Unitar Online Catalogue

# 12th International Training Course on GIS for Disaster Risk Management (Module 2: Post-Disaster Impact and Damage Analysis)

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| Type: | Course |
| Location: | Bangkok, Thailand |
| Date: | 5 Oct 2016 to 7 Oct 2016 |
| Duration: | 3 Days |
| Thematic Area: | Satellite Imagery and Analysis |
| Website: | http://www.unitar.org/unosat |
| Price: | $0.00 |
| Event Focal Point Email: | unosat@unitar.org |
| Contact Number: | 0041 22 767 4020 |
| Partnership: | ADPC |

## BACKGROUND

When disasters strike, the first thing the international early response community needs is i
coding, one can tell
immediately where the event took place and the apparent impact ofthe disaster. This is key information for an efficient planning and coordination of emergency response operations. The value of Geographic information systems (GIS) in emergency response arises directly from the benefits of obtaining,

integrating, organizing, inquiring and analyzing geographic information and databases. This course introduces the application of GIS in emergency response mapping and damage assessment in disaster situations from the perspective of United Nations.

## EVENT OBJECTIVES

The aim of the course is to provide training participants with concepts and GIS methodologies to perform satellite based rapid response mapping and damage assessment including the understanding of the benefits and limitations of using geo-spatial information technology in the immediate aftermath of a disaster.

## LEARNING OBJECTIVES

At the end of the course participants should be able to:

- Describe and utilize spatial data, GIS and remote sensing in disaster risk assessment and management.
- Utilize existing sources of historical disaster information and elements at risk data.
- Apply GIS/remote sensing in hazard, vulnerability and risk assessment.
- Employ risk information in emergency preparedness planning.
- Visualize hazard and risk information.
- Apply GIS/remote sensing to post-disaster damage assessment.

## CONTENT AND STRUCTURE

This course is extended over 10 workdays structured around the following modules:

**Module 1:** Core/Basic Information (about disaster risk management, GIS and spatial information)

**Module 2:** Post-Disaster Impact and Damage Analysis (UNOSAT Module)

At the end of the UNOSAT module participants will be able to:

- Explain the role of Geo-information in the response phase of a disaster.

- Gain awareness of GIS methodologies related to the rapid mapping processing chain to support emergency response.
- Identify, access, search, collect, organize and analyze geospatial data for emergency response mapping.
- Apply basic GIS methodologies to perform impact analysis and preliminary damage assessment in the immediate aftermath of a disaster

**Module 3:** Pre-Disaster Risk Assessment

**Module 4:** Risk Information for Risk Reduction Planning

**Module 5:** Mini-Projects

The course is divided into 5 modules where UNOSAT shall be responsible for module 2 only. UNOSAT's module is structured into 4 sessions of 1.5 hours each with an estimated workload of approximately 16 hours spread over 3 days. It is considered that the length of the course well reflects its scope and is adequate to enable participants to achieve the learning objectives.

## METHODOLOGY

Full time face-to-face course with lectures and GIS lab exercises using real case disaster scenarios from past events (80% Lab Exercise, 20% lectures and discussions).

The whole course is divided into 10 module where the sessions by UNOSAT make up 3 out of the 10 Modules. Each module is structured into 4 sessions of 1.5 hour each. The average workload of the entire course is likely to be around 20-30 hours.

The whole course is designed in a way to have a balanced approach between theoretical and practical methodologies, which will enable the students to gain maximum knowledge on the subject. It will be taught in lecture/discussion formats illustrated with Power Point presentations, live demos, videos, maps, diagrams, field visits, interactive sessions and content on web sites.

## TARGETED AUDIENCE

The course is open to all participants who are working or will be working in the organizations where spatial information is used or considered to be used for the purpose of disaster risk management, disaster management, or disaster risk reduction. It is recommended that participants taking the course have a working knowledge of English including a basic knowledge on GIS and Remote Sensing technology.

The course welcome participants from all geographic areas. ADPC accepts nomination on a first come, first served basis provided the applicant meets the course requirement.

***Participants are recommended to attend a 4 hours long course "Getting Started with GIS" Offered by ESRI. Can be accessed through the following link -***

http://training.esri.com/gateway/index.cfm?fa=catalog.webCourseDetail&courseid=2500

## ADDITIONAL INFORMATION

**Language:**

English

**Institution:**

This course is co-organized and facilitated by the Asian Disaster Preparedness Center (ADPC), the Asian Institute of Technology (AIT), the Faculty of Geo-Information Science and Earth Observation of the University of Twente, the Netherlands (ITC) and UNITAR/UNOSAT.

**Software Required:**

GIS lab exercises will be based on ESRI ArcGIS 10.4 with extensions (spatial analyst), Google Earth, Access to internet.

**Enquiries:**

For further information, please send your enquiries to tsua [at] dpc.net (tsua[at]dpc[dot]net)

Find more information regarding this event here.

Click here to apply online.