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## Indo-US Workshop and Tutorial on Advances in Computational Optimization and Analysis of Systems



At  
**Indian Institute of Technology  
Kanpur**

During 6 - 9 February, 2007

### Coordinators:

Kalyanmoy Deb, IIT Kanpur  
Partha Chakroborty, IIT Kanpur  
Panos Pardalos, University of Florida  
Georges Fadel, Clemson University

<http://www.iitk.ac.in/kangal/indous.shtml>

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through poster presentations. Extended abstracts will also appear in the workshop proceedings along with abstracts from invited speakers. Interested participants can submit a two-page, single-spaced abstract (in pdf format) before 31 October 2006 to

*Prof. Partha Chakroborty*  
*Email: partha@iitk.ac.in.*  
*Tel: 0512 2597037 (O), 2598430 (H)*

Authors of selected abstracts will be notified by 10 November 2006. Abstract submission is not a requirement for registration and participation in the workshop.

### Registration

Persons interested in participating to the event should fill the attached registration form and send it with a draft worth Rs. 6,000/- (for industries/research labs), Rs. 4,000/- (for teaching/staff in academic institutions), Rs. 2,000/- (for a limited number of students with a valid student ID), US\$200 (for foreign participants) in favour of **Coordinator, Continuing Education Program, IIT Kanpur**, payable at the State Bank of India, IIT Kanpur to the following address before 10 December, 2006:

*Prof. Kalyanmoy Deb*  
*Department of Mechanical Engineering*  
*Indian Institute of Technology*  
*Kanpur, PIN 208016, U.P.*  
*Voice: (0512) 2597205 (O), 2598310 (H)*  
*Fax: (0512) 2597408, 2590007*  
*Email: deb@iitk.ac.in*

A limited number of rooms are available in IIT Kanpur guest house on a first-cum-first-serve basis. The registration fee includes workshop proceedings, tutorial handouts, computer/library facilities, lunches, dinners, workshop banquet, and refreshments.

For more information, please visit our web site  
<http://www.iitk.ac.in/kangal/indous.shtml>

### Way to IIT Kanpur

IIT Kanpur is located north of Kanpur Central Railway Station at about 16KM away at the side of Delhi-Calcutta GT Road. Taxi (Rs. 175) and auto (Rs. 100) services are available from the railway station on hire. Nearest airports are in Lucknow (120 KM) and Delhi (440 KM).

**Never before have so many leading researchers in optimization gathered under one roof in India for such an extended period. All participants will get a unique opportunity of interacting with these researchers in informal setting during the lunches and dinners.**

**To know basics of classical optimization and genetic algorithms, a day-long tutorial will be given by experts.**

**The workshop also gives you a platform to show and share your research/application work with leading minds in optimization.**

**Please mail this form to the following address**

**Kalyanmoy Deb, deb@iitk.ac.in**

Department of Mechanical Engineering  
Indian Institute of Technology, Kanpur  
Kanpur, U.P. Pin 208016

Tel: (0512) 2597205

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INDIAN INSTITUTE OF TECHNOLOGY  
KANPUR  
6 - 9 FEBRUARY, 2007

**Objectives**

Optimization and analysis of systems through modeling are practices common to many engineering and scientific problem solving tasks. These techniques can be used to enhance productivity and understand and design systems better. Although they are routinely used in academia and industries in USA and abroad, such practices are yet to be popular in Indian industries and academics. At IIT Kanpur and a few other universities in India, optimization methods and systems analysis approaches are studied, taught in classrooms, and practiced with some multi-national industries. Through this workshop we plan to bring together researchers (novice and experts) and practitioners from Indian and US universities/industries, so as to discuss

1. Scope of these techniques in practice,
2. Different methodologies for optimization,
3. Ease and difficulties in applying them in practice

The workshop will begin with a day-long tutorial on various optimization techniques for the benefit of those without much knowledge in optimization. The workshop is carefully designed to have technical sessions and vision sessions by renowned researchers from India and USA and also have industry sessions in which views of prominent industrial sectors from India and USA will be placed in an effort to reduce the gap between research and practice. The workshop and tutorial aim to achieve a good understanding of current methodologies (classical and modern) of optimization and systems analysis techniques and discuss ways of implementing them in practice.

**Who shall attend?**

Anyone interested in using optimization and systems analysis techniques in their day-to-day engineering problem solving activities.

**Why should you attend?**

Never before have so many leading researchers in the area of optimization gathered under one roof in India for such an extended period. All participants will get a unique opportunity of interacting with these researchers in informal settings, including during the lunches and dinners.

To know basics of classical optimization and genetic algorithms, a day-long tutorial will be given by experts.

The workshop will also provide a platform to show and share research/application work of participants with leading minds in optimization.

**Program**

- 6 February:** Tutorial on basics of optimization, classical methods, and genetic algorithms
- 7 – 9 February:** Workshop including invited lectures on various topics in classical optimization, genetic algorithms, and practical problem-solving
- 7 – 9 February:** Poster presentations by selected participants based on contributed extended abstracts

**Invited Speakers**

G. K. Ananthasuresh, IISc Bangalore  
N. Chakraborti, IIT Kharagpur  
R. Chandrasekaran, University of Texas, Dallas  
Georges Fadel, Clemson University  
David E. Goldberg, UIUC, Urbana-Champaign  
Erik Goodman, Michigan State University  
Boris Mordukhovich, Wayne state University  
Panos Papalambros, University of Michigan  
Panos Pardalos, University of Florida  
R. K. Ramanathan, ADA Bangalore  
R. T. Rockafellar, University of Washington, Seattle  
K. Sudhakar, IIT Mumbai  
Margaret Wiecek, Clemson University  
and others to be announced later.

**Extended Abstract Submission**

A limited number of registered participants will be given an opportunity to show-case their research during the workshop

**Registration Form**



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**Name:** .....

**Designation:** ..... **Male/Female:** .....

**Address:** .....  
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**E-mail:** .....

**Phone:** .....

**Fax:** .....

**Draft number:** .....

**Bank:** .....

Send this form and bank draft worth Rs. 6,000/- (for industrial/research labs), Rs. 4,000/- (for academic institutions), Rs. 2000/- (for students), US\$200 (for foreign participants) payable to **Coordinator, Continuing Education Program, IIT Kanpur**, at State Bank of India, IIT Kanpur to Kalyanmoy Deb, Department of Mechanical Engineering, Indian Institute of Technology Kanpur, UP 208016 before 10 December, 2006.