Latif Kalin

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EDUCATION

PhD	**2002**	Civil Engineering, Purdue Univ., West Lafayette, IN
MSCE	**1998**	Civil Engineering, Purdue Univ., West Lafayette, IN
BSCE	**1995**	Civil Engineering, Middle East Technical University, Ankara, Turkey

EMPLOYMENT

Feb'18 - Jun'18:	*Visiting Professor*, Civil and Environmental Engineering, Federal University of Santa Maria, Rio Grande do Sul, Brazil
2015 -	*Professor*, School of Forestry and Wildlife Sci., Auburn University, Auburn, AL
2013 - :	Associate Director, Center for Environmental Studies at the Urban-Rural Interface (formerly Center for Forest Sustainability), Auburn University, Auburn, AL
2011 - 2015:	*Associate Professor*, School of Forestry and Wildlife Sciences, Auburn University, Auburn, AL
2011 - :	*Adjunct Professor*, Biosystems Eng., Auburn University, Auburn, AL
2006 - 2011:	*Assistant Professor*, School of Forestry and Wildlife Sciences, Auburn University, Auburn, AL
2002 - 2006:	*Post-Doc*, Environmental Protection Agency- National Risk Management Research Laboratory, Cincinnati, OH
1998 - 2002:	*Research/Teaching Assistant*, Purdue University, Civil Engineering
1996 - 1997:	*Water Resources Engineer*, SU-YAPI Eng. & Consulting, Ankara, Turkey
1995 - 1996:	*Quality Control Engineer*, Koyluoglu Inc, Bozoyuk, Turkey

SYNERGISTIC ACTIVITIES

Editorship

- **Associate Editor,** *Journal of Hydrologic Engineering* (2016-)
- **Associate Editor,** *Journal of Disaster Management* (2019-)
- **Associate Editor,** *Kastamonu University Journal of Forestry* (2019-)
- **Associate Editor,** *Journal of Agricultural Faculty of Gaziosmanpasa University* (2017-)
- **Co-Guest Editor,** Special Issue "*Advances in Wetland Hydrology and Water Quality Processes Modeling*" in *Journal of Hydrologic Engineering* (2014-2016)
- **Associate Editor,** *Auburn Speaks on Water, 2013* (2012-2013)
- **Section Editor,** *Sakarya University Science Journal* (2013- 2016)
- **Associate Editor,** *Journal of the American Water Resources Association* (2012- 2015)
- **Associate Editor,** *Journal of Water Quality, Exposure and Health* (2011-2017)
- **Guest Associate Editor,** special issue in *Urban Ecosystems* (2010)

Panels/Boards Served

- **NSF Panel (2016, 2018, 2019)** Graduate Research Fellowship Program (GRFP)

- **EPA STAR Grant Panel (2015)** Water Quality Benefits
- **NSF Panel (2014)** Research Traineeship (NRT) review panel on Climate/Natural Environment
- **Science Advisory Board Panel for US EPA (2013-2014)** to review
  (1) Draft report on "Connectivity of Streams and Wetlands to Downstream Waters"
  (2) Proposed Rule on "Definition of 'Waters of the United States' Under the Clean Water Act"
- **Judging Panel**, Stockholm Junior Water Prize (2013)
- **Science Advisory Board Member**, Mobile Bay National Estuary Program (MBNEP), (2008-)

Conference Organization

- **Scientific Committee**, 5th International Conference on Sustainable Agriculture and Environment, October 8-10, 2018, Hammanet, Tunusia
- **Session Chair**, "Advances in Green Infrastructure Development: Benefits from Point to Watershed Scale", AGU 2017 Fall Meeting, New Orleans, LA, Dec 11-15, 2017.
- **Session Chair**, "Forests, Soil and Water Interactions", IUFRO 125th Anniversary Congress, Sep 18 – 22, 2017, Freiburg, Germany
- **Session Chair**, "Advances in Green Infrastructure Development: Benefits from Point to Watershed Scale", AGU Annual Conference, Dec 11 – 15, 2017, New Orleans, LA
- **Session Co-Chair**, "Wetland modeling and data collection for improved water management", 5th International EcoSummit: Ecological Sustainability-Engineering change, Aug 29 – Sep 1, 2016, Montpellier, France
- **Track Chair**, "Land Use/Land Cover Change and Ecohydrology: Consequences at variable spatial scales", IUFRO World Congress 2014, 5-11 October, 2014, Salt Lake City, Utah
- **Conference co-chair**, 6th International Perspective on Water Resources & the Environment conference (IPWE 2013), January 7-9, 2013, Izmir, Turkey
- **Session Chair**, "Wetland Processes", ASCE-EWRI World Environmental & Water Resources Congress 2012, Albuquerque, New Mexico
- **Session Chair**, "Wetlands", ASCE-EWRI World Environmental & Water Resources Congress 2011, Palm Springs, California
- **Session Chair**, "Land Use/Cover Changes and Water Quality/Quantity", ASCE-EWRI World Environmental & Water Resources Congress 2009, Kansas City, Missouri
- **Scientific Committee**, 2nd International Conference on Sustainable Agriculture and Environment (2nd ICSAE), Sep 30-Oct 3, 2015, Konya, Turkey
- **Scientific Committee**, 2014 Alabama- Mississippi Bays & Bayous Symposium, Dec 2-3, Mobile, Alabama
- **Scientific Committee**, 2nd International Conference on Sustainable Systems and the Environment, Feb 12-13, 2014, Sharjah, United Arab Emirates
- **Scientific Committee**, 2nd International Balkans Conference on Challenges of Civil engineering, 23-25 May 2013, Tirana, Albania

Keynote/Plenary Speaker

- **Keynote Speaker and Scientific Committee member** for "2nd International Balkans Conference on Challenges of Civil engineering", 23-25 May 2013, Tirana, Albania
- **Keynote Speaker and Advisory Board member** for "IUFRO 7.01.08 Hydroecology Conference: Forest-Water Interactions with respect to Air Pollution and Climate Change", Sep 3-6, 2012, Kahramanmaras, Turkey

Committees Served

- ASCE-EWRI Wetlands Hydrology Technical Committee (2010-), chaired from 2010-2013
- ASCE-EWRI Wetland Processes and Modeling Task Committee (2012-2017), vice chair
- ASCE-EWRI Land Use/Cover Change Impacts Task Committee (2009), chair

- ASCE-EWRI Surface Water Hydrology Technical Committee (2008-), secretary (2017/2018), vice chair (2018/2019)
- ASCE-EWRI International Participation Technical Committee (2014-), secretary (2014-2017)
- ASCE-EWRI International Council (2012-2014)
- Search committee for the Editor-in-Chief for the *Journal of the American Water Resources Association* (2014)

Membership to Professional Organizations

- American Geophysical Union (AGU), American Society of Civil Engineers (ASCE), International Association of Hydrological Sciences (IAHS), American Water Resources Association (AWRA) Alabama Section

University Service

- **Senator**, representing School of Forestry and Wildlife Sciences in Senate (2014-2018)
- **Member** of AU Senate Competitive Research Grant Committee (2018-)
- **Member** of AU Senate Graduate Council (2018-)
- **Member** of AU Computational Infrastructure Working Group (2018-)
- **Member** of AU Council of Energy, Environment and Economic Research (CEEER) (2014-2015)
- **Member** of AU Environmental Initiative Subcommittee (2014-2015)
- **Search Committee Chair** of Disease Ecology Faculty Position (2014-2015)
- **Selection Committee Member** of Luce and Dixon Endowed Professorships in SFWS (2015)
- **Search Committee Member** of Interim Dean for Research of SFWS (2014)
- **Search Committee Member** of Director for Auburn University Water Resources Center (2014-2015)
- **Chair** of School of Forestry and Wildlife Sciences, Information Technology Committee (2011-)
- **Auburn University representative** for Consortium of Universities for the Advancement of Hydrologic Science (CUAHSI) (2008-)
- **Member** of Auburn University Water Resources Center (2008-)
- **Member of** 2015 SURA Distinguished Scientist Award selection committee (2014)

Other

- International Advisor of the project "Determining the Effects of Watershed Characteristics and Stand Structure on Water Yield and Quality" in Turkey, which is funded by *The Scientific and Technological Research Council of Turkey* (TUBITAK).
- Fundamentals of Engineering (FE/EIT) Certificate, State of Michigan.
- Regular reviewer of the following journals: *Environ. Monitoring & Assessment, J. of Hydrologic Eng., J. of Hydrology, Trans. of ASABE, Chemical Eng. J., J. of Environ. Management, Hydrological Processes, Environ. Management, Ecological Eng., Advances in Water Resources, J. of Environ. Biology, HKIE Transact, Ecological Modeling, J. of American Water Resources Assoc, Africa J. of Ag Research, Ecohydrology, Science of Total Environ., Urban Ecosystems, J. of Envir. Eng*., *Water Resour. Res*., *Int. J. Global Warm., PLOS ONE*
- Reviewed proposals for *NSF, EPA, NOAA*, *NIWR, Freiburg Institute for Advanced Studies, U.S. Civilian Research & Development Foundation -U.S. Central Asian Research Travel Grant Competition, Mississippi/Alabama Sea Grant Consortium, USDA McIntire Stennis (Puerto Rico), Louisiana Board of Regents, McIntire Stennis, Louisiana Sea Grant Consortium, AAES Hatch Program, Auburn University Experiment Station Hatch Equipment Grants*

AWARDS AND HONORS

- **Best Associate Editor, 2020**, Journal of Hydrologic engineering
- **The Harry Murphy Research Award, 2018 (Auburn University, School of Forestry and Wildlife Sciences)**
- **ASCE-EWRI Fellow, 2017**
- **ASCE-EWRI 2015 Outstanding Achievement Award**
- **Outstanding Paper Award**: Water and Environment Journal (2013): Ardiclioglu, M., O. Genc, L. Kalin, N. Agiralioglu (2012), "Investigation of flow Properties in Natural Streams by Entropy Concept", Water and Environment Journal. 26(2): 147-154.
- **Highly Cited Research Certificate** by *Elsevier* for our paper Niraula, R., L. Kalin, P. Srivastava, C. Anderson (2013), "Identifying Critical Source Areas of Nonpoint Source Pollution with SWAT and GWLF", Ecological Modeling, 268:123-133. (First author was my MS student)
- **Scientific and Technological Achievement Award**, US EPA 2015 (awarded in 2016).
- **Scientific and Technological Achievement Award**, US EPA 2012 (awarded in 2013).
- **Scientific and Technological Achievement Award**, US EPA 2009 (awarded in 2010).
- **Best Reviewer Award,** 2011, Journal of Hydrologic engineering
- **Best Reviewer Award,** 2010, Journal of Hydrologic engineering
- Listed in the Marquis Who's Who in Science and Engineering and Who's Who in the World.
- Oak Ridge Institute for Science and Education (ORISE) Fellowship, 2002-2005.
- Delleur Award, Purdue University, 2001.
- Turkish Government Graduate Study Fellowship, 1997- 1998.

AWARDS AND HONORS BY MY STUDENTS

- Rasika Ramesh, 2017: Ducks Unlimited Fellowship, SFWS, Auburn University
- Mehdi Rezaeianzadeh, 2016: Outstanding Graduate Student Award, SFWS, Auburn University
- Rasika Ramesh, 2015: Dukes Graduate Student Award, SFWS, Auburn University
- Mehdi Rezaeianzadeh, 2015: Goggans Graduate Student Award, SFWS, Auburn University
- Maharam Dakua tied for first place ($25K award) at the "End of Program Conference in 2015". Maharram was a USAID visiting fellow to MBNEP and I co-mentored him. His presentation was on implementing what he learned in U.S in Bangladesh. He worked on outreach efforts in my MBNEP project.
- Navideh Noori, 2014: Scholarship given by the National Association of University Forest Resource Programs to cover the registration fee for the 2014 IUFRO World Congress
- Rasika Ramesh, 2013: In a campus wide competition Rasika has been awarded a free 2-yr membership in the American Association for the Advancement of Science (AAAS) and subscription to the journal of *Science*
- Navideh Noori, 2013: In a campus wide competition Navideh has been awarded a free 2-yr membership in the American Association for the Advancement of Science (AAAS) and subscription to the journal of *Science*
- Navideh Noori, 2013: Outstanding International Student Award
- Navideh Noori, 2013: Dukes Fellowship Award
- Navideh Noori, 2013: Meriwether Award
- Amir Sharifi, 2012: Most Outstanding International Student, School of Forestry and Wildlife Sciences, Auburn University
- Amir Sharifi, 2012: Dukes Graduate Student Award in Biological Sciences for the School of Forestry and Wildlife Sciences, Auburn University.
- Andrew Morrison, 2010: Alabama Water Resources Conference oral presentation award, 2nd place.
- Andrew Morrison, 2009: Alabama Water Resources Conference poster presentation award, 3rd place.

FUNDED RESEARCH PROJECTS

1. "A coupled natural-human framework for risk assessment of coastal communities from land-use and climate change", National Academy of Science – Restore, 2020-2023, **$1,110,000, (Co-PI)**.
2. "Coupling SWAT and WetQual for Improved N, P, and C Processing in Wetland Dominated Agricultural Watersheds", USDA-NIFA, 2020-2024, $**499,932 (PI).**
3. "Linking Watershed Nutrient Loads to Laizhou Bay Water Quality Indicators: Development and Validation of Stressor-Response Models", Ocean University of China – Auburn University Joint Center, 2019-2020, **$74,678, (PI)**.
4. "Wetland Hydrology and Nutrient Modeling", *US-EPA*, 2019-2020, **$66,000 (Single PI)**.
5. "Building Resilience for Oysters, Blue Crabs, and Spotted Seatrout to Environmental Trends and Variability in the Gulf of Mexico", *NOAA*, 2019-2024**, $2,887,250 (co-PI).**
6. "Wetland Hydrology and Nutrient Modeling - 3", *US-EPA*, 2018-2019, **$100,000 (Single PI)**.
7. "Coupling a wetland and watershed model for improved water quantity/quality prediction", USDA-HATCH, 2017-2019, **$49,500 (Single PI)**.
8. "Wetland Hydrology and Nutrient Modeling - 2", *US-EPA*, 2017-2018, **$73,400 (Single PI)**.
9. "Coastal Development in the Northern Gulf of Mexico: Linking Drainage Patterns and Tidal Creeks Habitat", NOAA- *Mississippi/Alabama Sea Grant Consortium*, 2017-2019, **$130,000 (Co-PI)**.
10. "Agricultural Water Security through Sustainable Use of the Floridian Aquifer: An Integrated Assessment of Economic and Environmental Impacts", *USDA-NIFA*, **$ 4,918,922 (Co-PI)**.
11. "Development and Dissemination of a National Stream Corridor Survey Method that Provides Hydro-ecological Support into Integrated Watershed Management Plans", TUBITAK-TURKEY (equivalent to NSF), 2017-2020, **(co-PI, I've travel support only**).
12. "Enhancing Seasonal Hydrological Forecasts in the Alabama-Coosa-Tallapoosa (ACT) River Basin using the North American Multi-Model Ensemble", *Alabama Water Resources Research Institute*, **$49,999 (Co-PI)**.
13. "Wetland Hydrology and Nutrient Modeling -1", *US-EPA*, 2016-2017, **$79,600 (Single PI)**
14. "Wetland Nutrients and Carbon Cycling Modeling", *US-EPA*, 2015-2016, **$69,713 (Single PI)**
15. "Wetland and Riparian Buffer Modeling", *US-EPA*, 2014-2015, **$59,711 (Single PI)**.
16. "Low Impact Development Practices for the Most Flood Prone Areas in Toulmins Spring Branch, Mobile and Prichard AL", *Mobile Bay National Estuary Program*, 2014-2016, **$79,000 (single PI)**.
17. "Determining The Effects of Watershed Characteristics and Stand Structure on Water Yield and Quality", TUBITAK-TURKEY (equivalent to NSF), **$180,000 (*I am the international project advisor; I do not have a budget for myself*, Co-PI Dr. Ozcan was my former visiting scientist)**
18. "Wetland and Riparian Zone Processes Modeling", *US-EPA*, 2013-2014, **$60,747 (Single PI)**
19. "Impact of Forest to Urban Conversion on Human Health", *US Forest Service*, 2012-2014, **$239,507 (Co-PI)**.
20. "Forecasting Streamflows in the Apalachicola-Chattahoochee-Flint River Basin Using Ensemble Streamflow Predictions", *NOAA*, 2012-2014, **$363,854 (Co-PI)**.
21. "Wetland Nutrients and Carbon Modeling", *US-EPA*, 2012-2013, **$58,500 (Single PI)**.
22. "Role of Headwater Wetlands for Wetland Water Quality Improvement in Coastal Alabama", *NOAA Mississippi/Alabama Sea Grant Consortium*, 2012-2014, **$330,976 (Co-PI)**.
23. Hatch Equipment Grant, *Alabama Agricultural Experiment Station*, 2011, **$24,000 (Single PI).**
24. "Quantifying the Effect of Urbanization on Water Quantity and Quality of Coastal Alabama", *Alabama Agricultural Experiment Station*, 2010-2012, **$49,638 (Single PI)**
25. "Modeling Climate and Land Use Change Impact on Hydrology and Water Quality Characteristics across an Urban-Rural Gradient", *Auburn University Center of Forest Sustainability*, 2010-2012, **$105,000 (Co-PI)**.

26. "Reducing Drought Risks in the Southeast USA: Quantification of Drought Information Value, Development of Drought Indices, and Communication of Drought Information", *NOAA*, 2010-2012, **$286,935 (Co-PI)**.
27. "Identifying Flood Generating Areas in 8-Mile Creek Watershed through a Novel Approach", *NOAA Mississippi/Alabama Sea Grant Consortium*, 2010-2012, **$269,705 (PI)**
28. "Influence of Forested Landscapes and Land Use Change on Water Resources in the Southeastern USA", *US Forest Service*, 2009-2010, **$40,000 (Co-PI)**.
29. "Assessment of the Impacts of Natural and Economic Activities on the Land Use/Cover and Hydrological Patterns of Dauphin Island", *Auburn University Center of Forest Sustainability*, 2008-2011, **$75,600 (Co-PI)**.
30. "Impact of Human Activities and Climate Change on Water Resources and Ecosystem Health in Wolf Bay Basin: A Coastal Diagnostic and Forecast System (CDFS) for Integrated Assessment", *Auburn University Water Resources Center*, 2008-2010, **$750,000 (Co-PI)**.
31. "Bridging the Gap between Science, People and Policy for Sustainable Watershed Management in the Tallapoosa River Basin and Beyond", *Auburn University Water Resources Center*, 2008-2010, **$750,000 (Co-PI)**.
32. "Reducing the Attractiveness of Airport Stormwater Retention Facilities to Birds", *Federal Aviation Administration*, 2008-2011, **$800,000 (Co-PI)**.
33. "An Interdisciplinary Assessment of Population Growth and Development Impacts on the Fish River Basin Coastal Community", *NOAA Mississippi/Alabama Sea Grant Consortium*, 2008-2010, **$281,833 (PI)**.
34. "Applying Multiple Models to Inform Watershed Management and Land Use Planning in a Coastal Community", *NOAA Cooperative Institute for Coastal and Environmental Technology*, 2007-2009, **$235,336 (Co-PI)**.
35. "Watershed and Water Quality Modeling Services", *US-EPA*, 2007-2009, **$79,100 (Single PI)**.

PUBLICATIONS:

(* advised/mentored graduate students/post-docs)

Refereed Journal Articles

1. Noori*, N., **L. Kalin**, S. Isik*(2020), "Water Quality Prediction Using SWAT-ANN Coupled Approach", *Journal of Hydrology*. Vol 590. https://doi.org/10.1016/j.jhydrol.2020.125220**.**
2. Ramesh*, R., C. Anderson, **L. Kalin** (2020), "Characterizing Nitrogen Attenuation by Headwater Slope Wetlands across Different Land Uses", *Ecological Engineering*. Vol 149. https://doi.org/10.1016/j.ecoleng.2020.105833.
3. Dosdogru*, F., **L. Kalin**, R. Wang*, H. Yen (2020), Potential Impacts of Land Use/Cover and Climate Changes on Ecologically Relevant Flows. *Journal of Hydrology*. Vol 584. https://doi.org/10.1016/j.jhydrol.2020.124654.
4. Karki*, R., P. Srivastava, D. Bosch, **L. Kalin**, J. Lamba, T. Strickland (2020), "Multi-variable sensitivity analysis, calibration, and validation of a field-scale SWAT model: Building Stakeholder Trust in Hydrologic/Water Quality Modeling", *Transactions of the ASABE*. 63(2): 523-539. DOI: 10.13031/trans.13576.
5. Ramesh*, R. **L. Kalin**, M. Hantush, M. Rezaeinzadeh*, C. Anderson (2020), "Challenges Calibrating Hydrology for Groundwater-Fed Wetlands: a Headwater Wetland Case Study", *Environmental Modeling & Assessment*. DOI: 10.1007/s10666-019-09684-8.
6. Cavus*, I., **L. Kalin**, F. Kara (2019), "Changes in stream morphology protected by Best Management Practices under the effects of upstream disturbances", *Environmental Earth Sciences*. 78:526. DOI: 10.1007/s12665-019-8540-5.

7. Yen, H., S. Park, J. Arnold, R. Srinivasan, C. Chawanda, R. Wang*, Q. Feng, J. Wu, C. Miao, K. Bieger, P. Daggupati, A. Griensven, **L. Kalin**, S. Lee, A. Sheshukov, M. White, Y. Yuan, I. Yeo, M. Zhang, X. Zhang (2019), "IPEAT+: A Built-in Optimization and Automatic Calibration Tool of SWAT+", *Water*. 11(8), 1681; https://doi.org/10.3390/w11081681.
8. Palki, A., J. Lamba, P. Srivastava, **L. Kalin** (2019), "Modeling Effectiveness of Broiler Litter Application Method for Reducing Phosphorus and Nitrogen Losses", *Hydrology Research*. https://doi.org/10.2166/nh.2019.017.
9. Rezaeianzadeh*, M., **L. Kalin**, M. Hantush (2018), "An Integrated Approach for Modeling Wetland Water Level: Application to a Headwater Wetland in Coastal Alabama, USA", *Water*. 10(7), 879; https://doi.org/10.3390/w10070879.
10. Cavus*, I., **L. Kalin**, F. Kara (2017), "Impacts of upstream urban activities on downstream sediment production in the presence of best management practices", *International Journal of Sediment Research*. 32:555-563.
11. Avcioglu*, B., C. Anderson, **L. Kalin** (2017), "Evaluating the slope-area method to accurately identify channel heads in the State of Alabama", *Journal of American Water Resources Association*. 55(3): 562-575.
12. Wang*, R., **L. Kalin** (2017), "Combined and synergistic effects of climate change and urbanization on water quality in the Wolf Bay watershed, Southern Alabama", *Journal of Environmental Sciences*. 64:107-121.
13. Sharifi*, A., H. Yen, K. Boomer, **L. Kalin**, X. Li, D. Weller (2016), "Using multiple watershed models to assess the water quality impacts of alternate land development scenarios for a small community", *Catena*. 150:87-99.
14. Lockaby, B.G., N. Noori*, W. Morse, W. Zipperer, **L. Kalin**, R. Sawant*, M. Ricker (2016), "Climatic, Ecological, and Socioeconomic Factors Associated with West Nile Virus Incidence in Atlanta, GA", *Journal of Vector Ecology*. 41(2):232-243.
15. **Kalin, L.**, M. Hantush (2016), "Special Issue on Advances in Wetland Hydrology and Water Quality Processes Modeling", *Journal of Hydrologic Engineering*, DOI: 10.1061/(ASCE)HE.1943-5584.0001483.
16. Sharifi*, A., M. Hantush, **L. Kalin** (2016), "Modeling Nitrogen, Carbon and Phosphorus dynamics in wetland soils and water using a mechanistic wetland model", *Journal of Hydrologic Engineering*. DOI: 10.1061/(ASCE)HE.1943-5584.0001441.
17. Noori*, N., **L. Kalin**, S. Sen*, P. Srivastava, C. Lebleu (2016), "Identifying Areas Sensitive to Land Use/ Land Cover Change for Downstream Flooding in a Coastal Alabama Watershed", *Regional Environmental Change*. 16(6): 1833-1845.
18. Chang, S.W., K. Nemec*, **L. Kalin**, and T.P Clement (2016), "Impacts of Climate Change and Urbanization on Groundwater Resources in a Barrier Island", *Journal of Environmental Engineering*. http://dx.doi.org/10.1061/(ASCE)EE.1943-7870.0001123.
19. Noori*, N., **L. Kalin** (2016), "Coupling SWAT and ANN Models for Enhanced Daily Streamflow Prediction", *Journal of Hydrology*. 533:141-151.
20. Rezaeianzadeh*, M., **L. Kalin**, C. Anderson (2015), "Wetland Water Level Prediction using ANN in Conjunction with Baseflow Recession Analysis", *Journal of Hydrologic Engineering*. DOI: 10.1061/(ASCE)HE.1943-5584.0001276.
21. Yen, H., A. Sharifi*, **L. Kalin**, J. Arnold (2015), "Assessment of Model Predictions and Parameter Transferability by Alternative Land Use Data on Watershed Modeling", *Journal of Hydrology*. 527:458-470.
22. Noori*, N., B.G. Lockaby, **L. Kalin** (2015), "Larval Development of Culex Quinquefasciatus in Water with Low to Moderate Pollution Levels", *Journal of Vector Ecology*. 40(2):208-220.
23. Kara, F., **L. Kalin**, E. Loewenstein (2015), "Changes in Water Characteristics as a Result of Silvicultural Treatments within a Stream Buffer Zone", *Turkish Journal of Agriculture and Forestry*. 39:764-774.

24. Singh*, H., **L. Kalin**, A. Morrison*, P. Srivastava, G. Lockaby, S. Pan (2015), "Adaptability of SWAT Model in Predicting Land Use/Cover Change Impacts on Water Quality: A Case Study", *Hydrology Research*. DOI: 10.2166/nh.2015.222.
25. Sharma, S., P. Srivastava, X. Fang, **L. Kalin** (2015), "Long-Range Hydrologic Forecasting in El Niño Southern Oscillation-Affected Coastal Watersheds: Comparison of Climate Model and Weather Generator Approach", *Journal of Hydrologic Engineering*. Doi: 10.1061/(ASCE)HE.1943-5584.0001198, 06015006.
26. Sharifi*, A., **L. Kalin**, M.M. Hantush, A.T. O'Geen, R.A. Dahlgren, J.J. Maynard (2015), "Capturing spatial variability of concentrations and reaction rates in wetland water and soil through model compartmentalization", *Journal of Hydrologic Engineering*. 10.1016/j.jhydrol.2015.04.076, 458-470.
27. Sefick*, S., **L. Kalin**, E. Kosnicki, M.S. Jarrell, B.P. Schneid, C.J. Anderson, M.H. Paller, J.W. Feminella (2014), "Flow-resistance equations for low-gradient, sand-bed streams of the Southeastern Plains". *Journal of American Water Resources Association*. 51(4): 1060-1071.
28. Sharma, S., P. Srivastava, X. Fang, **L. Kalin** (2014), "Performance Comparison of Adoptive Neuro Fuzzy Inference System (ANFIS) with Loading Simulation Program C+++ (LSPC) Model for Streamflow Simulation in El Nino Southern Oscillation (ENSO) Affected Watershed", *Expert Systems With Applications*. 42(4):2213-2223.
29. Sharma, S., P. Srivastava, **L. Kalin**, X. Fang, Emile Alias (2014), "Predicting Total Organic Carbon Load with El Niño Southern Oscillation Phase Using Hybrid and Fuzzy Logic Approaches", *Transactions of the ASABE*. 57(4): 1071-1085.
30. Sharma, S., P. Srivastava, X. Fang, **L. Kalin** (2014), "Hydrologic Simulation Approach for El Niño Southern Oscillation (ENSO)-Affected Watershed with Limited Rain Gauge Stations", *Hydrological Sciences Journal*. Accepted. doi: 10.1080/02626667.2014.952640.
31. Kara, F., **L. Kalin**, E. Loewenstein (2014), "Sediment Dynamics Following Active Management of a Stream Buffer Zone: A Case Study", *Journal of Soil and Water Conservation*. 69(2): 87-94.
32. Rezaeianzadeh*, M., H. Tabari, A Yazdi, S. Isik*, **L. Kalin** (2014). "Flood Flow Forecasting Using ANN, ANFIS and Regression Models". *Neural Computing and Applications*. 25: 25-37.
33. Barksdale, F., C. Anderson, **L. Kalin** (2014), "The Influence of Watershed Runoff on the Hydrology, Forest Floor Litter and Soil Carbon of Headwater Wetlands", *Ecohydrology*. 7(2): 803-814.
34. Wang*, R., **L. Kalin**, W. Kuang, H. Tian (2013), "Individual and Combined Effects of Land Use/Cover and Climate Change on Wolf Bay Watershed Streamflow in Southern Alabama", *Hydrological Processes*. DOI: 10.10102/hyp.10057.
35. Niraula*, R., **L. Kalin**, P. Srivastava, C. Anderson (2013), "Effect of Model Choice in Determining Critical Source Areas of Nonpoint Source Pollution", *Ecological Modeling*. 268:123-133.
36. Sharifi*, A., **L. Kalin**, Hantush, M., S. Isik†, T. Jordan (2013), "Carbon Dynamics and Export from Flooded Wetlands: A modeling approach, *Ecological Modeling*. 263: 196-210.
37. Hantush, M.M., **L. Kalin**, A. Yucekaya†, and S. Isik† (2013), "Nutrient Dynamics in Submerged Wetlands: I. Model Development and Sensitivity Analysis", *Journal of Hydrologic Engineering*. 18(12), 1709–1723.
38. **Kalin, L.**, Hantush, M.M., S. Isik*, A. Yucekaya*, and T. Jordan (2013), "Nutrient dynamics in Submerged Wetlands: II. Model Evaluation", *Journal of Hydrologic Engineering*. 18(12): 1724–1738.
39. Sharda, V., P. Srivastava, **L. Kalin**, K. Ingram, M. Chelliah (2013), "Development of Community Water Deficit Index - Drought Forecasting Tool for Small- to Mid-Size Communities of the Southeastern United States", *Journal of Hydrologic Engineering*. 18(7): 846–858.
40. Sharifi*, A., **L. Kalin**, and M. Tajrishy (2013), "A system Dynamics Approach for Hydropower Generation Assessment in Developing Watersheds: A Case Study of Karkheh River Basin, Iran", *Journal of Hydrologic Engineering*. 18(8): 1007–1017.
41. Isik*, S., **L. Kalin**, J.E. Schoonover, P. Srivastava, and B.G. Lockaby (2013), "Modeling Effects of Changing Land Use/Cover on Daily Streamflow: An Artificial Neural Network and Curve Number based Hybrid Approach", *Journal of Hydrology*. 485: 103–112.

42. Sharma, S., S. Isik*, P. Srivastava, **L. Kalin** (2013), "Deriving Spatially Distributed Precipitation Data Using the Artificial Neural Network and MultiLinear Regression Models", *Journal of Hydrologic Engineering*, 18(2): 194–205.
43. Kara, F., E.F. Loewenstein, and **L. Kalin**, (2012), "Changes in Sediment and Water Yield Downstream on a Small Watershed", *Ekoloji*, 21(84):30-37.
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4) Ramesh*, R. **L. Kalin**, M. Hantush, A. Chaudhary, "A Secondary Assessment of Sediment Trapping Effectiveness by Vegetated Buffers", *Ecological Engineering*.

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1. He, J. L. Kalin, M. Hantush, S. Isik, M. Rezaeianzadeh (2019), "Assessment of a Depth-Averaged Soil Moisture Dynamics Model (DARE)", World Environmental & Water Resources Congress, May 19-23, 2014, Pittsburgh, PA.
2. Noori†, N., **L. Kalin**, G. Lockaby (2014), "Predicting impacts of changing land use/cover on streamflow in ungauged watersheds", World Environmental & Water Resources Congress, June 1-5, 2014, Portland, OR.
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Oral Presentations at Professional Meetings

(§ with published abstract, * presenter, † invited/keynote presentation)

1. Haas[*], H., **L. Kalin**, P. Srivastava (2019), "Can Soft Data Help Improving Intra-Watershed Processes in Watershed Modeling", American Geophysical Union Fall Meeting, Dec 9-13, 2019, San Francisco, CA.
2. Haas[*], H., **L. Kalin**, P. Srivastava (2019), "Predicting Pine Tree Growth and Evapotranspiration in Southeastern United States", Alabama Water Resources Conference & Symposium, September 4-6, 2019, Orange Beach, AL.
3. He[*], J., **L. Kalin**, M. Hantush, S. Isik, M. Rezaeianzadeh (2019), "A Depth-Averaged Soil Moisture Model and its Applications", Alabama Water Resources Conference & Symposium, September 4-6, 2019, Orange Beach, AL.
4. He[*], J., **L. Kalin**, M. Hantush, S. Isik, M. Rezaeianzadeh (2019), "Assessment of a Depth-Averaged Soil Moisture Dynamics Model (DARE)", World Environmental & Water Resources Congress, May 19-23, 2014, Pittsburgh, PA.

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7. **L. Kalin***, N. Noori (2018), "Daily Flow Prediction in Ungauged Watersheds: SWAT-ANN", Seminar on Catchment Monitoring, Nov 26-30, 2018, Santa Maria, Rio Grande de Sol, Brazil.
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9. § Ramesh*, R. **L. Kalin**, M. Hantush, M. Rezaienzadeh, C. Anderson, (2018), "Modeling Strategies for a Groundwater Dominated Headwater System", 2018 SWAT Conference, Sep 17-21, 2018, Brussels, Belgium.
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13. **Kalin*, L**, S. Celik, C. Anderson (2017), "Climate Change induced Risk to Freshwater Forested Wetlands along the Apalachicola Bay, USA", IUFRO 125th Congress, Sep 18-22, Freiburg, Germany.
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16. **Kalin*, L.**, F. Dosdogru (2016), "Impacts of Land Use/Cover Uncertainty on Predictions of Ecologically Relevant Flow Metrics", American Geophysical Union Fall Meeting, Dec 12-16, 2016, San Francisco, CA.
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49. Magori*, K., Lockaby, G.B., **Kalin, L.**, Morse, W., Zipperer, W.C., Noori, N., Sawant, R., Kelly, R. (2013) "Combined landscape and social conditions create high WNV infection risk in a major US metropolis." Ecological Society of America, 98th annual meeting, August 4-9, 2013, Minneapolis, MN.
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54. Mirhosseini*, G., P. Srivastava, X. Fang, **L. Kalin**, K. Ingram (2012), "Evaluating the Impact of Climate Change on Rainfall Intensity-Duration-Frequency Curves (IDF Curves) in Alabama", Sep 5-7, 2012, Orange Beach, AL.
55. § Hantush*, M.M., **L. Kalin**, A. Yucekaya, S. Isik (2012), "Phosphorus Dynamics in Flooded Wetlands: I. Model Development and Sensitivity Analysis", ASCE World Environmental & Water Resources Congress, May 20-24, 2012, Albuquerque, NM.
56. § **L. Kalin***, Hantush, M.M., S. Isik, A. Yucekaya, T. Jordan (2012), "Phosphorus Dynamics in Flooded Wetlands: II. Application to a Restored Wetland", ASCE World Environmental & Water Resources Congress, May 20-24, 2012, Albuquerque, NM.

57. § Sharifi*, L. Kalin, M. Hantush (2012), "A physically based numerical model for simulating dissolved organic carbon (DOC) export from natural and constructed wetlands", ASCE World Environmental & Water Resources Congress, May 20-24, 2012, Albuquerque, NM.
58. Noori, N., **L. Kalin**, P. Srivastava, C. LeBleu (2012), "Effects of Initial Abstraction Ratio in SCS-CN Method on Modeling the Impacts of Urbanization on Peak Flows", ASCE World Environmental & Water Resources Congress, May 20-24, 2012, Albuquerque, NM.
59. Sharda*, V., P. Srivastava, K. Ingram, L. Kalin, M. Chelliah (2011), "Community Water Deficit Index (CWDI) -A Tool for Forecasting Drought in the Southeastern U.S.", South East Climate Consortium Fall Planning Meeting, Nov 2-4, 2011, Tallahassee, FL.
60. Sharda*, V., P. Srivastava, K. Ingram, **L. Kalin**, X. Fang (2011), "Development of Community Water Deficit Index (CWDI) for small to mid-size communities of Southeastern United States", 25th Annual Alabama Water Resources Conference and Symposium, September 7-9, 2011, Orange Beach, Alabama.
61. Sharma*, S., P. Srivastava, **L. Kalin**, X. Fang (2011), "Incorporating El Niño Southern Oscillation (ENSO) for Point Source Discharge Permitting in a Complex River System", 25th Annual Alabama Water Resources Conference and Symposium, September 7-9, 2011, Orange Beach, Alabama.
62. **L. Kalin***, R. Wang, and P. Srivastava (2011), "Land Use/Cover Change Effects on Hydrology and Water Quality in Coastal Alabama", 25th Annual Alabama Water Resources Conference and Symposium, September 7-9, 2011, Orange Beach, Alabama.
63. § Hantush*, M.M., **L. Kalin**, A. Yucekaya, S. Isik (2011), "Modeling Wetland Nitrogen Dynamics: I. Model development and sensitivity analysis", ASCE World Environmental & Water Resources Congress, May 22-26, 2011, Palm Springs, CA.
64. § **Kalin*, L.**, M.M. Hantush, A. Yucekaya, T. Jordan (2011), "Modeling Wetland Nitrogen Dynamics: II. Application and Uncertainty Analysis", ASCE World Environmental & Water Resources Congress, May 22-26, 2011, Palm Springs, CA.
65. § Kara*, F., Loewenstein, E.F., **Kalin, L.** (2011). Sediment Yield along an Actively Managed Riparian Buffer. 16th Biennial Southern Silviculture Research Conference. February 14-17, 2011. Charleston, SC.
66. § Srivastava*, P., V. Sharda, K. Ingram, M. Chelliah, **L. Kalin** (2010), "Quantification of El Niño Southern Oscillation (ENSO) Impact on Precipitation and Stream Flows for Improved Management of Water Resources in Alabama". Alabama-Mississippi Bays & Bayous Symposium, Dec 1-3, Mobile, AL.
67. § **Kalin***, **L.**, A. Morrison, H. Singh, S. Pan, C. LeBlue, R. Retzlaff (2010), "Water Quality Response to Changes in Land Use/Cover in the Fish River Watershed: A Modeling and Monitoring Synthesis", Alabama-Mississippi Bays & Bayous Symposium, Dec 1-3, Mobile, AL.
68. Morrison*, A., **L. Kalin**, B.G. Lockaby, and S. Phipps (2010), "Spatial and Temporal Trends and the Role of Land Use/Cover on Water Quality and Hydrology in the Fish River Watershed", 2010 Alabama Water Resources Conference, Sep 8-10, 2010, Orange Beach, AL.
69. Sharda*, V., P. Srivastava, K. Ingram, M. Chelliah, and **L. Kalin** (2010), "Quantification of El Niño Southern Oscillation (ENSO) Impact on Precipitation and Stream Flows for Improved Management of Water Resources in Alabama", 2010 Alabama Water Resources Conference, Sep 8-10, 2010, Orange Beach, AL.
70. Singh, H., **L. Kalin***, A. Morrison, P. Srivastava, B.G. Lockaby, and S. Pan (2010), "Can we Really Predict Effects of Changes in Land Use/Cover on Water Quality and Quantity?", 2010 Alabama Water Resources Conference, Sep 8-10, 2010, Orange Beach, AL.
71. Sharma*, S., P. Srivastava, **L. Kalin**, and X. Fang (2010), "Incorporating Climate Variability into NPDES Permitting of Nutrient Discharges from Waste Water Treatment Plants", 2010 Alabama Water Resources Conference, Sep 8-10, 2010, Orange Beach, AL.
72. Ardiclioglu*, M., S. Ozdin, E. Gemici, and **L. Kalin** (2010), "Determination of Flow Properties in Shallow Flow Rivers", Dryland Hydrology: Global Challenges, Local Solutions, Sep 1-4, 2010, Tuscon, AZ.

73. † Boomer*, K.B., X. Li, **L. Kalin**, and D. Weller (2010), "The Role of Watershed Modeling in Local Land Management Decisions in Maryland Communities", Integration & Application Network Seminar Series 2010. Annapolis, MD. May 20, 2010.
74. § Sharifi*, A., and **L. Kalin** (2010), "Effect of Land Use Uncertainty on Watershed modeling", ASCE World Environmental & Water Resources Congress, May 16-20, 2010, Providence, RI.
75. § **Kalin, L.**, and S. Isik* (2010), "Prediction of Water Quality Parameters Using an Artificial Neural Networks Model", ASCE World Environmental & Water Resources Congress, May 16-20, 2010, Providence, RI.
76. Boomer*, K.B., X. Li, **L. Kalin**, and D. Weller (2010), "The Role of Watershed Modeling in Local Land Management Decisions in Maryland Communities", The Chesapeake Community Modeling Program's Chesapeake Modeling Symposium. Annapolis, MD. May 10-11, 2010.
77. Li, Xuyong*, K.B. Boomer, D. Weller, and **L. Kalin** (2010), "Flow and Nutrient Discharges from Eastern Shore Tributaries in Response to Climate Change", The Chesapeake Community Modeling Program's Chesapeake Modeling Symposium. Annapolis, MD. May 10-11, 2010.
78. § Singh*, H.V., and **L. Kalin** (2009), "Spatial and Temporal Variations in Model Performance at Different Soil Data Resolution", AWRA Annual Conference, Nov 9-12, 2009, Seattle, WA.
79. † Srivastava*, P., P. Mondal, **L. Kalin**, and S.N. Panda (2009), "Ecologically-Sustainable Surface Water Withdrawal for Cropland Irrigation through Incorporation of Climate Variability". The Thirteenth International Conference on Diffuse Pollution and Integrated Watershed Management, DIPCON 2009, International Water Association, October 2009, Seoul, South Korea.
80. § Wang, R., and **L. Kalin*** (2009), "Modeling Effects of Land Use/Cover Changes: Calibration with Limited Data", 2nd International Conference on Forests and Water in a Changing Environment, Sep 14-16, 2009, Raleigh, NC.
81. § Helms*, B., **L. Kalin**, C. Nagy, B.G. Lockaby, and D. Stoeckel (2009), "Understanding the Water/Forest Relationship: a Synthesis of the Influence of Forest Cover and Its Removal on Aquatic Resources in the Southeastern United States", 2nd International Conference on Forests and Water in a Changing Environment, Sep 14-16, 2009, Raleigh, NC.
82. † Hantush*, M.M., **L. Kalin**, M. Arabi, and R.S. Govindaraju (2009), "Predictive Uncertainty in Hydrologic and Water Quality Modeling: Approaches, Applications to Environmental Management, and Future Challenges", International Conference on Water, Environment, Energy and Society, 12-16 January 2009, New Delhi, India.
83. § Singh, H.V., **L. Kalin***, and B.G. Lockaby (2009), "Studying the Impact of Land Use/Cover Changes on the Water Quality of Weeks Bay, AL: Model vs. Regression", ASCE-EWRI Annual Conference, May 17-21, 2009, Kansas City, MO.
84. † **Kalin*, L.**, LeBlue, Retzlaff, and Pan (2009), "Land Use/Cover - Water Quality Interactions in a Coastal Alabama Watershed", 2009 Annual Research and Watershed Conference, April 14-15, 2009, Fayetteville, AR.
85. †Tian*, H., **L. Kalin**, X. Fang, D. Laband, P. Clement, J. Feminella, K. Flynn, M. Dougherty, C. Anderson, and S. Pan (2008), "The Coastal Diagnostic and Forecast System (CDFS) for Assessing Impacts of Human Activities and Climate Change on Water Resources and Ecosystem Health: The Wolf Bay Project", Alabama Water Resources Conference, Sept. 3-5, 2008, Orange Beach, AL.
86. † **Kalin*, L.**, C. LeBleue, S. Pan, and R. Retzlaff (2008), "Population Growth and Development Impacts on the Fish River Basin Coastal Community", Bays and Bayous Symposium, Oct 28-29, 2008, Biloxi, MS.
87. **Kalin*, L.**, M.M. Hantush (2007), "Predictive uncertainty and parameter sensitivity of a sediment-flux model: nitrogen flux and sediment oxygen demand". World Environmental & Water Resources Congress, May 15-19, 2007, Tampa, FL.
88. **Kalin*, L.**, and M.M. Hantush (2007), "Role of spatial scale in sub-area prioritization to reduce impacts of planned land use/cover alterations on watershed responses", Emerging Issues along Urban/Rural Interfaces, Apr 9-12, 2007, Atlanta, GA.

89. **Kalin*, L.**, and M.M. Hantush (2006), "Prioritization of sub-areas in watersheds to reduce potential adverse impacts of projected land use/cover alterations", American Water Resources Association 2006 Annual Water Resources Conference, Nov 6-9, 2006, Baltimore, MD.
90. Hantush, M.M., and **Kalin*, L.** (2006), "A method for estimating uncertainty of a distributed hydrologic model: application to Pocono Creek Watershed", American Water Resources Association 2006 Annual Water Resources Conference, Nov 6-9, 2006, Baltimore, MD.
91. **Kalin*, L.**, and M.M. Hantush (2005), "Hydrologic modeling of Pocono Creek for sustainable watershed management", American Water Resources Association 2005 Annual Water Resources Conference, Nov 7-10, 2005, Seattle, WA.
92. Hantush*, M.M., and **Kalin, L.** (2005) "A distributed model for assessment of natural recovery in bottom sediments". In 15th Annual AEHS Meeting and West Coast Conference on Soils, Sediments and Water, March 14-17, 2005, San Diego, CA.
93. **Kalin*, L.**, M.M. Hantush (2003), "Assessment of Two Physically-Based Watershed Models Based on Their Performances of Simulating Water and Sediment Movement", 1st Interagency Conference on Research in the Watersheds (ICRW), Benson, AZ, October27-30, 2003, 316-322.
94. Hantush*, M.M., **L. Kalin** (2003), "Modeling Uncertainty of Runoff and Sediment Yield Using a Distributed Hydrologic Model", 1st Interagency Conference on Research in the Watersheds (ICRW), Benson, AZ, October 27-30, 2003.
95. **Kalin*, L.**, M.M. Hantush (2003), "Probabilistic modeling of sediment yield in a small agricultural watershed using Kineros-2", AWRA Specialty Conference: Agricultural Hydrology and Water Quality, Kansas City, MO, May 12-14, 2003.
96. **Kalin, L.**, R.S. Govindaraju*, and M. Hantush (2002). "Identification of Sediment Source Areas within a Watershed." Keynote Paper in Conference on Hydraulics, Water Resources and Ocean Engineering-HYDRO 2002, Indian Institute of Technology, Bombay, India.
97. **Kalin*, L.**, R.S. Govindaraju (2001), "Influence of GIS resolution on response in the stream", World Water and Environmental Resources Congress 2001, May 20–24, 2001, Orlando, Florida, USA.

GRADUATE STUDENTS

* Students with no department names listed under their name are in SFWS
** **MP:** Major Professor, **Co-MP**: Co-Advised, **CM:** Committee Member

Graduate Students (work completed)

Name*	Involv.**	Degree	Yr	Position Now Held
Henrique Haas	MP	MS	2020	PhD student at Auburn Un.
Arshdeep Singh	CM	MS	2020	PhD student at U. of Nebraska
Yuanzhi Yao	CM	PhD	2020	Post-Doc at Auburn Un.
Yanan Duan	CM	MS	2020	PhD student at Auburn Un.
Recep Kanber	MP	MS	2019	General Directorate of State Hydraulic Works, Turkey
Rasika Ramesh	MP	PhD	2018	USGS/Fisheries, Auburn University
Palki Arora	CM	MS	2018	-
Mehdi Rezaeianzadeh	MP	PhD	2017	Senior Hydrologic Scientist at Lynker Technologies; National Water Center
Seval Celik	Co-MP	MS	2016	Ministry of Forestry and Water, Turkey

Enis Baltacioglu	MP	MS	2016	Ministry of Forestry and Water, Turkey
Furkan Dosdogru	MP	MS	2016	Ministry of Forestry and Water, Turkey
Ryan McGehee (Biosystems Eng.)	CM	MS	2016	PhD student, Purdue University
Hamed Majidzadeh	CM	PhD	2016	Post-Doc, Clemson University
Michel Moore	CM	PhD	2016	USGS, Hawaii
Stephen Sefick (Biology)	CM	PhD	2016	Post-Doc, Auburn Univ.
Ahmet Yucel (Mathematics)	External Reviewer	PhD	2016	Aksaray University, Turkey
Guleser Sufraci	MP	MS	2015	Ministry of Forestry and Water, Turkey
Ilkim Cavus	MP	MS	2015	Ministry of Forestry and Water, Turkey
Burak Avcioglu	Co-MP	MS	2015	Ministry of Forestry and Water, Turkey
Navideh Noori	MP	PhD	2015	Research Scientist, Institute for Disease Modeling
Nischal Mishra (Biosystems Eng)	CM	MS	2015	Works in a consulting Company, DC
Kamaljit Banger	CM	PhD	2015	Post-Doc, University of Illinois
Subhasis Mitra (Biosystems Eng.)	CM	PhD	2015	Post-doc, Auburn Un.
Jia Yang	CM	PhD	2015	Post-Doc, Auburn Un.
Amir Sharifi	MP	PhD	2013	Environmental Protection Specialist, Department of Energy and Environment, Washington DC
Qichun Yang	CM	PhD	2013	Post-Doc, Auburn Un.
Golbahar Mirhoseini (Civil Eng)	CM	PhD	2013	Post-Doc, Biosystems Eng. Auburn Un.
Suresh Sharma (Civil Eng)	CM	PhD	2012	Ass. Prof., Civil Eng., Youngstown State Univ.
Wales Barksdale	CM	MS	2012	Works for a private company in Atlanta
Vaishali Sharda (Biosystems Eng)	CM	PhD	2012	Post-Doc, AgWeatherNet, Washington State Univ.
Nirajan Dhakal (Civil Eng)	External Reviewer	PhD	2012	Post-Doc at Sustainability Solutions Initiative (SSI) - University of Maine
Katie Petty (Civil Eng)	Co-MP	MS	2011	USGS, Miami, FL
Harsh Singh	MP	MS	2010	Data Scientist, Oshkosh Corp, Wisconsin
Rewati Niraula	MP	MS	2010	Research Scientist, Texas Institute of Applied Environmental Research

Ruoyu Wang	MP	MS	2010	Post-Doc, U.C. Davis
Andrew Morrison	MP	MS	2010	CH2M Hill, Atlanta Office
Nishan Bhattarai	Co-MP	MS	2010	Post-Doc., University of Michigan
Ferhat Kara	CM	MS	2010	Asistant Prof., Kastamonu University, Turkey
Xiaofeng Xu	CM	PhD	2010	Oak Ridge National Lab, Tennessee
Anand Gupta (Biosystems Eng)	CM	MS	2009	Works for Government of India
Anurag Srivastava (Biosystems Eng)	CM	MS	2009	PhD student at Biological Systems Eng., Washington State Univ.
Sumit Sen (Biosystems Eng)	External Reviewer	PhD	2009	Assistant Prof., Dep. of Hydrology, Indian Institute of Technology (Roorke)
Ahmet Yucekaya (Industrial Eng.)	External Reviewer	PhD	2008	Associate Prof. and Dept. Head, Industrial Eng. Dept, Kadir Has Univ., Istanbul, Turkey

Graduate Students (currently active)

MP: Major Professor, **Co-MP**: Co-Advised, **CM:** Committee Member

Name	Involv.	Degree	Exp Grad
Henrique Haas	MP	PhD	2024
Kaleb Asnake	MP	PhD	2024
Dongjun Lee	MP	PhD	2024
Ritesh Karki (Biosystems Eng.)	MP	PhD	2020
Junhao He	MP	PhD	2020
Welber Ferreira (Institute of Geosciences, University of Brasilia, Brazil)	Co-MP	PhD	2020
Joao Pedro (Civil Eng., University of Santa Maria, Brazil)	Co-MP	MS	2020
Yanan Duan	CM	PhD	2023
Sam Bickley	CM	PhD	2022
Halil Sarabat	CM	MS	2020
Zhuonan Wang	CM	PhD	2021

Postdoctoral associates, research fellows and visiting scholars advised

Name	Involv.	Years	Position Held
Rajesh Sawant	Research Associate	2012 – 2019	With CESURI, Auburn University

Amir Sharifi	Post-Doc	2014, Jan – Jun	Environmental Protection Specialist, Department of Energy and Environment, Washington DC
Sabahattin Isik	Post-Doc	2009 –2013, 2016 –	Assoc. Prof. and Dept. Head, Turgut Ozal Univ., Civil Eng., Turkey
Sumit Sen	Post-Doc	2009 – 2011	Ast. Prof., IIT Roorke, Dep. of Hydrology, India
Onur Genc	Visiting Scientist	2014-2015	Ast. Prof. and Dept. Head at Meliksah Univ., Civil Eng., Turkey
Maharam Dakua	State Department Fellow	2014, Aug-Dec	Civil Engineer in Bangladesh
Meral Buyukyildiz	Visiting Scientist	2013, Jun – Sep	Ast. Prof., Necmettin Erbakan Univ., Civil Eng.
Davut Okcu (co-advised)	Visiting Student	2013, Jan – Dec	Ph.D. student at Istanbul Technical University, Civil Eng.
Mehmet Ozcan	Visiting Scientist	2012, Jan – May	Ast. Prof., Duzce University, Forest Engineering
Mehmet Ardiclioglu	Visiting Scientist	2010, Jul – Sep	Prof. and Dept. Head, Erciyes University, Civil Eng Dept.

TEACHING

Courses Taught

Course #	Name	Fequency
NATR-4240	Watershed Management	Every Spring
NATR-7550	Watershed Hydrology	Every Fall
NATR-7560	Modeling Environmental Change at Multiple Scales	Special Topic
FORY-7930	Wetland Hydrology and Nutrient Cycling Modeling	Special Topic

Courses and Curricula Developed

Course	Yr	Description
FORY/NATR 7560 Modeling Environmental Change at Multiple Scales	2015	This course is intended to teach students modeling fundamentals to solve environmental change problems at multiples scales driven by climate variability/change and land use/cover change. Students learn (i) about the physical processes simulated in widely used field and watershed models; (ii) develop understanding of linkages among the processes simulated,

		underlying assumptions, and relative importance of input data and model parameters; (iii) develop functioning knowledge of the selected models for estimating NPS pollutant (N, P and sediment) transport from agricultural, forestry, and urban activities; (iv) learn sensitivity and uncertainty analysis techniques and their implementation in real life.
FORY/NATR 7550 Watershed Hydrology	2015	The course "Advanced Studies in Forest Hydrology" was slightly modified to address a growing demand to cover almost the same concepts more from the watershed context, with less focus on forested systems.
FORY 5240/6240 Watershed Management (Lab)	2014	I developed a lab for this course. I cover the USEPA's BASINs tool in the lab. Students learn automated and manual watershed delineation, creating watershed reports, downloading and analyzing climate, water quality, hydrology and census data within a watershed context.
FORY-7930 Modeling Techniques for Land Use Change Impacts on Water Quality/Quantity	2013	This course teaches students the state of the art behind modeling the effects of land use/cover changes on water quality and quantity at watershed scale. The types of models covered are mechanistic watershed models (SWAT and MAPSHED), artificial intelligence techniques (ANN), regression based (LOADEST and SPARROW).
FORY-7930 Multipurpose Environmental Analysis System	2010	This independent study course teaches students U.S. EPA's BASINS tool. Students learn how to integrate environmental data, analytical tools, and modeling programs to support cost-effective approaches to watershed management and environmental protection, including development of TMDLs.
FORY-7930 Field & Lab. Techniques For Water Quality Testing	2009	This independent study course teaches students the field and laboratory methods required for water quality related studies. Students learn how to apply the American Water Works Association's Standard Methods procedures to collect and analyze concentrations of nutrients of (NO_3, NO_2, NH_4, HPO_4) and TSS in water.
BSEN-7970 Non-Point Source Pollution Modeling	2008	This graduate level course was approved in Biosystems Eng, but never been taught. I and Dr. Srivastava from the Biosystems Engineering developed the course material together and co-taught it in the Spring 2009. It later became a piggy-pack course under the Ecological Engineering program in Biosystems Engineering in Spring 2011
FORY-7550 Advanced Studies in Forest Hydrology	2007	This course covers the individual components of the hydrologic cycle in depth with a special focus on forested landscapes. Special topics, such as how changes in landscape and management practices affect the hydrologic regimes, are covered in a watershed context. Content is broad enough to satisfy the needs of graduate students working on or having interest in any aspects of hydrology.