



Rafi Ahmad

Nationality: Indian; *Date of Birth:* 13 November 1942

Residence: 401/21 Ahmad Manzil, Abdul Aziz Road, Lucknow 226003, U.P.

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Affiliations:

Fellow Mona Geoinformatics Institute, the University of the West Indies, Mona,

Kingston 7, Jamaica www.monagis.com <http://www.monagis.com/mgihazards.html>

Fellow Geological Society of London

2015 to 2019: Advisor Disaster Management, Professor, Department of Geography, Faculty of Natural Sciences, MMA Jauhar Marg, New Delhi-110025

1999 to 2012: Head, Unit for Disaster Studies, the University of the West Indies, Mona, Kingston 7, Jamaica rafi.ahmad@uwimona.edu.jm
<http://www.uwimona.edu.jm/uds/>

2007 to 2018: Associate Editor Quarterly Journal of Engineering Geology and Hydrogeology, Geological Society of London

1982 to 2012: Department of Geology, Department of Geography and Geology, University West Indies, Mona, Kingston, Jamaica

Awards/Achievements:

- **United Nations Sasakawa Award for Disaster Reduction Certificate of Distinction Recipient 2003**, in appreciation for outstanding contribution to developing a global culture of prevention, thereby furthering the goals of the International Strategy for Disaster Reduction, presented by the Under-Secretary General for Humanitarian Affairs, United Nations, in Bonn, 16 October 2003.

- ***The International Landslide Research Group (ILRG) Award for years of leadership in landslide hazard reduction in the Caribbean***, presented by Dr. Earl Brabb on 17th July 2003, the University of the West Indies, Mona, Kingston, Jamaica.
- ***The De La Beche Award for Outstanding Contribution on a Sustained Basis to National and Regional Development in the Geoscientific Field: “Hazard Management”***, Presented by The Geological Society of Jamaica 50th Anniversary Conference, December 2, 2005, the University of the West Indies, Mona, Kingston 7, Jamaica.
- ***Member Boards of Representatives (2002- 2006) and Assistant to the President, Coordinator ICL Events Committee, (2002- 2003), International Consortium on Landslides (ICL), Research Centre on Landslides, Kyoto University, Japan*** <http://icl.dpri.kyoto-u.ac.jp>
- **National Best Practice Award 1999 for “Environmental Management” by the Ministry of Environment and Housing, Government of Jamaica, in association with UNCHS and UNDP “Cities for All”**, World Habitat Day, October 4, 1999, for “Natural Hazard Loss-Reduction and Environmental Management in Jamaica – Bringing Information to Citizens Through Information Age Technology <http://www.uwimona.edu.jm/uds/> ; created jointly with Prof. Ben Oostdam and Mr. Andrew Saunders; Caribbean Disaster Mitigation Project (USAID/OAS).
- **Outstanding Achievement in Teaching Assessments 2010/2011**, Faculty of Pure and Applied Sciences, The University of the West Indies, Mona Campus.
- Recognised by the University of Group University Teachers, Jamaica (WIGUT), 2010, Rafi Ahmad -An outstanding member of WIGUT, 2010 **WIGUT Newsletter**
- **Best Publication Award in the Faculty of Pure and Applied Sciences, the University of the West Indies at Mona Research Day, 18th October 2001** joint paper with Avijit Gupta “Urban steeplands in the tropics: an environment of accelerated erosion, published in GeoJournal, v.49, pp.143-150, 2000.
- **“Living with Natural Hazards in Jamaica” Selected in Best Practices for Natural Disaster Mitigation in Small Island Developing States**, Third World Academy of Sciences (TWAS/TWNSO)/South-South Collaboration United Nations Development Programme (SU/ SSC/ UNDP), International

Workshop on: Natural Disaster Mitigation in Small Island developing States, 27-29 October 2005, University of Mauritius, Mauritius.

- **“Natural Hazards, Disasters, and Sustainable Development”** organized the thematic activities for the University West Indies (UWI) Research Day 2005, 27-28 January on the theme “Natural Hazards, Disasters, and Sustainable Development”. A special feature of the Research Day 2005 was the release of Natural Hazards Information Packs for Kingston and Island of Jamaica in the form of DVD and CDROM prepared by a team comprising Mona Information Technology Services (MITS), Mona Geoinformatics Institute, and Unit for Disaster Studies, Department of Geography & Geology.
- **Best Field Trip Award** of the Geological Society of Trinidad and Tobago 1987-88, for the geological field trip “Structural and Metamorphic History of the Area between Port of Spain and Maracas Bay, Northern Ranges, Trinidad”.

Books and Research Papers, peer-reviewed, since 2000...:

Books:

Lyew Ayee Jr., P. and *Ahmad, Rafi*, 2012, A Natural Hazards Atlas of Jamaica, the PRESS, University of the West Indies, Barbados, Jamaica, Trinidad and Tobago. www.amazon.com/Natural-Hazards-Jamaica www.uwipress.com/content/natural-hazards-atlas-jamaica-0

Research Papers:

Ahmad, Rafi, 2018, Tropical Environments, In P. T. Bobrowsky, B. Marker (eds.), Encyclopaedia of Engineering Geology, Springer International Publishing AG 2018 https://doi.org/10.1007/978-3-319-12127-7_2_85-1

Ahmad, Rafi, 2018, Geological Structures, In P. T. Bobrowsky, B. Marker (eds.), Encyclopaedia of Engineering Geology, Springer International Publishing AG 2018 https://doi.org/10.1007/978-3-319-12127-7_135-1

De Graff, Jerome V., Romesburg, Charles H, *Ahmad Rafi* and McCalpin, James P., 2012, Providing landslide-susceptibility data for regional planning in data-scarce regions; Natural Hazards, volume 64, pp. 729-749.

De Graff, Jerome V, *Ahmad, Rafi*, Scatena, F.N., and Roy, Sidle, 2012: Recognizing the Importance of Tropical Forests in Limiting Rainfall-Induced Debris Flows; Environmental Earth Sciences, volume 67, No. 4, pp. 1225-1235

Ahmad, Rafi, 2008, Living with Natural Hazards: Jamaica, Sharing Innovative Experiences, Examples of Natural Disaster Mitigation in Small Island Developing States, Volume 12, UNDP & TWAS, UNDP, New York, pp.69-85.

Ahmad, Rafi, 2008, A New Examination of Floods in the Region Debris Floods and Debris Flows in the Caribbean; In *Enduring Geohazards in the Caribbean*, Baban, S.M.J. (ed.), University of the West Indies Press, Kingston, pp. 141-156.

Ahmad, Rafi, and Mason, M, 2007, A Socioeconomic Impact Assessment of a 1907-type Earthquake on the Jamaican Economy (2005), UWI Disaster Risk Reduction Centre, University of the West Indies, Mona, Jamaica, 78pp.

Ahmad, Rafi, 2007, Risk Management, vulnerability and natural disasters in the Caribbean. Report prepared for the International Federation of Red Cross, May 2007. http://www.proventionconsortium.org/themes/default/pdfs/Forum08/Caribbean_Ahmad.pdf

Ahmad, Rafi, 2006, Structural styles in Trinidad, Chapter 4, Guide to Selected Geological Localities in Trinidad and Tobago, Geological Society of Trinidad and Tobago, Trinidad. Reprinted from Transactions of the 2nd GSTT Conference, Port of Spain, Trinidad, pp. 244-265

Ahmad, Rafi, and Parris Lyew-Ayee Jr., 2005, The shaping of Kingston by its urban geology, In Simon F. Mitchell (Ed.), Programme, Abstracts and Field Guides, The geological Society of Jamaica 50th Anniversary Conference, December 1 to 4, 2005, The Geological Society of Jamaica, Department of Geography and Geology, The University of the West Indies, Mona, pp.26-41.

Ahmad, Rafi, 2004, Natural hazard maps in Jamaica: foundations for sustainable development, Proceedings National Scientific Conference on the Environment, Jamaica Institute of Environmental Professionals, Kingston, Jamaica, pp. 6.1-6.25.

Ellis, H.A., White, N. A., Hassan, I., and *Ahmad, R.*, 2002, A room temperature structure for anhydrous lead (II) decanoate, *Journal of Molecular Structure*, Vol. 642, pp. 71-76.

Gupta, A. and *Ahmad, R.*, 2000, Urban steeplands in the Tropics: an environment of accelerated erosion, *GeoJournal*, Vol.49 (for 1999), pp.143-150

Ahmad, Rafi, 2001, Natural hazard maps in Jamaica, *Caribbean Geography*, Vol. 12, No.2, pp. 90-107, published in 2004.

Northmore, K.J., *Ahmad, R.*, O'Connor, E., Greenbaum, D., McDonald, A.J.W., Jordan, C.J., Merchant, A.P., and Marsh, S.H., 2000, Landslide Hazard Mapping: Jamaica Case Study, National Environment Research Council, British Geological Survey Technical Report WC/00/10, DFID Project No. R6839, 41pp. + Figures, Maps, Tables.
http://www.bgs.ac.uk/dfid-kar-geoscience/database/reports/bw/WC00010_BW.pdf

Gupta, A. and *Ahmad, R.*, 2000, Geomorphology and the Urban Tropics: Building an Interface Between Research and Usage, In Giardino, J.R., Marston, R.A., Morisawa, M., (Editors), *Changing the Face of the Earth - Engineering Geology*, Proceedings of

the 28th Binghamton Symposium, 28 August- 3 September 1997, Bologna, Elsevier, pp. 133-149, (Reprinted from *Geomorphology*, v.31).

Ahmad, R, 1999, Primer on earthquake hazards and disasters in Jamaica, *Caribbean Geography*, Vol. 10, No.2, pp. 124- 136.

Howell, D.G., Brabb, E.E., and *Ahmad, R.*, 1999, Interest in landslide hazard information - parallels between Kingston, Jamaica and San Francisco Bay Region, In Griffiths, J.S., Stokes, M.R., and Thomas, R.G. (editors), *Landslides*, Balkema, Rotterdam, pp. 73-79.

Gupta, A. and *Ahmad, R.*, 1999, *Geomorphology and the urban Tropics: building an interface between research and usage*, *Geomorphology*, v. 31. pp. 133-149.

Ahmad, R, and McCalpin, James P., 1999, *Landslide Susceptibility Maps for the Kingston Metropolitan Area, Jamaica, with Notes on their Use*, Publication No. 5, Unit for Disaster Studies, Dept. of Geography and Geology, University of the West Indies, Kingston, Jamaica, 26pp. + Maps.

<http://www.oas.org/cdmp/document/kma/udspub5.htm>

Ahmad, R, DeGraff, J., and McCalpin, James P., 1999, *Landslide Loss Reduction: A guide for the Kingston Metropolitan Area, Jamaica*, Publication No. 6, Unit for Disaster Studies, Dept. of Geography and Geology, University of the West Indies, Kingston, Jamaica, 36pp. + Maps. <http://www.oas.org/cdmp/document/kma/udspub6.htm>

Ahmad, R, and others, 1999, *Landslide Hazard Mitigation and Loss-Reduction for the Kingston Metropolitan Area, Jamaica: Field Guide 27*, January 1999, Publication No. 7, Unit for Disaster Studies, Dept. of Geography and Geology, UWI, Mona, Kingston, Jamaica, 9 pp., <http://www.oas.org/cdmp/document/kma/udspub7.htm>

Areas of Expertise:

i) Teaching and training in “Natural Hazards Science”, and “Disaster Risk Reduction”, public education on disaster risk reduction, and supervision of post-graduate students.

- **2015 to 2019:** Principal Tutor Diploma in Disaster Management course at Department of Geography, Faculty of Natural Sciences, Jamia Millia Islamia, A Central University, New Delhi, India.
- **2014 to 2019:** Courses, Lectures Natural Hazards, Disaster Management, Aligarh Muslim university, Aligarh, India, Academic Staff College, DRS lectures, Departments of Geology and Geography.

- **1999 to 2012:** Principal Tutor and Coordinator Summer Course in Analysis and Management of Geohazards and Risks (GL30D), Faculty of Pure and Applied Sciences, University of West Indies at Mona, Jamaica.
http://www.mona.uwi.edu/uds/GEOHAZARDS_2001/GEOHAZ2001-CONTENT_S.html
- **4-14, Decembe1989:** Tutor and Coordinator Landslide Hazard Assessment Course in Port of Spain, Trinidad, sponsored by the Organization of American States (OAS), Washington, USA,
- **Jamaica:** Lecturer in MSc Programmes: Environmental Management at the University of the West Indies; Disaster Management at the University of the West Indies; Built Environment at the University of Technology, Jamaica; M. Arch. Programme, University of Technology, Caribbean School of Architecture, Jamaica; Disaster Management at Université des Antilles et de la Guyane.
- Lecturer in Engineering Geology in the B.E. Degree Programme, University of Technology (UTECH), Kingston, Jamaica

Dual mode teaching, computer assisted learning and internet

materials

Ahmad, R., Oostdam, B., and Saunders, A., 1999, Geology for Natural Hazard Loss-Reduction and Environmental Management in the Caribbean, **Homepage Unit for Disaster Studies**, Dept. of Geography and Geology, UWI, Mona, <http://www.uwimona.edu.jm/uds/index.html>

Virtual Disaster Library, January 27, 2006; A joint project of Caribbean Disaster Information Network (CARDIN), Library and Unit for Disaster Studies, Department of Geography and geology, University of the West Indies, Mona. http://mona.uwi.edu/cardin/virtual_library/

ii). Research in slope stability, hydro-geologic and seismic hazards, ground deformation, structural geology; tectonic geomorphology, engineering geology; earth/environmental sciences

iii). Geological and geotechnical site Investigation; earth sciences based environmental impact assessment

Prevention/Mitigation/Preparedness activities:

Capacity building for Natural Disaster Mitigation in the Caribbean: A joint project on tsunami and landslide hazards. 2006-2008 by the University of the West Indies UWI, Mona and Norwegian Geotechnical Institute, Norway.

Organized UWI –NGI Tsunami Hazard Mitigation Workshop, July 19-20, 2007, Cave Hill Campus, Barbados

Member of the Committees instituted by the Government of Jamaica to propose No- Build Zones and Integrity of Water Ways, 2009

Member Peer Panel for preparing Guidelines for Integrating Climate Change and Natural Hazards in Environmental Impact Assessments, 2003- present, Adapting to Climate Change in the Caribbean (ACCC) Project of the Caribbean Development Bank (CDB).

Represented Mona Campus on the UWI Vice Chancellor's Task Force to deal with the rehabilitation and reconstruction following the devastation caused by hurricane Ivan in September 2004.

Landslide Hazard Mapping: Jamaica Case Study, National Environment Research Council, British Geological Survey Technical Report WC/00/10, DFID Project No. R6839, completed in 2000

Caribbean Disaster Mitigation Project (USAID/OAS): Preparation of Landslide Hazard Zonation Maps, Manuals, Users Guides, conference, and Field Trip for Kingston and St. Andrew, and Portmore, Jamaica, completed in 1999

Member Preston Land Landslide Resettlement Task Force, Government of Jamaica, 1986 – 1988.

Conferences, workshops, seminars, papers and abstracts in conference proceedings, Since 2014 - :

Ahmad, Rafi and Lyew-Ayee Jr., P, 2018, The shaping of Kingston by its urban geomorphology, geology and natural hazard processes , 30th National Conference of the Indian Institute of Geomorphologists (IGI), 3-5 October 2018, organised by Department of Geography Jamia Millia Islamia, New Delhi

Ahmad, Rafi and Lyew-Ayee Jr., P, 2018, Landslides and the making of Jamaica, 30th National Conference of the Indian Institute of Geomorphologists (IGI), 3-5 October 2018, organised by Department of Geography Jamia Millia Islamia, New Delhi.

Zafar, Z., Ahmad, M.K., and *Ahmad, Rafi*, 2018, Urban environment in the tropical convergent plate boundary zones, In: Proc. National Seminar on Urban Environment in the 21st Century: Issues and Challenges, 27-28 March 2018, Dept. Geography, Jamia Millia Islamia, New Delhi, p. 89-90.

Ahmad, Rafi, 2017, Flooding in north-east Bihar, Jogbani: the myths and realities, Seminar on the International Disaster Day, 13 October 2017, organised by the Geography Association, Department of Geography, Jamia Millia Islamia, New Delhi.

Ahmad, Rafi, 2017, 30 March. Lecture Series under DRS-II Programme March 23, 2017 to March 30, 2017. Lect.1: Geoengineering for climate change, Department of Geology, Aligarh Muslim University, Aligarh, India.

Ahmad, Rafi, 2017, 30 March. Lecture Series under DRS-II Programme March 23, 2017 to March 30, 2017. Lect.2, Climate change doesn't cause disasters but exacerbate hazardous processes: Make (a problem, bad situation, or negative feeling) worse, Department of Geology, Aligarh Muslim University, Aligarh, India.

Ahmad, Rafi, 2017, 27 Feb. UGC Seminar Lecture 1: Geoengineering for climate change, Dept. Geography, Jamia Millia Islamia, New Delhi, India.

Ahmad, Rafi, 2017, 6 March, UGC Seminar Lecture 2. Climate change doesn't cause disasters but exacerbate hazardous processes: Make (a problem, bad situation, or negative feeling) worse, Dept. Geography, Jamia Millia Islamia, New Delhi.

Ahmad, Rafi and Lyew-Ayee Jr., P, 2017, Responding to India's biggest threats-natural disasters-through multiple hazard mapping: introducing a methodology based on the Caribbean experience. In: Proc. Natural Conference Geomatics for Natural Resource Management, 7-8 February 2017, Dept. Geography, Jamia Millia Islamia, New Delhi, p. 118-119.

Ahmad, Rafi, 2015, The future we want a world safer from natural hazards risks: geospatial technologies make it possible, Training Programme Geospatial Techniques, 26 May to 15 June 2015, Organised Department of Geography (FIST Sponsored Department), Jamia Millia Islamia, New Delhi, funded by NRDMS, and DST.

Ahmad, Rafi, 2015, Extension Lecture 24 March 2015, What do we want our future Earth to be, organised by the Department of Geography Jamia Millia Islamia, New Delhi.

Ahmad, Rafi, 2015, Lecture 1: What do we want our future Earth to be, 136 Orientation Programme 2014-15, 27 February to 27 March 2015, UGC Academic Staff College, Aligarh Muslim University, Aligarh, India.

Ahmad, Rafi, 2015, Lecture 2: The response capacity building for a resilient society, environment, education, public purpose, 136 Orientation Programme 2014-15, 27 February to 27 March 2015, UGC Academic Staff College, Aligarh Muslim University, Aligarh, India.

Ahmad, Rafi, 2014, Lecture 1: Disaster Management, Refresher Course Disaster Management, 24-25 March 2014, Academic Staff College, Aligarh Muslim University, Aligarh, India.

Ahmad, Rafi, 2014, Lecture 2: "The past as the key to the future" An effective technique for natural disaster risk reduction: the Caribbean experience, Refresher Course

Disaster Management, 24-25 March 2014, Academic Staff College, Aligarh Muslim University, Aligarh, India.

Ahmad, Rafi, 2014, Lecture 3: Potentially hazardous natural process and classification, Refresher Course Disaster Management, 24-25 March 2014, Academic Staff College, Aligarh Muslim University, Aligarh, India.

Ahmad, Rafi, 2014, Lecture 4: Disaster risk reduction processes, Refresher Course Disaster Management, 24-25 March 2014, Academic Staff College, Aligarh Muslim University, Aligarh, India.

Ahmad, Rafi, 2008, Natural disaster lectures organised by Department of Geography, Jamia Millia Islamia, New Delhi, India: 1.Potentially hazardous natural phenomena and processes; 2.Disaster risk reduction process, Terminology and Glossary; 3.Natural hazards in the Caribbean; 4.Review of natural hazard processes in India; 5.Mitigation strategies for specific hazards.

Public Service:

- All India Radio (AIR) Lucknow, 2015.06.02 conversation with Dr. Anamika Srivastva, Earthquake emergency: suggestions on how citizens may behave during and after to protect family, themselves and property
- Member of the Steering Committee instituted by the Office of the Disaster Preparedness Jamaica for the “Community Based Landslide Risk Reduction in Jamaica, 2010-2011
- Member Technical Sub-Committee, Water Resources Authority of Jamaica, May 2008-2011
- Member National Damage Assessment, Recovery and Rehabilitation Sub-Committee, Office of Disaster Preparedness and Emergency Management, Government of Jamaica
- Investigations and advise on Natural Hazards and Disasters and Management of Landslides in Jamaica for the Office of Disaster Preparedness and Emergency Management (ODPEM), National Environment & Planning Agency (NEPA), National Works Agency (NWA), Ministry of Transport and Works, and Ministry of Land and Environment (MLE), Govt. of Jamaica.
- Represented UWI at the Sub-regional Task Force/ Partnership Initiative on Sustainable Land Management (PISLM)/Caribbean Network for Integrated Rural Development (CNIRD) and National Focal Points of the UNCCD Meeting in Port of Spain, Trinidad, 15-17 July, 2008; January 2010
- Member of the Organizing Committee of UWI Climate Change: Impacts on the Caribbean Conference, 15-17 June, 2007, UWI Mona
- Presentation to Cabinet Ministers and Heads of Executive Agencies on the topic of “Risk of natural hazards in Jamaica” on the invitation of Minister of

Information and Broadcasting, Jamaica House, Kingston, Jamaica, October 24, 2005, jointly with Dr. P.J. Lyew-Ayee Jr.

- Presentation to Parliamentarians on the topic of “Risk of natural hazards in Jamaica” on the invitation of Parliamentarians, Courtleigh Hotel, Kingston, Jamaica, October 19th, 2005, jointly with Dr.P. Lyew-Ayee Jr.
- Represented UWI at the Meeting of the Task Force for the Partner Initiative on Land Degradation and Sustainable Land Management in Caribbean SIDS held in Barbados May 30 to June 1, 2005.
- Member National Integrated Watershed Management Programme Development Committee of Land Policy Unit, Office of the Prime Minister, Government of Jamaica, 1998 – 1999.
- Member CARICOM Secretariat’s Technical Review Team for the Project “Exploration for Geothermal Resources in the Eastern Caribbean”, 1991.