



SEISMIC RESEARCH CENTRE

Large-scale seismic Microzonation Studies in Trinidad and Tobago To develop maps showing details of the different levels of a particular geotechnical hazard that may be triggered by an earthquake in areas of interest, e.g. a city. Under this project, seismic microzonation studies will be conducted in strategic areas within Trinidad and Tobago and a programme will be established to enable the updating of such maps to ensure the sustainability of this work.

Funding: The Ministry of Planning, Government of Trinidad and Tobago

REACT (Real Time EArthquake RiSk ReducTion) A collaborative project with 23 countries, primarily in Europe. The general objective is to improve the efficiency of real time earthquake risk mitigation methods and its capability of protecting structures, infrastructures and people. The Eastern Caribbean will be a test region for the products developed.

Funding: The European Commission under its 7th Framework Programme



TSUAREG (TSUhami Alert REGIONal) A collaborative project with the Institut de Physique du Globe de Paris through their observatories in Martinique and Guadeloupe for the installation of four VSAT stations in Antigua, Carriacou, Dominica and Saint Lucia. The objective is to enhance the regional seismograph network for tsunami detection and promote data sharing, which will feed into efforts to better understand the tectonics of the Eastern Caribbean.

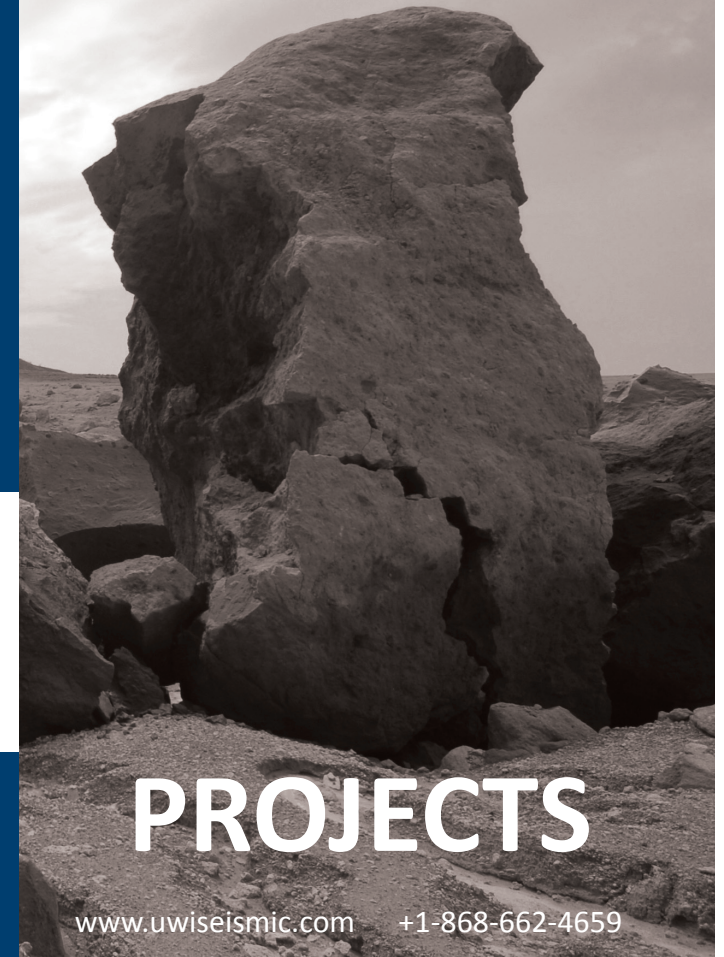
Funding: INTERREG



VUELCO (Volcanic Unrest in Europe and Latin America: Phenomenology, eruption precursors, hazard forecast, and risk mitigation)

A collaborative project with 9 other institutions. The broad aim is to significantly improve our understanding of the processes behind volcanic unrest and the ability to forecast its outcome aiding decision-making and management in an unrest situation.

Funding: The European Commission under its 7th Framework Programme



# PROJECTS

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The University of the West Indies Seismic Research Centre (SRC) monitors earthquakes and volcanoes for the English-speaking Eastern Caribbean, is actively involved in a regional effort to establish a Caribbean tsunami warning system and manages a dynamic outreach programme to promote geohazards awareness in the region.



**GEM Caribbean Regional Programme** GEM is a global collaborative effort that brings together state-of-the-art science, national, regional and international organisations and professionals aimed at the establishment of uniform and open standards for calculating and communicating earthquake risk worldwide.  
**Funding:** Global Earthquake Model Secretariat and the Seismic Research Centre.

**Montserrat Volcano Observatory (MVO) Management** From April 2008-March 2013 the MVO will be jointly managed by the SRC and the Institut de Physique du Globe de Paris. This provides significant opportunities for advancing geoscience research in the region. An achievement of note during this period was the publication of *Island of Fire: The Natural Spectacle of the Soufrière Hills Volcano Montserrat*. This is a photographic collection depicting the eruption.  
**Funding:** The Government of Montserrat

**A New Accelerometric Network to Evaluate and Mitigate Seismic Risk in Eastern Caribbean and Jamaica** This project seeks to establish a core network of strong motion instruments in the Eastern Caribbean and Jamaica as a crucial element in the implementation of effective disaster risk reduction measures for earthquakes in the region. The key beneficiary will be the people living in the Caribbean since it will build the database necessary for guiding in the construction of earthquake resistant buildings.  
**Funding:** Caribbean Catastrophic Risk Insurance Facility.



**Radon monitoring in south-west Tobago** This study seeks to test the utility of changes in radon output as a seismic surveillance tool in the Eastern Caribbean. It has proved useful in other parts of the World, but is not universally so.  
**Funding:** The UWI and the Seismic Research Centre



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**GFDRR<sup>1</sup> Disaster Vulnerability and Risk Assessment Modelling Jamaica and the Greater Caribbean Basin Project** This involves production of a regional scale Risk Atlas for four islands addressing Flood, Hurricane and Earthquake. High resolution hazard maps will also be produced. Under this project, the SRC will develop an Earthquake Loss Estimation method for use in the Caribbean.  
**Funding:** World Bank (implemented by The UWI Disaster Risk Reduction Centre)

1 Global Facility for Disaster Reduction and Recovery

**Published IBC<sup>2</sup> – compliant Probabilistic Seismic Hazard Maps for the Eastern Caribbean Islands** These were produced under a joint research project in collaboration with the European Centre for Training and Research in Earthquake Engineering (EUCENTRE). This is a major step forward in laying the foundation for earthquake hazard preparedness in the context of the built environment.  
**Funding:** The Municipality of Milan

2 International Building Code  
 The aforementioned projects have been/will be executed during the 2010-2012 period. Updated November, 2011