#### Dr. Cees van Westen Resource Person



Dr. Cees van Westen obtained his PhD in Engineering Geology from the Technical University of Delft in 1993, with a research on "Geographic Information Systems for Landslide Hazard Zonation", carried out in the Caldas department in Colombia.

After working with the University of Amsterdam for one year on landslide related problems in Austria and Switzerland, he joined the Division of Applied Geomorphology of ITC in 1988, and specialized in the use of Remote Sensing and Geographic Information Systems for natural hazard and risk assessment. During his work at ITC he has been working in various positions. He worked as training material coordinator on preparation of the training materials for the ILWIS (Integrated Land and Water Information System) version 2.1. He has made over 10 application case studies on the use of GIS for hazard assessment, dealing with floods, landslides, volcanic eruptions and earthquakes. From 1998 to 2000 he was Programme Director of one of the educational programmes in ITC, dealing with "Earth Resources and Environmental Geosciences".

Dr. Van Westen has worked on research projects, training courses and consulting projects related to natural hazard and risk assessment in many different countries, such as Austria, Switzerland, Italy, Guatemala, Costa Rica, Colombia, Peru, Bolivia, Argentina, India, Nepal and Philippines. He is currently Project Supervisor of institutional strengthening projects in India (with the Indian Institute of Remote Sensing) and Central America (within the UNESCO CBNDR project). He is also principal investigator in a research project "Strengthening local authorities in risk management", which deals with the development of a methodology for the application of Geoinformation for urban risk assessment and management. He has been project coordinator for several capacity building projects on Geoinformation for Disaster Management, and has helped establishing joint degree programs with several Universities in Developing Countries (such as in Colombia, Bolivia, Mexico, Indonesia, India and Sri Lanka). He is currently Director of the School for Disaster Geo-Information Management, which is a collaboration between the United Nations University and the International Institute for Geo-Information Science and Earth Observation (ITC) at ITC the Netherlands.

## Fee Per Participant TBD

Registration fee will cover course material CD, Stationery, Certificate, Daily Tea, and Closing Dinner

Please send duly filled application form along with Registration fee Bank Pay Order/ Demand Draft in favor of Institute of Space Technology and send to Institute of Space Technology, SUPARCO HQs, NCRG Building, Sector 28, Gulzar Hijri off University Road P.O Box 8402, Karachi. 75270

### **Important Dates**

START DATE : February 12, 2013 COURSE DURATION : 03 Days TIMINGS : 0900 – 1600 Hrs

**REGISTRATION**: Open

### **Registration Fee**

Rs. 15,000

#### Venue

### Institute of Space Technology

Islamabad Highway Near CDA Toll Plaza, Islamabad 44000, Pakistan.

Ph: 051-9075100



# Mailing & Contact Details

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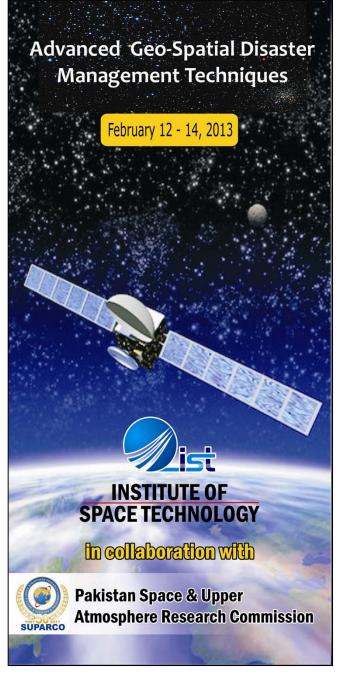
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### INTRODUCTION

Pakistan's location on the globe and climatic conditions make it prone to disasters including, cyclones/storms, droughts, earthquakes, floods, epidemics, glacial lake outbursts, landslides, avalanches and tsunamis. Human induced hazards that threaten the country include transport, industries, oil spills, urban, civil conflicts and internal displacements of communities due to multiple factors. October 08, 2005 earthquake in Azad Jammu and Kashmir and Khyber Pakhtoon Khwa (KPK) province affected 2.5 million people with a death toll of approximately 78000. Similarly massive floods of 2010 affected 20 million people and a loss of billions of dollars. Understanding the interaction of hazards, exposure and vulnerability is important for effective disaster mitigation. Risk assessments are therefore fundamental in disaster risk reduction (DRR) and recovery.

Space based data from MODIS, ASTER and SPOT satellites are used for early warning and post-disaster damages assessment. Such satellite aided rapid mapping provides much needed information to Government and Non- Government Organizations for relief and rehabilitation work, especially in a situation when no ground communication links were available.

Use of satellite Remote Sensing, GIS and allied techniques for pre and post disaster activities such as satellite based disaster monitoring, multi-hazards risk analysis and satellite based disaster risk management has proven more cost effective and rapid.

The main objective of this training course is to develop national capacity in the application of Geo-Spatial Techniques in this area.

### **OBJECTIVES**

- Capacity building of Scientists, Engineers and Disaster Practitioners in the application of Geo-Spatial Techniques for disaster management
- Analysis of multi-hazard risks using space borne information

### **COURSE CONTENTS**

- Role of RS and GIS in Pre and Post Disaster Activities
- Satellite Based Disaster Risk Management
- Multi-hazard Risk Analysis
- Disaster and Environmental Monitoring using Remote Sensing Data and GIS Techniques
- Hands-on Exercises



# **CERTIFICATE**

On completion of the course, participants will receive a certificate of participation





