Payload Project Protocol and Small Group Planning and Training Workshop Oportunities

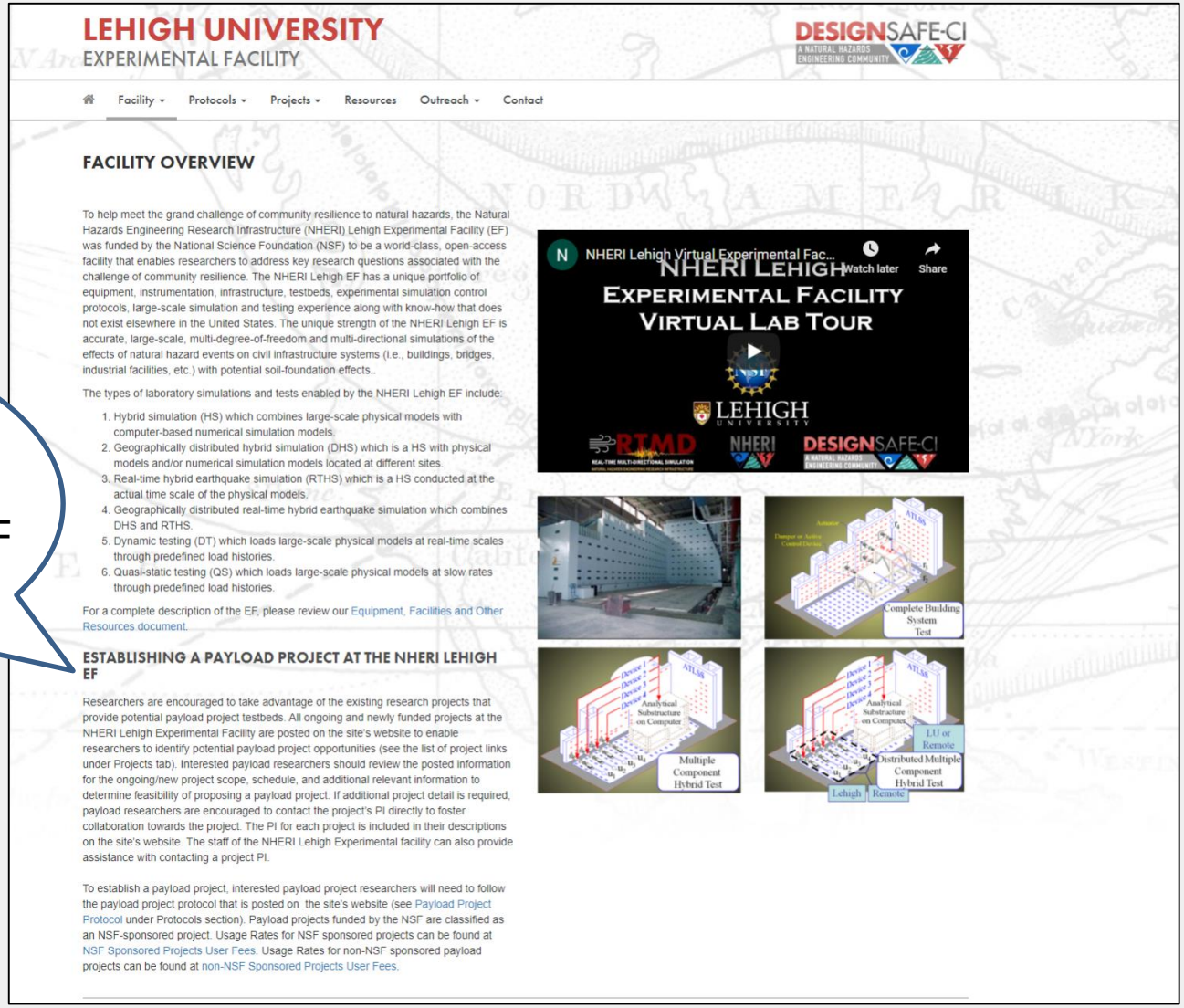
Chad Kusko, PhD
NHERI Lehigh EF
Operations Manager

- Payload Project Protocol
- Small Group Planning and Training Workshop Opportunities

Payload Project Protocol

- Information on NHERI Lehigh website under ‘Protocols’

Establishing A Payload Project At The NHERI Lehigh EF



LEHIGH UNIVERSITY
EXPERIMENTAL FACILITY

DESIGNSAFE-CI
A NATURAL HAZARDS ENGINEERING COMMUNITY

Facility | Protocols | Projects | Resources | Outreach | Contact

FACILITY OVERVIEW

To help meet the grand challenge of community resilience to natural hazards, the Natural Hazards Engineering Research Infrastructure (NHERI) Lehigh Experimental Facility (EF) was funded by the National Science Foundation (NSF) to be a world-class, open-access facility that enables researchers to address key research questions associated with the challenge of community resilience. The NHERI Lehigh EF has a unique portfolio of equipment, instrumentation, infrastructure, testbeds, experimental simulation control protocols, large-scale simulation and testing experience along with know-how that does not exist elsewhere in the United States. The unique strength of the NHERI Lehigh EF is accurate, large-scale, multi-degree-of-freedom and multi-directional simulations of the effects of natural hazard events on civil infrastructure systems (i.e., buildings, bridges, industrial facilities, etc.) with potential soil-foundation effects..

The types of laboratory simulations and tests enabled by the NHERI Lehigh EF include:

1. Hybrid simulation (HS) which combines large-scale physical models with computer-based numerical simulation models.
2. Geographically distributed hybrid simulation (DHS) which is a HS with physical models and/or numerical simulation models located at different sites.
3. Real-time hybrid earthquake simulation (RTHS) which is a HS conducted at the actual time scale of the physical models.
4. Geographically distributed real-time hybrid earthquake simulation which combines DHS and RTHS.
5. Dynamic testing (DT) which loads large-scale physical models at real-time scales through predefined load histories.
6. Quasi-static testing (QS) which loads large-scale physical models at slow rates through predefined load histories.

For a complete description of the EF, please review our Equipment, Facilities and Other Resources document.

ESTABLISHING A PAYLOAD PROJECT AT THE NHERI LEHIGH EF

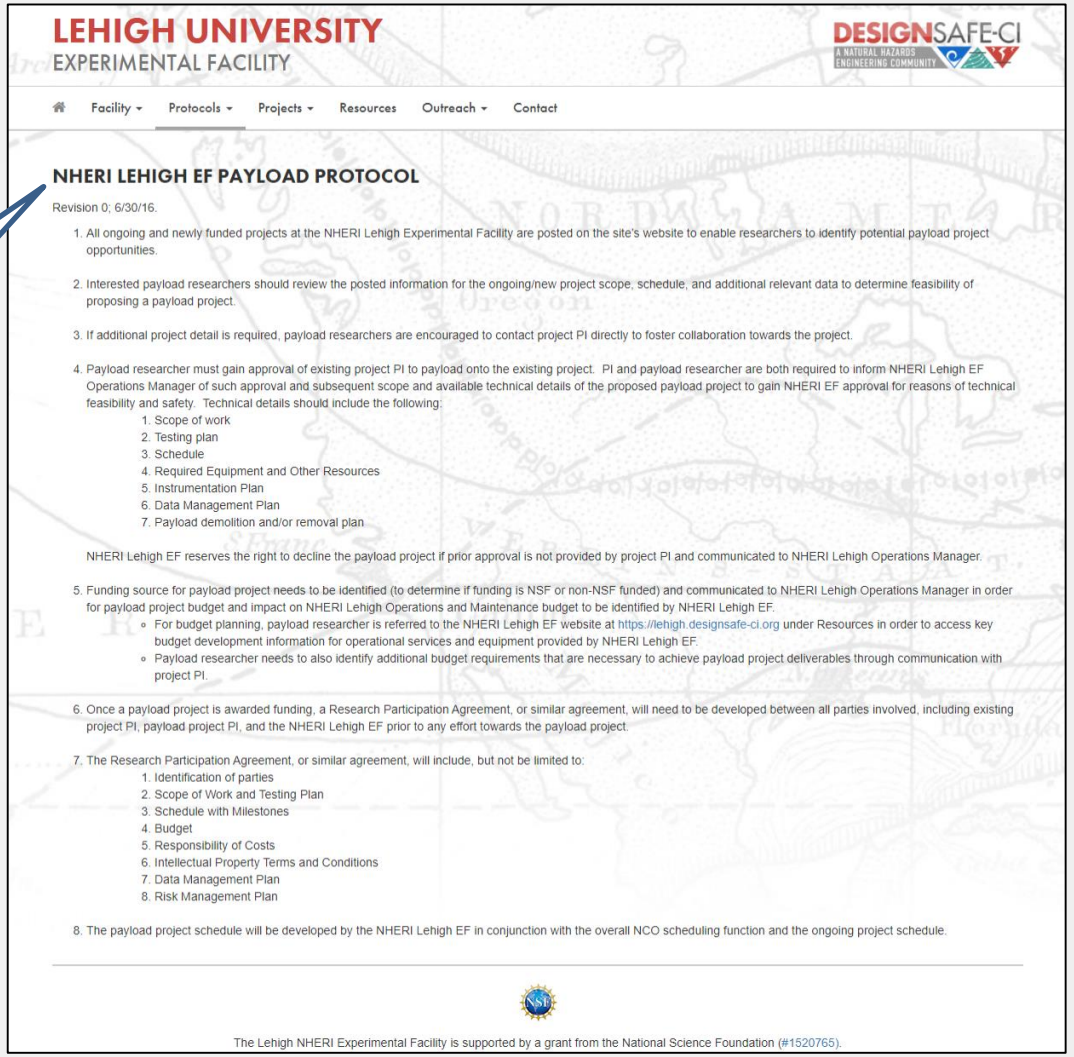
Researchers are encouraged to take advantage of the existing research projects that provide potential payload project testbeds. All ongoing and newly funded projects at the NHERI Lehigh Experimental Facility are posted on the site's website to enable researchers to identify potential payload project opportunities (see the list of project links under Projects tab). Interested payload researchers should review the posted information for the ongoing/new project scope, schedule, and additional relevant information to determine feasibility of proposing a payload project. If additional project detail is required, payload researchers are encouraged to contact the project's PI directly to foster collaboration towards the project. The PI for each project is included in their descriptions on the site's website. The staff of the NHERI Lehigh Experimental facility can also provide assistance with contacting a project PI.

To establish a payload project, interested payload project researchers will need to follow the payload project protocol that is posted on the site's website (see Payload Project Protocol under Protocols section). Payload projects funded by the NSF are classified as an NSF-sponsored project. Usage Rates for NSF sponsored projects can be found at NSF Sponsored Projects User Fees. Usage Rates for non-NSF sponsored payload projects can be found at non-NSF Sponsored Projects User Fees.

Payload Project Protocol

- NHERI Lehigh EF Payload Protocol

NHERI Lehigh EF Payload Protocol



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NHERI LEHIGH EF PAYLOAD PROTOCOL

Revision 0; 6/30/16.

1. All ongoing and newly funded projects at the NHERI Lehigh Experimental Facility are posted on the site's website to enable researchers to identify potential payload project opportunities.

2. Interested payload researchers should review the posted information for the ongoing/new project scope, schedule, and additional relevant data to determine feasibility of proposing a payload project.

3. If additional project detail is required, payload researchers are encouraged to contact project PI directly to foster collaboration towards the project.

4. Payload researcher must gain approval of existing project PI to payload onto the existing project. PI and payload researcher are both required to inform NHERI Lehigh EF Operations Manager of such approval and subsequent scope and available technical details of the proposed payload project to gain NHERI EF approval for reasons of technical feasibility and safety. Technical details should include the following:
    1. Scope of work
    2. Testing plan
    3. Schedule
    4. Required Equipment and Other Resources
    5. Instrumentation Plan
    6. Data Management Plan
    7. Payload demolition and/or removal plan

    NHERI Lehigh EF reserves the right to decline the payload project if prior approval is not provided by project PI and communicated to NHERI Lehigh Operations Manager.

5. Funding source for payload project needs to be identified (to determine if funding is NSF or non-NSF funded) and communicated to NHERI Lehigh Operations Manager in order for payload project budget and impact on NHERI Lehigh Operations and Maintenance budget to be identified by NHERI Lehigh EF.
    - For budget planning, payload researcher is referred to the NHERI Lehigh EF website at https://lehigh.designsafe-ci.org under Resources in order to access key budget development information for operational services and equipment provided by NHERI Lehigh EF.
    - Payload researcher needs to also identify additional budget requirements that are necessary to achieve payload project deliverables through communication with project PI.

6. Once a payload project is awarded funding, a Research Participation Agreement, or similar agreement, will need to be developed between all parties involved, including existing project PI, payload project PI, and the NHERI Lehigh EF prior to any effort towards the payload project.

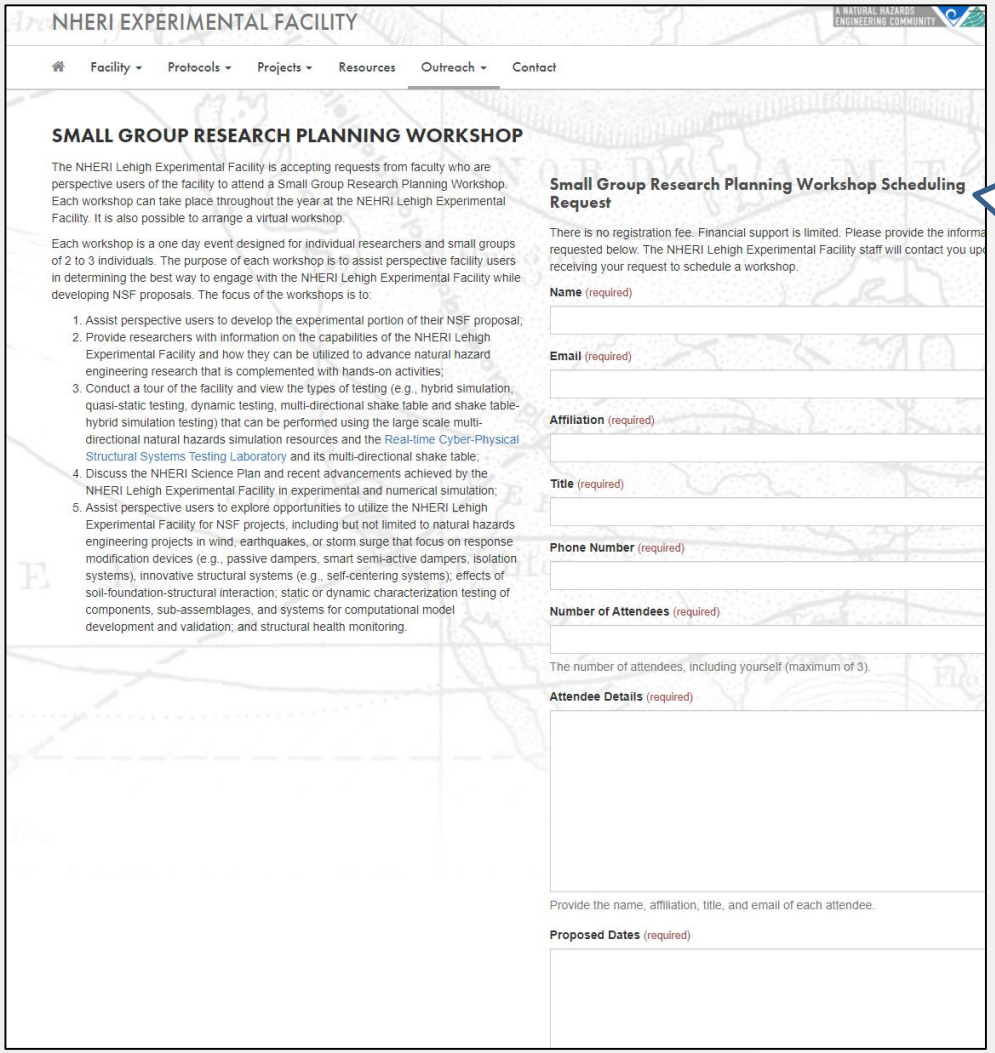
7. The Research Participation Agreement, or similar agreement, will include, but not be limited to:
    1. Identification of parties
    2. Scope of Work and Testing Plan
    3. Schedule with Milestones
    4. Budget
    5. Responsibility of Costs
    6. Intellectual Property Terms and Conditions
    7. Data Management Plan
    8. Risk Management Plan

8. The payload project schedule will be developed by the NHERI Lehigh EF in conjunction with the overall NCO scheduling function and the ongoing project schedule.

The Lehigh NHERI Experimental Facility is supported by a grant from the National Science Foundation (#1520765).

Small Group Planning and Training Workshop Opportunities

- Information on NHERI Lehigh website under ‘Outreach’



Requesting a small group planning workshop

Information Required:
- Name
- Email
- Affiliation
- Title
- Phone Number
- Number of Attendees
- Attendee Details
- Proposed Dates
- Research Interests
- Expected Outcome from Workshop