

NHERI GSC

February General Meeting



2025



NHERI GSC 
Graduate Student Council

Agenda

11:00-11:10 Welcome & Announcements

11:10-11:45 Edward Laatsch

11:45-11:55 Questions

11:58-12:00 Wrap up



Welcome!

Agaman	Subedi	Naomi	Rahman
Mohammad	Bakhshandeh	Sadia Jahan	Noor
Sarbesh	Banjara	Phyoe	Hein
WeiChieh	Chen	Sadia Jahan	Noor
Ashim	Rimal	Corina	Tecu
Aman	Karki	Peter	Tsouroukdissian
Abinash	Silwal	Mohana	Debnath
Amirhosein	Vakili	Omar	Abukassab
Mengting	Chen		
Alireza	Monavarian		

*Reach out to [Daniel Yahya](#) and [Diako Abiass](#) to learn how to get involved!



NSF NHERI Community Statement

As many of you are aware, ***recent changes at the federal level have led to the dissolution of DEI-specific organizations, resulting in adjustments within our own organization. While these changes bring shifts in terminology and governance, our core mission remains unchanged.***

Specifically, our DEI Standing Committee will now be renamed the Community Engagement Standing Committee, and DEI-specific language will be removed from our Constitution in alignment with the new requirements. However, we want to emphasize that our commitment to fostering a collaborative, welcoming, and engaging environment for graduate students in natural hazards research remains steadfast.

We will continue to welcome students from all backgrounds and perspectives who are interested in learning, networking, and engaging with experts in various fields of natural hazard research. Our organization has always been, and will continue to be, a space where meaningful discussions and connections thrive, regardless of these structural changes.

We appreciate your support and dedication as we navigate these updates, and ***we encourage open dialogue as we move forward together.***



Conference Opportunities!

Conference	Dates	Abstract
AAG: 2025 American Association of Geographers	March 24-25, 2025	Closed
EMI: ASCE Engineering Mechanics Institute	May 27-30, 2025	Closed
IWSHM: International Workshop on Structural Health Monitoring	September 2025	February 1, 2025
YCSEC: Young Coastal Scientist and Engineers Conference	April 3-4, 2025	Closed
ACWE: 15th Americas Conference for Wind Engineering	May 19-25, 2025	Closed
ANNSIM: Annual Modeling & Simulation Conference	May 26th-29th, 2025	Open, Paper deadline Jan. 19, 2025
Geotechnical Frontiers Conference	March 2-5, 2025	Closed
Natural Hazards Workshop	July 13-16, 2025	Unknown



Natural Hazards Center Award

50th Annual Natural Hazards Research & Applications Workshop (July 13 - 16, 2025) and the 2025 Researchers Meeting (July 16 - 17, 2025). DUE: 23rd Feb

Award Description

Meals and registration will be covered for five NHERI GSC Members.

Awardee Responsibilities

- **Abstract Submission:** Submit an abstract for either: NHC Poster Session or Researchers Meeting
- **Session Recording:** Record two sessions during the Natural Hazards Workshop.
- **Apply for funding:**
https://bit.ly/2025funding_NHW

Awardees will receive details and guidance to fulfill their responsibilities.

Opportunities



NSF NHERI Summer Institute

GSC members who attend 2 meetings between **August 1, 2024-February 23, 2024**, are eligible to apply for funding to apply for the Institute. **DUE: 23rd Feb**



Info

The **NHERI Summer Institute** will be held **June 11-13, 2025**. at the University of San Antonio's Downtown Campus

Apply



NHERI GSC Election- February 24-26, 2025



Vice Chair of Workshops &
Mentoring Nominee-
Alireza Mirghafouri



Vice Chair of Community
Engagement Nominee-
Rajee Tamrakar





NHERI GSC 
Graduate Student Council

MINI CONFERENCE

2025
MAY 16

FRIDAY
10 AM - 5 PM CT

Register today!



- *Showcase Your Research*
- *Engage with Leading Research*
- *Inspiring Keynote Speaker*



NHERI GSC 
Graduate Student Council

Speaker Introduction



Edward M. Laatsch, P.E.
Director of the Planning,
Safety and Building
Science Division

Federal Emergency
Management Agency
(FEMA)

edlaatsch@gmail.com



Advancing All-Hazard Mitigation through System Management

Thank you for the opportunity to share some of my experiences and lessons learned during my ¼ century at FEMA.

Describe professional background and various positions at FEMA.

For over the last decade I was the Director of the Planning, Safety and Building Science Division at FEMA. That position is responsible for the oversight and leadership of many hazard-specific and multi-hazard programs and initiatives covering both natural and man-made hazards – **give examples.**

It's a wide portfolio and required that I work with my team to develop and execute a vision for these programs that met their goals and objectives and supported the Agencies' priorities.

I'll cover two topics that have been critical to my efforts to advance hazard mitigation – How to manage within a system (in this case a large one) and how to manage up (and across and down) within that system.

This talk will focus on that work, and I will use that lens to describe some of FEMA's Earthquake hazard mitigation work as well as work with other perils.

Overview

- The Federal Government is a large, complex system of organizations that can either stand in your way or be a vehicle to accomplish great things!
- I'll share some reflections on how to get things done within this my Agency - FEMA - by leveraging partnerships, engaging the right people, and overcoming system challenges.
- I've learned some things about making the system work for me by understanding how the processes work, building relationships with

those that know them best, and using that knowledge to achieve progress.

- I've learned some practical strategies for partnering, navigating across the Agency and government - including the White House, OMB and congressional engagement - and finding ways to move past bureaucratic roadblocks.
- FEMA is an all-hazards emergency response Agency.
 - FEMA's Mission is to help people before, during and after disasters. My work at FEMA touched on all three of these areas.
 - Before – Hazard Mitigation, by definition, is the effort to identify, reduce or eliminate risk and loss before it occurs.
 - During – In order to reduce risk you need to learn from disasters to improve community resilience. FEMA's Mitigation Assessment Team – or MAT – has been conducting post-disaster studies for over 30 years.
 - After – There is a window of opportunity after disasters to affect the recovery and re-building process. To do this we must be prepared and ready to provide timely, meaningful and effective hazard mitigation guidance during this critical time when everyone just wants to put things back as fast as they can.



As part of this larger effort, FEMA’s Resilience efforts house the NEHRP.

- National Earthquake Hazards Reduction Program – or NEHRP – has existed since before FEMA was established and is more than 50 years old.
- The NEHRP mission is to develop, disseminate, and promote knowledge, tools and practices for earthquake risk reduction.
- It consists of four Agencies (NIST, USGS, NSF and FEMA). NIST is the lead.
- Congress has appropriated approximately \$5B over the last half century which has led to a vast array of research, earth science, forensic and applied engineering advancements in seismic risk reduction.
- Among many other things the NEHRP program is responsible for developing the NEHRP Recommended Provisions, one of the oldest interagency coordination groups called the PCWG, a ‘learning from EQ’s’ post-event coordination function, the PAGER system, NSF research grant activities, the FEMA EQ consortia and countless other activities.

Making a difference by Managing the System

The Importance of understanding how the systems work.

- In the Federal Government that means Federal Regulations. Not very sexy but very important. The Federal Acquisition Regulation is the roadmap for how the government procures services and products. Most people don't know it very well, or want to, but the few who really understand it have a leg up. [A former boss knew the FAR like the back of his hand and, as a result, could bent the system to his will and get things done nobody else could.](#)
- Are you familiar with the 4-year PPBE budget process? Government planning occurs several years before work occurs. It's a challenge to think far enough in advance when so many decisions are short-term. How do you keep programs afloat while planning for a better future that is 2 or 3 years down the road?
- Hiring is a critical and often challenging process. It takes two weeks for someone to quit and 6 months or more to replace them. [One growing challenge is developing hiring packages that attract outsiders to government service. Put in the effort, understand the system, and get it right the first time. The expression I think of is 'there's never enough time to do things right the first time but always enough time to do them over again'.](#)
- [If you understand these and others Federal systems and can use them effectively to advance your mission.](#)

Everybody matters but how do I build the relationships that count?

- Follow Dale Carnegie's Golden Book. [More on this in the next part of this talk.](#)
- Pick your fights. Save your goodwill for when it really matters. Help others when you can. It builds credit. It also happens to be the right thing to do.
- It was once suggested to me that in any field of endeavor there is a small percentage of practitioners that possess the highest level of knowledge and expertise while the majority are improvising and doing the best they can. To the extent that's true it's another reason to seek out top performers when you need assistance.

- As manager, I balance my role as a leader and a team member. It takes skill and intuition to know when to lead, when to support, and when to follow. The Marine Corps version is “lead, follow or get out of the way.”

Balancing strategy with action – knowing when it’s time to stop admiring the problem and get on with it.

- Don’t let perfect be the enemy of good. There are too many examples where good ideas get studied to death. Look for the 80% solution. [Strategy and governance efforts often fall victim to this trap.](#)
- Move in a straight line. Once goals and objectives are set, stay focused. Use milestones to mark progress and keep reminding the team to stay focused on the objectives and avoid getting distracted by the ‘nice to do’ additions. This might seem dogmatic and not inclusive but there is an important distinction here between encouraging input from everyone up front while the strategy is being developed and not getting sidetracked once the path is set.
- Focus on the Outcomes. Use the milestone outputs to measure your progress and adjust. There are always adjustments.

Keep your eyes on the Big Picture.

- When things ‘go south’ don’t overreact. Stay calm. Most of the time things work themselves out. How do you ‘keep your head’ when everyone else is losing theirs. More on that a little later.
- There’s a strategic hierarchy that works well for me - Mission, Vision, Goals, Objectives, Strategies, and Activities.
- Identify a few important Goals and Objectives and don’t try to be everything to everyone. An “inch deep and a mile wide” doesn’t work. Neither does moving 100 things an inch forward – move 1 thing forward a mile.
- Beware of the Urgent but not necessarily important.
- Time is the most valuable resource of all. Don’t waste it and don’t let others waste yours.

Successes and pitfalls. What worked and what didn't. Why some approaches work better, and others are left behind.

- **Successful program strategies –**

- Focus on transferring research into practice – be practical
- Accomplish progress through others (partners)
- Leverage resources which are always limited.
- Develop best practices and then implement and socialize them.
- Make sure the decision-makers know you exist and what you are accomplishing. For me that was the FEMA Administrator. And the White House. And OMB.
- Treat disasters as opportunities.
- Do good work and tell people about it. And don't forget to tell people about it.
- Communication isn't a point in time – it's a continuous process.

- **I have witnessed great success. Some examples include:**

- I've witnessed and supported the advancement of the National Earthquake Hazards Reduction Program (NEHRP) become the state-of-the-art for seismic design and construction and, in the process, save countless lives and dollars.
- I've seen the rise of 'performance-based seismic design' and now 'functional recovery' become part of the design philosophy across the U.S.
- I have seen FEMA's 'Mitigation Planning' evolve from a targeted program to the Community Planning Division with connections across the Agency and the Nation
- The National Dam Safety Program has seen explosive growth as part of IRA funding of ¾ Billion.

- The Nation's model building codes are now fully compliant with the National Flood Insurance Program and NEHRP Recommended Provisions.
 - Advancing building codes became a White House Climate Strategy focus thru the National Initiative to Advance Building Codes.
 - FEMA is implementing a Building Codes Strategy and Directive within the Agency.
- **There have also been pitfalls and setbacks, including:**
 - A constant struggle for funding and staff support. FEMA only receives less than 10% of the NEHRP funding while USGS and NSF collectively receive 90%.
 - Struggling to convince leadership about the value of the programs and getting their support. Floods happen every day and Hurricanes gain headlines for weeks before they arrive.
 - Failure to effectively tell the 'story'.
 - Insanity – doing the same thing over and over expecting different result. Another is the feeling of 'pushing a rope uphill'. It's a constant struggle to keep EQ top of mind and keep leadership engaged and supportive.
 - Navigating the changing priorities from administration to administration.
- **Understand the lessons Mother Nature is trying to teach you.**
 - You learn more from failures than you do from success – at least if you are smart you do.
 - Many of my advances have come through observing how the built environment reacts to hazards.

Knowing how to Manage Up (and across and down)

Why managing up, across and down are all different

- As part of my decision to leave FEMA I executed a 1-year succession planning effort to capture some of these differences as well as similarities.
- It's important to provide continuity and a smooth transition to avoid negatively impacting program progress.
- Managing up may mean taking responsibility for your relationship with your boss or higher-level leadership to create mutual success.
- Managing across your peers could require exchanging ideas and productive debate as well as advice giving.
- Managing down sometimes requires that we highlight a dual focus: understanding leadership priorities while ensuring alignment with personal or team goals.

I'll share some 'war stories' and a few 'golden rules' before talking about three different versions of managing upward.

War Stories from the Field

- The "golden rules" of leadership (including why "sacred cows make the tastiest burgers"). [Don't be afraid to think 'outside the box'.](#)
- The expression – "luck is where preparation meets opportunity" resonates with me. [Yes – there is luck sometimes but more often it's being ready to take advantage of an opportunity when it arrives by preparing ahead of time.](#)
- Most of the biggest successes came from leverage and collaboration. [If you have a good idea and can combine it with someone else's good idea, then everybody's probabilities go way up.](#)
- I spent 20 years throwing statistics at people without very much to show for it. [In the last years I've seen success because, in part, I stopped talking about what we needed and started telling the story of what we could accomplish given the chance. I raised over \\$1- Million to support the Mitigation Saves studies and we got well over \\$5 Million for the Building Codes Saves Study.](#)

- The importance of managing relationships— Holding friends close and enemies closer is what politicians do. If you can't convince someone to agree with you – you might convince them not to openly oppose you. Both are victories.
- The difference between creating a strategy and executing it. So many strategies wide up on the shelf and so few are executed well. When the strategy is done, you're not finished– you're only ½ of the way. There are many examples of this misconception. Conducting research, developing a report and calling it a day is another example. My experience is that implementation is as, or more, important.
- Never forget that "the shortest distance between two points is a straight line" – don't get knocked off course - and the two easiest words to say afterward are "I'm sorry" if feelings get hurt! Standing up the National Initiative to Advance Building Codes has been successful in part because we set specific objectives and received the support and influence of the White House to help drive Federal Agencies to act. We identified bite-sized actions and milestones to reinforce the sense of accomplishment and kept moving forward and building momentum. Now we have over 20 Agencies engaged and enthusiastic.
- Time is our most valuable resource. When you feel like you have all the time in the world, you're liable to take it. Windows of opportunity almost never stay open long. My approach is to assume there's a stop sign just around the corner. I've had enough projects fail and windows of opportunity shut in my face to convince me that time is my enemy.

Managing leadership concurrence processes.

- Always bring at least one solution with you when you brief leadership.
- Know ahead of time what outcome you want from leadership interactions.
- 'Frame' the decisions you present to maximize the preferred outcome.
- It's surprising how often 'how' you say something is at least as important as what you say. It's often part of getting to yes.

Golden Rules of Management (and life)

- It's good to look forward but make a point to look backwards as well to see why things happened the way they did. Forget the past and you'll repeat it.

- Know where the bodies are buried (pubs history, critical decision processes, personalities, and funding histories). Often, it's not the best idea or facts that gain support but the support of the right people. See other observations about the value of managing up and building leadership relationships. Ever wonder why some people are so successful at gathering resources and support for their projects?
- Don't push a rope uphill – if what you're doing isn't working, find another way forward – which leads to -
- If you're in a hole digging and the hole is getting deeper – stop digging.
- It's important to understand your relationships with colleagues, managers, and programs. If you're unsure of your assumptions, remember the anecdotes – “If you're not at the table you may be on the menu” and “in the ham and eggs breakfast the chicken is involved but the pig is committed”. Try not to be the pig.
- A good rule is to remember that “where people stand on an issue depends on where they sit”. Don't take rejection personally because most of the time it's not personal, “it's just business”.
- Sacred cows make the tastiest burgers – see above.
- Shortest distance between two points is a straight line – ditto.
- If you want to advance in an organization, it helps to put yourself in your bosses' shoes and try to understand his or her priorities.
- Point-Reason-Example. Ask what you really need and explain why.
- Don't 'bring me a rock'. If there's a problem, have at least one potential solution.
- And remember no one wants to hear you complain.
- How do you know when it's time to speak truth to power? When it's on someone else's behalf. When the mission is on the line. If it's a matter of integrity. Another managing upward lesson learned.
- Change is the only constant. My first boss told me that about FEMA. He also said if I don't like change then I probably wouldn't be happy here.
- Every generation must re-learn all the lessons of history. Why do we always forget that? Outreach and program implementation isn't a task – it's habit that must be repeated again and again.
- Don't get stuck on a position or argument. Remember that “If everyone else is wrong – how can I be right”.

- When a group decision is being made, know when the ‘train is leaving the station’ and be on it. [Make your case and know when to accept the decision and quit pushing.](#)

Three different ways to Manage Up

- When leadership wants you to do something you don’t agree with or would rather not do.
 - Better have a pretty good argument for why not
 - Better have an alternative that allows management to save face and/or ‘check the box.’
 - Pick your fights carefully here. You don’t want to win the battle but lose the war. My approach to working with the White House has been to do just about anything they ask so long as it doesn’t negatively impact my objectives and shows I’m a team player and understand their priorities. I’ve seen too many cases where someone pushed too hard for exactly what they wanted and wound up gaining nothing as a result.
- When you and leadership are on the same page with a decision.
 - Doesn’t mean you still don’t need to have good justification.
 - These are the opportunities to build trust and partnerships that will see you thru the other two situations I’m describing here.
- When you want leadership to do something they’d rather not do.
 - Have a strong justification
 - Demonstrate how it helps advance their leadership priorities.
 - Try to put yourself in their shoes and understand their priorities. If you can help them advance their objectives, they’ll be far more likely to help you advance yours.
 - When, as a much younger man, I complained once to a wise man that ‘vested’ interests were standing in the way of getting the right done – he pointed that ‘vested’ interests were all that there were and the only way to get things done was by understanding and working with them whether you agreed or not.

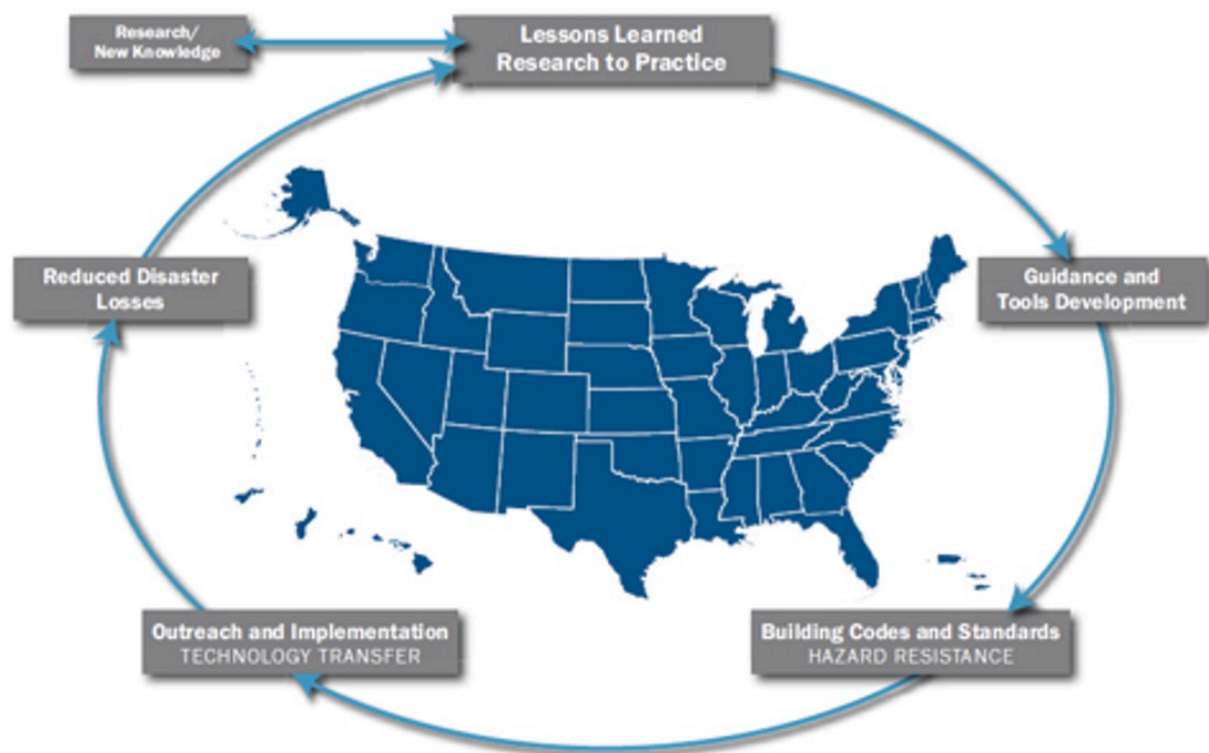
How do you keep your head when everyone else around you is losing theirs?

- I'd like to talk about a skill I've acquired over the years that.
- Keeping my head while those around me are losing theirs has given me a level of confidence in difficult situations that I didn't have when I began working in the engineering field.
- I can't say when I first noticed it and it grew within me over many years. Today it's a cornerstone of my leadership style.
- Being able to stay calm and make smart decisions when either lack of time, information or the magnitude of the decision creates tension has many benefits. It projects calm to those around you. It lets you think clearly and compartmentalize the decision or actions that need to be taken. Most of all it's a self-fulfilling mechanism that produces better outcomes that validate the tactic of staying calm at these moments.
- Too often big, complex projects cause chaotic responses where the team tries to simultaneously tackle all the questions and address all the unknowns. The result is churn, chaos, and no progress. Have faith in the right process and you'll be amazed what you can accomplish.
- Try it. Take a deep breath when everyone else is running around. Tackle challenges in pieces and those that are quickly solved. A sense of satisfaction is your reward.

I'll Close with wisdom from Dale Carnegie's Golden Book.

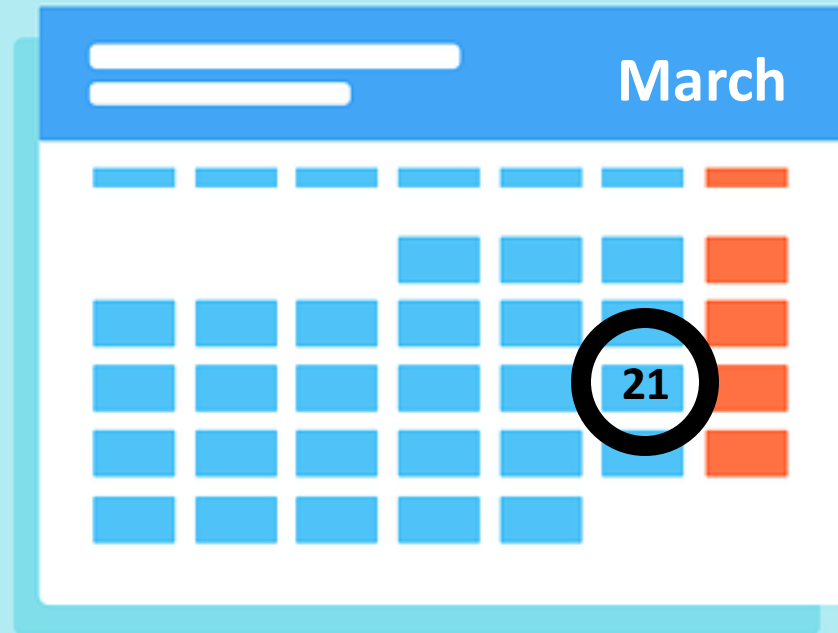
- **Become a Friendlier Person**
- Don't criticize, condemn, or complain.
- Give honest, sincere appreciation.
- Arise in the other person an eager want.
- Become genuinely interested in other people.
- Smile.
- Remember that a person's name is to that person the sweetest and most important sound in any language.
- Be a good listener. Encourage others to talk about themselves.
- **Talk in terms of the other person's interests.**
- Make the other person feel important – and do it sincerely.

Lastly, Take chances. Play the long game. Make a difference. Leave the world a better place. **Thank You and Questions**



Future Meeting Dates

3rd Friday of
every month
at 11:00am
CST





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