INDRAJEET CHAUBEY

Dean, College of Agriculture, Health and Natural Resources Director, Storrs Experiment Station, and CT Cooperative Extension System University of Connecticut

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SELECT ADMINISTRATIVE/LEADERSHIP ACCOMPLISHMENTS

Dean and Director - College of Agriculture, Health and Natural Resources (CAHNR), University of **Connecticut** (March 1, 2019 – Present)

Responsible for the overall administration and strategic leadership of the College involving nine departments (Agricultural and Resource Economics, Allied Health Sciences, Animal Science, Extension, Kinesiology, Natural Resources and the Environment, Nutritional Sciences, Pathobiology, and Veterinary Science, and Plant Science and Landscape Architecture), offering 16 undergraduate and associate of applied science majors, 19 undergraduate minors, and 18 PhD, MS, and graduate certificate programs. The College is also the home to 12 interdisciplinary research and clinical centers and institutes. CAHNR has a \$90 million annual budget (\$44 million State/UConn; \$41 million external funding), 185 full-time faculty, and 130 staff. Undergraduate enrollment is ~2,300, and graduate and professional enrollment is ~550. The Storrs Agricultural Experiment Station administers the College's research programs. At the same time, the Cooperative Extension System works with 8,000 volunteers and eight Extension Centers, as well as the CT Sea Grant Extension Program, to provide outreach education in each of 169 cities and towns of CT.

Strategic Planning

- Worked with faculty, staff, students, and stakeholders to develop a strategic vision for the college (https://cahnr.uconn.edu/strategic-vision/). The College vision was based on extensive data collected from internal and external stakeholders, including listening sessions organized throughout CT and interviews with more than 200 leaders within and outside UConn.
- Created working groups to implement each of the strategic priorities, including identification of short- and long-term measurable goals, metrics to evaluate progress, and identification of resources needed to achieve strategic vision goals.
- Hired an inaugural Dean's Faculty Fellow to provide leadership in implementing the strategic vision.

Student Access and Success:

- Started a new Allied Health Science major offered entirely at UConn-Waterbury. This degree serves the place-bound students in the area supporting the workforce needs of the healthcare industry.
- Created a new Associate of Applied Science major in Urban Forestry and Arboriculture in the Ratcliffe Hicks School of Agriculture. This degree was developed with support from the arboriculture industry and in direct response to the workforce development needs of the state and the region.
- Provided leadership and resources to secure a \$4.5 million USDA grant, CAHNR Fellow Program. Administered from my office, this program collaborates with UConn Waterbury and UConn Stamford to provide financial support, mentoring, paid internship, and other resources to students from primarily underrepresented populations to improve college success and career readiness.
- Increased the total amount of scholarships given by the College from \$600,000 (2019) to \$1 million (2023).

• Faculty and Staff Development:

- o Hired a total of 97 faculty and 77 staff in the College in the last five years. Most of these hires directly support CAHNR's strategic vision and priorities.
- o Initiated several programs to enhance faculty success, e.g., seed grant and equipment grant programs (~\$1 million/year), an external mentoring program for assistant professors, and a partnership with Hanover Research to help research proposal development.
- O Contracted with the University of Missouri Training Institute to provide leadership and professional development workshops for CAHNR faculty and staff.
- Enhanced mentoring of assistant and associate professors. Launched external and peer mentoring of junior faculty. I meet regularly with junior faculty to address the challenges they face and provide structural support and mentorship to ensure their success.

• Research and Graduate Education:

- Encourage, recognize, and reward multi-disciplinary team activities and provide structural support for large grant (>\$2 million) proposals.
- O As a result of multiple initiatives implemented in the College, external funding secured by CAHNR faculty increased from \$20 million in 2018 to more than \$401 million in 2023.
- o Highest scholarly output by CAHNR faculty in 2023 in the last ten years.
- o The highest number of graduate students (>550) in CAHNR over the previous 10 years.
- Collaborated with UConn Health to launch a joint MD/Ph.D. program and the Institute of Sports Medicine.
- O Collaborated with Deans of the Schools of Engineering, Liberal Arts and Sciences, Neag School of Education, and Graduate School to launch a Professional MS in Data Science.
- Worked with CAHNR Department Heads to develop multiple entrepreneurial graduate programs. These programs attract new and non-traditional students by broadening access to CAHNR education and bringing additional revenues directly to the departments.

• Inclusive Excellence:

- o Created programs and partnerships that support the inclusion and success of faculty, staff, and students from diverse backgrounds and perspectives.
- Strengthened partnerships with local communities across the state to broaden the impacts of CAHNR teaching, research, and extension.
- o Aligned resources, policies, practices, and performance measures to foster an intentionally inclusive and innovative college.
- o Developed and implemented strategies for learning and working environments where individuals feel welcomed, included, respected, and supported.
- Worked with the Mashantucket Pequot Tribal Nation to help create the Tribal Department of Agriculture.

• Development/Fund Raising:

- Exceeded CAHNR fundraising goal each year and have raised more than \$45 million since
 2019
- Actively working with the UConn Foundation on multiple key initiatives, including student and faculty support, DEI, facility renovation, and endowed faculty positions.

• Communication:

- Established and implemented a college-wide cohesive brand and communication strategy with supporting structures and resources in alignment with the CAHNR Strategic Vision.
- O Started a weekly digest and an internal monthly newsletter to enhance communications with faculty, staff, and students.
- o Launched a quarterly newsletter to improve communications with alumni and friends.
- o Launched an annual magazine, CAHNR Impacts, highlighting college accomplishments and successes targeted at internal and external stakeholders.
- o Initiated regular town hall meetings with faculty and staff.

Associate Dean and Director of International Programs (IPIA) – Purdue University (2017-2019)

- Led Purdue College of Agriculture's international discovery, learning, and engagement activities. Coordinated international activities of faculty and multiple centers involving 12 academic units and >300 faculty members with active engagements in more than 60 countries.
- Created a Faculty Advisory Board to ensure international program activities and goals supported faculty interests. As a result, faculty participation in IPIA programs increased considerably with several new projects funded by external agencies.
- Led Purdue teams to multiple countries (Australia, China, Colombia, Haiti, India, Mexico, Panama, Peru). These efforts led to the development of new collaborations, the establishment of joint research centers and programs, and faculty and student exchanges.
- Co-led a four-member Purdue team to develop a collaboration with the Universidad Nacional de San Augustine (UNSA), Peru, to establish a Nexus Institute for Food, Water, Energy, and Environment. The effort was funded by a \$17 million grant from UNSA to Purdue with the goal of transforming teaching and research enterprise of UNSA. Provided leadership to create an interdisciplinary team consisting of 55 faculty members and >25 post-doctoral research associates from six different colleges at Purdue to work on this project. Worked with Purdue and UNSA faculty and administration to start an environmental sustainability graduate program at UNSA.
- Provided leadership to create interdisciplinary faculty teams and develop proposals to international funding agencies, including the U.S. Agency for International Development (USAID), U.S. Department of State, African Development Bank, Catholic Relief Services, Rockefeller Foundation, Gates Foundation, and Land O'Lakes Foundation. Feed the Future Innovation Lab for Food Safety was funded by USAID to Purdue (lead) in collaboration with Cornell University (collaborator) and was the first major Feed the Future Lab at Purdue.
- Co-led Purdue team to discuss student and faculty exchanges with multiple universities in Colombia. As a result, Colciencias (NSF equivalent in Colombia) and Colfuturo (Foundation for the Future of Colombia) signed an MOU with Purdue to fund students from Colombia to pursue their PhD and research internships at Purdue.
- As a member of the Colombia Purdue Partnership (CPP) Steering Committee, worked with Purdue faculty to develop strategic initiatives with Colombia, developed faculty teams and proposals for discovery, learning, and engagement activities with partner universities in Colombia, and led university-level signature projects including student mobility, research, development and capacity building projects, and alumni relations. Provided administrative support and oversight to multiple successful projects in Colombia, including Cacao for Peace, Farmer-to-Farmer, and Orinoquia Agricultural Development projects.
- Provided leadership to form a consortium of universities, including Purdue, Cornell (lead), Michigan State, and the University of California-Davis, to successfully write a grant to establish a Center of Excellence in Agriculture in Egypt. USAID funded the project with a total funding of \$29.9 million.
- Chaired an International Conference on Global Water Security for Agricultural and Natural Resources, October 3-6, 2018, in Hyderabad, India. This conference was organized by the American Society of Agricultural and Biological Engineers as a part of the global initiative to enhance international collaborations. The conference was attended by researchers, policymakers, students, and farmers from 19 different countries.
- Provided leadership to conceptualize, plan and organize a major international development conference entitled "Innovations in Agriculture: Scaling Up to Reach Millions" on September 25-27, 2018, at Purdue University. Worked with the African Development Bank to secure a partnership for this conference.
- Worked with a donor to establish a research internship for students from Zamorano University to the Purdue College of Agriculture. Philanthropic support enabled six Zamorano students to travel

- to Purdue each year and conduct research for 3-4 months. Many of these students selected Purdue for their graduate studies upon graduation from Zamorano.
- Helped establish the China-US Joint Laboratory for Natural Resources and Environmental Modeling

 a collaboration between Purdue and Qinghai Normal University. Led discussions that resulted in the creation of a 2+2 undergraduate program between China Agricultural University and Purdue Department of Agricultural and Biological Engineering.
- Study Abroad During my tenure as the Associate Dean, CoA became a leader in Purdue regarding the percentage of undergraduate students participating in study abroad programs (40%). Developed new programs for New Zealand, Italy, Peru, and Vietnam. The CoA faculty submitted a record number of SAIL grant applications to start new study abroad programs. Worked with Purdue leadership to get a proposal approved for students to receive course credits for international internships.

Department Head – Earth, Atmospheric, and Planetary Science Department, Purdue University (2013-2017)

- Recruited 12 faculty, including five women faculty and 14 support and professional staff to the department.
- Diversity in the department increased in many areas, including seven female faculty the largest number in the department's history, the historically highest percentage of female undergraduate (43%) and graduate students (49%) in the department, and the largest number of Native American graduate students among any Ph.D. granting earth science programs in the USA. Our success in recruiting and mentoring Native American graduate students was featured in the Chronicles of Higher education https://chronicle.com/article/Why-So-Few-American-Indians/146715/
- Led the development of a new strategic plan and a successful external review of the department.
- Student Access and Success:
 - Oversaw revision of undergraduate and graduate curricula. Worked with faculty to develop a plan for increasing undergraduate student enrollment and student credit hours taught. Created a student ambassador program in the department and recruited ten student ambassadors with a \$5,000 scholarship from alumni donations. Created Undergraduate Recruitment and Outreach Committee to increase recruitment visits to high schools within and outside Indiana. Due to these efforts, undergraduate student numbers increased by almost 100% in five years, and student credit hours taught by EAPS faculty increased from <6,000 (2012) to more than >10,000 (2017) each semester.
 - o Increased emphasis on undergraduate research and internships. As a result, the percentage of undergraduate students engaged in research projects and internships spanning one or more semesters increased significantly in five years.
 - o Led the creation of a professional MS degree in Geodata Science.
 - Wrote successful proposals to modernize classrooms and bring state-of-the-art instruments for teaching/research (e.g., a \$1.5 million research-grade weather radar).
 - O Worked with faculty to develop a 1-credit professional development class required for all first-semester graduate students. All eligible incoming students were expected to apply for a major fellowship as a part of this class. As a result, EAPS became a leader at Purdue, securing prestigious graduate fellowships funded by NASA and NSF.
- Initiated two new research themes in the department extreme weather and energy and environment. Hired faculty members to complement these new research themes. Created interdisciplinary faculty teams from the Colleges of Science, Agriculture, Engineering, and Purdue Discovery Park and facilitated regular discussions, including hosting high-profile speakers to pursue research and funding opportunities in these areas.

- Encouraged and supported faculty to participate in IMPACT and online digital education program development. As a result, EAPS faculty taught the top two most enrolled classes supported by Purdue Digital Education.
- Initiated a faculty/staff resource fund to support professional development activities.
- Worked closely with alumni and the EAPS Alumni Advisory Board to increase development opportunities for the department. Annual philanthropic giving increased to more than \$1 million during my last three years as the department head. Six new endowed scholarships were created by friends and alumni of the department.
- Secured \$2.5 million to create two endowed professorships (Stephen and Karen Brand of Unconventional Energy and Gerald and Sherry Krockover Rising Star Chair of Earth and Planetary Science Education).
- Successfully realigned clerical, professional, and business staff activities to streamline and enhance all support functions in the department while realizing cost savings.
- Co-authored (with Dr. Rebecca Doerge, Head of Statistics) College of Science Policy on mentoring, career development, and promotion of Faculty of Practice.

Chair of Graduate Programs

- Purdue University (2011-2013)
 - The graduate program in Agricultural and Biological Engineering was ranked number 1 by the US News and World Report during my tenure as the Graduate Program Chair.
 - O Developed and implemented Graduate Student Learning Outcomes (GSLO) for MS and PhD programs. The goal of the GSLO was to evaluate graduate program effectiveness in providing (1) knowledge in the students' field of study, (2) critical thinking, (3) communication skills, (4) ethical and responsible research conduct, and (5) professional development.
 - o Collected, analyzed, and presented data related to GLSO and proposed initiatives to improve learning outcomes.
- University of Arkansas (2004-2006)
 - Worked with faculty to revise the graduate curriculum of the department. As a result of the curriculum revision and focused recruitment efforts, graduate enrollment in the department quadrupled, including students from racial and ethnic minority backgrounds.
 - O Authored a proposal to start a new MS degree in biomedical engineering. Four faculty members with teaching and research programs in Biomedical Engineering were hired in the Department of Agricultural and Biological Engineering. The current Biomedical Engineering department in the UA College of Engineering grew from these initial efforts and successes.

ACADEMIC BACKGROUND

- Ph.D., Biosystems Engineering, Oklahoma State University, 1997
- M.S., Biological & Agricultural Engineering, University of Arkansas, 1994
- B.S., Agricultural Engineering, University of Allahabad, India, 1991

Professional Positions

- **Dean**, College of Agriculture, Health and Natural Resources, **Director**, Storrs Agricultural Experiment Station; Connecticut Cooperative Extension System, University of Connecticut. March 2019 Present.
- Associate Dean and Director of International Programs, College of Agriculture. May 2016-February 2019
- **Professor and Head,** 2013-2017. Department of Earth, Atmospheric, and Planetary Sciences, Purdue University
- **Professor**, August 2011-2019; **Associate Professor**: 2007-2011, Department of Agricultural and Biological Engineering; Department of Earth, Atmospheric, and Planetary Sciences; Purdue University
- Associate Director, 2012-2015. Purdue Water Community
- Associate Professor, 2005-2006; Assistant Professor: 2000-2005, Department of Biological and Agricultural Engineering, University of Arkansas
- Adjunct Professor, 2002-2006, Environmental Dynamics Program, University of Arkansas
- Assistant Research Scientist, 1998-2000. Center for Freshwater Studies, University of Alabama

HONORS/AWARDS

- Elected Member, Connecticut Academy of Science and Engineering (CASE). 2024. CASE is an organization of academic and industry professionals that advise the state government on matters of science and engineering.
- Fellow, National Academy of Agricultural Sciences, India. 2021
- Fellow, American Society of Agricultural and Biological Engineers. 2017
- Fellow, Indian Society of Agricultural Engineers. 2015
- Fellow, Arkansas Academy of Biological and Agricultural Engineering. 2016
- **John Deere Gold Medal**. 2021. American Society of Agricultural and Biological Engineering. It is the highest award given by the ASABE
- Recognized among the **eight most productive authors globally** in nonpoint source pollution modeling research (Li et al. 2014, JSWC 69(4), doi:10.2489/jswc.69.4.121A)
- Honorary Professor, Qinghai Normal University. 2017-18
- ADS/Hancor Soil and Water Engineering Award. 2014. American Society of Agricultural and Biological Engineers
- Agricultural Research Award. 2012. Purdue University
- Seed for Success Award. 2011. Purdue University
- University Faculty Scholar. 2011. Purdue University
- Outstanding Graduate Educator. 2010, 2012. Department of Agricultural and Biological Engineering. Purdue University
- **First Place Award. 2010**. Southern Agricultural Economics Association for the poster presented at the Annual Conference. February 8, 2010. Orlando, FL
- Award of Excellence. 2009. 2-19th Agribusiness Development Team, Indiana National Guard
- New Holland Young Researcher Award. 2007. American Society of Agricultural and Biological Engineers. Given to one researcher each year
- Outstanding Engineer Award. 2006. Arkansas Section of the ASABE
- Faculty Research Award of Merit. 2006. Gamma Sigma Delta

- **ASAE Honorable Mention Paper Award.** "Water quality at the Buffalo National River, Arkansas, 1991 2001" published in the Transactions of the ASAE 44 (2). Out of 362 papers published by the ASAE, only nine were selected for the Superior Paper Award and 9 for the Honorable Mention
- Best Teacher Award. 2005. Biological Engineering Student Club, University of Arkansas
- Outstanding Researcher Award. 2002-2003. Department of Biological and Agricultural Engineering. University of Arkansas
- **Graduate Research Excellence Award.** Oklahoma State University, 1997. Physical Sciences and Technology Group
- **Phoenix Award.** Oklahoma State University, 1997. Given to one Ph.D. and one M.S. student each year. I was the first Ph.D. student from the Department of Biosystems and Agricultural Engineering to get this award
- Merit Cum Means Scholarship, Indian Council of Agricultural Research, 1986-1989

LEADERSHIP TRAINING

- Food Systems Leadership Institute (FSLI), 2018-2019. The program curriculum focuses on a series of core leadership competencies and three complementary threads: individual leadership, leading change within organizations, and understanding and influencing complex, diverse food systems
- LEAD21, 2013. The primary purpose of LEAD21 is to develop leaders in land grant institutions and their strategic partners who link research, academics, and extension in order to lead more effectively in an increasingly complex environment

PROFESSIONAL AFFILIATIONS

• Member, ASABE (American Society of Agricultural and Biological Engineers); American Association for Advancement of Science (AAAS), Gamma Sigma Delta (The Honor Society of Agriculture); Alpha Epsilon (Agricultural Engineering Honor Society)

RESEARCH SUMMARY

The lack of clean water to meet society's needs is recognized as one of the significant challenges of modern times. My career goal is to improve water quality and watershed management by integrating field data collection and mathematical modeling and developing simulation models and tools to guide policymakers, watershed managers, and consultants. My research program integrates simulation modeling and field research to improve our understanding of various rainfall-runoff and pollutant transport processes at the field, stream reach, and watershed scales. My research projects have focused on developing methods and tools that various stakeholders can use to solve complex watershed management problems. These projects are aligned with the current priorities of many of the national and international agencies for improving agricultural food production, water quality, ecosystem services, and mitigating/adapting to climate changes. I have collaborated with faculty from several universities, government and non-government agencies, and national laboratories in the U.S., Canada, Asia, Europe, and South America.

TEACHING SUMMARY

My contribution to teaching includes developing new undergraduate and graduate courses, mentoring graduate students and post-doctoral research associates, involving undergraduate students in my research

projects, and integrating innovative pedagogical methods that integrate my research into classes. I have supervised the research work of 31 graduate students.

Courses Taught

Purdue University

- ABE527 Ecohydrology
- ABE 529 Nonpoint Source Pollution Engineering
- ABE 591C/EAS 591N Future of Water Resources

University of Arkansas

- BAST 2903 Application of Microcomputers
- BENG 2612 Design in Biological Engineering II
- BENG 4903 Natural Resources Engineering
- BENG 4923 Nonpoint Source Pollution Engineering
- BENG 5613 Modeling and Simulation
- BENG 5923 Nonpoint Source Pollution Control and Modeling

Short courses and workshops taught.

- 1. Introduction to geographic information system (GIS) applications in engineering
- 2. Managing Animal Resources for Environmental Quality
- 3. Introduction to GPS and GIS for Engineers
- 4. Soil and Water Assessment Tool
- 5. BMP optimization using SWAT model and genetic algorithms
- 6. Load estimation tools for Total Maximum Daily Load (TMDL) developments

Masters Thesis Directed (student name, thesis title, year graduated)

- 1. Amy S. Cotter, Analysis of input data resolution for TMDL development. 2002
- 2. Debabrata Sahoo, Assessment of nutrient transport and dynamics in agricultural dominated streams. 2003
- 3. Sumit Sen, Quantification of internal phosphorus loading in the Beaver Lake, Northwest Arkansas. 2004
- 4. Richa Srivastava, A statewide modeling approach to quantify nutrient losses in Arkansas. 2006
- 5. Mansoor Leh, Differentiating runoff contributing areas in an Ozark watershed. 2006
- 6. Nitin Singh, Effect of diffuse light on remote sensing of water quality constituents. 2007
- 7. Brian Schaffer, Integrated assessment of water quality/water quantity issue in the L'Anguille River watershed. 2007
- 8. Chetan Maringanti, Multiobjective optimization of BMPs in agricultural watersheds. 2007
- 9. Katie Merriman, Quantification of nutrient dynamics in agricultural drainage ditches. 2008
- 10. Laurent Ahiablame, Nutrient attenuation under natural conditions in agricultural streams. 2009
- 11. Elizabeth Trybula, Water quality impact of perennial crop production, 2012. (Co-Advised with Dr. Jane Frankenberger, Department of Agricultural and Biological Engineering)
- 12. Rebecca A. Logsdon. Development of methods to quantify ecosystem services. 2011
- 13. Salah Issa. Evaluating Hybrid-Maize model in rainfed conditions in Northwestern Indiana. 2012 (Co-advised with Dr. Sylvie Brouder, Department of Agronomy)
- 14. Qingyu Feng. Biomass production and hydrological/water quality impacts of perennial crop production on marginal lands. 2013
- 15. Erin Chicklowski. Nitrate removal from subsurface drainage by denitrifying bioreactor. 2014
- 16. Amanda Montgomery. (Co-Advised with Dr. Sylvie Brouder). Water quality and production potential impacts of cellulosic biofuel crops grown on marginal lands. 2015

17. Amanda Brock. Evaluating impact of wood chip bioreactor on phosphorus loads. 2016

Doctoral Dissertations Directed (student name, dissertation title, year graduated)

- 1. Vijay Garg, Development of a physically-based Monte Carlo model for lake water quality assessment. 2006
- 2. Kati L. White, Integrating watershed, stream, and lake water quality models for water quality management. 2004
- 3. Eylem Mutlu, Neural Network and Statistical Modeling for DSS Development. 2006
- 4. Li-Chi Chiang, SWAT modeling to evaluate BMP performance in a CEAP watershed. 2010
- 5. Chetan Maringanti, Develop of multiobjective optimization techniques for BMP selection. 2010
- 6. Laurent Ahiablame. Development of methods for modeling and evaluation of low impact development practices at the watershed scale. 2012. (Co-Advised wit Dr. Bernard Engel)
- 7. Cibin Raj, Impact of biofuel production on watershed scale water quality. 2013
- 8. Margaret McCahon Kalcic, Development of methods to site various best management practices for water quality improvements. 2013
- 9. Rebecca Logsdon, Quantifying ecosystem services in mixed land use watersheds. 2014
- 10. Qinyu Feng. Hydrology and water quality impacts from biofuel production on marginal lands. 2015
- 11. Ping Li. Land use and climate change impacts on ecosystem services in mixed land use watersheds. Northwest Agricultural University of Forestry and Agriculture, China. 2017
- 12. Vamsi Vema Krishna. Development of a hydrological model for administrative catchments and its application in watershed management decisions. (Co-advised with Dr. K.P. Sudheer, Indian Institute of Technology-Madras). 2018
- 13. Garett Pignotti. Evaluating remote sensing soil moisture products on water quality model predictions in mixed land use watersheds. 2019
- 14. Femeena P.V. Improving nutrient transport simulation in SWAT by developing a reach scale water quality model using tracer studies. 2019

SERVICES AND PROFESSIONAL ACTIVITIES

A foundation of any Land Grant University is service to the community. I have a deep sense of commitment to serving the community through my discovery, learning, and engagement. I have served on a number of committees at the department, college, and university levels. In addition, I have served in a leadership role in a number of national/international committees and professional societies. My significant service contributions are summarized below.

Services to the Department, School, and/or University

• University of Connecticut

- o UConn Strategic Vision Steering Committee. 2021-current
- o Co-Chair, College of Engineering Dean Search Committee. 2023-24
- o Chair, UConn Waterbury Director Search Committee. 2022
- o Deans' Representative to UConn Faculty and Staff Senate. 2021-2023

• Purdue University

- o Search Committee. Head of Department of Statistics. 2015
- College of Agriculture, Facility Planning Committee. 2011 2012.
- o **Junior Faculty Council, College of Engineering.** 2007-2010. The JFC is a group of assistant and associate rank faculty that meets periodically with the Dean to provide input and advice on academic issues of particular concern to junior faculty
- o Graduate Committee, Agricultural and Biological Engineering. 2007 2012. Chair, 2012 -2013

- o **Search Committee** for the Head of the Division of Environmental and Ecological Engineering. 2007-2008
- o **Program Advisory Committee**, Geospatial Engineering and Surveying. 2007-2012
- O Division of Ecological and Environmental Engineering (DEEE). I had a 25% appointment in DEEE from 2008-2010 to help launch a teaching and research program in DEEE
 - **Executive Committee.** 2008-12
 - Curriculum Committee. 2009-2010
 - Faculty Success Committee, Chair. 2011-2013
- o Governance Committee, Ecological Sciences and Engineering, 2008 2017
- Advisory Committee, Natural Resources and Environmental Sciences, College of Agriculture

• University of Arkansas

- o Chair, Graduate Committee, Department of Biological and Agricultural Engineering. 2004 2006
- o **Ecological Engineering Committee**, Department of Biological and Agricultural Engineering. 2002 2006. **Chair**, 2000-2003
- O Academic Matters and Curriculum Committee, Department of Biological and Agricultural Engineering, 2002 2006. Worked with department faculty to prepare ABET materials. This involved an extensive review of course materials, educational outcome assessment, and document preparation. Collaborated with faculty members to revise undergraduate curriculum, including review of credit hours required for degree in BSBE, review of required and elective courses, sequencing of course offerings, and revision of the course materials
- Teaching Quality Committee, Department of Biological and Agricultural Engineering. 2002 2006
- o Faculty Advisor, Friends of India. 2001-2002
- o Library Committee, 2000-2004
- College of Agriculture, Food and Life Sciences Computer and Technology Transfer Committee, 2000-2006
- o College of Engineering COOP Committee. 2000-2005

Service to Government or Professional Organizations

Government

- Connecticut Farm Wine Development Council. 2019-current
- Connecticut Governor's Council on Climate Change. 2021-current

Professional Organizations

- Association of Public and Land-Grant Universities (APLU):
 - Secretary, Administrative Heads Section, a unit of the APLU Commission on Food, Environment, and Renewable Resources of the Board on Agricultural Assembly. Members of section are the chief administrators of the APLU-member universities' agricultural programs
- American Society of Agricultural and Biological Engineers (ASABE):
 - Chair, Member, M-152, ADS/Hancor Soil and Water Engineering Award Committee, M152. 2017-2019. Member 2013-2018
 - Member, Membership Development Council. 2011-2013

- **Chair, New Holland Young Researcher Award Committee, M-114**. 2009-2010. Member, 2008-2010
- ➤ Chair, NRES-01: Executive Committee (Natural Resources and the Environment Division), 2010-2011
- Chair, 2010-1011. Secretary, 2008-2009, Steering Committee, NRES-02 (Natural Resources and the Environment Division). As a chair of the committee, I was responsible for all abstract submission and organizing all oral and poster sessions in the NRES Division in the International ASABE conference in 2010 (19 different sessions with a total of 120 presentations)
- Chair, 2006-2008, Vice-Chair, NRES-21, 2003-2005 (Hydrology Group). ASABE is the largest technical committee within ASABE
- Founding President, Association of Agricultural, Food, and Biological Engineers of Indian Origin. 2009-2011
- Member, NRES-21 (Hydrology Group), NRES-22, NRES-223 (Soil Erosion Research), and NRES-224 (Pollution by Erosion) Committee, 1997-present
- Associate Editor, Transactions of the American Society of Agricultural and Biological Engineers; Applied Engineering in Agriculture, 2008-2017
- **Steering Committee and Chair of Publications.** ASABE 1st Climate Change Symposium-Adaptation and Mitigation Chicago, Illinois, May 3-5, 2015
- Steering Committee member and Co-Editor of the proceedings. 2010 TMDL Conference organized by the ASABE. Responsible for all abstract and full-length paper submissions, review of abstract and proceeding papers, and communicating with the authors (a total of 75 abstracts and papers)
- **▶** Chair, Arkansas Section of the ASABE. 2004-2005
- ➤ Vice-Chair of Professional Development, Arkansas Section of ASAE, 2001-2004
- Co-Chair, International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16, 2015
- International Director, Indian Society of Agricultural Engineers (ISAE). 2012-2014. Interactions and collaborations between ISAE and international professional societies significantly increased due to my leadership efforts
- **Member,** Technical Program Committee, International SWAT Conference (2011, Toledo Spain; 2012, New Delhi India; 2013 Toulouse, France; 2014 Perambuco, Brazil, 2015 West Lafayette, USA; 2016 Beijing, China; 2018 Madras, India)
- Review Panelist: National Science Foundation (NSF 2003, 2004, 2005, 2008, 2009, 2015); USDA-ARS (2010, 2011, 2016); USDA-NIFA (2005); USGS-104b (2004, 2005) and 104g programs (2004, 2005)
- Chair of technical sessions in various conferences such as Arkansas Water Resources Conference (2002), Annual Conference of ASABE (2001, 2003, 2004, 2005, 2006, 2007), and annual conference of American Water Resources Association (1998)

FUNDED RESEARCH PROJECTS

- 1. de la Rubia, T., T. Filley, **I. Chaubey**, and C. Berger. Arequipa Nexus Institute. National University of Saint Augustine, Peru. \$17 million. 2018-2021
- 2. **Chaubey, I.** Global water security for agricultural production and natural resources. USDA-NIFA. \$50,000. 2018-2019
- 3. **Chaubey. I.** A grid-based modular watershed model for landscape-river continuum. Texas A&M University. \$30,000. 2016-2017

- 4. Filley, T., and **I. Chaubey**. Critical Zone Observatory for Intensively Managed Landscape (IML-CZO). \$234,791. University of Illinois. 2013-2016
- 5. Frisbee, M., and **I. Chaubey**. What is the source of baseflow in the Wabash River watershed. Indiana Water Resources Center. \$15,000. 2015-2016
- 6. **Chaubey, I.**, B. Gramig, and R. Cibin. Watershed scale analysis to develop strategies for environmentally sustainable corn stover removal for biofuel production in Indiana. Indiana Corn Marketing Council. \$44,114. 20214-2015
- 7. Cherkauer, K. and **I. Chaubey**. Quantifying the optical properties of Wabash River water using remote sensing. Purdue Water Community, Water Drops Program. \$6,000
- 8. Cherkauer, K. and **I. Chaubey**. Unmanned Aerial Vehicle for environmental monitoring. Purdue Laboratory Research Equipment Program. \$80,750. 2012-2013
- 9. Volenec, J., R. Turco, S. Brouder, **I. Chaubey**, et al. Sustainable production and distribution of bioenergy for Central USA. USDA-NIFA. \$3,686,569. Part of a \$25 million project funded through Iowa State University. 2011-2016
- Buckmaster, D., A. Ault, I. Chaubey, B. Engel, J. Frankenberger, and J. Krogmeier. Mobile computing technologies to enable more efficient and in-field water management decisions. USDA-NIFA. \$395,000. 2011-2015
- 11. Bowling, L., **I. Chaubey,** J. Frankenberger, and R. Goforth. Demonstrating nitrogen treatment effectiveness through innovative bench wetland system. NRCS Conservation Innovation Grant. \$217,778. 2011-2014
- 12. **Chaubey, I.,** L. Bowling, S. Brouder, K. Cherkauer, B. Engel, J. Frankenberger, R. Goforth, B. Gramig, P. Murphy, and J. Volenec. DOE. \$1,991,177. 2011-2014
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- 5. Sudheer, K.P., **I. Chaubey,** and V. Garg. 2005. Selection of optimal band combination for neural network based water quality retrieval from Landsat TM data. *Proc.* 2nd *Indian International Conference on Artificial Intelligence Applications. B. Prasad (ed.).* pp 938-951
- 6. **Chaubey, I.**, D. Sahoo, B.E. Haggard, K.L. White, and M. Matlock. 2003. Assessment of nutrient retention in an agriculturally dominated stream. *Proc. AWRC Annual Conference*
- 7. **Chaubey, I.**, A.S. Cotter¹, T.A. Costello, M.A. Nelson, and T.S. Soerens. 2002. Quantification of runoff and nutrient load prediction uncertainty due to GIS data resolution. *Proc. AWRC Conference on "Adequate Quality Water Supplies to Meet Our Growing Needs: Scientific, Regulatory, and Public Perspectives"*
- 8. White¹, K.L., **I. Chaubey**, and M.A. Nelson. 2002. Phosphorus SWAT modeling in the Arkansas Portion of the Illinois River drainage Area. *Proc. AWRC Conference on "Adequate Quality Water Supplies to Meet Our Growing Needs: Scientific, Regulatory, and Public Perspectives"*

- 9. Garg¹, V., **I. Chaubey**, and B.E. Haggard. 2002. Quantification of model output uncertainty due to watershed size. *Proc. AWRC Conference on "Adequate Quality Water Supplies to Meet Our Growing Needs: Scientific, Regulatory, and Public Perspectives"*
- 10. **Chaubey, I.**, P. Srivastava, L. Han, S.N. Addy and X. Yin. 2000. Using GIS, remote sensing and water quality modeling to estimate animal waste pollution potential. P.K. Bollich (ed.). *In Proc.* Agricultural Water Quality and Quantity: Issues for the 21st Century. 136-143
- 11. **Chaubey, I.**, D.R. Edwards, T.C. Daniel and P.A. Moore, Jr. 1995. Buffer strips to improve quality of runoff from land areas treated with animal manures. Kenneth Steele (ed.). *In Proc. Animal Waste and Land Water Interface*: 363-370

Refereed Book Chapters:

- 1. Chaubey, I., R. Cibin, and Q. Feng. 2016. Precision conservation for biofuel production. In Precision Conservation: Geospatial Techniques for Agricultural and Natural Resource Conservation, J. Delgado, G. Sassenrath, and T. Mueller (eds). Agronomy Monograph 59. ISBN 978-0-89118-356-3
- 2. Yuan, Y., R.L. Bingner, and **I. Chaubey**. 2006. Phosphorus modeling in the Annualized Agricultural Nonpoint Source Pollution (AnnAGNPS) Model. *In Modeling Phosphorus in the Environment, D.E. Radcliffe, and M.L. Cabrera (ed.). CRC Press, Boca Raton, FL.* Pp. 215-240. (*Invited and peer reviewed book chapter*)
- 3. **Chaubey, I.**, K.L. White, C.H. Green, J.G. Arnold, and R. Srinivasan. 2006. Phosphorus Modeling in Soil and Water Assessment Tool Model. *In Modeling Phosphorus in the Environment, D.E. Radcliffe, and M.L. Cabrera (ed.). CRC Press, Boca Raton, FL.* Pp. 163-188. (*Invited and peer reviewed book chapter*)
- 4. Hoag, D., I. Chaubey, J. Popp, M. Gitau, L. Chiang, J. Pennington, G. Rodriguez, E. Gbur, M. Nelson, and A. Sharpley. Lincoln Lake Watershed, Arkansas: National Institute of Food and Agriculture Conservation Effects Assessment Project Watershed Project. Osmond, D., D. Meals, D. Hoag, and M. Arabi (eds). 2012. How to Build Better Agricultural Conservation Programs to Protect Water Quality: The NIFA-CEAP Experience. Soil and Water Conservation Society, Ankeny, IA. ISBN 978-0-9769432-9-7. Pp 171-186
- 5. Matlock, M., R.A. Morgan, B.E. Haggard, and **I. Chaubey**. 2004. Managing aquatic systems at watershed scale. D. Heldman (Editor). *Encyclopedia of Agricultural, Food, and Biological Engineering*. (*Invited and peer reviewed book chapter*)

Invited Seminars:

National/International:

- 1. **Chaubey, I.**, J. Barrett, M. Dietz, A. Helton, J. Kington, and B. Lawrence. 2024. Climate change and water resources a need for local solutions to the global crisis. *International Conference on Future of Water Resources. Roorkee, India. January 18-20, 2024*
- 2. Chaubey, I. 2021. Conceptualizing circular food and agricultural systems for energy efficiency and climate resiliency. XV Agricultural Science Congress. November 13-16, 2021
- 3. **Chaubey, I.** 2021. Watershed management strategies to improve hydrology and water quality. *National Academy of Agricultural Science, India. June 18, 2021*

- 4. Chaubey, I. 2021. Climate change impacts and strategies for water resource management. International Webinar on Emerging Technologies in Agricultural Engineering for Food Safety and Security. Acharya N.G. Ranga Agricultural University, India. August 25-27, 2021
- 5. **Chaubey, I.** 2018. Producing more food with less water: does technology, management, or policy provide the best bang for our buck? Panel Discussion on Water Security. *Annual International Conference of ASABE, Detroit, MI. July 30, 2018*
- 6. Chaubey, I., K.P. Sudheer, and Vamsi, V. 2018. Water resources as the weakest link to achieve food security: An agricultural and biological engineering perspective. *Annual International Conference of ASABE, Detroit, MI. July 30, 2018*
- 7. **Chaubey, I.** 2018. Watershed modeling for evaluating food-energy-water nexus. *Illinois 150: The 21st Century University and Research for the Public Good Symposia. April 2018*
- 8. **Chaubey, I.** 2018. Can we address land use conflicts to live in harmony with water? Institute Lecture. Indian Institute of Technology Roorkee, India. February 2018
- 9. Chaubey, I. 2018. We all live downstream watershed activities affect water quality and ecosystem services. Keynote Address at International Conference on Sustainable Technologies for Intelligent Water Management IIT-Roorkee, India. February 2018
- 10. **Chaubey, I.** 2018. Ecohydrologic impact assessment of bioenergy crop production. Indian Institute of Technology-Gandhinagar, India. January 10, 2018
- 11. Chaubey, I. 2018. Development efforts in soil hydrology and instream water quality. Keynote address at the International SWAT Conference. IIT-Madras, India. January 10-12, 2018
- 12. Chaubey, I. 2017. Integrated modeling science and techniques for water resources. Qinghai Normal University, Xining, China. October 28, 2017
- 13. Chaubey, I. 2017. Engineering solutions to sustainable water management for food production. Keynote Address at the Annual Conference of Indian Society of Agricultural Engineers. Hisar, India. February 16, 2017
- 14. Chaubey, I. 2017. Toward ecohydrologic assessment of bioenergy production. IIT Madras-Purdue University Seminary Series. IIT-Madras, Chennai, India. February 14, 2017
- 15. Chaubey, I., R. Cibin, and K.P. Sudheer. 2016. SWAT Best Modeling Practices: Are we getting it right? Keynote address given at the International Soil and Water Assessment Tool Conference, Beijing Normal University, China. July 27, 2016
- 16. Chaubey, I. and R. Cibin. 2016. Bioenergy-driven vulnerability and sustainability assessment in the Midwest USA. ASABE International Conference, Orlando, FL. July 20, 2016
- 17. Chaubey, I. 2015. Toward ecohydrologic solutions of mixed land use watershed management challenges. Indian Institute of Technology-Delhi. December 30, 2015
- 18. Chaubey, I., R. Cibin, J. Frankenberger, J. Volenec, and S. Brouder. 2015. Biofuel-induced land use change impacts on hydrology and water quality. American Geophysical Union., San Francisco, CA. December 18, 2015
- 19. Chaubey, I., R. Cibin, J. Frankenberger, J. Volenec, and S. Brouder. 2015. Integrated assessment of bioenergy, land use, and climate change on ecohydrologic response. Joint International Conference of American Society of Agronomy, Crop Science Society of American, and Soil Science Society of America. Minneapolis. November 17
- 20. Chaubey, I. 2015. Agricultural ecohydrology and watershed management. ASABE Natural Resources and Environmental System Distinguished Scholar Series. New Orleans, LA. July 27

- 21. Chaubey, I., R. Cibin, Y. Her, and J. Frankenberger. 2014. Water quality modeling of biofuel land use and land management impacts. ASABE International Conference, Montreal, CA. July 15
- 22. Chaubey, I. 2014. Connecting ecohydrology, ecosystem services, and biodiversity. Keynote Address given at 2014 LAB Symposium on Biodiversity Without Boundaries. Kaohsiung, Taiwan. June 24
- 23. Chaubey, I. 2014. How do land use and climate change affect watershed sustainability? A Midwest USA perspective. Keynote Address given at 2014 International Conference on Earth Observations and Societal Impacts. National United University, Miaoli. Taiwan. June 23
- 24. Chaubey, I., 2014. Using models to improve water quality. *University-Industry Consortium Fall Meeting, Jackson, MS. April 29-May 1*
- 25. Chaubey, I. 2013. Ecohydrologic impacts of land use, land management, and climate change in the Midwest USA. Keynote Address given at the 2013 China-US Annual Workshop on Environmental Health and Green Development. Gatlinburg, TN. November 18-19
- 26. Chaubey, I. 2013. Bioenergy, landscape changes and ecosystem response: opportunities for sustainable watershed management. Keynote Address given at the 47th Annual Convention of Indian Society of Agricultural Engineers (ISAE) and International Symposium on Bioenergy. Hyderabad, India. January 28-30, 2013
- 27. Chaubey, I., R. Cibin, Y. Her, and K.P. Sudheer. 2012. Uncertainty in BMP evaluation and optimization for watershed management. *American Geophysical Union (AGU) Conference. San Francisco, CA. December 7, 2012*
- 28. Chaubey, I. 2012. Sustainable watershed management under food, feed, and bioenergy production. Invited talk presented at the Joint China-U.S. Joint Symposium on "Land Use, Ecosystem Services, and Sustainable Development". September 17-19. Shenyang, China
- 29. **Chaubey, I.** 2012. Environmental management challenges from bioenergy, landscape changes, and ecosystem response: perspectives at global scale. *Keynote address at the 46th Annual Conference of the Indian Society of Agricultural Engineers. Pant Nagar, India. February 28, 2012*
- 30. **Chaubey, I.** 2011. Sustainability assessment of bioenergy crop production, landscape changes, and ecosystem response. *Presented at EPA-ORD, Las Vegas. October 12, 2011*
- 31. Chaubey, I. 2011. Scaling biomass production from field to watershed. China-US 2011 Joint Symposium on Global Sustainability Issues in Energy, Climate, Water and Environment. Purdue University. September 25-28, 2011
- 32. Chaubey, I. 2011. Bioenergy, landscape changes and ecosystem response: Opportunities for sustainable watershed management. *Distinguished Lecture Series, Annual Conference of the ASAABE. Louisville, KY. August 7-10*
- 33. Chaubey, I. 2011. Developing watershed management strategies for bioenergy crops. 6th Frontiers in Bioenergy US-Brazil Symposium on Sustainable Bioenergy. West Lafayette, IN. May 16-18
- 34. Chaubey, I., C. Maringanti, B. Engel, and J. Quansah. 2010. Improving water quality from agricultural basins: a multiobjective optimization approach. 3rd International Perspective on Current and Future State of Water Resources and the Environment. IIT-Madras, India. January 5-7
- 35. Chaubey, I. 2010. Agricultural ecohydrologic response evaluations using watershed models and tools". Ciclo Internacional de Conferencias de Hidrologia y Ambiente. Technical University of Panama. March 15-16

- 36. Chaubey, I. 2010. Standards for calibration and evaluation of models. 2010 Annual International Conference of the ASABE. Pittsburgh, PA. Dr. Chaubey was one of the four panel members invited to discuss this topic.
- 37. Chaubey, I. 2010. Implications of bioenergy crop production on water quality. China-US 2010 Joint Symposium on "Energy, Ecosystems, and Environmental Change". Beijing, China. Sept 21-24
- 38. Chaubey, I. 2009. Integrated BMP assessment for improving water quality in a rice/soybean dominated watershed in the Arkansas Delta. *Water, Environment, Energy and Society Conference, New Delhi, India. January 12-16*
- 39. Chaubey, I., B. Engel, and M. Thomas. 2009. Impact of biofuel production on hydrology and water quality in Midwest USA. US-China Workshop on the Climate-Energy Nexus. Oak Ridge, TN. November 11-13
- 40. Chaubey, I., 2007. Can agricultural production and ecosystem integrity coexist: results from agricultural watersheds in USA. 10th Inter-Regional Conference on Water Resources. New, Delhi, India. October 17- 20
- 41. **Chaubey, I.**, 2005. A framework to stochastically evaluate watershed models". 2nd Indian International Conference on Artificial Intelligence Applications. Pune, India. December 20-22
- 42. **Chaubey, I.**, 2005. Integrated ecosystem management: research advances, opportunities, and challenges in 21st Century. *Indian Agricultural Research Institute, New Delhi. December 13*
- 43. **Chaubey, I.**, 2005. Identifying runoff source areas in a pasture dominated watershed. *Annual International Conference of the Soil and Water Conservation Society. Rochester, NY. August 2*
- 44. **Chaubey, I.**, and T.C. Daniel 2004. Eucha/Spavinaw Phosphorus Index. 2004 SERA-17 Annual International Conference. New Bern, NC. June 20-22
- 45. **Chaubey, I.**, M.D. Matlock, and B.E. Haggard. 2003. Integrating physical, chemical, and biological response monitoring for watershed management: stream reach to watershed scale processes and lessons". 2003 ASA-CSSA-SSSA Annual International Meeting. Denver, Colorado, November 2 6
- 46. **Chaubey, I.**, M.D. Matlock, B.E. Haggard, and T.A. Costello. 2003. Engaging stakeholders in watershed management process using a decision support system. 2003 ASA-CSSA-SSSA Annual International Meeting. Denver, Colorado, November 2 6
- 47. Chaubey, I., 2002. How SWAT models phosphorus transport. 2002 SERA-IEG17 Annual Meeting. Fort Collins, CO. June 26-27
- 48. Chaubey, I. 2001. Nonpoint Source Pollution and Water Quality: Issues and Opportunities. *Allahabad Agricultural Institute (Deemed University), India. May 22*