NHERI GSC
June General Meeting

NHERI
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2024

NHERI GSC
Graduate Student Council

Agenda

11:00-11:10	Welcome & Announcements
11:10-11:55	June Social Activities
11:55-12:00	Closing Remarks and Wrap-up
12:00	***Stick around for an RSR Meeting!***

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Natural Hazards Workshop

- Are you coming?
- **Let us know!**
- *We will be having a couple of casual meet-up opportunities!*

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DEI Workshop for NHERI REU Interns

- Help facilitate a breakout room!
- Workshop: July 10th, 11 am -12 pm (Central)
- Facilitator Training: July 5th, 12 – 1 pm (Central)
- If interested, contact Harman Singh! Harmansingh1412@gmail.com

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Welcome New Members

Zhujun	Wang
Aleem	Ullah
Sibomasinbi	Marie Gisele
James	Githinji
T.	Torabi
Yogesh	R V
Saba	Faghirnejad
Dorian	Acevedo
Ayantika Rinti	Bose
Sam	Holberg
Sourav	Dey

*Reach out to Daniel Yahya or Wesam Mohamed to learn how to get involved!

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Summer is Here!

Let's have some fun!

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"Bet on the Crowd"

https://pollev.com/nherigsc

Get out your phone!

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Scattergories

https://swellgarfo.com/scattergories/#NJSD3mM

Breakout Rooms

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Pictionary

We need a volunteer!

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NHERI GSC Research Subcommittee Presentations!

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2024

Friday, June 21
12 pm CST

Nurullah Bektaş
Chair of Research

Soolmaz Khoshkalam
Vice-Chair of Research

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Research Committee

Nurullah Bektaş
Chair of Research

Soolmaz Khoshkalam
Vice-Chair of Research

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Microclimate-Induced Hazard Dynamics Over Highly Dense Urban Area of India.

This study undertakes a comprehensive analysis of surface temperature, drought severity, and flood vulnerability i a densely populated area of Ahmedabad over 25 years (2000-2024) of time using the fusion of SAR an multispectral data. Study region is prone to a range of microclimate-induced hazards, including extreme heat drought, and floods. Our findings reveal a complex interplay between hazards, urbanization, and anthropogeni activities over some time.

The study shows that the yearly mean Land Surface Temperature (LST) has decreased by 4°C from 2000 to th present (2024), due to increased green spaces and sustainable urban planning measures. However, this trend is no uniform across the city, with areas exhibiting higher LST values indicating poor unplanned urbanization and lack o green spaces. The region is also characterized as highly drought-prone, represented by the Palmer Drought Severit Index (PDSI) which consistently indicates severe drought conditions.

Although the region is prone to drought, floods are another significant threat to Ahmedabad City, being a coasta land, experiencing heavy rainfall and water logging during monsoon. Observation reveals a probable threat o waterlogging, despite the absence of flooded pockets last year. The statistics underscore the extensive impact o infrastructure and livelihoods.

This study on hazard dynamics offers valuable insights for managing urban micro-scale hazards, boosting urba resilience and crucial guidance for policymakers, urban planners, and stakeholders in Ahmedabad City an comparable regions globally.

Sourav Dey, Subhajit Bandopodhyay, Center for Disaster Risk Reduction, School of Internal Security and SMART Policing (SISSP), Rashtriya Raksha University, Gandhinagar, Gujarat, India

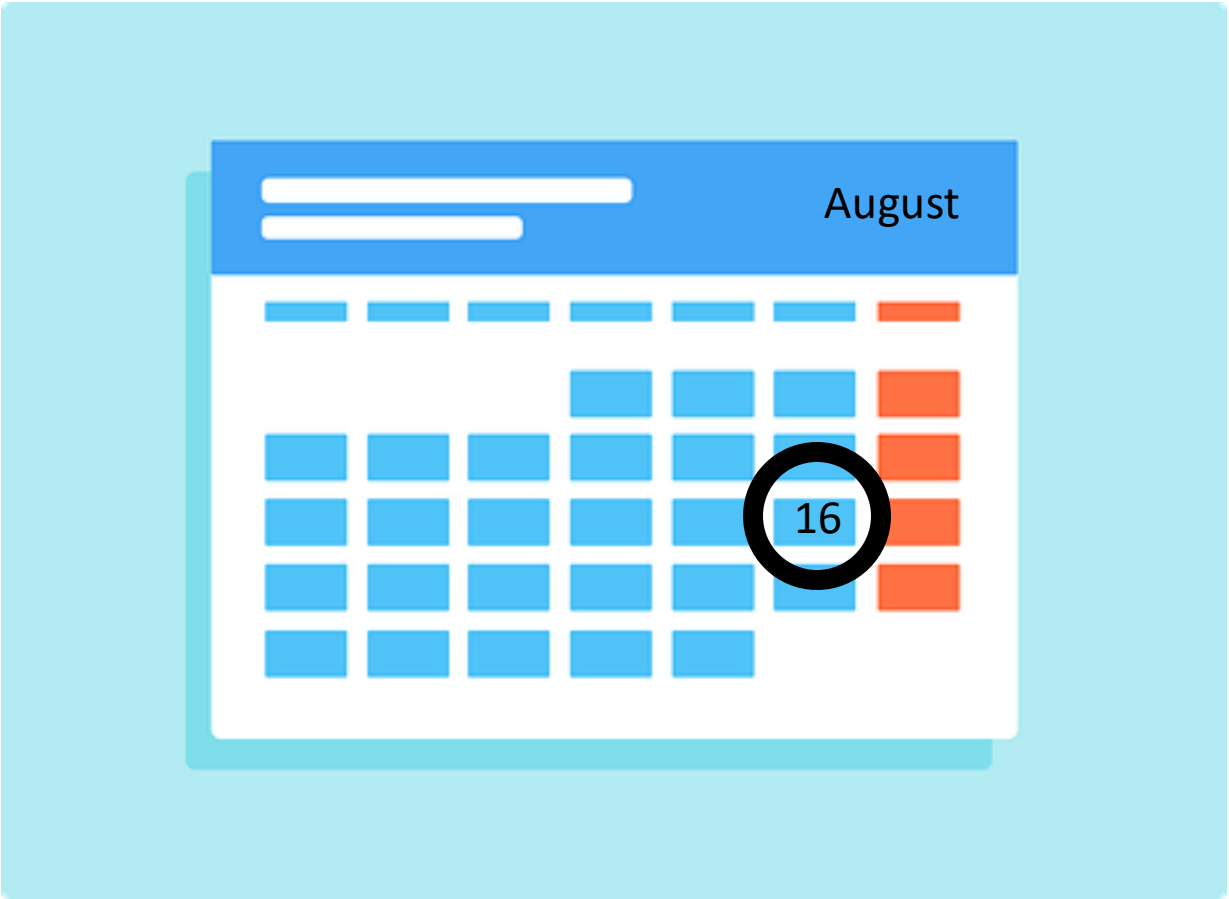
Group Breakout Room Time!

- 10 Minutes Presentations
- 5 Minutes Q&A

➢ Microclimate-Induced Hazard Dynamics Over Highly Dense Urban Area of India.
deysouravmails@gmail.com

Future Meeting Dates

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



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National Science Foundation

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