

NEES/E-Defense Collaboration  
on Earthquake Engineering Research related to Steel Buildings

DoubleTree Hotel San Francisco International Airport  
February 10-11, 2005

Agenda

Day 1: February 10, 2005 – 10AM to 5 PM (coffee and lunch provided)

1. Welcoming Remarks (Mahin and Kasai) – 5 minutes
2. Introduction of participants (photos) – 10 minutes
3. Background for Meeting and Review of Agenda (Mahin) -10 minutes
4. Japan-side Research Interests related to Steel Buildings – 50 minutes
  - Overview: Kasai, T.I.T
  - Existing Buildings (EB): Suita, Kyoto U.
  - Value-added Buildings (VB): Kasai, T.I.T.
  - Analysis and Simulation (AS): Ohsaki, Kyoto U.
  - Testing Techniques (TT): Tada, Osaka U.
  - Measuring Techniques (MT), Yamada, T.I.T.
5. Status of E-Defense Research Initiative - Nakashima -5 minutes
6. Progress on US side since last meeting – Mahin (15 minutes)
7. Summary Overview of US-side Research Interests (Mahin) – 15 minutes
8. Plenary discussion of opportunities to use unique capabilities of NEES experimental and IT resources – 15 minutes
  - US-side research resources (need list, schedule and duration of use)
  - Japan-side research using NEES facilities (list, schedule and duration of use)
9. Plenary discussion of opportunities to use E-Defense shaking table – 15 minutes
  - Feasibility of a final proof-of-concept test for US side concept
  - Cost to US side for use of E-Defense Facilities (and estimate of construction and related costs)
  - Opportunities for Payload Tests and related activities

Lunch (40 minutes) -- 12:30-1:10 PM

10. Plenary Discussion Enabling Technologies
  - Theme Structure (occupancy, location(s), height(s), soil conditions, etc.)
  - Testbed structure (expectations)
  - Simulation and visualization – high fidelity numerical models for components, validation, visualization, PPBE tools, community models, community-based framework, etc.
  - Improved experimental methods
    - Measurement techniques (rapid data checking, etc., large 3D displacement transducers, high precision, contact and non-contact types of sensors, etc.)
    - Condition Assessment, Sensorgrids, etc.

- Geographically distributed hybrid simulation, including substructuring, frame of reference transformation of complex subassemblies, parallel computation, etc.
- Other NEESgrid and NEESit related efforts: Collaborative tools, metadata, data structures, data collection, archiving and distribution, tools needed, data sharing policies, etc.
- Cyberinfrastructure tool initiative (at NSF) – Mita and Fenves groups

Coffee Break (15 minutes)

- Breakout Sessions (TBD)

No host dinner at Kincaid's or similar restaurant

Day 2: Friday, February 11, 2005 (8AM-11AM) – Breakfast, coffee and lunch provided.

1. Report on Breakout Sessions – 30 minutes
2. Plenary Discussion on Opportunities for Education, Outreach and Training (EOT), including dissemination of findings to enhance education, professional practice and research (Various) – 20 minutes
  - Integration of research and education
  - Pre-college, college, continuing education efforts
  - Opportunities to broaden participation by under-represented groups
  - Linkage to NEES EOT activities
3. Plenary Discussion of Strategic Partnerships (NEHRP agencies, AISC, etc. plus organizations in Japan, and researchers in third countries) – 10 minutes
4. General Discussion of Management and Administrative Issues (NEES/E-Defense overall, Steel Task Group, US-side Project Manager, Organizational Chart, etc.) - (20 minutes)
5. Discussion on Other Collaboration Issues (30 minutes)
  - Exchange of researchers to work on other side projects
  - Exchange of students and faculty
  - Policies for sharing data
7. Consideration of External “Scientific” Advisory Board & Technical Advisory Panels (individuals cannot be named in NEESR proposal) – 10 minutes
8. General Discussion regarding Packaging of US proposal(s) and distribution of participants within proposals (30 minutes)
9. Identification of Follow-up Activities – Writing assignments and schedule for preparing for NEESR solicitation (20 minutes)
10. Follow-up activities for overall NEES/E-Defense general program (Next task force meeting, working group deliverables, etc.) (10 minutes)
10. Adjourn (approximately 11 AM)

Following this meeting, there may be additional discussion by the US side on the NEESR proposal, as well as a mini-workshop on NEESit and OpenSees.