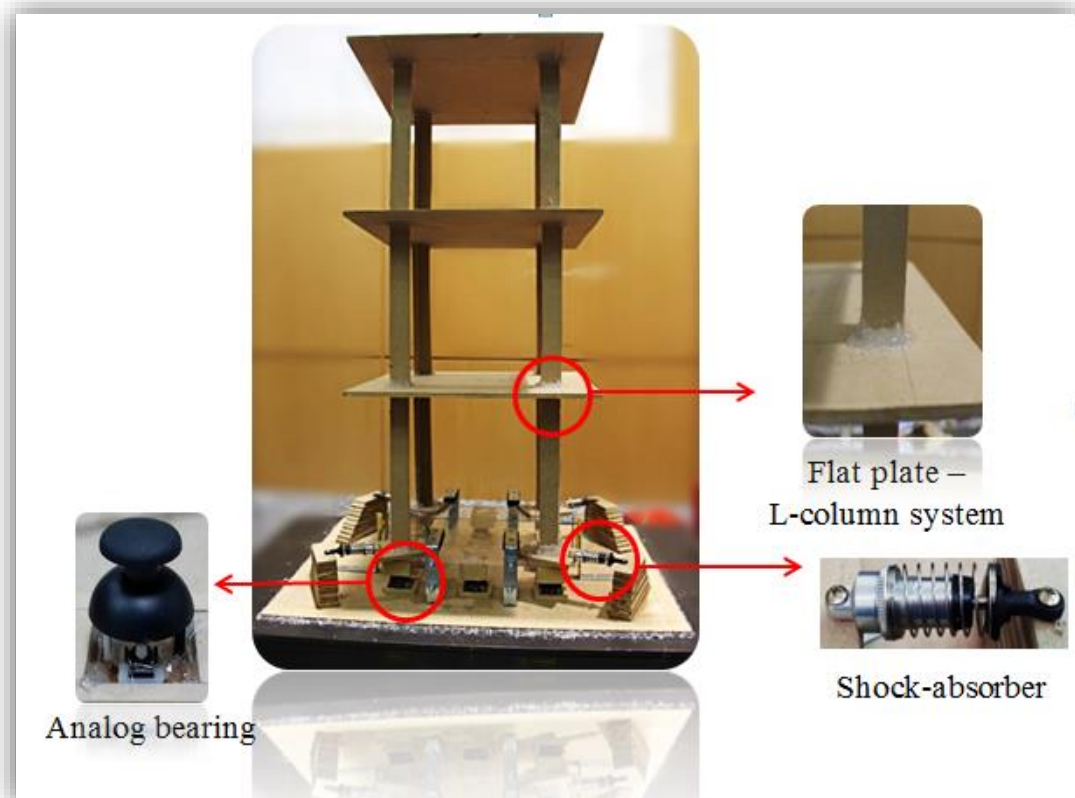


# INNOVATIVE SHOCK-ABSORBER AND ANALOG BEARING SYSTEM

## ➤ Concepts



Innovative Shock-Absorber and Analog Bearing System:

1. Flat plate – L column system  
To distribute lateral forces from horizontal to vertical structural system through joint system.
2. Analog Bearing
  - Use rotational mechanism to lengthen the period of the structure
  - Re-centering mechanism.
3. Shock-Absorber  
To absorb some of the energy going into the building during earthquake
4. Behavior
  - High frequency EQ → rotational mechanism
  - Low frequency EQ → rocking mechanism

## 5. Failure

- One-direction shaking table test experiment → joint failure at 950 gal
- Two-direction (Competition day) → analog bearing failure at 900 gal

### ➤ Art Design

- Architectural → traditional house in West Sumatra, Indonesia, which called “Rumah Gadang”.
- Poster → landmark in West Sumatra, Indonesia, which called “Jam Gadang”

### ➤ Awards



Building Model

Poster



Most Creative Architectural (Art) Design Award IDEERS 2014



Best Presentation (Poster) Award IDEERS 2014



Team G-12 of IDEERS 2014  
Left-Right: Victor, Denny, Vivi and Sisca