Development of Prototype Buckling Restraint Braces (BRB) for Seismic Response Control of Multistoried Buildings

Funding Agency: Arunachal Pradesh PWD

Project Investigator: Prof. S.K. Deb, Department of Civil Engineering

Theme: High performance and cost-effective seismic design/ retrofitting of structures

Objective: Development of prototype inspectable Hybrid BRB for seismic response control of multistoried buildings

Deliverables: A special type of structural fuse to ensure:

- Efficient seismic response control of structures
- Stable hysteretic behaviour to achieve enhanced damping

Highlights:

- Inspectable and detachable HyBRB allows visual monitoring of the damage;
- Restrained buckling about both weak and strong axes to achieve enhanced energy dissipation;

Noteworthy aspects: HyBRB ensures:

- High damping in low to high axial strain levels;
- Significant reduction of residual structural deformations