

**Curriculum Vitae**  
**Jayantha TB Obeysekera, Ph.D., P.E., D.WRE, F.EWRI**

**EDUCATION**

Ph.D. Civil Engineering (Hydrology and Water Resources Program), Colorado State University, Fort Collins, Colorado (1978-1981)  
Master of School of Hydrology, University of Roorkee, Roorkee, India (1977-1978)  
Engineering  
P.G.Diploma School of Hydrology, University of Roorkee, Roorkee, India (1976-1977)  
B.S. Civil Engineering (Honors), University of Ceylon, Peradeniya, Sri Lanka (1970-1975)

**PROFESSIONAL EXPERIENCE**

May 2018 Director & Research Professor, Sea Level Solutions Center,  
Institute of Environment, Florida International University  
Research Professor, Department of Earth & Environment, FIU  
Research Professor, Extreme Events Institute, FIU

2011 to Present Research Affiliate Professor, Department of Geosciences and Center for  
Environmental Studies, Florida Atlantic University

Oct. 2011 to May 2018 Chief Modeler, Hydrologic & Environmental Systems Modeling, South Florida  
Water Management District, West Palm Beach, Florida  
Technical lead at SFWMD for all issues on Climate Change and Sea Level Rise  
topics

Oct. 2003 to Sep. 2011 Director, Hydrologic & Environmental Systems Modeling Department, South  
Florida Water Management District, West Palm Beach, Florida

May, 1995 to Sep. 2003 Director, Hydrologic Systems Modeling Division, South Florida Water  
Management District, West Palm Beach, Florida

May, 1991 Adjunct Assistant Professor, Department of Geography & Geology  
Florida Atlantic University, Boca Raton, Florida

May, 2000 Courtesy Associate Professor, Department of Civil Engineering  
University of South Florida, Tampa, Florida

Oct. 1989 to April, 1995: Supervising Professional Water Resources Engineer  
Supervising Professional Civil Engineer  
South Florida Water Management District, West  
Palm Beach, Florida.

May. 1988 to Sep. 1989: Senior Water Resources Engineer

Sep. 1987 to May. 1988: Staff Water Resources Engineer

Jan. 1987 to Sep. 1987: Water Resources Engineer

- Planning and execution of hydrological studies in the areas of rainfall-runoff modeling, water supply, flood control, droughts and others important for water management in South Florida.
- Conducting applied research on water management problems in South Florida.
- Developing regional basin plans for water resources planning needs in flood control, water supply, water quality and environmental enhancement.
- Supervising junior and senior engineers
- Directing a department of over 60 professionals and a budget of over several million dollars

Jan. 1985 - Dec. 1986: Assistant Professor in Civil Engineering, Department of Civil Engineering, Colorado State

University, Fort Collins, Colorado.

- Conducting basic and applied research in areas of stochastic hydrology and water resources planning and management.

- Teaching courses in hydrology and water resources area.

- Advising students in their graduate work (both as advisor and a committee member)

Aug. 1982 - Dec. 1984: Research Scientist, International Water Resources Institute, School of Engineering and Applied Sciences, George Washington University, Washington, D.C.

- Technical assistance in applied and research projects undertaken by the International Water Resources Institute.

- Teaching courses in Hydrology and Water Resources area.

Sep. 1981 - July 1982: Research Associate, Hydrology and Water Resources Program, Colorado State University, Fort Collins, Colorado.

- Instructor of an undergraduate course on basic hydrology.

- Assisted in organizing and preparing lecture notes for a course entitled, "Computer Watershed Models in Hydrology."

- Research on forecasting monthly streamflow for the real time operation of reservoirs.

Aug. 1978 - Aug. 1981: Research Assistant, Hydrology and Water Resources Program, Colorado State University, Fort Collins, Colorado.

- Modeling hydrologic time series with mixture models in general and shifting level models in particular.

- Research on physically based stochastic models in hydrology.

- Teaching Assistant for an undergraduate (Senior level) course on basic hydrology.

- Teaching assistant for a graduate course on Stochastic Processes in Hydrology.

- Grader for a graduate course on Open Channel Hydraulics.

- Assistant in preparing lecture notes and computer programs for a short course entitled "Statistical Techniques for Data Generation and Forecasting."

July 1976 - May 1978: UNESCO Fellowship Holder, School of Hydrology, University of Roorkee, Roorkee, India.

- Research on daily rainfall generation using a Markov chain models.

- Research on a deterministic daily rainfall-runoff model suitable for situations of inadequate hydrologic data.

- Research on sizing of a reservoir using economic analysis and simulation.

Jan. 1976 - June 1976: Assistant Lecturer in Civil Engineering, University of Sri Lanka, Katubedda, Sri Lanka.

- Teaching and conducting lab classes in fluid mechanics.

- Advising undergraduate students in their project work.

July 1975 - Dec 1975: Engineering Assistant, Hydrology Division, Irrigation Department, Colombo, Sri Lanka.

- Operational study of the Kotmale reservoir in Mahaweli project, Sri Lanka.

- A simulation study on the effect of Mahaweli project on existing irrigation schemes.

Mar. 1975 - June 1975: Instructor in Civil Engineering, University of Sri Lanka, Peradeniya, Sri Lanka.

- Conducting lab classes and grading lab reports for undergraduate civil engineering students.

- Advising students in their project work.

## **PROFESSIONAL AFFILIATIONS AND NATIONAL COMMITTEES**

Member, **American Geophysical Union, American Society of Civil Engineers, Journal of Coastal Research.**

Member, Surface Runoff Committee of the **American Geophysical Union** (term expired)

Member of the **National Research Council** committee to review recent hydrologic studies of the Klamath River Basin in Oregon and California (term completed)

Member of the **National Research Council** committee on Sustainable Water & Environmental Management in California Bay-Delta (term completed)

Member of the **National Research Council** panel on California Bay Delta Conservation Plan (term completed)

External agency member to the **US Army Corps of Engineers** to review the hydrologic modeling of the New

Orleans in the aftermath of hurricane Katrina

Member of the organizing committee of the **Federal interagency conference on hydrologic modeling and sediment transport** (3 conferences, 2002, 2006, 2010)

Member of the United States **National Climate Assessment and Development and Advisory Committee, USGCRP**, appointed by The Secretary of Commerce, US Department of Commerce (Current). Lead author for SE Chapter of the 2014 **National Climate Assessment**

Member and Co-author, Sea Level Rise Scenarios for the **National Climate Assessment** (released 2012)

Member of the **National Research Council** committee on the Edwards Aquifer in Texas (term completed)

Member, Coastal Assessment Regional Scenario Working Group (CARSWG), **Department of Defense** (term completed)

Member, Task Committee Lead, Stochastic Methods for Analyzing Nonstationary Extreme Hydrologic Events, **EWRI**, American Society of Civil Engineers

Member, HYDEA Committee, American Society of Civil Engineers

**Peer Reviewer** for Hydrologic Processes, Journal of Hydrology, EoS (AGU), Climate Science, Earth Interactions, J. Hydrologic Engineering, Coastal Engineering, Journal of Coastal Research, Water Resources Research, Mathematical Problems in Engineering, Journal of Environmental Planning and Management, J. American Water Resources Association, Hydrological Sciences, Environmental Reviews, Climate Dynamics, Regional Environmental Change, Weather, Climate and Society journal

## **PROFESSIONAL REGISTRATION**

Registered Professional Engineer (No. 40202), State of Florida, Diplomate Water Resource Engineer, EWRI, Fellow EWRI

## **TEACHING EXPERIENCE**

1. Basic Hydrology (Undergraduate), Colorado State University
2. Advanced Hydrology (Graduate), George Washington University
3. Water Resources Planning (Graduate), George Washington University
4. Computer Watershed Models in Hydrology (Graduate), Colorado State University
5. Stochastic Processes in Hydrology (Graduate), Colorado State University
6. Control of Floods and Droughts (Graduate), Colorado State University
7. Engineering Mechanics: Dynamics (Undergraduate), Colorado State University
8. Dynamic Hydrology (Graduate), Florida Atlantic University
9. Stochastic Hydrology (Graduate), Florida Atlantic University
10. Advanced Topics in Hydrology (Graduate), Florida International University

## **ACADEMIC ADVISING**

- Luis Cadavid, M.S. Civil Engineering, Colorado State University (Advisor until leaving CSU)
- Paul Trimble, M.S. Florida Atlantic University (Committee Member)
- Keren Bolter, Ph.D., Florida Atlantic University (Committee Member)
- Aaron Evans, Ph.D., Florida Atlantic University (Co-Advisor, Completed 2014)  
*Dissertation: Remote Sensing of Evapotranspiration using Automated Calibration: Development and Testing in the State of Florida*
- G. Naveendrakumar. M.Phil. *Historical trends in averages and extremes of rainfall, temperature, and runoff of Sri Lanka. University of Peradeniya. Sri Lanka.*

## **BOOKS**

Co-editor, Multivariate Analysis of Hydrologic Processes, Proceedings of Fourth International Hydrology Symposium, July 15-17, 1985, Colorado State University, Fort Collins, Colorado

Co-author, Landscapes and Hydrology of the Pre-drainage Everglades, University Press of Florida, ISBN 978-0-8130-3535-2, Gainesville, Florida, 2011

Co-editor, Florida's Climate: Changes, Variations & Impacts. Florida Climate Institute (FCI). 2017

### **INTERNATIONAL EXPERIENCE**

Brazil: One-week visit to write a proposal for water management in the drought-prone regions of the North and East

Colombia: Visited two times to conduct short-course on hydrologic modeling at the National University, Medellin

Dominican Republic: Principal Investigator for hydrologic studies, Operational Studies of the Valdesia Reservoir, a project funded by the World Bank. Taught several training classes on hydrologic modeling.

India: Participated as a member of US team at a special workshop on Incorporation of climate information in water resources management held in Pune, India, July 2006

Korea: Taught 12 hours on Statistical Modeling of Hydrologic Extremes at the course on Risk Analysis of Water/Environmental Systems organized by Professors Jose Salas & Jun-Haeng Heo, Yonsei University, Seoul, Korea: Jan 21-Feb 1, 2013.

Presented an invited lecture on "Incorporation of Climate Change and Variability for Management of Water Resources in South Florida, USA," at the International Symposium on New Directions in Climate Change Research, held Seoul, Korea (March, 2008)

Peru: Short course on "Risk of extreme events under non-stationary conditions" at the National University of Engineering, Lima, March 14-16, 2013.

Spain: Invited to teach at a one-week short-course on hydrologic modeling using stochastic methods at University of Valencia

Sri Lanka:

- During the last several years, taught several short-courses on hydrologic modeling to engineers at the Sri Lanka Land Reclamation and Drainage Corporation (SLLRDC).
- Developed a methodology for computing design rainfall events for the Colombo Metropolitan Region.
- On several occasions during the past several years, presented seminars to engineers at the Irrigation Department and to the scientists at International Water Management Institute (IWMI).
- Presented a Special Invited Lecture at the International Conference on Water Resources Management in the Changing Environment of the Monsoon Region held November 17-19, 2004 in Colombo, Sri Lanka. The title of the paper was "Integrated Water Resources Management in the USA—Experience in South Florida."
- Presented a seminar entitled "Recent Technological Advances in Hydrologic Information Systems" to about 40 engineers at the Irrigation Department in Sri Lanka (November 25, 2004).
- Co-principal investigator on Tsunami Impacts on groundwater, soils, and vegetation in coastal regions of Sri Lanka, funded by the US National Foundation, and the Sri Lanka National Science Foundation (visited Sri Lanka in February, 2005, and again in July, 2005)
- Presented several talks on Climate Change (March, 2011)
- Taught the short course on "Quantifying Hydrologic Risk of Extreme Events in a Changing Climate," 8<sup>th</sup> International Perspective on Water Resources and the Environment, IPWE Conference organized by EWRI or the American Society of Civil Engineers, Jan 3-6, 2016
- Taught a 2-day workshop on Watershed and River Flow Modeling using HEC software (43 engineers, April 2017)

USA:

- Taught a short course entitled "Quantifying Hydrologic Risk of Extreme Events in Non-Stationary Environments," at the 2013 ASCE-EWRI meeting, Cincinnati, Ohio
- Taught the course on "Quantifying Hydrologic Risk of Extreme Events in Changing Climate and Environment", EWRI meeting, West Palm Beach, Florida, May 22, 2016

Venezuela: Invited to present a paper on “Ecosystem Restoration and Sustainable Development in South Florida,” Inter-american Conference on Environmental Issues, December 8-11, 1997, Universidad Simon Bolivar  
Bolivia: Taught a short course entitled “Hydrologic Risk of Extreme Events,” ASOCIACION BOLIVIANA DE INGENIEROS PARA LA CONSERVACION DEL AGUA, Tarija and Sucre, Bolivia, February 28-March 7, 2016

#### PEER-REVIEWED PUBLICATIONS

1. Jose D. Salas, **J. T. B. Obeysekera**, and R. A. Smith. 1981. "Identification of Streamflow Stochastic Models," Journal of the Hydraulics Division, ASCE, Vol 107, No. HY7, July, pp. 853-866.
2. J. D. Salas, and **J. T. B. Obeysekera**. 1982. "ARMA Model Identification of Geophysical Time Series," Journal of Water Resources Research, Vol. 18, No. 4, pp 1011-1021.
3. A. V. Vechhia, **J. T. B. Obeysekera**, J. D. Salas and D. C. Boes, "Aggregation and Estimation of Low Order Periodic ARMA Models," Journal of Water Resources Research, Vol 19, No. 5, pp 1297-1306, 1983.
4. V. Yevjevich, and **J. T. B. Obeysekera**. 1984. "Estimation of Skewness of Hydrologic Variables," Journal of Water Resources Research, Vol. 20, No. 7, pp. 935-943, July.
5. V. Yevjevich, and **J. T. B. Obeysekera**. 1985. "Effects of Incorrectly Removed Periodicity in Parameters of Stochastic Dependence," Journal of Water Resources Research, Vol. 21, No. 5, pp. 1685-1690, May.
6. **J. T. B. Obeysekera** and V. Yevjevich. 1985. "A Note on Simulation of Samples of Gamma Autoregressive Variables," Journal of Water Resources Research, Vol 21, N0. 10, pp. 1569-1572, Oct.
7. **J. T. B. Obeysekera**, M. Bayazit and V. Yevjevich. 1985. "Covariance Between Subsample Mean and Variance as Related To Storage Variables," Journal of Hydrology, Vol. 78, pp. 137-150, May.
8. V. Yevjevich, and **J. T. B. Obeysekera**. 1985. "Correlation Between Sample First Autocorrelation Coefficient and Extreme Hydrologic Runs," Journal of Hydrology, Vol. 79, pp. 171-186.
9. **J. T. B. Obeysekera** and J. D. Salas. 1986. "Modeling of Aggregated Hydrologic Time Series," Journal of Hydrology, Vol. 86, pp. 197-219.
10. V. Yevjevich and **J. T. B. Obeysekera**. 1987. "Relationship Among Water Storage Variables" Journal of Water Resources Planning and Management, ASCE, Vol. 113, No. 3, pp. 353-367.
11. **J. T. B. Obeysekera**, G. Q. Tabios III, and J. D. Salas. 1987. "On Parameter Estimation of Temporal Rainfall Models", Journal of Water Resources Research, Vol. 23, No. 10, pp. 1837-1850.
12. H. W. Shen, G. Q. Tabios, and **Jayantha Obeysekera**. 1988. "On Outlier Detection Tests," Schweizer Ingenieur und Architekt, Nr.37, 8.
15. H.W. Shen, G.J. Koch, and **J. T. B. Obeysekera**. 1990. "Physically Based Flood Features and Frequencies,"Journal of Hydraulic Engineering, ASCE, Vol. 116, No. 4.
16. Luis Cadavid, **Jayantha T. B. Obeysekera**. 1991. "Flood-Frequency Derivation from Kinematic Wave," Journal of Hydraulic Engineering, Vol. 117, No. 4, pp. 489-510.
17. W. Abteu, **J. Obeysekera**, and G. Shih. 1993. "Spatial Analysis for Monthly Rainfall in South Florida," Water Resources Bulletin, American Water Resources Association, April, 1993.
18. Jose Salas, and **J. T. B. Obeysekera**. 1992. "Conceptual Basis of Seasonal Streamflow Time Series Models," Journal of Hydraulic Engineering, Vol. 118, No. 8, pp. 1186-1194.
19. G. Shih, W. Abteu, and **J. Obeysekera**. 1994. "Accuracy of Nutrient Runoff Load Calculations Using Time-Composite Sampling," Transactions of ASAE, Vol. 37(2).
20. W. Abteu, **J. Obeysekera**, and G. Shih. 1995. "Spatial Variation of Daily Rainfall and Network Design". Transactions of ASAE. Vol. 38, No. 3. pp. 843-845.
21. W. Abteu, and **J. Obeysekera**. 1995. "Lysimeter Study of Evapotranspiration of Cattails and Comparison of Three Estimation Methods". Transactions of the ASAE, Vol. 38, No. 1. pp 121-129.
22. Abteu, W. and **J. Obeysekera**. 1995. "Estimation of Energy Requirements of Morning dew Evaporation from Leaf Surfaces". Water Resources Bulletin Vol. 31, No. 2. pp. 217-225.
23. Abteu, W., and **J. Obeysekera**. 1996. "Drainage Generation and Water Use in the Everglades

- Agricultural Area Basin". Water Resources Bulletin. Vol. 32, No. 6 pp. 1147-1158.
24. P. Windemuller, D.L. Anderson, H. Aalderink, W. Abtew, and **J. Obeysekera**. 1996. "Modeling Flow in the Everglades Agricultural Area Irrigation/Drainage Canal Network". Journal of the American Water Resources Association. Vol. 33, No. 1 pp. 21-434.
  25. **Jayantha Obeysekera**, and Ken Rutchey. 1997. "Selection of scale for Everglades landscape models," Landscape Ecology, Vol. 12, No. 1, pp7-18.
  26. Jorge I. Restrepo, Angela M. Montoya, and **Jayantha Obeysekera**. 1998. "A Wetland Simulation Module for the MODFLOW Ground Water Model," Ground Water, Vol. 36, No. 5.
  27. **Jayantha Obeysekera**, J. Browder, L. Hornung, and M. Harwell. 1999. "The natural South Florida system I: Climate, geology, and hydrology, Urban Ecosystems, 3, 223-244.
  28. Mark M. Wilsnack, David E. Welter, Angela Montoya, Jorge Restrepo, and **Jayantha Obeysekera**. 2001. "Simulating Flow in Regional Wetlands with the MODFLOW Wetlands Package," Journal of the American Water Resources Association, Vol. 37, No. 3.
  29. Tatiana Hernandez, Mahmood Nachabe, Mark Ross, and **Jayantha Obeysekera**. 2003. "Modeling Runoff from Variable Source in Humid Shallow Water Table Environments," Journal of the American Water Resources Association, Volume 39, No. 1, pp 75-85.
  30. Mahmood Nachabe, Caroline Masek, and **Jayantha Obeysekera**. 2004. "Observations and Modeling of Profile Soil Water Storage above a Shallow Water Table," Soil Science Society of America Journal, 68:719-724.
  31. Joseph Park, Randy VanZee, Wasantha Lal, David Welter, and **Jayantha Obeysekera**. 2005. "Sigmoidal Activation of PI Control Applied to Water Management," Journal of Water Resources Planning and Management, ASCE, Vol 131, (4), p 292-298.
  32. Joseph Park, **Jayantha Obeysekera**, and Randy VanZee. 2007. "Dynamic Control Switching Applied to Water Resource Management Simulation," Journal of the American Water Resources Association, Vol 43, 3.
  33. Paul Trimble, **J. Obeysekera**, L. Cadavid, and R. Santee. 2005. "Application of Climate Outlooks for Water Management in South Florida," in Climate Variations, Climate Change, and Water Resources Engineering. Edited by Jurgen Garbrecht, and Thomas Piechota, peer-reviewed and published by American Society of Civil Engineers.
  34. Joseph Park, **Jayantha Obeysekera**, and Randy VanZee. 2005. "Prediction boundaries and forecasting of nonlinear hydrologic stage data," Journal of Hydrology, 312, 79-94.
  35. T. Illangasekare, **Jayantha Obeysekera** and others, Impacts of the 2004 tsunami on groundwater resources in Sri Lanka. 2006. Water Resour. Res., 42, W05201, doi: [10.1029/2006WR004876](https://doi.org/10.1029/2006WR004876).
  36. Joseph Park, **Jayantha Obeysekera**, and Randy VanZee. 2007. "Multilayer Control Hierarchy for Water Management Decisions in an Integrated Hydrologic Simulation Model, Journal of Water Resources Planning and Management, ASCE, 133(2).
  37. **Jayantha Obeysekera**. 2009. "The Role of Technology in Water Resources Planning and Management" contributed as task committee member on an ASCE monograph edited by E. M. Perez, and W. Viessman, American Society of Civil Engineers.
  38. Joseph Park, **Jayantha Obeysekera**, Jenifer Barnes. 2010. "Temporal Energy Partitions of Florida Extreme Sea Level Events as a function of Atlantic Multi-decadal Oscillation," Ocean Science, 6, 587-593.
  39. Joseph Park, **Jayantha Obeysekera**, Jenifer Barnes, Michelle Irizarry, Winnie Said. 2010. "Climate Links and Variability of Extreme Sea Level Events at Key West, Pensacola, and Mayport Florida," ASCE Journal of Port, Coastal, Waterway and Ocean Engineering, 136 (6), 350-356.
  40. **Jayantha Obeysekera**, M. Irizarry, J. Park, J. Barnes, and T. Dessalegne. 2011. "Climate Change and Its Implication for Water Resources Management in South Florida," Journal of Stochastic Environmental Research & Risk Assessment, 25(4), 495.

41. Joseph Park, **Jayantha Obeysekera**, Michelle Irizarry, Paul Trimble. 2011. "Storm Surge Projections and Implications for Water Management in South Florida," Climatic Change, doi: 10.1007/s10584-011-0079-8.
42. **Jayantha Obeysekera**, L. Kuebler, S. Ahmed, M Chang, V. Engel, C. Langevin, E. Swain and Y. Wan. 2011. "Use of Hydrologic and Hydrodynamic Modeling for Ecosystem Restoration," Critical Reviews in Environmental Science & Technology, 41(S1):447-488.
43. **J. Obeysekera**, J. Park, M. Irizarry-Ortiz, P. Trimble, J. Barnes, J. VanArman, W. Said, and E. Gadzinski. 2011. Past and Projected Trends in Climate and Sea Level for South Florida. South Florida Water Management District, Hydrologic and Environmental Systems Modeling Technical Report (peer reviewed), 148 pp.
44. W. Abtew, **Jayantha Obeysekera**, and N. Iricanin. 2011. "Pan Evaporation and Potential Evapotranspiration Trends in South Florida," Hydrological Processes, 25: 958–969. doi: 10.1002/hyp.7887.
45. Michelle M. Irizarry-Ortiz, **Jayantha Obeysekera**, Joseph Park, Paul Trimble, Jenifer Barnes, Winnie Said, Erik Gadzinski. 2013. "Historical Trends in Florida Temperature and Precipitation," Hydrological Processes Journal, 27(16).
46. **Jayantha Obeysekera**, Joseph Park, Michelle Irizarry-Ortiz, Jenifer Barnes, and Paul Trimble. 2012. "Probabilistic Projection of Mean Sea Level and Coastal Extremes," Journal of Waterway, Port, Coastal and Ocean Engineering, 139 (2), 135:141.
47. **Jayantha Obeysekera** and Joseph Park. 2013. "Scenario-Based Projection of Extreme Sea Levels." Journal of Coastal Research: Volume 29, Issue 1: pp. 1 – 7.
48. A. Parris, P. Bromirski, V. Burkett, D. Cayan, M. Culver, J. Hall, R. Horton, K. Knuuti, R. Moss, **J. Obeysekera**. 2012. A. Sallenger, and J. Weiss. 2012. *Global Sea Level Rise Scenarios for the US National Climate Assessment*. NOAA Tech Memo OAR CPO-1. 37 pp.
49. **Jayantha Obeysekera**. 2013. "Validating climate models for computing evapotranspiration in hydrologic studies: how relevant are climate model simulations over Florida?", Regional Environmental Change, 13(1),pp 81-90.
50. Ramesh S.V. Teegavarapu, Aneesh Goly, and **Jayantha Obeysekera**. 2013. "Influences of Atlantic multidecadal oscillation phases on spatial and temporal variability of regional precipitation extremes," Journal of Hydrology, 495, pp. 74-93.
51. J. Salas and **Obeysekera, J.** 2014. "Revisiting the Concepts of Return Period and Risk for Nonstationary Hydrologic Extreme Events." ASCE J. Hydrol. Eng., 19(3).  
(Received 3 awards for this paper including the 2015 ASCE Norman Medal and the 2015 Best Paper)
52. **J. Obeysekera**, and Salas. 2014. "Quantifying the Uncertainty of Design Floods Under Non-Stationary Conditions." ASCE J. Hydrol. Eng., 19(7).
53. Lynne Carter, J. Jones (CLAs) , L. Berry, V. Burkett, J. Murley, **J. Obeysekera**, P. J. Schramm, D. Wear (Lead authors) . 2014. Chapter 17. Southeast and the Caribbean, Third National Climate Assessment. Jayantha Obeysekera is a member of the National Climate Assessment Development & Advisory Committee (a federal committee).
54. **Jayantha Obeysekera**, Jenifer Barnes, Martha Nungesser. 2015. "Predicting Response of the Greater Florida Everglades to Climate Change and Future Hydrologic Regimes: Climate Sensitivity Runs and Regional Hydrologic Modeling," Environment Management, 55(4).
55. John A. Hall, S. Gill, **J. Obeysekera**, W. Sweet, K. Knuuti, and J. Marburger. 2016. "Regional Sea Level Scenarios for Coastal Risk Management: Managing the Uncertainty of Future Sea Level Change and Extreme Water Levels for Department of Defense Coastal Sites Worldwide". U.S. Department of Defense, Strategic Environmental Research and Development Program". 224 pp. 2016. (peer reviewed)
56. **Jayantha Obeysekera**, Jose Salas. 2016. "Frequency of Recurrent Extremes under Nonstationarity,"

- ASCE J. Hydrol. Eng.*, 21(5).
57. William V. Sweet, M. Menendez, A. Genz, **Jayantha Obeysekera**, J. Park, and J. 2016. In Tide's Way: Southeast Florida's September 2015 Sunny-Day Flood [in "Explaining Extremes of 2015 from a Climate Perspective"]. *Bull. Amer. Meteor. Soc.*, **97** (12), S14–S18, doi:10.1175/BAMS-D-16-0149
  58. William V. Sweet, R. Kopp, C. P. Weaver, **J. Obeysekera**, R.M. Horton, E. R. Thieler, C. Zervas. 2017. "Global and Regional Sea Level Rise Scenarios for the United States," NOAA Technical Report NOS CO-OPS 083.
  59. **Obeysekera, J.**, W. Graham, M.C. Sukop, T. Asefa, D. Wang, K. Ghebremichael, B. Mwashote. 2017. Implications of Climate Change on Florida's Water Resources. Chapter 3. Florida's Climate: Changes, Variations & Impacts. Florida Climate Institute.
  60. Kirtman, B. P., V. Misra, R. J. Burgman, J. Infanti, and **J. Obeysekera**. 2017. Florida Climate Variability and Prediction. Chapter 17. Florida's Climate: Changes, Variations & Impacts. Florida Climate Institute.
  61. Salas, J.D., **J. Obeysekera**, and R. Vogel. 2018. Techniques for assessing water infrastructure for nonstationary extreme events: a review. *Hydrologic Science Journal*, Vol. 63, Issue 3. Published online: 27Feb2018
  62. Sinha, Palash, J.D. Fuentes, M.E.Mann, A. Mejia, L. Ning, W. Sun. T. He., **J. Obeysekera**. 2018. Downscaled rainfall projections in south Florida using self-organizing maps. *Science of the Total Environment*. Vol. 635, 1, pp 1110-1123
  63. G. Naveendrakumar, M. Vithanage, Hyun-Han Kwon, M. C. M. Iqbal, S. Pathmarajah, and **Jayantha Obeysekera**. 2018. Five Decadal Trends in Averages and Extremes of Rainfall and Temperature in Sri Lanka," *Advances in Meteorology*, vol. 2018, Article ID 4217917, 13 pages. <https://doi.org/10.1155/2018/4217917>
  64. John A. Hall, Christopher P. Weaver, **Jayantha Obeysekera**, Mark Crowell, Radley M. Horton, Robert E. Kopp, John Marburger, Douglas C. Marcy, Adam Parris, William V. Sweet, William C. Veatch & Kathleen D. White. 2019. Rising Sea Levels: Helping Decision-Makers Confront the Inevitable, *Coastal Management*, <https://doi.org/10.1080/08920753.2019.1551012>
  65. M. Ghanbari, Arabi, M., **Obeysekera, J.**, & Sweet, W. 2019. A coherent statistical model for coastal flood frequency analysis under nonstationary sea level conditions. *Earth's Future*, 7, 162–177. <https://doi.org/10.1029/2018EF001089>
  66. Jose Salas, **J. Obeysekera**. 2019. Probability Distribution and Risk of the First Occurrence of k Extreme Hydrologic Events, *ASCE Journal of Hydrologic Engineering*, 24(10).
  67. de Bruijn, K.M., Maran, C., Zygnerski, M., Jurado, J., Burzel, A., Jeuken, C., **Obeysekera, J.** 2019. Flood Resilience of Critical Infrastructure: Approach and Method Applied to Fort Lauderdale, Florida. *Water* 11, 517.
  68. Sweet, W. V., Genz, A. S., **Obeysekera, J.**, & Marra, J. J. 2020. A Regional Frequency Analysis of Tide Gauges to Assess Pacific Coast Flood Risk. *Frontiers in Marine Science*, 7, 883. <https://doi.org/10.3389/fmars.2020.581769>
  69. Jung-Hun Song, Younggu Her, Satbyeol Shin, Jaepil Cho, Rajendra Paudel, Yogesh P. Khare, **Jayantha Obeysekera** & Christopher J. Martinez. 2020. Evaluating the performance of climate models in reproducing the hydrological characteristics of rainfall events, *Hydrological Sciences Journal*, 65:9, 1490-1511, DOI: [10.1080/02626667.2020.1750616](https://doi.org/10.1080/02626667.2020.1750616)
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