NARLabs
國家實驗研究院

# Development of Near-fault Seismic Technology and Shaking Table Test for Innovative Steel Buildings (NCREE 2019-2021 Program)

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# Main Purpose

- Innovative steel material：use the high-performance and high-strength steel produced in Taiwan.
  - Super high tensile strength bolts(F14T)
  - High-Performance Steel (SM570 and SM690)
  - Shape Memory Alloy
- Develop the technology to enhance the seismic performance of steel structures
- Use the high-speed and long-stroke seismic simulation shaking table to investigate the seismic behavior of steel structures under near fault seismic excitation
- Interdisciplinary integration
  - Steel Structure
  - Strong Ground Motion
  - Structural Health Monitoring
  - Experiment Technology
  - Vision Measuring Technology

# NCREE 2019-2021 Program

- **1st year (2019)**

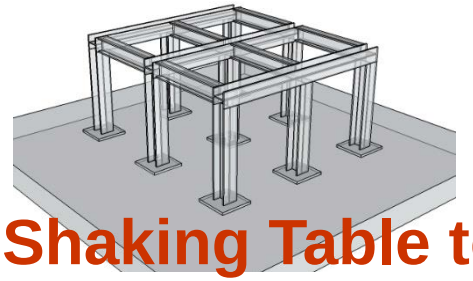
  Performance research of main components

  - Beam-to-column connections
  - Shear wall
  - Brace

  **Static/Pseudo-dynamic test**

- **2nd year (2020)**

  Large size one story Steel Structure

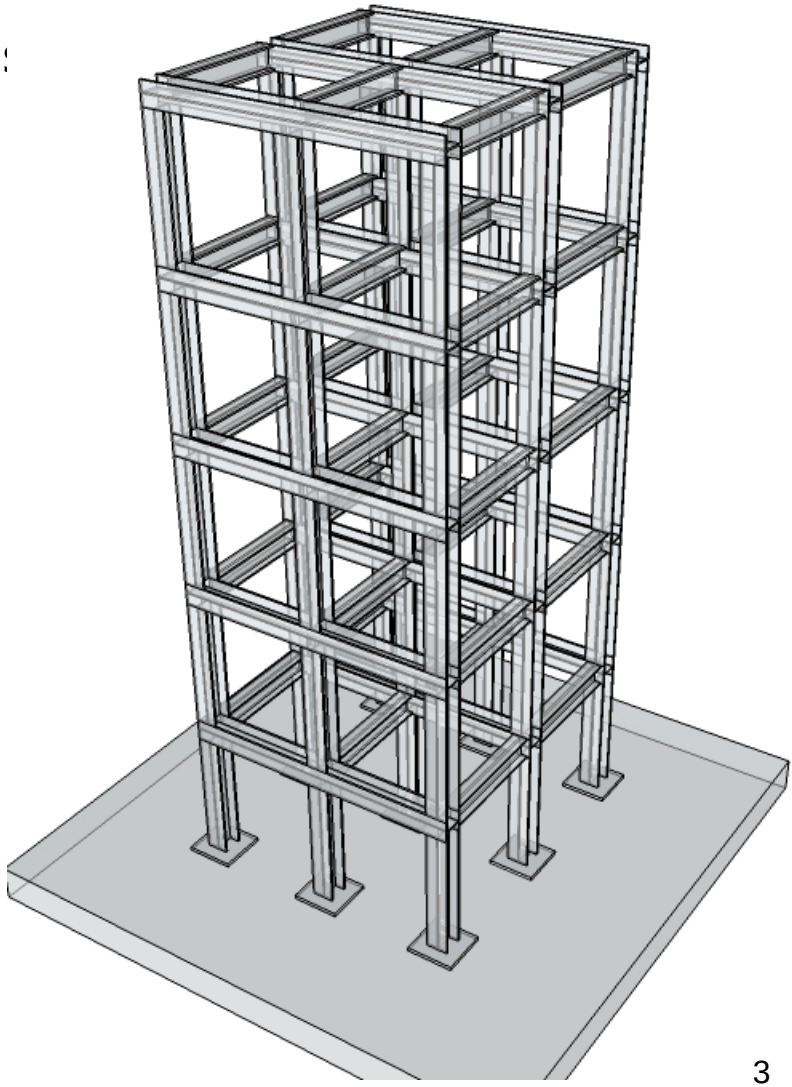


  **Shaking Table test**

- **3rd year (2021)**

  Large size 5-story Steel Structure

  **Shaking Table test**



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