## Silver Jubilee Workshop on

# Introduction to Geometric Algorithms

October 31 - November 02, 2008 http://cse.iitkgp.ac.in/geomalgos

Organized by



Department of Computer Science and Engineering **Indian Institute of Technology** \*Kharagpur

### Speakers

Subir Kumar Ghosh (TIFR Mumbai)

Sandip Das (ISI Kolkata)

Subhas Chandra Nandy (ISI Kolkata)

Yogish Sabharwal (IBM IRL Delhi)

Partha Pratim Goswami (CU Kolkata)

Swami Sarvattomananda (Vivekananda Univ. Belur)

Vijay Natarajan (IISc Bangalore)

Niloy J. Mitra (IIT Delhi)

Subodh Kumar (IIT Delhi)

Sharat Chandran (IIT Mumbai)

Partha Bhowmick (IIT Kharagpur)

Jayanta Mukhopadhyay (IIT Kharagpur)

Arijit Bishnu (ISI Kolkata)

#### **Topics**

Computational geometry

Art gallery problems and approximation algorithms Geometric facility location problems

Voronoi diagrams

Geometric paradigms

Randomized techniques for geometry

Duality transformations in geometry

Computing center point using the prune-and-search technique

Computer Graphics

Cache friendly compressed representation of geometry

Scalar field visualization

Symmetry and structure detection for 3D geometry

Visibility of maps for point clouds

Digital Geometry

Anatomies of lines and circles in the light of number theory

In the quest for good digital distances

Act locally, change globally: Shape transformations by local

interchanges

#### **Coordinators**

Sudebkumar P. Pal, Partha Bhowmick Department of Computer Science and Engineering IIT Kharagpur

Subir Kumar Ghosh School of Technology and Computer Science TIFR, Mumbai

#### Registration

(Inclusive of lunch, accommodation, and course materials)

Academic Institution (Faculty): Rs. 600. Industry: Rs. 1000.

Bonafide students (graduated/post-graduate/doctoral) from institutes other than IIT Kharagpur will be given free registration covering lunch and accommodation.

> For details, please visit: http://cse.iitkgp.ac.in/geomalgos