

# **2009 International Workshop on Validation of Earthquake Precursors by Satellite, Terrestrial and other Observations (VESTO). Case studies of the recent Asian events**

**Nishi-Chiba Campus, Chiba University, Japan**

**March 26-28, 2009**

## **Background**

Within the last several years there have been major earthquakes that caused great devastation and significant loss of life. Asian countries such as Japan, Indonesia, India, China, Philippine are one of the most seismically and volcanic active countries in the world and they are frequently attacked by severe earthquakes and volcanic eruptions. Earthquakes, such as the 1995 Kobe Earthquake (M7.3), the 1999 Chi-Chi Earthquake (M7.6), and the 2004 Sumatra-Andaman Earthquake (M9.2) caused destructive disasters. It is very important to mitigate these disasters in Asian countries.

Despite great efforts, the short-term earthquake prediction has not been achieved in the world. The electromagnetic (EM) anomalies related to earthquakes have been reported recently. In the last fifteen years, an international intensive research in the new science field of seismo-electromagnetics has been carried out in many countries such as Japan, Russia, China, Greece, France, Italy, India, Mexico, and USA. Still, more work in this area is needed and to address the concerns of some in the science community, that comprehensive approach in validation, based on recent advances in the physical models of EM signals, is needed.

The aim of this workshop is to provide a forum for discussion and exchange of different experience in the science and cross validation of earthquake related signals. The unique key points of this meeting are (1) to cross-examine the results of precursory detection for several major earthquakes by applying different methodologies for analysis of ground-based and satellite data, and (2) to identify the common methodology for statistical validation of the major earthquake precursory phenomena.

## **Scope**

- to cross-examine the results of precursory detection for several major earthquakes by using different methodologies;
- to identify the common methodology for statistical validation of the major earthquake precursory phenomena;
- to review the state of art methodology to study EM earthquake phenomena;
- to strength the International cooperation on the fields of validation, modeling, and observation of earthquake EM activities.

The Workshop science committee has proposed four major earthquakes for common validation. We suggest to all authors to apply their innovative approach and methods and analyze EM signals before, during and after the event for the following major earthquakes:

- Sumatra (Indonesia) 2004.12.26 M9.2
- Ping Tong (Taiwan) 2006.12.26 M7.0×2
- Chuetsu Oki (Japan) 2007.7.16 M6.8
- Wenchuan (China) 2008.5.12 M7.9

## Venue

The workshop will be held at Nishi-Chiba Campus, Chiba University, Japan on March 26-28, 2009.

[http://www.chiba-u.ac.jp/e/about/map\\_addr/trans-map.html](http://www.chiba-u.ac.jp/e/about/map_addr/trans-map.html)

[http://www.chiba-u.ac.jp/e/about/map\\_addr/nishi-chiba.html](http://www.chiba-u.ac.jp/e/about/map_addr/nishi-chiba.html)

## Participant & Registration

Participants of the workshop will be scientists and students interested in this field. Persons who are from the industry are also welcome. All participants are subject to register in advance to the Chairman of the workshop through e-mail or fax as written in the following. Invited talks and contributed papers will be presented in the workshop. ***This workshop is free of charge.***

## Abstract Submission and Deadline

The abstract of the paper (A4 1 page) should be submitted to the following address in the PDF or MS-Word format until **March 1, 2009**; [hattori@earth.s.chiba-u.ac.jp](mailto:hattori@earth.s.chiba-u.ac.jp). The acceptance of the paper will be sent around March 4.

## VISA

Participant who needs VISA sends an email to [hattori@earth.s.chiba-u.ac.jp](mailto:hattori@earth.s.chiba-u.ac.jp) for invitation letter.

## Sponsors

VESTO welcomes sponsors and contributors to support the workshop. We would like to acknowledge and thank all sponsors who have generously provided support to the VESTO workshop.

- Chiba University
- Vice Chancellor's for Special Projects office, Chapman University
- Center of Excellence in Earth Observing, Schmid College of Science, Chapman University
- National Institute of Information and Communications Technology (NiCT)
- Inter Association Working Group on Electromagnetic Studies of Earthquakes and Volcanoes (EMSEV)

## Organizing Committee

Chair person: Dimitar Ouzounov (Chapman University and NASA/GSFC/SSAI, USA)

Co-chair person: Katsumi Hattori (Chiba University, Japan), and Tiger Liu (National Central University, Taiwan)