Seismic Performance Evaluation of Reinforced Concrete Building Structures

MEMBERS: Evaluation of Axial Load Carrying Capacity of Deteriorated RC Columns
SUB-ASSEMBLAGE: Simulation of In-plane Behavior of Masonry Wall Infilled RC Frames
OVERALL STRUCTURE: Response Evaluation Method of Buildings due to Waterborne Debris Impact Load
INTERNATIONAL COOPERATION: Project for Technical Development to Upgrade Structural Integrity of Buildings in Densely Populated Urban Areas and its Strategic Implementation towards Resilient Cities

3D Data of a Corroded Rebar and Distribution of Sectional Area

Axial load capacity deteriorates due to the rebar corrosion, and the capacity was estimated well based on rebar sectional area that are measured in detail.

Axial Load Capacity Evaluation by Compressive Test

The proposed macro-modeling approach could capture the seismic behavior of RC frame with masonry infill wall.

Concept of the Modeling and Results of Simulation

Drifting ships may cause severe damage of reinforced concrete buildings due to their collision

Collision Test and Collapse of Reinforced Concrete Frame

Science and Technology Research Partnership for Sustainable Development (SATREPS)
Project for Technical Development to Upgrade Structural Integrity of Buildings in Densely Populated Urban Areas and its Strategic Implementation towards Resilient Cities Joint Research Group

Testing on vulnerable RC frame made by low strength concrete @UTokyo
Testing on RC column@BUET

Technologies for enhancing structural resilience of buildings in Dhaka and their effective implementation schemes are proposed.