU, Varanasi

# CONVENOR

Prof. G. N. Purohit

#### COORDINATOR Dr. Sarla Pareek

#### ORGANIZING COMMITTEE

Dr. Deepa Sinha Dr. Shalini Chandra Dr. Rakhee Mr. Piyush Kant Rai

### PROGRAM COMMITTEE

Dr. Seema Verma, Mr. Om.Prakash, Mrs. Amla Olkha, Dr. P.K.De, Dr. Gauri Shanker, Ms. Somya Upadhyaya, Mr. Praveen Garg, Ms. Richa Joshi

## **IMPORTANT DATES**

#### Training Program: December 24-29, 2008

#### Registration Deadline: November 25, 2008

#### Announcement of final list of participants: December 1, 2008

There is no registration fee. The selected participants will be informed by mail/phone/fax. They will be reimbursed second class train/bus fare to and from Banasthali and will be provided free lodging and boarding at Banasthali university.

The completed registration form should be posted to

The Coordinator Training program on Optimization and its Applications Center for Mathematical Sciences (CMS) Apaji Institute of Mathematics and Applied Computer Technology Banasthali University-304022 Rajasthan Phone: (01438) 228647/48 Fax: (01438) 228649

Or send through mail on the email Id: tpopa2008@gmail.com

It can be mailed at (Registration form can be downloaded from the university website **www.banasthali.org**)

## Contact:

## AIM & ACT Banasthali University Banasthali (Rajasthan) 304022 Phone: (01438) 228647/48 Fax: (01438) 228649 Email: tpopa2008@gmail.com

### How to reach Banasthali University:

Banasthali is located 72 km from Jaipur, 8 km off on Jaipur Kota road. Frequent bus service is available for Banasthali University campus/Newai from main Bus Stand (Sindhi Camp) Jaipur. Newai is 10 km from Banasthali. Conveyance is available at Banasthali Newai (WR, Jaipur Kota Broad-guage Line) Railway Station. Jaipur (Sanganer) Airport is 59 kms from Banasthali.

### URL-http://www.banasthali.org