



Geotechnical Extreme Events Reconnaissance Association

Turning Disaster into Knowledge

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Webinar: April 28, 2021

(2:00 pm EDT; 1:00 pm CDT; 12:00 pm MDT; 11:00 am PDT)

<https://primetime.bluejeans.com/a2m/register/ephxqbzb>

Please use the link above to register in order to join and receive a calendar invite. Registration is free.

The 2020 Port of Beirut, Lebanon Explosion

Participants: Dr. Youssef Hashash (William J. and Elaine F. Hall Endowed Professor, University of Illinois), Dr. Salah Sadek and Dr. Mayssa Dabaghi (Maroun Semaan Faculty of Engineering and Architecture, American University of Beirut, Lebanon), Dr. Paolo Zimmaro (Assistant Professor, University of Calabria, Italy), and Dr. Jonathan P. Stewart (Professor, UCLA)

1:00 -1:10 Introduction and event background – Y. Hashash

1:10-1:20 Damage to the Port of Beirut – S. Sadek

1:20-1:35 Building Damage Survey – M. Dabaghi

1:35-1:50 Damage Classification and Comparison to DPM (Damage Proxy Maps) Remote Sensing – P. Zimmaro

1:50-1:55 Summary and Ongoing work – J. Stewart

1:55- Q&A

Abstract: A devastating explosion rocked the Port of Beirut in Lebanon on Aug. 4, 2020, when improperly stored ammonium nitrate detonated. More than 200 people were killed and more than 6,000 injured. GEER assembled a post event reconnaissance team to evaluate the damage and gather critical, perishable data on the performance of the port and other structures in the city. Due to the COVID-19 crisis, this reconnaissance was unusual in several respects. Travel from outside of Lebanon was not feasible. Initial fieldwork by colleagues at the American University of Beirut included data gathering on the performance of structures, while also helping concerned building owners assess the stability of their buildings. In-person inspections quickly became challenging, if not impossible, to perform, and the emphasis turned to collecting and analyzing street-view imagery.



In this webinar the GEER reconnaissance team will describe the observed damage to the port and surrounding buildings and future uses of the data to calibrate remote sensing based damaged assessment algorithm.