

# Witid 2006

January 16-18 2006

## **Workshop Title: Spatial Analysis, Geo Information Technology**

### **Presenters:**

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### **Overview:**

Geographic Information Technology (GIT) is a new technology and one of the fastest growing areas of the IT technology. GIT is multidisciplinary in nature that combine computer, communication and visualization technologies to handling information related to location in order to support application of geographical data in different disciplines. During the last decades, GIT has developed very powerful tools for data handling and analysis. Geographic Information Systems are powerful applications that manage and manipulate spatially referenced data using spatial analysis. Spatial analysis can be defined as a quantitative data analysis in which the focus is on the role of space and which relies on explicitly spatial variables in the explanation or prediction of the phenomenon under investigation. This Workshop discusses on the importance of GIT in IT industry and describes the spatial analysis role and importance in GIT applications. The audiences learn the basics of GIT and spatial analysis knowledge and will be familiar to their capabilities and applications. Also some advanced methods of spatial analysis using in recent GIT systems and new developments will be discussed.

### **Contents:**

1. GIT, Definition and introduction
2. The origin and resent development of GIT
3. Spatial analysis as the core of GIT
4. Spatial data visualization and exploration
5. Spatial Analysis basics, techniques and Models
6. Point Pattern Analysis
7. Grid Analysis
8. Multivariate spatial data analysis

**Period:**

Half a Day (4 hours)

**Audience:**

The workshop is designed for New, Mid-career or senior-level IT, Data Mining and GIT professionals and also for any other interested organizations that needs or uses Geo Information Technology applications and wants to expand their knowledge in new IT developments.

**Presenter's Biography:**

Positions-----

- 2005-Now** Deputy Head of Industrial Engineering Faculty, Amirkabir University of Technology
- 2004-Now** Assistant Professor of Industrial Engineering Department, Amirkabir University of Technology
- 2004-Now** R&D Deputy Manager of Parsian Insurance Company, Tehran, IRAN
- 1999-2004** Researcher, Ph.D. Candidate, in Industrial Eng. Dep. of Dalhousie Univ.
- 1994-1999** Teaching Member and Lecturer in Industrial Eng. Dep. of Amirkabir Univ. Tehran, IRAN
- 1997-1999** Deputy-Director (Director General Assistant) of Budget and Organization Division of Ministry of Culture and Higher Education, Tehran, IRAN
- 1995-1997** Deputy Manager of Industrial Engineering and Productivity Research Center (IEPRC)
- 1993-1997** Director and Chief Editor of the "Amirkabir Magazine"
- 1993-1996** Manager of Strategic Planning Office of Amirkabir University
- 1993-1997** Director General of Amirkabir University

Education -----

- 2004** Ph.D. Industrial Engineering, GIT, Dalhousie University, Halifax, CANADA
- 1994** M.Sc. Industrial Engineering, Amirkabir University, Tehran, IRAN
- 1990** B.Sc. Mechanical Engineering, Amirkabir University, Tehran, IRAN