MEMORANDUM OF UNDERSTANDING

BETWEEN

THE UNIVERSITY OF THE WEST INDIES

AND

ESCUELA POLITECNICA NACIONAL

ARTICLE 1 - SCOPE AND OBJECTIVES OF MEMORANDUM

The University of the West Indies (hereinafter "UWI") and Escuela Politecnica Nacional (hereinafter "EPN") hereby agree to pursue scientific and/or technical cooperation through Seismic Research Centre (hereinafter "SRC") and Instituto Geofisico de la Escuela Politecnica Nacional (hereinafter IGEPN") in accordance with the Memorandum of Understanding (hereinafter "Memorandum").

The purpose of this Memorandum is to outline the basis of a long-term scientific and academic collaboration between SRC and IGEPN and initiate a programme for a new regional and interinstitutional collaboration to investigate various aspects of volcanology in Ecuador and the Caribbean. The aim of the Memorandum is to foster an interchange of ideas and scientific knowledge through cooperation between researchers and academic staff towards advancement in volcanology in the region, with the overall mutual benefit of Ecuador, Caribbean region and all institutions involved.

Volcanic eruptions are an impending risk in both Ecuador and the Caribbean region. Despite recent breakthroughs in the science of volcanology a great deal of progress is yet to be made in understanding these phenomena and in providing sound risk assessment and mitigation measures. Researchers at both SRC and IGEPN, who work either in volcanic monitoring or research, have extensive experience in the area of interest and cooperation should help to push forward the progress of volcanological research in both regions. The prospect of future volcanic activity in Ecuador and the Caribbean and the mutual interests and mission of both institutions points to the need for a formalized regional collaboration between the two institutes. To ensure a long-term fruitful cooperative framework between the two institutes, specific activities will be mutually agreed by both Parties and implemented. The details of these activities will be defined in specific Project Annexes to the present Memorandum.

The Parties shall encourage and facilitate, where appropriate, the development of direct contacts and cooperation with each other to ensure the effective exchange of research findings and dissemination of scientific information towards the advancement of volcanological research in the region.

Each Party may, with the consent of the other Party and to the extent permitted by the laws and policies of the governments of the Republic of Ecuador and the English-speaking countries of the Eastern Caribbean (hereinafter "ESCEC"), invite other government entities or agencies of the Republic of Ecuador and ESCEC, and other entities, including scientists, technical experts, governmental agencies, and institutions of third countries or international organisations; to participate in activities pursuant to this Memorandum, subject to such terms and conditions as the Parties may specify.

ARTICLE 2 – GOVERNING LAW

Any activities undertaken under the Memorandum will be carried out in accordance with the applicable laws and regulations of Trinidad and Tobago and Ecuador. The respective university regulations and ordinances will take precedence over this Memorandum.

ARTICLE 3 – ACTIVITIES

Cooperative activities under this Memorandum are expected to consist of exchange of scientific and technical information, visits and collaboration in field and laboratory work consistent with the programmes agreed in advance by the Parties in the fields of Volcanology, Igneous petrology and Volcanic Hazards. Specific areas of cooperation may include, but not limited to, such areas of mutual interest as:

- A. Identification of volcanological problems with immediate need of investigation (i.e. eruptive behaviour and history; hazardous phenomena) in Ecuador and ESCEC.
- B. Development of investigations frameworks to address specific research stages agreed upon by the Parties in advance (i.e. petrographic investigations; petrologic and geochemical analyses; hazard assessment).
- C. Logistics arrangements related to field work carried out by the researchers involved and laboratory analyses to be followed.
- D. Developing an 'experience exchange' framework in which researchers and graduate students involved in research of both Parties can benefit from mutual professional experience of Volcanic Observatories and Research Centres conducted in Ecuador and ESCEC.

<u>ARTICLE 4 – AVAILABILITY OF RESOURCES</u>

Cooperative activities under this Memorandum shall be subject to the availability of personnel and resources. No financial obligations are implied by this Memorandum: Each party will normally bear the cost of its own participation in cooperative activities. In accordance with Article 9 below, the Parties shall agree in writing upon specific Project Annexes before the

commencement of any activity pursuant to this Memorandum.

ARTICLE 5 - REPORTS, DOCUMENTS AND RELEASE OF INFORMATION

Subject to the applicable laws and regulations of the two parties, information, data, publications and reports arising from cooperative activities undertaken under this Memorandum may only be released on the consent of both parties and under the conditions established in Annexes for each stage of cooperation. The use of any data/information received will be for analyses related to the research stage agreed in the Annexes. This Memorandum does not constrain either party from any other activity with anyone else, provided the obligations of confidentiality under Article 5 are observed.

ARTICLE 6 - INTELLECTUAL PROPERTY

Provisions for the protection and distribution of intellectual property created or furnished in the course of cooperative activities under this Memorandum shall be governed by Annex I of this Memorandum. Annex I constitutes an integral part of this Memorandum.

ARTICLE 7 - COLLABORATIVE REVIEW

It is agreed that representatives of the two parties will, at mutually agreed intervals, review the progress of activities conducted under this Memorandum and make plans for future activities.

<u>ARTICLE 8 – DISCLAIMER</u>

Information transmitted by one Party to the other Party under this Memorandum shall be accurate to the best knowledge and belief of the transmitting Party.

ARTICLE 9 - PROJECT ANNEXES

Any activity carried out under this Memorandum shall be agreed upon in advance by the Parties in writing. Whenever a research project / stage is proposed by the Parties, conditions and terms shall be described in an agreed Project Annex ("PA") to this Memorandum, which shall set forth in terms appropriate to the activity, a work plan, staffing requirements, cost estimates, funding sources, and other undertakings, obligations, or conditions not included in this Memorandum. In case of any inconsistency between the terms of this Memorandum and the terms of a PA, the terms of this Memorandum shall take precedence.

ARTICLE 10 - LIMITATION OF LIABILITY

Neither party to this Memorandum will assert a claim against the other for damages arising from activities under this Memorandum. With respect to third parties, each party to this Memorandum will accept liability, to the extent authorised by its domestic laws, for damages arising only from

its own conduct, or that of its employees or agents, under this Memorandum.

ARTICLE 10 - ENTRY INTO FORCE AND TERMINATION

Ву,

This Memorandum shall enter into force upon the signatures of both Parties and remain in force until terminated at any time by either Party upon ninety (90) days' prior written notice to the other Party. Unless otherwise agreed, the termination of this Memorandum shall not affect the validity or duration of projects under this Memorandum that have been initiated prior to such termination. This Memorandum may be amended upon the written agreement of the Parties.

Ing. Jaime Oalderon Segovia	PVC Professor Wayne Hunte
	Pro Vice Chancellor (Research)
Rector of the Escuela Politecnica Nacional	Office of Research
Quito, Ecuador	The University of the West Indies
	St. Augustine, Trinidad
Date: 1 8 MAYO 2015	Date: March 05, 2015

Annex 1

Intellectual Property Rights

I. General Obligations

The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this Memorandum of Understanding (MOU) and any Project Annexes. Rights to such intellectual property shall be allocated as provide in this Annex.

II. Scope

- A. This Annex is applicable to all cooperative activities undertaken pursuant to this MOU, except as otherwise specifically agreed by the Parties or their designees
- B. For purposes of this MOU, "intellectual property" shall mean the subject matter listed in Article 2 of the Convention Establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967 and may include other subject matter as agreed by the Parties.
- C. Each Party shall ensure, through contracts or other legal means with its own participants, if necessary, that the other Party can obtain the rights to intellectual property allocated in accordance with this Annex. This Annex does not otherwise alter or prejudice the allocation between a Party and its nationals, which shall be determined by that Party's laws and practices.
- D. Except as otherwise provided in this MOU, disputes concerning intellectual property arising under this MOU shall be resolved through discussions between the concerned participating institutions, or, if necessary, the Parties or their designees. Upon mutual agreement of the Parties, a dispute shall be submitted to an arbitral tribunal for binding arbitration in accordance with the applicable rules of international law. Unless the Parties or their designees agree otherwise in writing, the arbitration rules of United Nations Commission on International Trade Law (UNCITRAL) shall govern.
- E. Termination or expiration of this MOU shall not affect rights or obligations under this Annex.

III. Allocation of Rights

A. Subject to the provisions of any agreement entered into between the parties and a third, each party shall be entitled to a non-exclusive, irrevocable, royalty-free license in all countries to translate, reproduce, and publicly distribute scientific and technical journal articles, reports, and books directly arising from cooperation under this MOU. All publicly distributed copies of a copyrighted work prepared under this provision shall indicate the names of the authors of the work unless an author explicitly declines to be named.

5 A

- B. Rights to all forms of intellectual property, other than those rights described in paragraph III(A) above, shall be allocated as follows:
 - 1. Visiting researcher shall receive rights, awards, bonuses and royalties in accordance with the policies of the host institution
 - 2. (a) Any intellectual property created by persons employed or sponsored by one Party under cooperative activities other than those covered by paragraph III (B) (1) shall be owned by that Party. Intellectual property created by persons employed or sponsored by both Parties shall be jointly owned by the Parties. In addition, each creator shall be entitled to awards, bonuses and royalties in accordance with the policies of the institution employing or sponsoring that person.
 - (b) Unless otherwise agreed in a Project Annex, each Party shall have within its territory a right to exploit or license intellectual property created in the course of the cooperative activities.
 - (c) The rights of a Party outside its territory shall be determined by mutual agreement considering the relative contributions of the Parties and their participants to the cooperative activities, the degree of commitment in obtaining legal protection and licensing of the intellectual property and such other factors deemed appropriate.
 - (d) Notwithstanding paragraphs III(B)(2)(a) and (b) above, if either Party believes that a particular project is likely to lead to or has led to the creation of intellectual property not protected by the laws of the other Party, the Parties shall immediately hold discussions to determine the allocation of rights to the intellectual property. If an agreement cannot be reached within three months of the date of the initiation of the discussions, cooperation on the project in question shall be terminated at the request of either Party. Creators of intellectual property shall nonetheless be entitled to awards, bonuses and royalties as provided in paragraph III (B) (2) (a).
 - (e) For each invention made under any cooperative activity, the Party employing or sponsoring the inventor(s) shall disclose the invention promptly to the other Party together with any documentation and information necessary to enable the other Party to establish any rights to which it may be entitled. Either Party may ask the other Party in writing to delay publication or public disclosure of such documentation or information for the purpose of protecting its rights in the invention. Unless otherwise agreed in writing, the delay shall not exceed a period of six months from the date of disclosure by the inventing Party to the other Party.

IV. Business Confidential Information

In the event that information identified in a timely fashion as business-confidential is furnished

or created under this MOU, each Party and its participants shall protect such information in accordance with applicable laws, regulations, and administrative practices. Information may be identified as "business-confidential" if a person having the information may derive an economic benefit from it or may obtain a competitive advantage over those who do not have it, and the information is not generally known or publicly available from other sources, and the owner has not previously made the information available without imposing in a timely manner an obligation to keep it confidential.