Naresh Devineni

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Professional Preparation

Ph.D. Civil Engineering (Water Resources), North Carolina State University, 2010.

M.S. Civil Engineering (Water Resources), North Carolina State University, 2007.

B.E. Civil Engineering, Osmania University (India), 2005.

Employment

The City University of New York (City College), 2013–Present

Associate Professor, Department of Civil Engineering	Sep 2018–Present
Assistant Professor, Department of Civil Engineering	Sep 2013–Aug 2018
Associate Director, Center for Water Resources and Environmental Research	Sep 2015–Aug 2021
Faculty Affiliate, NOAA–CREST Center for Earth System Sciences and Remote Sensing Technologies	Sep 2013–Present
Faculty Affiliate, CUNY CREST Institute	Sep 2013–Present

Columbia University, 2010–2013 | 2019–2020

Adjunct Associate Research Scientist, Columbia Water Center, Earth Institute	Sep 2019–August 2020
Associate Research Scientist, Columbia Water Center, Earth Institute	June 2012–Aug 2013
Adjunct Assistant Professor, Earth and Environmental Engineering	Jan 2012–Aug 2013
Post-Doctoral Research Scientist, Columbia Water Center, Earth Institute	Aug 2010–May 2012

The World Bank, 2009

Consultant, Africa Region Water Resources Unit	Aug 2009–Dec 2009

North Carolina State University, 2005–2010

Research Associate, Civil, Construction and Environmental Engineering	May 2010–July 2010
Research Assistant, Civil, Construction and Environmental Engineering	May 2006–Apr 2010
Teaching Assistant, Civil, Construction and Environmental Engineering	Aug 2007–Apr 2010

MVR Infra Projects Pvt. Ltd, India, 2003

Project Intern	June 2003–July 2003

Scholarly and Professional Honors

Blavatnik Award for Young Scientists nominee from The City College of New York (CUNY) for 2021–2022.

The Grove School of Engineering Dean's Award for Excellence in Research, Teaching, and Service, 2019.

Early CAREER Award, Department of Energy, Office of Science, 2017. 59 awardees are selected from 700 proposals nationwide.

EPA's National Award for Campus Rainwater Challenge, Faculty Advisor for CUNY, 2016. Selected as the First Place Winner in Master Plan Category among 60 student teams from 30 States.

Ralph E. Powe Junior Faculty Award, Oakridge Associated Universities (ORAU) for 2015–2016. 35 applicants are selected among 134 from 115 associated institutions.

Blavatnik Award for Young Scientists nominee from The City College of New York (CUNY) for 2015–2016.

Certificate of Recognition for Outstanding Scholarly Achievements and Contributions, CUNY "Salute to Scholars," 2015.

Certificate of Recognition for Outstanding Scholarly Achievements and Contributions, CUNY "Salute to Scholars," 2014.

Emerging Scholars Award (finalist) for Global Water Forum's discussion papers on global water issues, 2012. 10 finalists are selected from 800 entries globally.

Lorenz Straub Award nominee from North Carolina State University for Ph.D. dissertation, 2010.

Outstanding Student Paper Award under hydrology section, AGU Fall Meeting, San Francisco, California for the presentation based on Master's thesis research. Outstanding student paper awards were awarded for top 5% out of a total of 650 student papers presented in the Hydrology Section, Dec 2007.

FE Certification, North Carolina.

Full Tuition Scholarship with Graduate Research and Teaching Assistantship at North Carolina State University, May 2006–May 2010.

Mentored Teaching Assistantship Award, Awarded by the College of Engineering, NCSU to provide engineering graduate students with an opportunity to gain teaching experience beyond that of a regular teaching assistant, Spring 2009.

Third Place Award in poster presentation for Ph.D. research at the Water Resources and Environmental Engineering Graduate Research Symposium, NCSU, Spring 2008.

Publications

Summary: 58 peer-reviewed journal publications (journal impact factor average = 6.2); 2 book chapters; 11 op-eds/proceedings; 2 databases

Publisher	Journal [Impact Factor]	# Articles
American Geophysical Union (Wiley)	Earth's Future [8.9]	3
	Geophysical Research Letters [5.6]	4
	Journal of Geophysical Research: Atmospheres [4.3]	1
	Water Resources Research [6.2]	8
American Institute of Physics (AIP) Publishing	Chaos - Interdisciplinary Journal of Nonlinear Science [3.7]	1
American Meteorological Society	Journal of Applied Meteorology and Climatology [3.6]	2
	Journal of Climate [5.4]	3
	Journal of Hydrometeorology [4.9]	1
	Monthly Weather Review [3.7]	1
	Nowcast, Bulletin of American Meteorological Society [8.8]	1
American Society for Engineering Education	Papers on Engineering Education Repository [-]	1
	PRISM [-]	1
American Society of Civil Engineers Library	Journal of Water Resources Planning and Management [3.1]	1
	World Environmental and Water Resources Congress [-]	1
Centers for International Projects Trust (CIPT)	CIPT Sandesh [-]	1
Columbia University Water Center	White Papers [-]	5
Elsevier	Advances in Water Resources [5.4]	2
	Computers, Environment and Urban Systems [6.5]	1
	Journal of Hydrology [6.7]	7
	Science of The Total Environment [10.8]	1
	Transport Policy [6.2]	1
European Geosciences Union (Copernicus)	Earth System Dynamics [5.5]	1
	Hydrology and Earth System Sciences [6.6]	3
Institute of Physics (IOP) Publishing	Environmental Research Communications [3.2]	2
	Environmental Research Letters [6.9]	3
International Water Association (IWA) Publishing	International Conference on Hydroinformatics [-]	1
	Water Policy [1.7]	1
Multidisciplinary Digital Publishing Institute (MDPI)	Sustainability [3.9]	1
Springer Nature	Nature Communications [17.7]	2
	Nature partner journal (npj) Climate and Atmosphere [9.4]	1
	Nature Scientific Reports [5.0]	1
	Sustainability of Integrated Water Resources Management [-]	1
Taylor & Francis Online	Water International [3.4]	1
The New York Academy of Sciences	Annals of The New York Academy of Sciences [5.7]	1
The U.S. Department of the Interior (DOI)	Bureau of Reclamation Technical Memorandum [-]	1
UNESCO Transboundary Water Governance	Global Water Forum [-]	1
Wiley Online Library	Hydrologic Processes [3.8]	2
	Risk Analysis [4.3]	1

Peer-Reviewed Journal Publications

*Graduate Students

58. Agonafir, C*., Lakhankar, T., Khanbilvardi, R., Krakauer, N., Radell, D., & Devineni, N. (2022). A machine learning approach to evaluate the spatial variability of New York City's 311 street flooding complaints. *Computers, Environment and Urban Systems*, 97, 101854. https://doi.org/10.1016/j.compenvurbsys.2022.101854

57. Ruhi, A., Hwang, J*., Devineni, N., Sudarshana, M., Kumar, H*., Comte, L., Worland, S., & Sankarasubramanian, A. (2022). How does flow alteration propagate across a large, highly regulated basin? Dam attributes, network context, and implications for biodiversity. *Earth's Future*, 10, e2021EF002490. https://doi.org/10.1029/2021EF002490

56. Devineni, N., Perveen, S., & Lall, U. (2022). Solving groundwater depletion in India while achieving food security. *Nature Communications*, 13, 3374.
https://doi.org/10.1038/s41467-022-31122-9

55. Dyreson, A., Devineni, N., Turner, S. W. D., De Silva M, T., Miara, A., Voisin, N., S. Cohen, S., & Macknick, J. (2022). The role of regional connections in planning for future power system operations under climate extremes. *Earth's Future*, 10, e2021EF002554.
https://doi.org/10.1029/2021EF002554

54. Nouri, N*., & Devineni, N. (2022). Examining the changes in the spatial manifestation and the rate of arrival of large tornado outbreaks. *Environmental Research Communications*, 4(2022), 021001.
https://doi.org/10.1088/2515-7620/ac50c1

53. Hwang, J*., & Devineni, N. (2022). An improved Zhang's dynamic water balance model using Budyko-based snow representation for better streamflow predictions. *Water Resources Research*, 58, e2021WR030203.
https://doi.org/10.1029/2021WR030203

52. Kumar, H*., Hwang, J*., Devineni, N., & Sankarasubramanian, A. (2022). Dynamic flow alteration index for complex river networks with cascading reservoir systems. *Water Resources Research*, 58, e2021WR030491.
https://doi.org/10.1029/2021WR030491

51. Agonafir, C*., Pabon, A. R*., Lakhankar, T., Khanbilvardi, R., & Devineni, N. (2021). Understanding New York City Street Flooding through 311 Complaints. *Journal of Hydrology*, 605, 127300.
https://doi.org/10.1016/j.jhydrol.2021.127300

50. Hwang, J*., Kumar, H*., Ruhi, A., Sankarasubramanian, A., & Devineni, N. (2021). Quantifying dam-induced fluctuations in streamflow frequencies across the Colorado River Basin. *Water Resources Research*, 57, e2021WR029753.
https://doi.org/10.1029/2021WR029753

49. Herrera Estrella, E*., Stoeth, A., Krakauer, N. Y., & Devineni, N. (2021). Quantifying vegetation response to environmental changes on the Galapagos Islands, Ecuador using the Normalized Difference Vegetation Index (NDVI). *Environmental Research Communications*, 3(6), 065003.
https://doi.org/10.1088/2515-7620/ac0bd1

48. Nouri, N*., Devineni, N., Were, V., & Khanbilvardi, R. (2021). Explaining the trends and variability in the United States tornado records using climate teleconnections and shifts in observational practices. *Nature Scientific Reports*, 11, 1741.
https://doi.org/10.1038/s41598-021-81143-5

47. Najibi, N*., Mazor, A*., Devineni, N., Mossel, C*., & Booth, J. (2020). Understanding the spatial organization of simultaneous heavy precipitation events over the conterminous United States. *Journal of Geophysical Research: Atmospheres*, 125, e2020JD033036.
https://doi.org/10.1029/2020JD033036

46. Rising. J., & Devineni, N. (2020). Crop switching reduces agricultural losses from climate change in the United States by half under RCP 8.5. *Nature Communications*, 11, 4991.
https://doi.org/10.1038/s41467-020-18725-w

45. Armal, S*., Devineni, N., Krakauer, N.Y., & Khanbilvardi, R. (2020). Simulating precipitation in the Northeast United States using a climate-informed K-nearest neighbour algorithm. *Hydrological Processes*, 1 - 15.
https://doi.org/10.1002/hyp.13853

44. Su, Z*., Sun, X., Devineni, N., Lall, U., Hao, Z., & Chen, X. (2020). The effects of pre-season high flows, climate, and the Three Gorges Dam on low flow at the Three Gorges Region, China. *Hydrological Processes*, 1 - 13.
https://doi.org/10.1002/hyp.13714

43. Ravindranath, A*., & Devineni, N. (2020). Quantifying streamflow regime behavior and its sensitivity to demand. *Journal of Hydrology*, 582, 124423.
https://doi.org/10.1016/j.jhydrol.2019.124423

42. Zhu, W., Jia, S., Devineni, N., Lv, A., & Lall, U. (2019). Evaluating China's water security for food production: The role of rainfall and irrigation. *Geophysical Research Letters*, 46 (20), 11155 - 11166.
https://doi.org/10.1029/2019GL083226

41. Ravindranath, A*., Devineni, N., Lall, U., Cook, E. R., Pederson, G., Martin, J., & Woodhouse, C. (2019). Streamflow reconstruction in the upper Missouri River basin using a novel Bayesian network model. *Water Resources Research*, 55 (9), 7694 - 7716.
https://doi.org/10.1029/2019WR024901

40. Najibi, N*., Devineni, N., Lu, M., & Perdigao, R. A. (2019). Coupled flow accumulation and atmospheric blocking govern flood duration. *Nature partner journal (npj) Climate and Atmosphere*, 2, 19.
https://doi.org/10.1038/s41612-019-0076-6

39. Zhu, X*., Troy, T., & Devineni, N. (2019). Stochastically modeling the projected impacts of climate change on rainfed and irrigated US crop yields. *Environmental Research Letters*, 14 (7), 074021.
https://doi.org/10.1088/1748-9326/ab25a1

38. Gonzalez, J. E., Ortiz, L., Smith, B. K., Devineni, N., Colle, B., Booth, J. F., Ravindranath, A*., Rivera, L*., Horton, R., Towey, K., Kushnir, Y., Manley, D., Bader, D., & Rosenzweig, C. (2019), New York City panel on climate change 2019 report Chapter 2: New methods for assessing extreme temperatures, heavy downpours, and drought. *Annals of the New York Academy of Sciences*, 1446(1), 172 - 172.
https://doi.org/10.1111/nyas.14007

37. Najafabadi, S*., Hamidi, A*., Allahviranloo, M., & Devineni, N. (2019). Does demand for subway ridership in Manhattan depend on the rainfall events? *Transport Policy*, 74, 201 - 213.
https://doi.org/10.1016/j.tranpol.2018.11.019

36. Kim, S., Devineni, N., Lall, U., & Kim, H. S. (2018). Sustainable development of water resources: Spatio-temporal analysis of water stress in South Korea. *Sustainability*, 10, 3795, 1 - 17.
https://doi.org/10.3390/su10103795

35. Ravindranath, A*., Devineni, N., Lall, U., & Larrauri, P. C. (2018). Season-ahead forecasting of water storage and irrigation requirements–an application to the southwest monsoon in India. *Hydrology and Earth System Sciences*, 22, 5125 - 5141.
https://doi.org/10.5194/hess-22-5125-2018

34. Rao, M. P*., Cook, E. R., Cook, B. I., Palmer, J. G., Uriarte, M., Devineni, N., Lall, U., D'Arrigo, R. D., Woodhouse, C, A., Ahmed, M., Zafar, M. U., Khan, N., Khan, A., & Wahab, M. (2018). Six centuries of Upper Indus Basin streamflow variability and its climatic drivers. *Water Resources Research*, 54, 5687 - 5701.
https://doi.org/10.1029/2018WR023080

33. Najibi, N*., & Devineni, N. (2018). Recent trends in the frequency and duration of global floods. *Earth System Dynamics*, 9, 757 - 783.
https://doi.org/10.5194/esd-9-757-2018

32. Najafi, E*., Devineni, N., Khanbilvardi, R. M., & Kogan, F. (2018). Understanding the changes in global crop yields through changes in climate and technology. *Earth's Future*, 6, 410 - 427. https://doi.org/10.1002/2017EF000690

31. Peterson, T*., Devineni, N., & Sankarasubramanian, A. (2018). Monthly hydroclimatology of the continental United States. *Advances in Water Resources*, 114, 180 - 195. https://doi.org/10.1016/j.advwatres.2018.02.010

30. Vollmer, D., Shaad, K., Souter, N. J., Farrell, T., Dudgeon, D., Sullivan, C. A., Fauconnier, I., MacDonald, G. M., McCartney, M. P., Power, A. G., McNally, A., Andelman, S. J., Capon, T., Devineni, N., Apirumanekul, C., Ng, C. N., Shaw, M. R., Wang, R. Y., Lai, C., Wang, Z., & Regan, H. M. (2018). Integrating the social, hydrological and ecological dimensions of freshwater health: The Freshwater Health Index. *Science of The Total Environment*, 627, 304 - 313. https://doi.org/10.1016/j.scitotenv.2018.01.040

29. Vatta, K., Sidhu, R. S., Lall, U., Birthal, P. S., Taneja, G., Kaur, B., Devineni, N., & MacAlister, C. (2018). Assessing the economic impact of a lowcost water-saving irrigation technology in Indian Punjab: the tensiometer. *Water International*, 43(2), 305 - 321. https://doi.org/10.1080/02508060.2017.1416443

28. Armal, S*., Devineni, N., & Khanbilvardi, R. (2018). Trends in extreme rainfall frequency in the contiguous United States: Attribution to climate change and climate variability modes. *Journal of Climate*, 31, 369 - 385. https://doi.org/10.1175/JCLI-D-17-0106.1

27. Afshari, S*., Fekete, B. M., Dingman, L. S., Devineni, N., Bjerklie, D. M., & Khanbilvardi, R. (2017). Statistical filtering of river survey and streamflow data for improving at-a-station hydraulic geometry relations. *Journal of Hydrology*, 547, 443 - 454. https://doi.org/10.1016/j.jhydrol.2017.01.038

26. Hamidi, A*., Devineni, N., Booth, J., Hosten, A., Ferraro, R., & Khanbilvardi, R. (2017). Classifying urban rainfall extremes using weather radar data: An application to the Greater New York Area. *Journal of Hydrometeorology*, 18, 611 - 623. https://doi.org/10.1175/JHM-D-16-0193.1

25. Ho, M., Lall, U., Allaire, M., Devineni, N., Kwon, H. H., Pal, I., Raff, D., & Wegner, D. (2017). The future role of dams in the United States of America. *Water Resources Research*, 53, 982 - 998. https://doi.org/10.1002/2016WR019905

24. Najibi, N*., Devineni, N., & Lu, M. (2017). Hydroclimate drivers and atmospheric teleconnections of long duration floods: An application to large reservoirs in the Missouri River Basin. *Advances in Water Resources*, 100, 153 - 167. https://doi.org/10.1016/j.advwatres.2016.12.004

23. Ravindranath, A*., Devineni, N., & Kolesar, P. (2016). An environmental perspective on the water management policies of the Upper Delaware River Basin. *Water Policy*, 18(6), 1399 - 1419. https://doi.org/10.2166/wp.2016.166

22. Lima, C. H. R., Lall, U., Troy, T., & Devineni, N. (2016). A hierarchical Bayesian GEV model for improving local and regional flood quantile estimates. *Journal of Hydrology*, 541, 816 - 823. https://doi.org/10.1016/j.jhydrol.2016.07.042

21. Ho, M., Parthasarathy, V*., Etienne, E*., Russo, T. A., Devineni, N., & Lall, U. (2016). America's water: Agricultural water demands and the response of groundwater. *Geophysical Research Letters*, 43(14), 7546 - 7555. https://doi.org/10.1002/2016GL069797

20. Etienne, E*., Devineni, N., Khanbilvardi, R., & Lall, U. (2016). Development of a demand sensitive drought index and its application for agriculture over the conterminous United States. *Journal of Hydrology*, 534, 219 - 229.
https://doi.org/10.1016/j.jhydrol.2015.12.060

19. Fishman, R., Devineni, N., & Raman, S. (2015). Can improved agricultural water use efficiency save India's groundwater? *Environmental Research Letters*, 10(8), 084022.
https://doi.org/10.1088/1748-9326/10/8/084022

18. Lall, U., Devineni, N., & Kaheil, Y. (2015). An empirical, nonparametric simulator for multivariate random variables with differing marginal densities and nonlinear dependence with hydroclimatic applications. *Risk Analysis*, 36, 57 - 73.
https://doi.org/10.1111/risa.12432

17. Devineni, N., Lall, U., Xi, C*., & Ward, P. (2015). Scaling of extreme rainfall areas at a planetary scale. *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 25(7), 075407.
https://doi.org/10.1063/1.4921719

16. Devineni, N., Lall, U., Etienne, E*., Shi, D*., & Xi, C*. (2015). America's water risk: Current demand and climate variability. *Geophysical Research Letters*, 42, 2285 - 2293.
https://doi.org/10.1002/2015GL063487

15. Lima, C. H. R., Lall, U., Troy, T. J., & Devineni, N. (2015). A climate informed model for nonstationary flood risk prediction: Application to Negro River at Manaus, Amazonia. *Journal of Hydrology*, 522, 594 - 602.
https://doi.org/10.1016/j.jhydrol.2015.01.009

14. Krakauer, N. Y., & Devineni, N. (2015). Up-to-date probabilistic temperature climatologies. *Environmental Research Letters*, 10(2), 024014.
https://doi.org/10.1088/1748-9326/10/2/024014

13. Chen, X*., Devineni, N., Lall, U., Hao, Z., Dong, L., Ju, Q., Wang, J., Wang, S. (2014). China's water sustainability in the 21st century: A climate-informed water risk assessment covering multi-sector water demands. *Hydrology and Earth System Sciences*, 18(5), 1653 - 1662.
http://doi.org/10.5194/hess-18-1653-2014

12. Chen, X*., Hao, Z., Devineni, N., & Lall, U. (2014). Climate information based streamflow and rainfall forecasts for Huai River basin using hierarchical Bayesian modeling. *Hydrology and Earth System Sciences*, 18(4), 1539 - 1548.
http://doi.org/10.5194/hess-18-1539-2014

11. Oludhe, C., Sankarasubramanian, A., Sinha, T., Devineni, N., & Lall, U. (2013). The role of multimodel climate forecasts in improving water and energy management over the Tana River Basin, Kenya. *Journal of Applied Meteorology and Climatology*, 52(11), 2460 - 2475.
http://doi.org/10.1175/JAMC-D-12-0300.1

10. Devineni, N., Lall, U., Pederson, N., & Cook, E. (2013). A tree-ring-based reconstruction of Delaware River Basin streamflow using hierarchical Bayesian regression. *Journal of Climate*, 26(12), 4357 - 4374.
http://doi.org/10.1175/JCLI-D-11-00675.1

9. Devineni, N., Perveen, S., & Lall, U. (2013). Assessing chronic and climate-induced water risk through spatially distributed cumulative deficit measures: A new picture of water sustainability in India. *Water Resources Research*, 49(4), 2135 - 2145.
http://doi.org/10.1002/wrcr.20184

8. Pederson, N., Bell, A. R., Cook, E. R., Lall, U., Devineni, N., Seager, R., & Vranes, K. P. (2013). Is an epic pluvial masking the water insecurity of the Greater New York City Region? *Journal of Climate*, 26(4), 1339 - 1354.
http://doi.org/10.1175/JCLI-D-11-00723.1

7. Petersen, T*., Devineni, N., & Sankarasubramanian, A. (2012). Seasonality of monthly runoff over the continental United States: Causality and relations to mean annual and mean monthly distributions of moisture and energy. *Journal of Hydrology*, 468-469, 139 - 150.
https://doi.org/10.1016/j.jhydrol.2012.08.028

6. Devineni, N., & Sankarasubramanian, A. (2010). Improving U.S. winter forecasts using multimodel combinations and ENSO. *Nowcast, Bulletin of American Meteorological Society*, 91, 1343 - 1356.
https://doi.org/10.1175/1520-0477-91.10.1343

5. Devineni, N., & Sankarasubramanian, A. (2010). Improved categorical winter precipitation forecasts through multimodel combinations of coupled GCMs. *Geophysical Research Letters*, 37(24).
https://doi.org/10.1029/2010GL044989

4. Devineni, N., & Sankarasubramanian, A. (2010). Improving the prediction of winter precipitation and temperature over the continental United States: Role of the ENSO state in developing multimodel combinations. *Monthly Weather Review*, 138(6), 2447 - 2468.
https://doi.org/10.1175/2009MWR3112.1

3. Golembesky, K., Sankarasubramanian, A., & Devineni, N. (2009). Improved drought management of Falls Lake reservoir: Role of multimodel streamflow forecasts in setting up restrictions. *Journal of Water Resources Planning and Management*, 135(3), 188 - 197.
https://doi.org/10.1061/(ASCE)0733-9496(2009)135:3(188)

2. Sankarasubramanian, A., Lall, U., Devineni, N., & Espinueva, S. (2009). The role of monthly updated climate forecasts in improving intraseasonal water allocation. *Journal of Applied Meteorology and Climatology*, 48(7), 1464 - 1482.
https://doi.org/10.1175/2009JAMC2122.1

1. Devineni, N., Sankarasubramanian, A, & Ghosh, S. (2008). Multimodel ensembles of streamflow forecasts: Role of predictor state in developing optimal combinations. *Water Resources Research*, 44(9), W09404.
https://doi.org/10.1029/2006WR005855

Books and Book Chapters

2. Devineni, N., & Lall, U. (2021). Storage-Deficit Ratios and Risk Analysis. Chapter 5 of the Technical Memorandum No. ENV-2021-001 on *West-Wide Climate and Hydrology Assessment*: Bureau of Reclamation, U.S. Department of Interior.
https://www.usbr.gov/climate/secure/docs/2021secure/westwidesecurereport.pdf

1. Russo, T. A., Devineni, N., & Lall, U. (2015). Assessment of agricultural water management in Punjab, India, using Bayesian methods. *Sustainability of Integrated Water Resources Management: Water Governance, Climate and Ecohydrology*: Springer.
https://doi.org/10.1007/978-3-319-12194-9_9

Published Datasets and Software

2. Contribution to water stress index as part of the sustainable development metrics of the US sustainable development goals project that reports on how states in the US do on the United Nations'

Sustainable Development Goals, 2018.
https://www.sustainabledevelopment.report/reports/sustainable-development-report-of-the-united-states-2018/

1. Contribution to water stress indices (Normalized Deficit Index (NDI) and Normalized Deficit Cumulated (NDC)) for India Water Tool Version 2 (IWT 2.0) developed by the World Business Council for Sustainable Development (WBCSD) for companies and users to understand their water risks and prioritize actions toward sustainable water management, 2015.
http://www.indiawatertool.in

Op-eds, Proceedings and White Papers

11. Design of novel courses to bridge knowledge gaps in engineering and reduce attrition and graduation delays. Proceedings in *ASEE Middle Atlantic Section Fall Meeting*, November 2021.
https://strategy.asee.org/design-of-novel-courses-to-bridge-knowledge-gaps-in-engineering-and-reduce-attrition-and-graduation-delays

10. Climate informed global flood risk assessment. White Paper with *Columbia Water Center*, December 2013, updated March 2021.
https://water.columbia.edu/sites/default/files/content/publications/Columbia_Global_Flood_White_Paper.pdf

9. Nary a drop to drink? Article with Rosemarie Wesson in Discovery magazine, *American Society for Engineering Education*, March 2017.
http://www.asee-prism.org/discovery-mar-apr-2/

8. India's water: A reflection of a nation's soul? Op-ed with Upmanu Lall in Center for International Projects Trust (CIPT) *Sandesh*, Issue 3, September 2014.
http://www.water.columbia.edu/files/2014/12/CIPT-Sandesh-3.pdf

7. Delaware reservoir's drought risk assessment, a paleo view, Proceedings in *11th International Hydroinformatics Conference*, August 2014.
https://academicworks.cuny.edu/cc_conf_hic/340/

6. Towards hedging climate risk in corporate value chains. White Paper with *Columbia Water Center and PepsiCo*, April 2013.
https://water.columbia.edu/sites/default/files/content/publications/Toward-Hedging-Climate-Risk-in-Corporate-Value-Chains.pdf

5. Americas water risk: water stress and climate variability, White Paper with *Columbia Water Center and Growing Blue*, February 2013.
https://www.researchgate.net/publication/358397711_Columbia_Water_Center_White_Paper_America's_Water_Risk_Water_Stress_and_Climate_Variability

4. Securing the future of India's "water, energy and food." Global Water Forum Discussion Series 1240, *Global Water Forum, UNESCO*, October 2012.
http://www.globalwaterforum.org/2012/10/08/securing-the-future-of-indias-water-energy-and-food/

3. Climate variability and water stress in India. How much storage in needed and where? White Paper with *Columbia Water Center*, December 2011.
https://www.researchgate.net/publication/358397790_Columbia_Water_Center_White_Paper_-_Climate_Variability_and_Water_Stress_in_India_How_Much_Storage_is_Needed_and_Where

2. Shifting crops, saving water. White Paper with *Columbia Water Center*, December 2011.
`https://www.researchgate.net/publication/358398116_Columbia_Water_Center_White_Paper_-_Shifting_Crops_Saving_Water`

1. Climatology of monthly runoff: Causality and relations to seasonality in precipitation and temperature. Proceedings in *ASCE's World Environmental and Water Resources Congress*, May 2010.
`https://doi.org/10.1061/41114(371)457`

Grants Awarded

Summary: $2,480,780 as PI or co-PI

18. Understanding climate and extreme weather events in the Greater New York Area, **Department of Energy (DOE), Office of Science, Biological and Environmental Research Program, Research Development and Partnership Pilot (RDPP) Award # TBD, $149,949**, August 15, 2022–May 14, 2024.
PI: Devineni, N. Co-PI: Booth, J.F.

17. A Framework for improving analysis and modeling of earth system and intersectoral dynamics at regional scales, **Department of Energy (DOE), Office of Science, Biological and Environmental Research Program, HyperFACETS-V3 Consortium Award # TBD, $592,840**, September 15, 2022–September 14, 2025.
Consortium's Institutional PI and Northeast Storyline Lead: Devineni, N.

16. Multi-scale modeling of extreme events and impact information, **Department of Energy (DOE), Office of Science, Biological and Environmental Research Program, Early CAREER Award # DE-SC0018124, $762,097**, September 15, 2017–September 14, 2022.
PI: Devineni, N.

15. A data-driven tool to understand water stress in the United States, **Microsoft AI for Earth Grant, $15,000**, May 01, 2019–April 30, 2020.
PI: Devineni, N. Co-PI: Etemadpour, R.

14. iWStress: An intelligent platform for understanding water stress in the United States, **City College Initiative to Promote Academic Success in STEM (CIPASS), $15,000**, June 10, 2019–August 2, 2019.
PI: Devineni, N. Co-PI: Etemadpour, R.

13. WSC-Category 3 Collaborative: America's water–The changing landscape of risk, competing demand and climate, **NSF Water Sustainability and Climate Program Award # 1360446, $182,293**, September 1, 2014–August 31, 2018.
PI: Lall, U. Co-PI: Devineni, N.

12. CASTOR Campus rainwater design, **Environmental Protection Agency, $3000**, September 1, 2017–August 31, 2018.
PI: Devineni, N.

11. A novel climate impacts tool for managing risks in water utilities, **Professional Staff Congress of The City University of New York (PSC-CUNY), $5,999**, July 1, 2016–December 31, 2017.
PI: Devineni, N.

10. Collaborative Research: P2C2–Multisite paleo-reconstruction of Missouri River streamflows from tree ring data, **NSF Paleoclimate Program Award # 1401698, $117,120**, July 1, 2014–June 30, 2017.
PI: Devineni, N.

9. Water sustainability, drought risk and food security in the 21st century–A systematic assessment of climate and completing demands using in-situ and satellite data, **NOAA/CICS-University of Maryland, $69,139**, January 1, 2015–December 31, 2016.
   PI: Devineni, N.

8. The utility of radars for hydrologic design in a changing climate: An application for the New York City's storm sewer system, **Professional Staff Congress of The City University of New York (PSC-CUNY), $5,999**, July 1, 2015–December 31, 2016.
   PI: Devineni, N.

7. An agent-based disaster response inference model for assessment of transportation risk under extreme rainfall events, **University Transportation Research Center-UTRC Region 2 Award # 49198-25-27, $80,000**, June 1, 2015–August 31, 2016.
   PI: Devineni, N. Co-PI: Allahviranloo, M.

6. Integrating radars, rain gauges and climate for non-stationary hydrologic risk assessment and infrastructure design, **Ralph E. Powe Junior Faculty Enhancement Award, Oakridge Associate Universities (ORAU), $10,000**, July 1, 2015–June 30, 2016.
   PI: Devineni, N.

5. Analyzing storm hazards and vulnerabilities to critical infrastructures in New York State, **New York State-Resiliency Institute for Storms and Emergencies/New York University, $20,079**, January 1, 2015–December 31, 2015.
   PI: Devineni, N. Co-PI: Khanbilvardi, R.

4. Development of demand sensitive drought index and integrating seasonal forecasting for climate adaptation and water risk management in the Northeast United States, **Professional Staff Congress of The City University of New York (PSC-CUNY), $11,198**, July 1, 2014–December 31, 2015.
   PI: Devineni, N.

3. New York's water sustainability and drought risk in the 21st century–A systematic assessment of climate, competing demands, institutional constraints and economic impacts, **City University of New York–Collaborative Incentive Research Grant, $29,970**, September 30, 2014–October 07, 2015.
   PI: Devineni, N.

2. A water management knowledge network for the urban northeast, **NOAA, $79,658**, January 01, 2013–December 31, 2014.
   PI: Lall, U. Co-PI: Devineni, N.

1. Climate informed global flood risk assessment and updates, **AIG, $331,439**, September 01, 2012–August 31, 2013.
   PI: Lall, U. Co-PIs: Devineni, N. & Troy, T.

Teaching Experience

Graduate: Advanced Data Analysis[2], Water and Environmental Resources Systems Analysis[2], Management and Development of Water Systems[1]

Undergraduate: Civil Engineering Decision and Systems Analysis[2], Civil Engineering Data Analysis[2]

High School: Data Science Boot Camp[2]

OpenCourseWare: `http://www.dataanalysisclassroom.com`

[1]Columbia University, [2]The City University of New York (City College)

Advanced Data Analysis (CE-H1100) (Spring 2017, Fall 2018): This course introduces exploratory data analysis, analysis and modeling of engineering data that includes detecting trends, seasonality and distributional properties, recognizing spatio-temporal variability in data, dependence measures, building generalized linear/non-linear cross-validated predictive and hierarchical Bayesian models.

Water and Environmental Resources Systems Analysis (CE-H6100) (Spring 2016, Spring 2018, Fall 2019): This course includes modules on integrated water management and water systems analysis including water supply/demand imbalances, the modeling and design of regulatory systems for water allocation and tools for conservation incentives, and a multi-scale view of operation and planning from weekly to seasonal to decadal planning for multiple, competing objectives.

Management and Development of Water Systems (W4100) (Spring 2012, Spring 2013): This class provides a structured introduction to the integrated analysis of physical and institutional systems for water management and development. Multiple scales and settings, from developing country villages to a US city water supply to regional watershed restoration to national planning are considered. The emerging global water crises driven by rapid population growth and its relation to agricultural water use are discussed. Novel topics include the consideration of climate variability in developing system operating rules and infrastructure planning.

Civil Engineering Decision and Systems Analysis (CE-31600) (Fall 2015, Fall 2016, Fall 2017, Fall 2018, Fall 2019, Fall 2020, Fall 2021): This class provides fundamentals of engineering economic analysis and project evaluation, and the general standard principles of systems analysis and optimization. It also provides the fundamentals of mathematical modeling to formulate typical CE design and decision problems.

Civil Engineering Data Analysis (CE-26400) (Fall 2013, Spring 2014, Fall 2014, Spring 2015, Fall 2015, Spring 2016, Spring 2017, Spring 2018, Spring 2019, Fall 2019, Fall 2021): This class provides an introduction to applied probability and statistics to develop capacity to analyze and model key data frequently encountered in civil engineering. Key techniques, their underlying ideas and applicability for solving civil engineering problems are considered. The special CE projects expose students to real world civil engineering data analysis problems. Thematic computer programing modules are a unique feature in this class.

High School Data Science Boot Camp with CUNY CREST Institute (Summer 2016, Summer 2017, Summer 2018, Summer 2019): CREST Institute has created a High School Initiative in Remote Sensing of Earth Systems Science and Engineering (HIRES) program in partnership with American Museum of Natural History and funded by the Pinkerton Foundation to create an exemplary science and engineering mentoring program for High school students from under-represented minority communities and prepare them for college in STEM fields. Every summer, I conduct boot camp training for HIRES students with engaging modules on data science.

OpenCourseWare–DataAnalysisClassroom.com (Blog on Data Science): I am the creator of the data science blog `http://www.dataanalysisclassroom.com` where people of all backgrounds and ages can learn data analysis, probability and statistics in a fun and intuitive way without the technical lingo.

Student evaluations from Course and Teachers survey are summarized in the table below. Full evaluation reports are available upon request.

Teaching Evaluations Summary Table

Percent students who gave a score of 4 and 5 (agree and strongly agree) averaged over all available Course and Teacher surveys. The standard deviation is shown in parenthesis.

[Scale: 1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree]

Course	The instructor presented the course material clearly	The instructor was available outside of class, during office hours, by e-mail, phone, or other means	The instructor paid attention to whether students understood the material	This course stimulated my interest in the subject matter	What I learned from the course was worth the time and effort I put into it	I learned from this instructor much more than expected	Compared to other instructors I have had at CCNY, this instructor is better than average or best
CE 26400 Civil Engineering Data Analysis (FA21, FA19, SP19, SP18, SP17, SP16, SP15, FA14, SP14, FA13)	85% (10)	93% (8)	85% (10)	65% (15)	77% (10)	63% (10)	76% (10)
CE 31600 Civil Engineering Decision and Systems Analysis (FA21, FA20, FA19, FA18, FA17, FA16, FA15)	93% (10)	94% (11)	86% (11)	82% (15)	83% (11)	76% (11)	82% (11)
CE H6100 Water and Environmental Resources Systems Analysis (Graduate) (FA19, SP18, SP16)	97% (6)	97% (6)	93% (6)	97% (6)	95% (6)	95% (6)	98% (6)
CE H1100 Advanced Data Analysis (Graduate) (SP17, FA18)	94%	89%	89%	83%	89%	78%	89%

Advising

Summary: 7 Ph.D. students; 8 M.S. students; 12 B.S. students; 4 High School students

Doctoral Students

7. **Equisha Glenn** (2020–2021)
   Dissertation: On a new framework for detecting, classifying, and forecasting floods for large-scale flood risk analysis

   Current Position: Senior Consultant at Guidehouse

6. **Jeongwoo Hwang** (2017–2021)
   Dissertation: Understanding the effect of climate and hydrometeorological extremes on natural and human-induced hydrosystems

   Current Position: Postdoctoral Research Scientist at Columbia University

5. **Niloufar Nouri** (2018–2020)
   Dissertation: Using machine learning approaches to understand trends and variability of tornadoes across the continental United States

   Current Position: Data Scientist at the The New York Metropolitan Transportation Council (NYMTC)

4. **Arun Ravindranath** (2014–2019)
   Dissertation: A dynamic risk management framework for water and environmental sustainability
   Current Position: Remote Sensing Scientist at Global Science and Technology Inc.

3. **Nasser Najibi** (2015–2019)
   Dissertation: Hydroclimate drivers and atmospheric dynamics of floods
   Current Position: Postdoctoral Research Associate at Cornell University

2. **Elius Etienne** (2013–2017)
   Dissertation: Development of a demand sensitive drought index and its forecasting for climate adaptation and water management over the continental United States
   Current Position: Applied Research Scientist and Water Resources Engineer at Gedeon GRC Consulting

1. **Chen Xi** (2012–2013; visiting student from Hohai University)
   Dissertation: Water stress assessment and regional water regime prediction for China
   Current Position: Senior Engineer at BOH, Chang Jiang Water Resources Commission

Masters Students

8. **Ololade Alonge** (2021-present)
   Thesis: TBD

7. **Siena Dante** (2019-2022)
   Thesis: Crop water deficits and their season-ahead climate determinants across the United States

6. **Carolien Mossel** (2019-2021)
   Thesis: Analysis of uncertainty in hydro-meteorological ensemble forecasts

5. **Philip Armstrong** (2018)
   Project: Developing seasonal streamflow forecasts for New York City's water supply system

4. **Omar Hammad** (2016-2017)
   Thesis: The political water web of the United States

3. **Bhavya Reddy** (2016)
   Project: Effect of impervious surface areas on flood risk in Westchester county, NY

2. **Julio Vidal** (2015-2016)
   Thesis: Climate-informed predictive model for extreme precipitation in Puerto Rico

1. **Ge Pu** (2014-2015; Drexel University)
   Thesis: Developing a modeling framework for non-stationary urban hydraulic analyses

Undergraduate Students

12. **Caroline Schwab** (2019-present)
    Research: Analysis of agricultural droughts in the United States

11. **Peter Metias** (2020-2022)
    Research: Deriving climate change load factors for scour-related bridge design

10. **Michael Vera** (2019-2021)
    Research: Analysis of the non-stationarity in extreme winds and natural hazards

9. **Viktoria Molodecka** (2019-2021)
   Research: Analysis of the non-stationarity in floods and its role in bridge design

8. **Aye Phyu** (2018-2020)
   Research: Spatial analysis of rainfall extremes

7. **Ariel Mazor** (2018-2019)
   Research: Multi-scale modeling of rainfall extremes

6. **Abraham Rubel** (2018-2019)
   Research: Drought analysis for the USA

5. **Cesar Hincapie** (2018-2019)
   Research: Urban rainfall risk analysis

4. **Lawrence Vulis** (2016-2017)
   Research: Snow depth analysis for high elevation basins

3. **Lea Rivera** (2016-2017)
   Research: Paleo-reconstruction and drought risk assessment for the Delaware water system

2. **Omar Hammad** (2014-2016)
   Research: Flood models for the NYC water supply system

1. **Mahi Kohinoor** (2014-2016)
   Research: Multivariate flood risk assessment for dams in the NE USA

High School Students

4. **Advith Sharma** (2021-present)
   Hackley School in Tarrytown, NY
   Summer Project: Analysis of water demand and water stress in the USA

3. **Matthew Lipton** (2020-present)
   Ethical Culture Fieldston School
   Summer Project: Analysis of historical changes in agriculture in the USA

2. **Sadie Karp** (2019-2021)
   Bronx High School of Science
   Summer Project: Analysis of global floods

1. **Peter Giannaris** (2016-2017)
   John F. Kennedy High School (Bellmore, New York)
   Summer Project: Demand-based drought for the NE USA

Panels and Invited Talks

Summary: 41 talks as an invited speaker or a panelist at academic and non-academic public events

41. **Panel Speaker at U.S. Climate Modeling Summit Topical Workshop on Water Cycle and Water Security**: The role of big data analytics in securing the future of water, energy and food, Hybrid Meeting, August 2022.

40. **Panel Speaker at New York City Panel on Climate Change (NPCC) Climate Science and Projections Workshop**: Understanding extreme rainfall in New York City: Temporal trends and spatial concordance - implications for stormwater management, Virtual Meeting, June 2022.

39. **Panel Speaker at DOE's Integrated Mountainous HydroClimate Workshop**: An improved Zhang's dynamic water balance model using Budyko-based snow representation for better streamflow predictions: A hybrid physically-based and Bayesian approach , Virtual Meeting, November 2021.

38. **Dewberry's Resilience Senior Technical Leaders Focus Group**: Climate induced hazards: prospects for modeling multi-attribute and portfolio risk, Virtual Meeting, August 2021.

37. **DOE RGCM Climate Extremes Teleconference**: Quantifying dam-induced fluctuations in streamflow frequencies across the Colorado River Basin, Virtual Meeting, August 2021.

36. **The Hong Kong University of Science and Technology's 1st Climate and Water Forum**: Innovations in tree-ring-based streamflow reconstructions and their applications for reservoir risk analysis, Virtual Meeting, May 2021.

35. **UMaine Artificial Intelligence Webinar Series - AI for Agriculture**: The role of big data analytics in securing the future of water, energy and food, Virtual Meeting, April 2021.

34. **HyperFACETS Monthly Meeting**: Hydrometeorological extremes: quantification, climate connections, and prediction for risk management, Virtual Meeting, March 2021.

33. **DOE's Earth and Environmental Systems Sciences Division Early CAREER PIs' Presentation**: Multi-scale modeling of extreme events and impact information, Virtual Meeting, February 2021.

32. **DOE Annual PI Meeting**: Quantifying the Coherence of Deficit (droughts) and Excess, Virtual Meeting, October 2020.

31. **Panel Speaker at Vaibhav India Summit**: Solving Groundwater Depletion in India while achieving Food Security, New York, NY, October 2020.

30. **DOE RGCM Climate Extremes Teleconference**: A statistical learning approach to understand tornado records in the USA, New York, NY, September 2020.

29. **Stony Brook University Seminar Series - Topics in Atmospheric and Oceanic Sciences**: Climate induced hazards: Prospects for modeling multi-attribute and portfolio risk, Stony Brook, NY, November 2019.

28. **DOE RGCM Climate Extremes Teleconference**: The scaling of floods with geomorphologic characteristics and precipitation variability, New York, NY, August 2019.

27. **DOE RGCM Climate Extremes Teleconference**: Understanding the spatial organization of precipitation extremes, New York, NY, December 2018.

26. **DOE Annual PI Meeting**: Multi-scale modeling of extreme events and impact information, Washington DC, November 2018.

25. **DOE RGCM Climate Extremes Teleconference**: Hydrometeorological extremes: Quantification and earth system controls, New York, NY, May 2018.

24. **Cornell Seminar Series**: Hydrometeorological extremes: Quantification, climate connections, and prediction for water risk management, Ithaca, NY, April 2018.

23. **America's Water Event @ Columbia University**: Relating climate, water stress and crop yields, New York, NY, March 2018.

22. **Brookhaven National Labs Seminar**: Understanding the structure and dynamics of long-duration floods using physics informed Bayesian multilevel models, Upton, NY, January 2018.

21. **AGU Public Administration session on America's Water**: America's water in the 20th century: Measures to address climate induced risk, New Orleans, LA, December 2017.

20. **NYC Water Supply Operations Seminar Series**: Dynamic climate risk management: A strategy to integrate past, present and future to achieving water sustainability, NYC Department of Environmental Protection, Bureau of Water Supply, Kingston, NY, August 2017.

19. **Consortium for Climate Risk in Urban Northeast–Green Infrastructure, Climate, and Cities Seminar Series @ Drexel University**: Risk analysis of the wastewater treatment plants in New York City using nonparametric simulation of radar rainfall data, Philadelphia, PA, February 2017.

18. **5th CUAHSI Biennial Symposium–Finding Your Place in Big Data: Using Observations to Understand Hydrologic Processes for Predicting a Changing World?**: America's water in the 20th century: Measures to address climate induced risk, National Conservation Training Center, Shepherdstown, WV, July 2016.

17. **Workshop on Challenges of Urbanization @ the Institute of Asian Research, University of British Columbia**: Shining India? Assessing and addressing the risk from an unsustainable trajectory of climate, water, food, energy and incomes, Vancouver, Canada, April 2016.

16. **EGU General Assembly Conference**: The tele-connections of long duration floods and their implications for dynamically updating the flood control pool, Vienna, Austria, April 2016.

15. **American Museum of Natural History's Series of Conservation and Environment**: Water for the future, New York, NY, February 2016.

14. **AGU Nonlinear Geophysics session on Hydrologic Dynamics and Analytics**: Scaling of extreme rainfall areas at a planetary scale, San Francisco, CA, December 2015.

13. **UN Sustainable Development Goals Circular Science Symposium @ CUNY Graduate Center**: Securing the future of water energy and food: Ensuring global water sustainability and food security in the 21st century, New York, NY, September 2015.

12. **Panel of Climate Change, 1st International Conference on Historic Links between USA and Spain**: From climate to water risk management: Multi-scale strategies and uses, Alcala, Spain, April 2015.

11. **AIG Seminar Series**: Climate induced hazards: Prospects for modeling multi-attribute and portfolio risk, *with Prof. Upmanu Lall*, New York, NY, February 2015.

10. **Plenary Discussion, International Conference on Climate Change Innovation and Resilience for Sustainable Livelihood**: Securing the Future of Water, Energy and Food: Can solutions for currently stressed countries provide the direction for ensuring global water sustainability and food security in the 21st century?, Kathmandu, Nepal, January 2015.

9. **Keynote Speaker @ the Water Workshop, Thiagarajar College of Engineering**: Securing the Future of India's Water, Madurai, India, January 2015.

8. **NOAA CREST Brown Bag Seminar Series**: America's water risk: Current demand and climate variability, New York, NY, April 2014.

7. **Panelists, World Business Council for Sustainable Development**: India Water Tool v2 Working Group Meeting, New Delhi, India, September 2013.

6. **Panelist and Faculty Mentor for World Economic Forum's Global Leadership Fellows Training Program @ Columbia University**: Climate change risk and response, A New York City case study, New York, NY, July 2013.

5. **Delaware River Basin Commission Regulated Flow Advisory Committee Meeting**: Mitigating summertime thermal stress in the upper main stem of the Delaware, *with Prof. Peter Kolesar*, Hancock, NY, December 2012.

4. **Panelists**: CSR as a Driving Force behind PPPs: A Case Study in Water Sustainability, CSR Americas, Quito, Ecuador, May 2012.

3. **World Bank discussion on India Food Security Reforms**: India can feed itself, raise farm incomes, shift crops, save water and energy: Optimal dreams, Washington DC, January 2011.

2. **IRI Seminar Series**: Improved prediction of winter precipitation and temperature over the continental United States: Role of ENSO state in developing multimodel combinations, Palisades, NY, October 2010.

1. **NOAA Office of Hydrologic Development**: Improved prediction of winter precipitation and temperature over the continental United States: Role of ENSO state in developing multimodel combinations, Silver Spring, MD, December 2009.

Professional Service

Technical Committees

1. **Member, US CLIVAR Panel on Predictability, Predictions, and Applications Interface, 2019–2022**. The Predictability, Predictions, and Applications Interface (PPAI) Panel's mission is to foster improved practices in the provision, validation and uses of climate information and forecasts through coordinated participation within the US and international climate science and applications communities. The Panel is comprised of up to 12 experts from the scientific community, each serving a 4-year term.

2. **Member, Climate Science and Projections Working Group led by the fourth New York City's Panel on Climate Change (NPCC), 2021–2023**. The goals of this working group is to advise the Mayor and the New York City Climate Change Adaptation Task Force on issues related to climate change and adaptation as it relates to infrastructure. It produces climate projections specific to New York City.

3. **Member, Technical committee for special project on the Effect of Climate Change on Life-Cycle Performance, Safety, Reliability and Risk of Structures and Infrastructure Systems led by the Structural Engineering Institute of the American Society for Civil Engineers (SEI/ASCE), 2021–2023**. The goals of this Special Project are to review available information on climate change issues and to identify methodologies and tools that would help the civil engineering profession address the impacts of climate change on the life cycle performance, safety, and risk of structures and infrastructure systems.

4. **Member, Multi-Sector Dynamics MSD Working Group on Professional Development and Education for Early Career Scientists, 2020-2023**. This working group will seek to expand participation among a diverse group of early career scientists, provide professional development opportunities to graduate students and post-docs, and serve as a contact point for interdisciplinary education activities taking place in the MSD community. It will foster capacity building across institutions and scientific focus areas through hosting professional development workshops and forming a community of practice for MSD researcher-teachers.

5. **Contributing Author, United States Bureau of Reclamation's 2021 SECURE Water Act Report to Congress, 2020–2021**. Every five years, Reclamation submits a report to Congress under the SECURE Water Act analyzing projected risks to water supplies in the West using the best available science and highlighting collaborative efforts to mitigate those risks. The 2021 SECURE Water Act Report titled "Water Reliability in the West" provides a West-wide assessment of expected changes to water supplies, uses, and demands; highlights progress; and describes actions taken to increase water supply reliability since the 2016 Report.

6. **Member, USGS Powell Center Woking Group for creating a global synthesis of land-surface fluxes under natural and human-altered watersheds using the Budyko framework, 2019–2021**. This synthesis group is adapting and extending the classical Budyko framework to quantify the role of drivers - changing climate and local human disturbances - in altering flow regimes and in creating urban heat island episodes over the globe.

7. **Member, Technical committee for the development of Freshwater Health Index led by Conservation International, 2015–2016**. The Freshwater Health Index assesses the status of specific benefits that people receive from freshwater ecosystems, using a large and diverse set of information on ecological, biophysical and socio-economic characteristics. These characteristics include, the amount of water flowing through an ecosystem at any time, water quality or the species present in an ecosystem. The findings are delivered through a data-rich and user-friendly website that provides a wide range of stakeholders–including landscape and water managers, planners, businesses and policymakers–with the information they need to help reverse the current global trends of freshwater ecosystem degradation and service loss.

8. **Chair, Graduate Research Award committee for Natural Hazards Focus Group, American Geophysical Union (AGU), 2015–2016**. Every year the AGU natural hazards focus group presents awards to young scientists engaged in studies of natural hazards and risks. The graduate award committee recognizes one or more promising young scientists for outstanding contributions achieved during their Ph.D. research.

9. **Faculty mentor** for student design teams that won first place in EPA's National competition for campus rainworks challenge in 2016; created water management and data analysis boot camps for the CUNY CREST's high school initiative in remote sensing of earth system science and engineering (HIRES) program; trained REU (research and education for undergraduates) students at CCNY in water sustainability research.

10. **Faculty mentor for World Economic Forum's global leadership fellows training program, 2013**. Climate change risk and response, A New York City Case Study, Columbia University.

Advisory Boards

1. **Member of the advisory committee** for VegaMx Inc. `https://www.VegaMX.net/`

2. **Member of the advisory board** for the Center for International Projects Trust, India. `https://cipt.in`

Chairing Technical Sessions

1. **Co-chair**: Understanding and predictability of integrated mountain hydroclimate, DOE Earth and Environmental System Sciences Division Workshop, virtual, November 2021.

2. **Co-chair**: Coastal climate change and climate variability, USCLIVAR PPAI Summer Panel Meeting, virtual, July 2020.

3. **Co-chair**: Big data/Artificial intelligence/Machine learning for hydroclimatology, USCLIVAR Summit, Long Beach, CA, August 2019.

4. **Co-chair**: Hydrometeorological extremes and their relation to earth system dynamics, AGU Fall Meeting, Washington DC, December 2018.

5. **Co-chair**: The roles of atmospheric circulation and climate variability in the occurrence of hydrometeorological extremes: Diagnosis, modeling and prediction, AGU Fall Meeting, San Fransisco, CA, December 2017.

6. **Co-chair**: Bayesian methods and multilevel models for hydroclimatic applications, AGU Fall Meeting, San Fransisco, CA, December 2014.

Editorial Services

1. **Associate Editor for Stochastic Environmental Research and Risk Assessment (SERRA), 2021–present**.

2. **Editorial Board Member for Advances in Water Resources (AWR), 2021–present**.

3. **Guest Editor for Climate, 2018–2020**: Special edition "From Local to Global Precipitation Dynamics and Climate Interaction."

4. **Guest Editor for Earth System Dynamics, 2017–2019**: Special edition "Hydro-Climate Dynamics, Analytics and Predictability."

5. **Guest Editor for Korean Society of Civil Engineering, 2015**: Special edition "Risk Assessment of Natural Disaster and Applied Earth Sciences."

Reviewer

1. **Proposals**: DOE Earth and Environmental Systems Modeling (Model Development and Analysis Panel), NSF Environmental Sustainability (Water Sustainability Panel), NSF EPSCoR, NSF Geography and Spatial Sciences, NSF Hydrologic Sciences, NSF Paleoclimate program, Department of Energy Office of Science' Graduate Student Research program

2. **Journals**: Water Resources Research, Earth's Future, Geophysical Research Letters, Journal of Hydrology, Advances in Water Resources, Nature Scientific Reports, Bulletin of the American Meteorological Society, Hydrology and Earth System Sciences, Journal of Geophysical Research, Journal of Water Resources Planning and Management, Environmental Modeling and Software, Environmental Research Letters, Journal of Water and Climate, Journal of American Water Resources Association, International Journal of Water, Geomatics, Natural Hazards and Risk, Climate Dynamics, Climate Research, Risk Analysis, ASCE Bridge Engineering, Structures and Infrastructure

3. **External Evaluations for Doctoral Dissertations**: Columbia University (NY, USA), Lehigh University (USA), Hong Kong University of Science and Technology (Hong Kong), University of New South Wales (Sydney, Australia)

Consulting

1. **Consulting for the United States Bureau of Reclamation**: Co-authored their technical memorandum (Chapter 5) on West-Wide Climate and Hydrology Assessment (ENV-2021-001).

Society Memberships

Member of American Geophysical Union (AGU), European Geophysical Union (EGU), American Meteorological Society (AMS), American Society of Civil Engineers (ASCE), American Water Resources Association (AWRA)

University Service

1. **The City College of New York, CUNY**: Member of the Macaulay Honors Program Admissions Committee (2021–Present)
2. **Grove School of Engineering, CUNY-CCNY**: Member of the Committee on Course and Standings (2014–Present)
3. **Civil Engineering Department, CUNY-CCNY**: Member of the Executive Committee (2019–2022), Chair of the Assessment Committee and ABET Assessment (2019–2022), Coordinator of the Department Website (2013–2018), Member of the Undergraduate Scholarship Committee (2013–Present), Member of the Dissertation Committee for several graduate students, Active participation in administering Ph.D. qualifying exams, departmental activities and undergraduate advising.
4. **CUNY-CREST & NOAA-CREST Institutes, CUNY-CCNY**: Associate Director of the Center for Water Resources and Environmental Research (2015-2021), Theme Lead for NOAA-CREST research on water prediction and ecosystem services (2018-2021).

Conference Presentations

Summary: 92 presentations overall at AGU, EGU, ASCE and other venues

92. Seasonal hydroclimatic forecasts and water and energy management: Progress and challenges, Arumugam, S., Lall, U., Ford, L., Devineni, N. American Geophysical Union, Fall Meeting 2021, abstract #H44G-01.
https://ui.adsabs.harvard.edu/abs/2021AGUFM.H44G..01A/abstract

91. Understanding New York City street flooding through 311 complaints, Agonafir, C., Devineni, N., Khanbilvardi, R., Lakhankar, T. American Geophysical Union, Fall Meeting 2021, abstract #H32D-08.
https://ui.adsabs.harvard.edu/abs/2021AGUFM.H32D..08A/abstract

90. Effect of climate change on reliability of bridges under threat from flood-related scour, Molodecka, V., Devineni, N., Ghosn, M. American Geophysical Union, Fall Meeting 2020, abstract #GC092-08.
https://ui.adsabs.harvard.edu/abs/2020AGUFMGC092..08M/abstract

89. An improved Zhang's Water Balance Model using Budyko-based snow representation and time-varying parameterization for better streamflow predictions, Hwang, J., Devineni, N. American Geophysical Union, Fall Meeting 2020, abstract #H072-08.
https://ui.adsabs.harvard.edu/abs/2020AGUFMH072...08H/abstract

88. America's water: multiscale forecasting and innovation in infrastructure design & management instruments is critical for climate adaptation, Lall, U., Arumugam, S., Cioffi, F., Devineni, N., Doss-Gollin, J., Kwon, H. H., Rajagopalan, B. American Geophysical Union, Fall Meeting 2020, abstract #H161-01.
https://ui.adsabs.harvard.edu/abs/2020AGUFMH161...01L/abstract

87. Connecting hydrologic and meteorological variables and pre-conditions to flood probability, Mossel, C., Booth, J. F., Devineni, N., Eliav, S. American Geophysical Union, Fall Meeting 2020, abstract #H169-0002.
https://ui.adsabs.harvard.edu/abs/2020AGUFMH169.0002M/abstract

86. Spatial-temporal trends of extreme winds in the United States, Devineni, N., Vera, M. American Geophysical Union, Fall Meeting 2020, abstract #H184-08.
https://ui.adsabs.harvard.edu/abs/2020AGUFMH184...08D/abstract

85. Evaluating the impact of demand-driven spatial droughts on crop yield anomalies, Schwab, C., Devineni, N. American Geophysical Union, Fall Meeting 2020, abstract #H190-07.
https://ui.adsabs.harvard.edu/abs/2020AGUFMH190...07S/abstract

84. Seasonal forecasting of spatial, coherent floods in the northeast United States using climate information for flood risk assessment, Glenn, E., Devineni, N. American Geophysical Union, Fall Meeting 2020, abstract #H220-07.
https://ui.adsabs.harvard.edu/abs/2020AGUFMH220...07G/abstract

83. Quantifying the Spatial Coherence of Deficit and Excess Rainfall Across the Continental United States, Hwang, J., Devineni, N. American Geophysical Union, Fall Meeting 2019, abstract #H11G-04.
https://ui.adsabs.harvard.edu/abs/2019AGUFM.H11G..04H/abstract

82. Rethinking the Water Cycle in the Anthropocene, Troy, T., Zhu, X., Devineni, N., Josset, L., Lall, U., Williamson, E., Rising, J. A., Ruddell, B. L. American Geophysical Union, Fall Meeting 2019, abstract #H12G-06.
https://ui.adsabs.harvard.edu/abs/2019AGUFM.H12G..06T/abstract

81. How does flow alteration propagate across a large, highly-regulated basin? Dam attributes, network context, and implications for biodiversity, Ruhi, A., Hwang, J., Devineni, N., Mukhopadhyay, S., Kumar, H., Comte, L., Worland, S., Arumugam, S. American Geophysical Union, Fall Meeting 2019, abstract #H23N-2086.
https://ui.adsabs.harvard.edu/abs/2019AGUFM.H23N2086R/abstract

80. On the Variability of Flood Attributes and Damages at the Global Scale, Najibi, N., Devineni, N. American Geophysical Union, Fall Meeting 2019, abstract #H44F-06.
https://ui.adsabs.harvard.edu/abs/2019AGUFM.H44F..06N/abstract

79. Grid stress due to extreme heat wave and drought with 45% renewable electricity in the Western US, Dyreson, A., Devineni, N., Miara, A., Turner, S. W. D., Voisin, N., Macknick, J. American Geophysical Union, Fall Meeting 2019, abstract #H54D-02.
https://ui.adsabs.harvard.edu/abs/2019AGUFM.H54D..02D/abstract

78. A hierarchical Bayesian model to understand how regional climate variables and shifts in observational practices contributed to the U.S. tornado records, Nouri, N., Devineni, N., Were, V., Khanbilvardi, R. American Geophysical Union, Fall Meeting 2019, abstract #NH13B-0806.
https://ui.adsabs.harvard.edu/abs/2019AGUFMNH13B0806N/abstract

77. Evaluating the sustainable pathways to maximize staple crops production, Najafi, E., Devineni, N., Pal, I., Khanbilvardi, R. American Geophysical Union, Fall Meeting 2018, abstract #GC51I-0899.
http://adsabs.harvard.edu/abs/2018AGUFMGC51I0899N

76. Joint modeling of flood volume, duration and peak across the United States: Role of hydrogeomorphological drivers, Najibi, N., Devineni, N. American Geophysical Union, Fall Meeting 2018, abstract #H52B-04.
http://adsabs.harvard.edu/abs/2018AGUFM.H52B..04N

75. Understanding the spatial organization of precipitation extremes, Mazor, A., Najibi, N., Devineni, N. American Geophysical Union, Fall Meeting 2018, abstract #H42H-07.
http://adsabs.harvard.edu/abs/2018AGUFM.H42H..07M

74. New York City's water system performance analysis based on current and projected demands, Armal, S., Devineni, N., Khanbilvardi, R. American Geophysical Union, Fall Meeting 2018, abstract #H41I-2167.
http://adsabs.harvard.edu/abs/2018AGUFM.H41I2167A

73. Sub-seasonal reconstructions of Brahmaputra River discharge, Rao, M. P., Cook, E. R., Cook, B., Uriarte, M., Palmer, J. G., Lall, U., Devineni, N., D'Arrigo, R., Woodhouse, C. A., Jian, J., Webster, P. J. American Geophysical Union, Fall Meeting 2018, abstract #H33L-2239.
http://adsabs.harvard.edu/abs/2018AGUFM.H33L2239R

72. Understanding the cumulative effects of dams on regional streamflow dynamics, Ruhi, A., Worland, S. C., Mukhopadhyay, S., Devineni, N., Chalise, D. R., Salinas, J. L., Mazrooei, A., Abeshu, G. W., Arumugam, S. American Geophysical Union, Fall Meeting 2018, abstract #H33D-04.
http://adsabs.harvard.edu/abs/2018AGUFM.H33D..04R

71. A conceptual approach using the "limits concept" for extending Budyko's framework for natural watersheds and human-altered landscapes, Arumugam, S., Wang, D. G., Devineni, N. American Geophysical Union, Fall Meeting 2018, abstract #H33D-03.
http://adsabs.harvard.edu/abs/2018AGUFM.H33D..03A

70. Towards a global synthesis of land-surface fluxes for natural and human-altered watersheds using the low-dimensional Budyko framework, Reitz, M., Arumugam, S., Archfield, S. A., Wang, D. G., Mazrooei, A., Sharma, A., Li, D., Li, H. Y., Sinha, T., Devineni, N., Worland, S. C., Ruhi, A., Salinas, J. L., Yao, L., Chalise, D. R., Libera, D., Mukhopadhyay, S., Abeshu, G. W., Liao, W. American Geophysical Union, Fall Meeting 2018, abstract #H33D-01.
http://adsabs.harvard.edu/abs/2018AGUFM.H33D..01R

69. Stochastic streamflow simulations using climate-informed state space models, Ravindranath, A., Devineni, N. American Geophysical Union, Fall Meeting 2018, abstract #H23Q-2204.
http://adsabs.harvard.edu/abs/2018AGUFM.H23Q2204R

68. Multivariate water stress forecasting system: An integrated approach for mitigating agricultural risks in the United States, Rubel, A., Ravindranath, A., Devineni, N. American Geophysical Union, Fall Meeting 2018, abstract #A41L-3128.
http://adsabs.harvard.edu/abs/2018AGUFM.A41L3128R

67. America's water in the 20th century: Measures to address climate induced risk, Devineni, N. American Geophysical Union, Fall Meeting 2017, abstract #PA24A-01.
http://adsabs.harvard.edu/abs/2017AGUFMPA24A..01D

66. National variation in crop yield production functions, Devineni, N., Rising, J. A. American Geophysical Union, Fall Meeting 2017, abstract #PA23C-0380.
http://adsabs.harvard.edu/abs/2017AGUFMPA23C0380D

65. Assessing the adequacy of water storage infrastructure capacity under hydroclimatic variability and water demands in the United States, Ho, M. W., Devineni, N., Cook, E. R., Lall, U. American Geophysical Union, Fall Meeting 2017, abstract #NH33B-0246.
http://adsabs.harvard.edu/abs/2017AGUFMNH33B0246H

64. Regime behavior in paleo-reconstructed streamflow: Attributions to atmospheric dynamics, synoptic circulation and large-scale climate teleconnection patterns, Ravindranath, A., Devineni, N. American

Geophysical Union, Fall Meeting 2017, abstract #NG51B-05.
http://adsabs.harvard.edu/abs/2017AGUFMNG51B..05R

63. Application of deep learning and supervised learning methods to recognize nonlinear hidden pattern in water stress levels from spatiotemporal datasets across rural and urban US counties, Eisenhart, T., Josset, L., Rising, J. A., Devineni, N., Lall, U. American Geophysical Union, Fall Meeting 2017, abstract #NG33A-0180.
http://adsabs.harvard.edu/abs/2017AGUFMNG33A0180E

62. Five centuries of tree ring reconstructed streamflow and projections for future water risk over the upper Indus watershed, Rao, M. P., Cook, E. R., Cook, B., Palmer, J. G., Uriarte, M., Devineni, N., Lall, U., D'Arrigo, R., Woodhouse, C. A., Ahmed, M. American Geophysical Union, Fall Meeting 2017, abstract #GC41G-05.
http://adsabs.harvard.edu/abs/2017AGUFMGC41G..05R

61. The space-time variation of global crop yields, detecting simultaneous outliers and identifying the teleconnections with climatic patterns, Najafi, E., Devineni, N., Pal, I., Khanbilvardi, R. American Geophysical Union, Fall Meeting 2017, abstract #GC31D-1035.
http://adsabs.harvard.edu/abs/2017AGUFMGC31D1035N

60. Evaluation of projected agricultural climate risk over the contiguous US, Zhu, X., Troy, T. J., Devineni, N. American Geophysical Union, Fall Meeting 2017, abstract #GC31C-1014.
http://adsabs.harvard.edu/abs/2017AGUFMGC31C1014Z

59. Trends in extreme rainfall frequency in the contiguous United States: Attribution to climate change and climate variability modes, Armal, S., Devineni, N., Khanbilvardi, R. American Geophysical Union, Fall Meeting 2017, abstract #H51I-1392.
http://adsabs.harvard.edu/abs/2017AGUFM.H51I1392A

58. Identification and diagnosis of spatiotemporal hydrometeorological structure of heavy precipitation induced floods in Southeast Asia, Lu, M., Hao, X., Devineni, N. American Geophysical Union, Fall Meeting 2017, abstract #A43I-2589.
http://adsabs.harvard.edu/abs/2017AGUFM.A43I2589L

57. Coupled land-atmosphere dynamics govern long duration floods: A pilot study in the Missouri River basin using a Bayesian hierarchical model, Najibi, N., Lu, M., Devineni, N. American Geophysical Union, Fall Meeting 2017, abstract #A43I-2587.
http://adsabs.harvard.edu/abs/2017AGUFM.A43I2587N

56. Impacts of climate variability on the spatio-temporal characteristics of water stress in Korea, Kim, S., Devineni, N., Lall, U., Kim, H. S. 19th EGU General Assembly, proceedings from the conference held 23-28 April, 2017 in Vienna, Austria., p.6248, EGU2017.
http://adsabs.harvard.edu/abs/2017EGUGA..19.6248K

55. The effect of flood and climate information on low flow at the Three Gorges Region, China, Su, Z., Sun, X., Devineni, N., Lall, U., Hao, Z., Chen, X. 19th EGU General Assembly, proceedings from the conference held 23-28 April, 2017 in Vienna, Austria., p.2260, EGU2017.
http://adsabs.harvard.edu/abs/2017EGUGA..19.2260S

54. Bayesian models for streamflow and river network reconstruction using tree rings, Ravindranath, A., Devineni, N. American Geophysical Union, Fall Meeting 2016, abstract #PP41C-2275.
http://adsabs.harvard.edu/abs/2016AGUFMPP41C2275R

53. A road map for America's water for the next 20 years, Lall, U., Rising, J., Ho, M. W., Josset, L., Allaire, M., Troy, T., Devineni, N., Ruddell, B. L., Pal, I. American Geophysical Union, Fall Meeting

2016, abstract #PA11E-01.
http://adsabs.harvard.edu/abs/2016AGUFMPA11E..01L

52. A multilevel Poisson regression model to detect trends in frequency of extreme rainfall events, Armal, S., Devineni, N., Khanbilvardi, R. American Geophysical Union, Fall Meeting 2016, abstract #NH51B-1957.
http://adsabs.harvard.edu/abs/2016AGUFMNH51B1957A

51. Estimating monotonic and cyclic trends of extreme rainfall over the northeast of United States using hierarchical Bayesian regression, Hamidi, A., Farnham, D. J., Devineni, N., Khanbilvardi, R. American Geophysical Union, Fall Meeting 2016, abstract #NH51B-1944.
http://adsabs.harvard.edu/abs/2016AGUFMNH51B1944H

50. Structure and dynamics of floods in the upper Delaware River basin: An integrated seasonal forecasting system for New York City reservoirs, Najibi, N., Devineni, N. American Geophysical Union, Fall Meeting 2016, abstract #NG32A-05.
http://adsabs.harvard.edu/abs/2016AGUFMNG32A..05N

49. Evaluation of historical and projected agricultural climate risk over the continental US, Zhu, X., Troy, T. J., Devineni, N. American Geophysical Union, Fall Meeting 2016, abstract #GC43C-1192.
http://adsabs.harvard.edu/abs/2016AGUFMGC43C1192Z

48. Statistical procedure for filtering streamflow and river survey data for at-a-station hydraulic geometry studies, Afshari, S., Fekete, B. M., Devineni, N., Dingman, S. L., Bjerklie, D. M. American Geophysical Union, Fall Meeting 2016, abstract #H43H-1568.
http://adsabs.harvard.edu/abs/2016AGUFM.H43H1568A

47. Agricultural groundwater demands in the conterminous United States, Ho, M. W., Parthasarathy, V., Etienne, E., Russo, T. A., Devineni, N., Lall, U. American Geophysical Union, Fall Meeting 2016, abstract #H41B-1286.
http://adsabs.harvard.edu/abs/2016AGUFM.H41B1286H

46. Global crop yields, climatic trends and technology enhancement, Najafi, E., Devineni, N., Khanbilvardi, R., Kogan, F. American Geophysical Union, Fall Meeting 2016, abstract #H32C-07.
http://adsabs.harvard.edu/abs/2016AGUFM.H32C..07N

45. NY-uHMT: A dense hydro-meteorological network to characterize urban land-atmosphere interactions, Ramamurthy, P., Lakhankar, T., Khanbilvardi, R., Devineni, N. American Geophysical Union, Fall Meeting 2016, abstract #H11H-08.
http://adsabs.harvard.edu/abs/2016AGUFM.H11H..08R

44. The tele-connections of long duration floods and their implications for dynamically updating the flood control pool, Devineni, N., Najibi, N., Lall, U. EGU General Assembly 2016, held 17-22 April, 2016 in Vienna Austria, id. EPSC2016-10575.
http://adsabs.harvard.edu/abs/2016EGUGA..1810575D

43. Resilient and productive agriculture using crop-climate optimization strategies in India, Devineni, N. Food, Energy Water Nexus Conference, National Council for Science and Environment, Washington DC, January, 2016.
https://www.ncseglobal.org/conference/past-and-future-conferences

42. An integrated statistical - physical modeling approach for multivariate flood risk assessment, Devineni, N., Troy, T. American Geophysical Union, Fall Meeting 2015, abstract #NH52B-02.
http://adsabs.harvard.edu/abs/2015AGUFMNH52B..02D

41. Classifying intensity and area of extreme rainfall events in Greater New York area using weather radar data, Hamidi, A., Devineni, N., Booth, J. F., Ferraro, R. R., Khanbilvardi, R. American Geophysical Union, Fall Meeting 2015, abstract #NH51F-1958.
http://adsabs.harvard.edu/abs/2015AGUFMNH51F1958H

40. Spatiotemporal properties of floods and extreme hydro-climatological characteristics for large reservoirs in the Missouri River Basin, Najibi, N., Devineni, N. American Geophysical Union, Fall Meeting 2015, abstract #NH51E-1942.
http://adsabs.harvard.edu/abs/2015AGUFMNH51E1942N

39. Scaling of Extreme Rainfall Areas at a Planetary Scale, Devineni, N., Lall, U., Chen, X., Ward, P. American Geophysical Union, Fall Meeting 2015, abstract #NG22A-01.
http://adsabs.harvard.edu/abs/2015AGUFMNG22A..01P

38. Using Bayesian methods to predict climate impacts on groundwater availability and agricultural production in Punjab, India, Russo, T. A., Devineni, N., Lall, U. American Geophysical Union, Fall Meeting 2015, abstract #GC51D-1117.
http://adsabs.harvard.edu/abs/2015AGUFMGC51D1117R

37. Multivariate climate-weather forecasting system: An integrated approach for mitigating agricultural risks in Punjab, Ravindranath, A., Devineni, N. American Geophysical Union, Fall Meeting 2015, abstract #H33D-1645.
http://adsabs.harvard.edu/abs/2015AGUFM.H33D1645R

36. Development of a demand sensitive drought index and its application for agriculture over the conterminous United States, Etienne, E., Devineni, N., Khanbilvardi, R., Lall, U. American Geophysical Union, Fall Meeting 2015, abstract #H21O-07.
http://adsabs.harvard.edu/abs/2015AGUFM.H21O..07E

35. A perspective on sustainability and resilience in interdependent water-energy systems, Lall, U., Devineni, N. American Geophysical Union, Fall Meeting 2015, abstract #H11N-01.
http://adsabs.harvard.edu/abs/2015AGUFM.H11N..01L

34. Detecting rainfall extreme fields and their scaling using weather radar data, Hamidi, A., Devineni, N., Zahraei, A., Khanbilvardi, R. American Geophysical Union, Fall Meeting 2014, abstract #H41E-0864.
http://adsabs.harvard.edu/abs/2014AGUFM.H41E0864H

33. Modeling floods in large river basins: Model resolution and storm patterns, Troy, T., Lall, U., Devineni, N. American Geophysical Union, Fall Meeting 2014, abstract #H33G-0917.
http://adsabs.harvard.edu/abs/2014AGUFM.H33G0917T

32. Securing the future of water, energy and food: Can solutions for the currently stressed countries provide the direction for ensuring global water sustainability and food security in the 21st century? Devineni, N., Lall, U. American Geophysical Union, Fall Meeting 2014, abstract #H32A-08.
http://adsabs.harvard.edu/abs/2014AGUFM.H32A..08D

31. Drought risk assessment for Greater New York area: A paleo view, Ceylan, G., Devineni, N. American Geophysical Union, Fall Meeting 2014, abstract #H23N-1080.
http://adsabs.harvard.edu/abs/2014AGUFM.H23N1080C

30. Development of a demand sensitive drought index and its forecasting for climate adaptation and water management over the continental United States, Etienne, E., Khanbilvardi, R., Devineni, N. American Geophysical Union, Fall Meeting 2014, abstract #H23N-1067.
http://adsabs.harvard.edu/abs/2014AGUFM.H23N1067E

29. Flood risk assessment for dams in the northeast USA: Multivariate risk attribution, spatial manifestation and temporal trends, Kohinoor, M. Devineni, N. NOAA Educational Partnership Program (EPP) 7th Biennial Education and Science Forum, University of Maryland, Eastern Shore, Princess Anne, October 2014. *Kohinoor Mahi, Undergraduate Scholar received 1st prize in student presentation under Climate Change Adaptation and Mitigation Section*.

28. Spatial scaling of global rainfall and flood extremes, Devineni, N., Lall, U., Xi, C., Ward, P. EGU General Assembly 2014, held 27 April - 2 May, 2014 in Vienna, Austria, id.10568, EGU 2014.
http://adsabs.harvard.edu/abs/2014EGUGA..1610568D

27. Decadal variability in floods and extreme rainfall, Lall, U., Cioffi, F., Devineni, N., Lu, M. EGU General Assembly 2014, held 27 April - 2 May, 2014 in Vienna, Austria, id.10285, EGU 2014.
http://adsabs.harvard.edu/abs/2014EGUGA..1610285L

26. The spatial scaling of global rainfall extremes, Devineni, N., Xi, C., Lall, U., Rahill-Marier, B. American Geophysical Union, Fall Meeting 2013, abstract #NG11A-1584.
http://adsabs.harvard.edu/abs/2013AGUFMNG11A1584D

25. Climate-informed flood risk estimation, Troy, T., Devineni, N., Lima, C., Lall, U. American Geophysical Union, Fall Meeting 2013, abstract #H53D-1451.
http://adsabs.harvard.edu/abs/2013AGUFM.H53D1451T

24. Improving local and regional flood quantile estimates using a hierarchical Bayesian GEV model, Ribeiro Lima, C. H., Lall, U., Devineni, N., Troy, T. American Geophysical Union, Fall Meeting 2013, abstract #H51Q-05.
http://adsabs.harvard.edu/abs/2013AGUFM.H51Q..05R

23. Multivariate Bayesian models of extreme rainfall, Rahill-Marier, B., Devineni, N., Lall, U., Farnham, D. American Geophysical Union, Fall Meeting 2013, abstract #H43N-05.
http://adsabs.harvard.edu/abs/2013AGUFM.H43N..05R

22. A Nonparametric simulator for multivariate random variables with differing marginal densities and non-linear dependence with hydroclimatic applications, Farnham, D., Lall, U., Devineni, N., Rahill-Marier, B. American Geophysical Union, Fall Meeting 2013, abstract #H41J-1369.
http://adsabs.harvard.edu/abs/2013AGUFM.H41J1369F

21. Assessment of agricultural water management in Punjab, India using Bayesian methods, Russo, T. A., Devineni, N., Lall, U., Sidhu, R. American Geophysical Union, Fall Meeting 2013, abstract #H31C-1182.
http://adsabs.harvard.edu/abs/2013AGUFM.H31C1182R

20. Understanding scale in flooding: The role of drainage area, heavy precipitation, and model resolution, Troy, T., Devineni, N., Lall, U. American Geophysical Union, Fall Meeting 2013, abstract #H21I-1184.
http://adsabs.harvard.edu/abs/2013AGUFM.H21I1184T

19. Non-stationary, climate based flood risk estimation for Negro River at Manaus, Amazonia, Lima, C. H., Lall, U., Troy, T. J., Devineni, N. American Geophysical Union, Spring Meeting 2013, abstract #A21C-06.
http://adsabs.harvard.edu/abs/2013AGUSM.A21C..06L

18. Moving towards a new paradigm for global flood risk estimation, Troy, T. J., Devineni, N., Lima, C., Lall, U. EGU General Assembly 2013, held 7-12 April, 2013 in Vienna, Austria, id. EGU2013-10052.
http://adsabs.harvard.edu/abs/2013EGUGA..1510052T

17. Stochastic downscaling of daily rainfall: Analysis of future hydroclimatic changes and their impact on the Pontinia plain using nonhomogeneous Hidden Markov model and dynamic hierarchical Bayesian network Model, Cioffi, F., Devineni, N., Monti, A., Lall, U. EGU General Assembly 2013, held 7-12 April, 2013 in Vienna, Austria, id. EGU2013-2319.
http://adsabs.harvard.edu/abs/2013EGUGA..15.2319C

16. Multivariate climate-weather forecasting system: An integrated approach for mitigating agricultural risks in India, Devineni, N., Lall, U., Perveen, S. American Geophysical Union, Fall Meeting 2012, abstract #H51D-1371.
http://adsabs.harvard.edu/abs/2012AGUFM.H51D1371D

15. Droughts in the US: Modeling and forecasting for agriculture-water management and adaptation, Perveen, S., Devineni, N., Lall, U. American Geophysical Union, Fall Meeting 2012, abstract #H41B-1171.
http://adsabs.harvard.edu/abs/2012AGUFM.H41B1171P

14. Are sustainable water resources possible in northwestern India? Troy, T. J., Devineni, N., Perveen, S., Robertson, A. W., Lall, U. American Geophysical Union, Fall Meeting 2012, abstract #H23F-1460.
http://adsabs.harvard.edu/abs/2012AGUFM.H23F1460T

13. Development of a demand sensitive drought index: case study of India, Perveen, S., Devineni, N., Lall, U. American Association of Geographers Annual Meeting 2012.

12. Delaware river streamflow reconstruction using tree rings: Exploration of hierarchical Bayesian regression, Devineni, N., Lall, U., Cook, E., Pederson, N. American Geophysical Union, Fall Meeting 2011, abstract #H24C-07.
http://adsabs.harvard.edu/abs/2011AGUFM.H24C..07D

11. Delaware river basin streamflow reconstruction using tree rings: Exploration of hierarchical Bayesian techniques, Devineni, N., Lall, U., Cook, E., Pederson, N. Hierarchical Bayesian Workshop for Climate Field Reconstruction conducted at Lamont Doherty Earth Observatory, Columbia University, February 2011.

10. Sensitivity of storage systems in India: Role of human behavior responsive to low frequency climate variations, Devineni, N., Perveen, S., Lall, U. American Geophysical Union, Fall Meeting 2010, abstract #H14F-04.
http://adsabs.harvard.edu/abs/2010AGUFM.H14F..04D

9. Quantifying the dimensions of water crisis in India: Spatial water deficits and storage requirements, Perveen, S., Devineni, N., Lall, U. American Geophysical Union, Fall Meeting 2010, abstract #H14F-03.
http://adsabs.harvard.edu/abs/2010AGUFM.H14F..03P

8. Utilizing three-month ahead multimodel streamflow forecasts for improving the management of Falls Lake, Naresh Devineni, N., Arumugam, S., US-Korean Conference, Raleigh, July 2009.

7. Improved drought management of Falls Lake reservoir: Role of multimodel streamflow forecasts in setting up restrictions, Naresh Devineni, N., Arumugam, S. Annual North Carolina Water Resources Research Institute Conference, Raleigh, October 2008.

6. Artificial neural network models for long lead streamflow forecasts using climate information, Kumar, J., Devineni, N. American Geophysical Union, Fall Meeting 2007, abstract #H32E-02.
http://adsabs.harvard.edu/abs/2007AGUFM.H32E..02K

5. Predictability of U.S. winter precipitation: Role of ENSO state in developing multimodel combinations, Arumugam, S., Devineni, N. American Geophysical Union, Fall Meeting 2007, abstract #H32C-03.
   http://adsabs.harvard.edu/abs/2007AGUFM.H32C..03A

4. Multimodel ensembles of streamflow forecasts: Role of predictor state in developing optimal combinations, Devineni, N., Arumugam, S. American Geophysical Union, Fall Meeting 2007, abstract #H13E-1617.
   http://adsabs.harvard.edu/abs/2007AGUFM.H13E1617D

3. Improved management of Falls Lake reservoir during the summer season using climate information based monthly streamflow forecasts: Role of restrictions in water supply and water quality management, Golembesky, K., Arumugam, S., Devineni, N. Annual North Carolina Water Resources Research Institute Conference, Raleigh, March 2007.

2. Multi-model ensembling of probabilistic streamflow forecasts: Role of predictor state space in skill evaluation, Devineni, N., Arumugam, S., Ghosh, S. Annual North Carolina Water Resources Research Institute Conference, Raleigh, March 2007.

1. Multi-model ensembling based on predictor state space: Seasonal streamflow forecasts and causal relations, Arumugam, S., Devineni, N., Ghosh, S. American Geophysical Union, Fall Meeting 2006, abstract #H53C-0646.
   http://adsabs.harvard.edu/abs/2006AGUFM.H53C0646A