The 5th Geo-information Technologies for Natural Disaster Management(GiT4NDM)
October 9-11, 2013

Open Source Hands-on GIS workshop for Disaster management using QGIS and GRASS

October 8, 2013

Dewey College, West Toronto,

Mississauga, Ontario, Canada

www.igrdg.com

Organized by: Co-organized by:

Waterloo Institute for Disaster Management (WIDM) and Dewey College in Mississauga, Ontario, Canada jointly organize one day workshop during the 5th GiT4NDM on 8 October 2013. The workshop is co-sponsored by the International Society for Photogrammetry and Remote Sensing (ISPRS), the International Cartographic Association (ICA), International Federation of Surveyors (FIG) and the International Association of Geo-information & Communication Technology (AGeoICT).
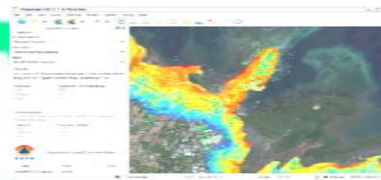
Workshop Overview

This workshop will introduce the use of Free and Open Source GIS software for disaster planning and response applications. Both Quantum GIS (QGIS) and the Geographical Resources Analysis Support System (GRASS) will be used. There are no prerequisites, and no previous GIS experience is required. Participants are encouraged to bring their own computers to load the software and data.

Objectives

The goal is to have each participant capable of downloading the current version of the software, locating relevant data, and mastering the basics of using QGIS and GRASS for their own disaster work.

Workshop Content

The workshop will present an overview of several applications of GIS, satellite remote sensing and GPS for disaster management, and will provide a basic introduction to QGIS and its GRASS plug-in and how they can be used effectively in disaster planning, response and recovery. Participants will learn how to download the software (Windows, Mac or Linux), where to find help and various online resources for disaster GIS, and will be provided with specific examples of the use of these for disaster applications. The hands-on activities will center on learning the basic use and capabilities of QGIS for the display, analysis, printing and sharing of spatial data. A brief introduction to how these technologies fit together, where this is all going. The new and emerging area of 'citizen science' and 'remote disaster support', including the emerging use of social media tools, will be presented. An example of running the same software from a thumb drive will be demonstrated.

Training Venue and Accommodations

The program will be held at Dewey College, Mississauga, Ontario, Canada. Accommodations can be made at Quality Inn Hotel (http://www.qualityinn.com) OR at Novotel (http://www.novotel.com) or any other hotel near to the venue. For more information please contact info@igrdg.com.

Policies

All instruction and materials are in English, but the QGIS software and documentation are available in a number of languages.

Registration fees:

One day workshop registration fees is $250. For registration please contact s2pirast@uwaterloo.ca or info@igrdg.com

Faculty

Professor Scott Madry is a research associate professor of archaeology at the University of North Carolina at Chapel Hill and is on the faculty of the International Space University in Strasbourg, France. He has been involved in the application of advanced space technologies (satellite remote sensing, GIS and GPS) for disaster management for over 15 years, and lectures on the topic widely. He has participated in numerous disaster responses as a volunteer with the American Red Cross and is active in the GISCorps and has participated in remote disaster support operations in Myanmar, Australia and the USA. In 2012 he was awarded, along with the other GISCorps volunteers, the President's Volunteer Service Award by President Barak Obama. His book entitled *Space Systems for Disaster Warning, Response and Recovery* will be published by Springer press in 2013.

Contents

- Hands-on work with QGIS and GRASS, adding existing data, creating new data (digitizing), accessing data over the web, integrating remote sensing data, integrating GPS data, producing hard-copy maps and sharing maps via the web.
- using the InaSAFE plugin for assessment after a disaster, using QGIS on a flash drive-based system, web resources, the emerging role of social media in disaster response, citizen input and remote data analysis, future directions, final discussions and conclusions.

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