

FRIEDMAN FAMILY VISITING PROFESSIONALS PROGRAM



Visit to the University of Puerto Rico at Mayaguez: February 23, 2017

This report summarizes the visit to the University of Puerto Rico at Mayaguez of **Mr. Ronald Eguchi** from *ImageCAT, Inc.* that took place on February 23, 2017.

AGENDA

TIME:	ACTIVITY:
Wednesday, February 22, 2017	
12:00 PM – 1:00 PM	Lunch with the Civil Engineering Director, Associate Director and Prof. Luis Suárez
1:30 PM – 2:30 PM	Meet with the Director of Puerto Rico Strong Motion Program
2:30 PM – 3:30 PM	Meet with the Dean of the College of Arts and Sciences
3:30 PM – 4:30 PM	Meet with Civil Engineering and Department of Marine Science faculty members
6:30 PM	Dinner
Thursday, February 23, 2017	
8:15 AM – 9:15 AM	Meeting with the Associate Dean of Engineering for Research Innovation
9:30 AM – 10:30 AM	Meeting with the Chancellor of the UPRM
10:30 AM – 12:00 PM	Lecture at Civil Engineering Auditorium
12:30 PM – 2:00 PM	Lunch
2:00 PM – 3:00 PM	Visit to the Puerto Rico Seismic Network
3:00 PM – 4:00 PM	Visit to the NOAA Caribbean Tsunami Warning Program
4:00 PM – 4:30 PM	Visit to the Civil Engineering Department and meet the students of the EERI 2017 UPRM Seismic Design Team
4:45 PM	Return to the hotel

PLANNING COMMITTEE

LEAD ORGANIZERS:

- Dr. Luis E. Suárez, Academic Advisor of the UPRM Student Center, luis.suarez3@upr.edu
- Dr. Ricardo R. López, Academic Co-Advisor, ri.lopez@upr.edu
- Ricardo Pérez Gracia, President of the UPRM Student Center, ricardo.perez2@upr.edu
- Prof. Ismael Pagán, Civil Engineering Director, ismael.pagan@upr.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

Lecture Abstract

In many instances, disasters act as catalysts in the adoption of new and emerging technologies. Spawned by the need to rapidly collect vital information for disaster management, technology innovations have often helped emergency responders to assess the impact of large disasters more efficiently and rapidly and to track and monitor progress in critical response and recovery operations. One technology which has had an enormous impact on disaster management has been remote sensing. In the past decade, this technology has been used

extensively to explain the extent of impacts caused by earthquakes, tsunamis, hurricanes, floods, wildfires and terrorist attacks. Through high-resolution optical imagery and active sensors (e.g., synthetic aperture radar, or more commonly known as SAR, and light detection and ranging or LIDAR), remote sensing technologies have demonstrated significant efficacies in quantifying post-disaster damage, monitoring recovery and reconstruction progress after significant disasters, and more recently, in developing information on our urban infrastructure. This presentation will focus on the integration of remote sensing technologies in all aspects of disaster management, i.e., disaster preparedness, mitigation, response, and recovery. In order to demonstrate their efficacy in these four areas, cases histories and examples from recent disasters, including the 2003 Bam, Iran earthquake, Hurricane Katrina (2005), the 2010 Haiti earthquake, the 2011 Tohoku, Japan earthquake and tsunami, and the 2015 Nepal earthquake will be presented. Finally, the presentation will end with a view towards the future. What new developments can be expected in technology development and implementation, what future challenges must be overcome to realize the broader application of these technologies in future disasters, and what role will our younger researchers play in institutionalizing these technologies as essential tools in disaster management.

Professional Biosketch

Mr. Eguchi is President and CEO of ImageCat, Inc., a risk management company specializing in the development and use of advanced technologies for risk assessment and reduction. Mr. Eguchi has over 30 years of experience in risk analysis and risk management studies. He has directed major research and application studies in these areas for government agencies and private industry. He is a past member of the National Research Council's Disaster Roundtable and Scientific Advisory Committee of the U.S. Geological Survey. He was also invited as a keynote speaker at the 14th World Conference on Earthquake Engineering, held in Beijing, China in 2008. Recently, he gave keynote talks at the 10th International Conference on Urban Earthquake Engineering held in Tokyo, Japan (2013) and the 12th Americas Conference on Wind Engineering held in Seattle, WA (2013). In December 2014, he delivered a keynote talk at the 14th Japan Earthquake Engineering Symposium to be held in Chiba City, Japan. He has authored over 300 publications, many of them dealing with the seismic risk of utility lifeline systems and the use of remote sensing technologies for disaster response.

SUPPLEMENTAL ACTIVITIES

Welcome and Lunch

Luis Suárez, Ricardo López, Ismael Pagán, Agustin Rullán (Dean of Engineering) and Ricardo Pérez had lunch with Mr. Eguchi at the Paladares Restaurant in downtown Mayaguez at noon. The conversation during the lunch covered topics such as the university programs and research activities, as well as Puerto Rico culture, social, geographic and economic status.

UPRM Faculty Research Meeting

Mr. Eguchi had different meetings with faculty members from the Civil Engineering, Geology and Marine Sciences departments to discuss common research interests in remote sensing and possible partnerships. Mr. Eguchi was particularly interested in the works of Professor Aurelio Mercado and Jonathan Muñoz about tsunamis maps and remote sensing, respectively.

UPRM Chancellor and Dean Meeting

UPRM Chancellor, Dr. John Fernandez Van Cleve, discussed with Mr. Eguchi the academic role of UPRM in Puerto Rico. The visitor also met with the Dean of Engineering for Research & Innovation, Dr. Oscar Perales, to discuss the research initiatives that UPRM is conducting in the Materials Sciences and Engineering Department.

Lecture

"Earthquakes, Hurricanes, and Other Disasters: A View from Space" was the title of the lecture that Mr. Eguchi presented in the Civil Engineering auditorium. Professor Luis Suárez introduced Mr. Eguchi to our audience at an approximate of 10:30 AM. The audience consisted of engineering students, professional engineers, government agencies members and professors from different universities of the island. Approximately 80 people attended Mr. Eguchi lecture.

Visit to the Civil Engineering Labs and meeting the EERI Student Chapter Members

In the afternoon Mr. Eguchi visited the Civil Engineering Structures, Materials and Geotechnical labs. Dr. Felipe Acosta, in charge of the first two labs explained the equipment and instruments that the civil engineering students used in their academic curriculum. Dr. Alesandra Morales, the director of the Geotechnical lab explained the different educations and research activities that are performed in the lab. Mr. Ricardo Pérez, the EERI Student Chapter President, showed and explained the balsa wood building model that will compete at the EERI Annual Meeting in Portland, Oregon.

RESULTS AND FEEDBACK

- Based on the comments and feedback from the main conference attendees, Mr. Eguchi provided an excellent lecture about a very interesting topic that provide a different and useful perspective of the remote sensing applications.
- About 80 persons attended the lecture.
- Mr. Eguchi was interviewed by personnel of the UPRM Press Office. The EERI Academic Advisor (Dr. L. Suárez) and the Student President (R. Pérez) were also interviewed to explain the importance of the event. A summary of the press release (in Spanish) prepared by the UPRM Press Office (including videos of the interviews) can be found at <http://www.uprm.edu/portada/article.php?id=3887>.

ACKNOWLEDGEMENTS

The University of Puerto Rico at Mayaguez EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the visit of Mr. Ron Eguchi through the Friedman Family Visiting Professional Program endowment.

ATTACHMENTS

Included at the end of this report are various photographs to supplement the information provided before.



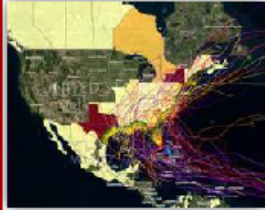
Mr. Ronald "Ron" T. Eguchi
ImageCat Inc.
Long Beach, CA
<http://imagecatinc.com>



Mr. Eguchi is President and CEO of ImageCat, Inc., a risk management company specializing in the development and use of advanced technologies for risk assessment and reduction. Mr. Eguchi has over 30 years of experience in risk analysis and risk management studies. He has directed major research and application studies in these areas for government agencies and private industry. He is a past member of the National Research Council's Disaster Roundtable and Scientific Advisory Committee of the U.S. Geological Survey. He has authored over 300 publications, many of them dealing with the seismic risk of utility lifeline systems and the use of remote sensing technologies for disaster response.

In 2006, he accepted an ATC Award of Excellence on behalf of the ATC-61 project team for work on An Independent Study to Assess Future Savings from Mitigation Activities that showed that a dollar spent on hazard mitigation saves the nation about \$4 in future benefits. He was recognized by EERI as the 2008 Distinguished Lecturer where he discussed the topic of "Earthquakes, Hurricanes, and other Disasters: A View from Space."

He was also invited as a keynote speaker to the 14th World Conference on Earthquake Engineering, held in Beijing, China in 2008. Recently, he gave keynote talks at the 10th International Conference on Urban Earthquake Engineering held in Tokyo, Japan (2013) and the 12th Americas Conference on Wind Engineering held in Seattle, WA (2013). In December 2014, he delivered a keynote talk at the 14th Japan Earthquake Engineering Symposium to be held in Chiba City, Japan.



When: Thursday, January 23, 2017
Where: Civil Engineering Auditorium (CI 103)
Time: 10:30am (Universal Hour)

Figure 1: Flyer for the lecture publicity



Earthquake Engineering Research Institute - Student Chapter

Earthquakes, Hurricanes and other Disasters: A View from Space

Topics:

- Integration of remote sensing technologies.
- Disaster preparedness, mitigation, response, and recovery.
- What new developments can be expected in technology development and implementation?
- Essential tools in disaster management.



- ✓ Lecture by: **Ronald T. Eguchi, President and CEO of ImageCat, Inc.**
- ✓ Date: **Thursday, February 23**
- ✓ Time: **10:30 am – 12:00 pm**
- ✓ Place: **Auditorium of the Civil Engineering & Surveying Department**



Figure 2: Second flyer for the publicity lecture



Figure 3: Some of the attendees to Mr. Eguchi Lecture



Figure 4: Mr. Ricardo Pérez (President of EERI Student Chapter) and Mr. Ron Eguchi

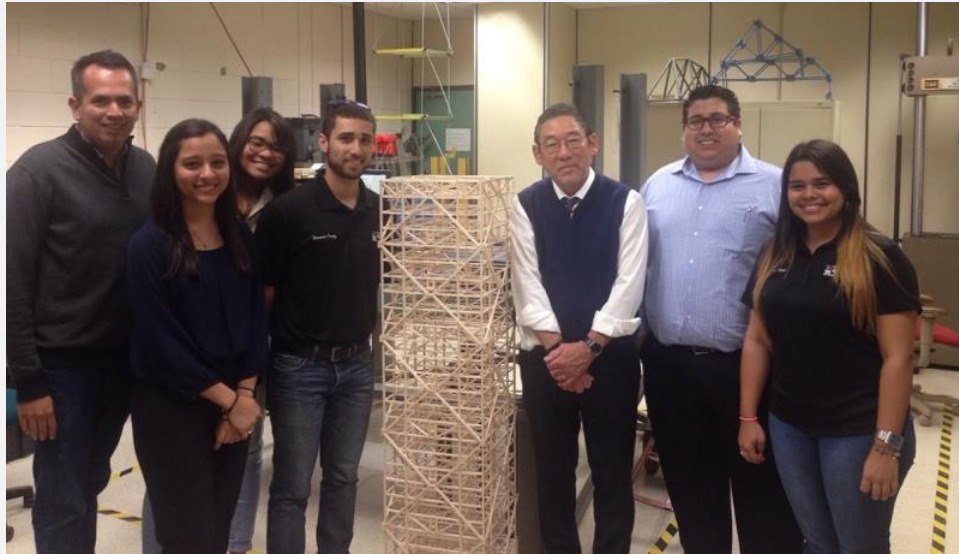


Figure 5: Mr. Eguchi with the 2017 UPRM Seismic Design Team



Figure 6: Kennia Maldonado (EERI Student Chapter VP), Ricardo López (Associate Director), Ron Eguchi and Ricardo Pérez (EERI Student Chapter President)



Figure 7: Mr. Eguchi visiting the Puerto Rico Seismic Network Program