Public Hurricane Loss Model Re-Certified by Florida

July 10th 2017 – After an exhaustive three day site visit and review, and after defending the updated 6.2 Florida Public Hurricane Loss Model (FPHLM) in May in Tallahassee in front of the Florida Commission on Hurricane Loss Projection Methodology, the wind loss model passed all 33 major standards to be re-certified for another two years. With the re-certification, the wind loss model will continue to be used by the State of Florida and insurance companies. It's the state's only certified and transparent method of determining annual expected insured and probable maximum losses as a result of a hurricane and helping to set windstorm rates.

The FPHLM hurricane catastrophe model runs a complex collection of computer programs that simulate and predict how, where and when hurricanes form, their wind speeds, intensity and sizes, their tracks, how they are affected by the terrain after landfall, how the winds interact with different types of structures, how much damage they can cause to residential roofs, windows, doors, and interiors, how much it will cost to rebuild, and how much of the loss will be paid by insurers.

In addition, the model research team will be completing a four year project to develop an innovative flood risk and loss model for both coastal storm surge and inland freshwater flooding. These will be added to the existing loss model for wind related (insured) losses. Additional support from the State of Florida will maintain and operate both the wind and flood models. Florida will be the first state to combine wind, storm surge and flood risks in a single public model to determine the overall hazards of a storm.

The model's multi-disciplinary team of experts is led by FIU's Dr. Shahid Hamid, Director, Laboratory for Insurance, Financial & Economic Research for the International Hurricane Research Center (IHRC) and Chair and Professor of Finance, Department of Finance, College of Business. The IHRC and the FPHLM are part of the FIU Extreme Events Institute (EEI).

"The Florida Public Hurricane Loss Model has turned out to be a very useful tool for the State and private companies. It has been used over 1,000 times by the State of Florida to evaluate insurance company rate filings for setting premiums, to assess hurricane risk to the buildings in Florida, and to help determine premium discounts and credit for mitigation. It has been used to conduct stress test annually on over 70 insurance companies to help determine their solvency. And it has been used by about 30 insurance companies to help determine premiums for hurricane risk," says Dr. Hamid.

The FPHLM team includes experts in the fields of meteorology, wind and structural engineering, computer science, GIS, statistics, finance, and actuarial science from Florida International University (lead university), the University of Florida, Florida State University, Florida Institute of Technology, NOAA's Hurricane Research Division, University of Miami, Notre Dame University and West Virginia University.

About EEI

The FIU Extreme Event Institute's (EEI) mission is multi-hazard research synergy across disciplines to reduce human and economic losses from disasters, and to help sustain FIU's Carnegie "Research 1" status. By their very nature, extreme events cross traditional academic boundaries and require trans-disciplinary research and knowledge application. EEI programs include faculty and researchers from the social and behavioral sciences, engineering, computer science, earth and atmospheric sciences, business, public health, public administration, and management.