

Research Publications

Textbook (Published) & Related Interview

- 1 **Bhatia, Udit**, Auroop R Ganguly, and Stephen Flynn. *Book Interview: Critical Infrastructures Resilience: Policy and Engineering Principles*. Vol. 6. 3. Mary Ann Liebert, Inc., publishers 140 Huguenot Street, 3rd Floor New Rochelle, NY 10801 USA, 2018, pp. 173–175.
- 2 Ganguly, Auroop R, **Udit Bhatia**, and Stephen E Flynn. *Critical Infrastructures Resilience: Policy and Engineering Principles*. Routledge, 2018.

Textbook Projects (In progress): Peer-Reviewed & under contract

- 1 **Bhatia, Udit** and Auroop R Ganguly. *Time Series and Geospatial Data Science: An Interdisciplinary Methods Perspective [Publisher: Springer]*.
- 2 Ganguly, Auroop R, **Udit Bhatia**, and Carlos Nobre. *Climate Science and Engineering Adaptation [Publisher:Springer]*.

Journal Articles (Published)

- 1 Clark, Kevin, **Udit Bhatia**, Evan A Kodra, and Auroop R Ganguly. ‘Resilience of the US National Airspace System Airport Network’. In: *IEEE Transactions on Intelligent Transportation Systems* (2018).

- 2 Clark, Kevin, **Udit Bhatia**, Matthias Ruth, and Auroop R Ganguly. ‘Developing policies which optimize long-term service for vulnerable infrastructure. Transportation Policy; In review’. In: *Transportation Policy* (2018).
- 3 **Bhatia, Udit**, Devashish Kumar, Evan Kodra, and Auroop R Ganguly. ‘Network science based quantification of resilience demonstrated on the Indian Railways Network’. In: *PloS one* 10.11 (2015), e0141890.

Journal Articles (In review)

- 1 **Bhatia, Udit** and Auroop R Ganguly. *Reducing the irreducible uncertainty in return periods of 21st-century precipitation extremes*. 2018.
- 2 **Bhatia, Udit**, Tarik Gouhier, and Auroop R Ganguly. *Universal and Generalizable Restoration Strategies for Degraded Ecological Networks: In review*. 2018.
- 3 **Bhatia, Udit**, Lina Sela, and Auroop R Ganguly. *Complementary Value of Network Science and Optimization to Post-Perturbation Infrastructures Recovery: In review*. 2018.
- 4 Fard, Babak, Hanieh Hassanzadeh, Mary E Warner, **Udit Bhatia**, and Auroop R Ganguly. *Integrated climate risk assessment: A practical application for informing action plan to heatwave threat to public health. Climate Risk Management: In review*. 2018.

United Nations Assessment Report

- 1 Ganguly, Auroop R, Evan Kodra, **Udit Bhatia**, Mary Elizabeth Warner, Kate Duffy, Banerjee Arindam, and Sangram Ganguly. *Understanding and interpreting data for climate adaptation and mitigation*. Climate 2020, United Nations Association of the United Kingdom., 2018.

Patent (Pending)

- 1 **Bhatia, Udit**, Devashish Kumar, Evan Kodra, and Auroop R Ganguly. ‘System for Networking and Analyzing Geospatial Data, Human Infrastructure, and Natural Elements’. US Patent App. 15/134,518. Oct. 2016.

Peer-reviewed Conference Proceedings

- 1 **Bhatia, Udit**, Samrat Chatterjee, Auroop R Ganguly, Mahantesh Halappanavar, Jianxi Gao, Kevin Clark, Matthew Oster, Ramakrishna Tipireddy, and Rober Brigantic. ‘Aviation Transportation, Cyber Threats, and Network-of-Networks: Modeling Perspectives for Translating Theory to Practice(Accepted: to appear)’. In: *2018 IEEE International Symposium on Technologies for Homeland Security (IEEE HST)*. 2018.
- 2 **Bhatia, Udit** and Auroop R Ganguly. ‘Extreme Values from Spatiotemporal Chaos: Precipitation Extremes and Climate Variability (Accepted: to appear)’. In: *2018 Seventh Workshop in ICDM, Data Mining in Earth System Science*. 2018.
- 3 **Bhatia, Udit** and Auroop Ganguly. ‘The Resilience of Natural-Engineered-Human-Systems’. In: *International Conference on Sustainable Infrastructures. (Excellent Youth Paper Award Candidate)*. 2016.

Peer-reviewed Book Chapters & Encyclopedia Articles

- 1 **Bhatia, Udit** and Auroop R Ganguly. ‘Network Science Perspectives on Engineering Adaptation to Climate Change and Weather Extremes’. In: *Large-Scale Machine Learning in the Earth Sciences*. Chapman and Hall/CRC, 2017, pp. 19–30.

- 2 **Bhatia, Udit**, Devashish Kumar, Evan Kodra, and Auroop R Ganguly. ‘Water Complexity and Physics Guided Data Mining’. In: vol. 1. Anthem Press, 2017, p. 155.
- 3 **Bhatia, Udit**, Allison Traylor, Catherine Moskos, Laura Blumenfeld, Lindsey Bressler, Tyler Hall, Rachael Heiss, Kevin Clark, Nan Deng, Devashish Kumar, and Auroop Ganguly. ‘Climate Hazards and Critical Infrastructures Resilience’. In: *Encyclopedia of GIS*. Springer, 2017, pp. 206–216.
- 4 Moskos, Catherine, Hayden Henderson, Lindsey Bressler, **Udit Bhatia**, Devashish Kumar, Evan Kodra, and Auroop R Ganguly. ‘Informing Climate Adaptation with Earth System Models and Big Data.’ In: *Encyclopedia of GIS*. Springer, 2017.
- 5 Vandal, Thomas, **Udit Bhatia**, and Auroop R Ganguly. ‘Statistical Downscaling in Climate with State-of-the-Art Scalable Machine Learning’. In: *Large-Scale Machine Learning in the Earth Sciences*. Chapman and Hall/CRC, 2017, pp. 55–72.