INDRAJEET CHAUBEY

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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; Ratcliffe Hicks School of Agriculture, 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

- **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 **8 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 9 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

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 ACTIVITIES

Lack of clean water to meet society's needs is recognized as one of the major challenges of modern times by the National Academy of Engineering. 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 policy makers, 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 field, stream reach and watershed scales.

My research activities include evaluation of land use, land management and climate change impacts on ecohydrology and water quality of agricultural, and mixed land use watersheds. My research projects are focused on developing methods and tools that can be used by various stakeholders to solve complex watershed management problems. These projects are aligned with current priorities of many of the national and international agencies for improving agricultural food production, water quality, ecosystem services, and mitigating/adopting to climate changes. I collaborate with faculty from several universities, government and non-government agencies, and national laboratories in U.S., Canada, Asia, Europe, and South America on a number of projects, including:

1. Impact of increased biomass for biofuel production on ecohydrology and water quality- U.S. has set a goal of producing 36 billion gallons of biofuels by 2022. Meeting this goal will require significant land use changes in near future. Very little scientific information is currently available documenting impact of land use changes to support biofuel production on water availability and

water quality. My research program has been funded by Department of Energy (DOE), and USDA to comprehensively evaluate how biofuel production will affect water quantity/quality and what watershed management decisions can be taken to ensure sustainable bioenergy crop production.

2. Developing methodology to evaluate best management practice effectiveness in agricultural watersheds – U.S. Environmental Protection Agency (EPA) has set a goal of reducing hypoxia in the Gulf of Mexico by two third. Similar nutrient reduction goals are also set for the Great Lakes. Accomplishing these goals will require substantial reductions in nutrient losses from agricultural watershed in the Midwest USA. My research group is leading multiple projects funded by EPA and USDA to develop a BMP optimization tool and methods that can be used to control nonpoint source pollution in agricultural and mixed land use watersheds that will reduce pollutant losses from the Mississippi River basin and the Great Lakes basins.
3. Quantification of ecosystem services in mixed land use watersheds – Sustainability of global agriculture and environment will require evaluating ecosystem services and managing watersheds to maximize various services supported by mixed land use watersheds. I am developing methods to quantify ecosystem services at watershed scale that can be used to make watershed management decisions.
4. Impact of climate change on ecohydrology and water quality – I have worked on research projects to comprehensively evaluate linkages between climate change and agricultural production and developing strategies to mitigate climate change impacts.
5. Development of decision support systems (DSS) that can be used to manage agricultural watersheds for nonpoint source pollution control. The DSS development activities also include development of new methods and models (both conceptual and system theoretic), and quantification of uncertainties in model parameters and results so that these uncertainties can be incorporated in watershed management decision process.

TEACHING ACTIVITIES

Teaching Accomplishments: My contribution to teaching include developing new undergraduate and graduate courses, mentoring of graduate students and post-doctoral research associates, involving undergraduate students in my research projects, and integrating innovating pedagogical methods that integrate my research into classes. I have developed and taught new courses (ABE 591C/EAS 591N: Future of Water Resources; ABE 591S: Ecohydrology; and ABE 591F: Nonpoint Source Pollution Engineering) and have significantly revised an existing course (ABE 527: Computer Modeling in Environmental and Natural Resources). I have supervised research work of more than 30 graduate students. My teaching goals include the following:

1. Preparation of motivated professionals in the area of environmental and natural resources

I believe in 'active learning' style of teaching, combined with the introduction of real-world problems in the classroom, and exposure to field and laboratory research work. In all of my classes, I have employed active learning pedagogy by engaging students in discussions on engineering problem formulations and potential solutions. My classes utilize project-based learning where students work on a project involving contemporary engineering problems related to the course. Project based learning helps students translate textbook knowledge into the solutions of practical engineering problems. I have contributed to the life-long learning of practicing professionals by developing and teaching short courses and workshops and presenting at colloquium/seminar series organized by students. I have actively pursued grant funding to develop innovative teaching methods. I have integrated instruments/equipment for field and laboratory data

collection, simulation models, and cyber-infrastructure to teach how land use/land management influences water availability, and water quality.

2. Development of undergraduate and graduate curriculum to prepare tomorrow's leaders

As a Graduate Program Chair, I took a leadership role in developing Graduate Student Learning Outcomes (GSLO) by preparing mapping guides and rubrics that document learning objectives for both M.S. and Ph.D. students in the Department of Agricultural and Biological Engineering at Purdue University. I have analyzed GSLO data, preparation of reports, and discussed with the faculty on how learning deficiencies related to specific outcomes could be addressed. As a member of the Curriculum Committee, I provided leadership in developing undergraduate curriculum for a new degree in Environmental and Ecological Engineering (EEE) at Purdue. I led development of a minor in EEE for students majoring in Agricultural and Biological Engineers. As a member of the Advisory Committee, I have actively participated in the undergraduate curriculum revision of the Natural Resources and Environmental Science program in the College of Agriculture at Purdue.

3. Provide research opportunities to undergraduate students

More than 25 undergraduate students have worked in my laboratory. Several of those students have published their research findings in peer-reviewed research journals.

4. Motivate students to realize their career potentials and goals

I am committed to the professional development of my students. I have been engaged with students both inside and outside of classrooms striving to motivate them to achieve their career goals. I consider my students' success as my own. Many of my graduate students have won prestigious honors and awards. Numerous students have participated in publications in peer-reviewed journals, along with student presentations at various international, national, and regional conferences.

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 Instiute 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.

Major committee assignments in the Department, School, and/or University

- **University of Connecticut**
  - UConn Strategic Vision Steering Committee. 2021-current
  - Chair, UConn Waterbury Director Search Committee. 2022
  - Deans' Representative to UConn Faculty and Staff Senate. 2021-current

- **Purdue University**
  - **Search Committee**. Head of Department of Statistics. 2015
  - **College of Agriculture, Facility Planning Committee**. Purdue University. 2011 – 2012.
  - **Junior Faculty Council, College of Engineering,** Purdue University. 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 environment and academic issues of particular concern to junior faculty
  - **Graduate Committee,** Agricultural and Biological Engineering, Purdue University. 2007 – 2012. **Chair, 2012** -2013
  - **Search Committee** for the Head of the Division of Environmental and Ecological Engineering, Purdue University. 2007-2008
  - **Program Advisory Committee**, Geospatial Engineering and Surveying, Purdue University. 2007-2012
  - **Division of Ecological and Environmental Engineering (DEEE),** Purdue University. 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
  - **Governance Committee**, Ecological Sciences and Engineering, Purdue University, 08/2008 – 2017
  - **Advisory Committee**, Natural Resources and Environmental Sciences, College of Agriculture
- **University of Arkansas**
  - **Chair, Graduate Committee,** Department of Biological and Agricultural Engineering, University of Arkansas. 2004 – 2006
  - **Ecological Engineering Committee,** Department of Biological and Agricultural Engineering, University of Arkansas. 2002 – 2006. **Chair,** 2000-2003
  - **Academic Matters and Curriculum Committee,** Department of Biological and Agricultural Engineering, 2002 – 2006. Worked with department faculty to prepare ABET materials. This involved 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
- **Faculty Advisor**, Friends of India. 2001-2002
- **Library Committee**, University of Arkansas. 2000-2004
- **College of Agriculture, Food and Life Sciences Computer and Technology Transfer Committee.** 2000-2006
- **College of Engineering COOP Committee**. 2000-2005

Service to government or professional organization

Government

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

Professional Organizations

- **Committees of the 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
- **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)
- **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
- **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)

Direct Service to People, Communities and Other Client Groups

- I have worked with a number of state and federal agencies to solve water quality problems that are regional and national in scope. As a member of the Environmental Task Force created by the University of Arkansas – Division of Agriculture to address environmental health of Arkansas, I led a team to develop strategies for solving complex environmental problems affecting economic development in the region. My efforts with the Eucha/Spavinaw watershed located in Arkansas and Oklahoma (involving 1076 km^2 in area, approximately 1,000 agricultural producers and more than 300,000 people relying on Lake Eucha/Spavinaw for their drinking water) provided a foundation for the federal court to lift a moratorium on poultry litter application in the watershed. (Case No. 01 CV 0900 EAI)
- I have organized numerous workshops to train state agency personnel on using various mathematical models and computer tools in assessing land use impact on water quality
- I have worked with various stakeholder groups, including regional, state, national, and international organizations to develop a participatory approach for issue identification, problem solving, and watershed management plan development for nonpoint source pollution control

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

10. 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

13. **Chaubey, I.**, Rao S. Govindaraju, D. Niyogi, and C.X. Song. Development of drought triggers of agricultural applications. USDA-NIFA. $492,797. 2011-2013

14. Frankenberger, J., **I. Chaubey**, and B. Engel. Adaptive management to increase adoption rates of emerging nutrient management and load reduction practices. NRCS Conservation Innovation Grant. $118,357. 2010-2012

15. **Chaubey, I.**, B. Engel., J. Frankenberger, and V. Merwade. Cumulative impacts of BMP implementation in the Maumee River basin. GLRI. $497,486. 2010-2013

16. Cherkauer, K., **I. Chaubey**, and C. Troy. Monitoring episodic river inflow plumes using in-situ and remote sensing data. Indiana-Illinois Sea Grant Consortium. $300,000. 2010-2012

17. Engel, B., K. Cherkauer, and **I. Chaubey**. Army Corps of Engineers 516(e): The Great Lakes Tributary Modeling Program. USACE $205,000. 2010-2012

18. **Chaubey, I.**, L. Bowling, K. Cherkauer, R. Goforth, R. Mohtar, S. Hoffman. Preparing tomorrow's leaders to tackle complex water quality problems through enhanced field experiment capabilities at Purdue. Instructional Innovation Grant. Purdue University. $27,500. 2010-2011

19. Goforth, R.R., L. Prokopy, and **I. Chaubey**. Promoting sustainability within the context of maximizing Indiana's competitive advantage in agriculturally derived energy. Purdue University, ARP – Mission Oriented Grant Program. $24,969. 2010-2012

20. Tyner, W.E., S.M. Brouder, and **I. Chaubey**. Integrated economic, environmental, and technical analysis of sustainable biomass energy systems. USDA-NIFA. $174,966. 2010-2011

21. **Chaubey, I.**, Engel, B., P. Murphy, and D. Saraswat. Impact of biofeedstock production on hydrology/water quality in Midwest and Southeast USA. USDA-CSREES. $300,000. 2009-2012

22. Pijanowski, B., T. Hook, M. Sepulveda, R. Goforth, J. Dukes, H. Rowe, P. Zollner, G. Shao, H. Zhang, O. Rhodes, C. Troy, V. Merwade, K. Cherkauer, **I. Chaubey**, R. Swihart, B. Engel, and S. Rao. Fellowship program in Ecology and Environmental Engineering. U.S. Department of Education. $522,624. 2009-2013

23. Hook, T., **I. Chaubey**, K.A. Cherkauer, B.C. Pijanowski, L.S. Prokopy, and C.D. Troy. Interactive effects of climate change and land use on Indiana's glacial lakes. Discovery Park – Purdue University. $44,048. 2009-2010

24. Cherkauer, K., and **I. Chaubey**. Remote sensing of water quality parameters in the Wabash River. Indiana Water Resources Center and USGS. $15,000. 2009-2010

25. Song, X.C., J. Carlson, R. S. Govindaraju, C. Hoffman, D. Niyogi, **I. Chaubey**, and L. Zhao. INTEROP: Developing community-based drought information network protocols and tools for multidisciplinary regional scale applications (DRInet). NSF 750,000. 2008-2011

26. Engel, B. and **I. Chaubey**. Web-based load-duration curve for TMDL. USGS. $95,160. 2008-2009

27. Engel, B., **I. Chaubey**, R. Farnsworth, and J.G. Hunter. Web-based low impact development decision support and planning tool. USGS. $76,472. 2008-2010

28. Engel, B., D. Dodenhammer, N. Devadasan, and **I. Chaubey**. Development of water quality decision support tools using service oriented architecture (SOA) and web 2.0 development approach. Intercampus Applied Research Program. $50,000. 2008-2009

29. Engel, B., M. Arabi, J. Frankenberger, **I. Chaubey**, and J. Lee. Multiobjective watershed management support system for spatial allocation of agricultural management practices. USDA-CSREES. $550,000. 2007-2010

30. **Chaubey, I.** and L. Bowling. Quantification of sediment nutrient interactions as affected by drainage ditch management. Indiana Water Resources Research Center. $18,500. 2007-2008

31. **Chaubey, I.** and V. Merwade. Ecohydrology: A new class and cyber-field trip module for DEEE students. Division of Environmental and Ecological Engineering, Purdue University. $6,000. 2007

32. **Chaubey, I.,** M. Gitau, and P. Tacker. Identification of NPS pollution sources and BMP evaluation in 11-digit HUCs in the L'Anguille River watershed. Arkansas Natural Resources Commission. $81,034. 2006-2008

33. **Chaubey, I.,** J.H. Popp, and B. Kurz. Effectiveness and optimization of BMPs in improving water quality from an agricultural watershed. USDA CSREES (CEAP). $650,000. 2005 – 2008

34. **Chaubey, I.,** S.G. Bajwa, and M.D. Matlock. Environmental resource management to develop watershed technologies and management tools. EPA, Region 6. $148,800. 2005-2008

35. **Chaubey, I.** and M.D. Matlock. Watershed Response Modeling in 11-digit Arkansas Priority Watersheds. Arkansas Natural Resources Commission. $75,124. 2005-2006

36. **Chaubey, I.,** M.D. Matlock, and R.A. Morgan. GIS database development and watershed modeling in the Arkansas priority watersheds. Arkansas Soil and Water Conservation Commission. $60,671. 2004 – 2005

37. **Chaubey, I.,** M.D. Matlock, and R.A. Morgan. SWAT modeling in the Illinois River watershed. Arkansas Soil and Water Conservation Commission. $30,500. 2004 – 2005

38. Matlock, M.D., **I. Chaubey**, and R.A. Morgan. Update of Arkansas Nonpoint Source Pollution Management Program. Arkansas Soil and Water Conservation Commission. $151,906. 2004–2005

39. **Chaubey, I.,** M.D. Matlock, E.D. Vories, and J. Popp. Development of an integrated water quality – water conservation program in the Arkansas Delta. USDA, National Integrated Water Quality Program. $550,000. 2003 – 2006

40. **Chaubey, I.,** M.D. Matlock, T.A. Costello, and B.E. Haggard. Sustainable Agriculture and water resource in Arkansas: A bioenvironmental engineering solution. EPA Region 6. $446,100. 2003 – 2006

41. **Chaubey, I.,** B.E. Haggard, and P. Srivastava. Differentiating runoff contributing areas for

effective water quality management. USDA-NRI. $75,000. 2003 – 2005

42. **Chaubey, I.,** M.D. Matlock, T.A. Costello, and B.E. Haggard. GIS database development and watershed modeling in Arkansas Priority Watersheds. 2003 – 2004. Arkansas Soil and Water Conservation Commission. $85,184. 2003- 2004

43. **Chaubey, I.** and V. Garg. Use of hyperspectral remote sensing in lake water quality modeling. NASA/Arkansas Space Grant Consortium. $5,500. 2003 – 2004

44. Bajwa, S.G., **I. Chaubey**, and D.R. Gardisser. Pesticide pollution risk assessment and mitigation training in Arkansas Delta. EPA Region 6. $41,995. 2003- 2005

45. **Chaubey, I.**, K. White, T.A. Costello, and B. Haggard.. Development of techniques for identifying and linking physical characteristics to surface runoff source areas. USGS/AWRC. $14,838. 2003-2004

46. **Chaubey, I.**, B.E. Haggard, M. Matlock, C.V. Maxwell, and P.A. Moore, Jr. Quantification of pathogen losses from swine manure treated fields under chemical and dietary modification conditions. USDA/National Center for Manure and Animal Waste Management. $12,345. Supplement to this grant. $22,842. 2002 – 2004

47. **Chaubey, I.**, M. Matlock, T.A. Costello, and B.E. Haggard. Development of a Decision Support System and Data Needs for the Beaver Lake Watershed. EPA/Arkansas Soil and Water Conservation Commission. $269,973. 2002 – 2005

48. **Chaubey, I.** Differentiating Runoff Contributing Areas from Pastures for Phosphorus Management. Research Incentive Grant. D.B. College of Agriculture, Food and Life Sciences. $9,997. 2002 – 2003

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PUBLICATIONS

Summary of Publications

a.	Refereed	
	i. Journal Articles	161
	ii. Conference Proceedings	11
	iii. Book Chapters	5
b.	Invited Seminars:	67
c.	Technical Abstracts/Conference Proceedings:	197
d.	Conference Presentations:	25
e.	Research Reports:	16
f.	Other:	27

Refereed Journal Articles (published or in print) *(Respectively, [1]Graduate student; [2]Post doctoral Research Associate; [3]undergraduate student supervised by Dr. Chaubey)**:***

1. Vema[1], V.K., K.P. Sudheer, A.N. Rohith, and **I. Chaubey**. 2022. Impact of water conservation structures on the agricultural productivity in the context of climate change. *Water Resources Management 36(5):1627-1644.*
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Invited Seminars:

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19. **Chaubey, I.** 2015. Agricultural ecohydrology and watershed management. ASABE Natural Resources and Environmental System Distinguished Scholar Series. New Orleans, LA. July 27

20. **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*

21. **Chaubey, I**. 2014. Connecting ecohydrology, ecosystem services, and biodiversity. *Keynote Address given at 2014 LAB Symposium on Biodiversity Without Boundaries. Kaohsiung, Taiwan. June 24*

22. **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*

23. **Chaubey, I.**, 2014. Using models to improve water quality. *University-Industry Consortium Fall Meeting, Jackson, MS. April 29-May 1*

24. **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*

25. **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*

26. **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*

27. **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*

28. **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*

29. **Chaubey, I.** 2011. Sustainability assessment of bioenergy crop production, landscape changes, and ecosystem response. *Presented at EPA-ORD, Las Vegas. October 12, 2011*

30. **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*

31. **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*

32. **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*

33. **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*

34. **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*

35. **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.*

36. **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*

37. **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*

38. **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*

39. **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*

40. **Chaubey, I.**, 2005. A framework to stochastically evaluate watershed models". *2nd Indian International Conference on Artificial Intelligence Applications. Pune, India. December 20-22*

41. **Chaubey, I.**, 2005. Integrated ecosystem management: research advances, opportunities, and challenges in 21st Century. *Indian Agricultural Research Institute, New Delhi. December 13*

42. **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*

43. **Chaubey, I.**, and T.C. Daniel 2004. Eucha/Spavinaw Phosphorus Index. *2004 SERA-17 Annual International Conference. New Bern, NC. June 20-22*

44. **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*

45. **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*

46. **Chaubey, I.**, 2002. How SWAT models phosphorus transport. *2002 SERA-IEG17 Annual Meeting. Fort Collins, CO. June 26-27*

47. **Chaubey, I.** 2001. Nonpoint Source Pollution and Water Quality: Issues and Opportunities. *Allahabad Agricultural Institute (Deemed University), India. May 22*

Regional:

48. **Chaubey, I.** 2019. We all live in a watershed: challenges and opportunities for water security. *UConn Center for Learning in Retirement. September 4*

49. **Chaubey, I.** and R. Turco. 2013. Water and food security. *Borlaug Summer Institute on Global Food Security. Purdue University, West Lafayette, IN. May 28-June 8*

50. **Chaubey, I.** 2009. Web-based load duration curves. *EPA Region 5 TMDL Practitioners' Workshop. Redwing, MN. April 20*

51. **Chaubey, I.**, M. Thomas, C. Maringanti, and B. Engel. 2009. Watershed scale environmental impact assessment of biofuel production in Midwest USA. *Second Generation Biofuels Symposium, May 18-19*

52. **Chaubey, I.** 2008. BMP effectiveness assessment for a pasture dominated watershed: results from two years of CEAP assessment. *Improving Indiana Waters: Using Monitoring Data to Show Change. Indianapolis. December 3*

53. **Chaubey, I.** 2006. Mathematical modeling of watershed processes. *Public Policy Symposium. Little Rock, AR. November 17*

54. **Chaubey, I.** 2006. Modeling approaches to evaluate watershed and water quality processes. *Upper White River Water Quality Conference. Branson, MO. April 6*

55. **Chaubey, I.** 2006. Water quantity/quality issues in the L'Anguille River watershed. *Arkansas Soil and Water Education Conference. Arkansas State University, Jonesboro. January 12*

56. **Chaubey, I.**, R. Davis, and A. Apon. 2005. Potential hydrologic and environmental applications for grid-enabled cyberinfrastructure. *University of Kansas. June 15*

57. **Chaubey, I.** 2005. Development of a Decision Support System for Beaver Lake watershed. *Northwest Arkansas Water Quality Symposium, Rogers, AR. March 22*

58. **Chaubey, I.** 2004. Water resources, sustainable agriculture, and economic development in Arkansas: an Ecological Engineering solution. *Rural Friendship Development Day conference. Fayetteville, AR. August 12*

59. **Chaubey, I.**, S.S. Panda, K.L. Whitel, M. Matlock, B.E. Haggard, and T.A. Costello. 2004. Beaver Lake watershed decision support system (BLWDSS). *2004 Arkansas Water Resources Center Conference. Fayetteville, April 20-21*

60. **Chaubey, I.**, D. Sahoo, B.E. Haggard, K.L. White, and M. Matlock. *2003*. Assessment of Nutrient Dynamics in an Agriculturally Dominated Stream. *Arkansas Water Resources Conference Center Conference on Quality Water Resources to Meet Our Competing Needs. Fayetteville, AR. April 22 – 23*

61. White, K.L., and **I. Chaubey.** *2003.* Demonstration of SWAT Model Using Beaver Lake Watershed". *Arkansas Water Resources Center Conference on Quality Water Resources to Meet Our Competing Needs. Fayetteville, AR. April 22 – 23*

62. Haggard, B.E., S.A. Ekka, M. Matlock, P.A. Moore, jr., and **I. Chaubey**. *2003.* Release of Phosphorus from Stream and Reservoir Sediment: Effect of Chemical Amendments. *Arkansas Water Resources Conference Center Conference on Quality Water Resources to Meet Our Competing Needs. Fayetteville, AR. April 22 – 23*

63. **Chaubey, I.** 2002. Total maximum daily loads. Phosphorus Management Workshop. *Division of Agriculture, University of Arkansas. October 15*

64. **Chaubey, I.** 2002. Quantification of runoff and nutrient load predction uncertainty due to GIS data resolution. *2002 Annual Arkansas Water Resources Center Conference. April 23-24*

65. White, K.L., **I. Chaubey**, and M. Nelson. 2002. SWAT Modeling of the Illinois River Drainage Area in Arkansas". *2002 Annual Arkansas Water Resources Center Conference. April 23-24*

66. Haggard, B.E., M. Matlock, and **I. Chaubey**. 2002. Stream Nutrient Retention in the Illinois River, Northwest Arkansas: Ecological Services and Water-Quality Criteria. *2002 Annual Arkansas Water Resources Center Conference. April 23-24*

67. **Chaubey, I.** and D. Storm. 2002. Watershed modeling and its role in developing water quality standards. *University of Arkansas – Oklahoma State University Joint Conference on Collaborative Environmental Research. Tulsa, OK. December 19*

Technical Abstracts/Proceedings presented at national/international conferences *([1]Graduate student; [2]Post doctoral Research Associate; [3]undergraduate student supervised by Dr. Chaubey)**:***

1. Pignotti[1], G., M. Crawford, E. Han, M.R. Williams, and **I. Chaubey**. 2021. Soil moisture data assimilation impacts on ecohydrolgic watershed modeling predictions. *AGU Fall Meeting*
2. Vema[1], V.K., J.J. Volenec, S. Brouder, and **I. Chaubey**. 2019. Parameterizing the cereal rye crop in SWAT model and evaluating its impact in watershed scale simulations. *AGU Fall Meeting H33J-2066*
3. T. Hou, T.R. Filley, Y. Tan, B.K. Abban, S. Singh, T. Papanicolou, K. Wacha, C.G. Wilson, and **I. Chaubey**. 2019. Tillage driven erosion: a transport mediated filter of organic carbon across intensively managed landscapes. *AGU Fall Meeting B34E-12*
4. Vera, J., B. Engel, and **I. Chaubey**. 2018. Effects of land –use change on nutrient discharges in the Wabash watershed. *ASABE Annual International Meeting, Detroit, MI. July 30-August 2*
5. Vema[1], V.K., K.P. Sudheer, and **I. Chaubey**. 2018. Do uncertain hydrologic simulations cause variability in decisions arrived? *Annual International Conference of ASABE, Detroit, MI. July 30 – August 2*
6. Valappil[1], F.P., **I. Chaubey**, A. Aubeneau, S. McMillan, P. Wagner, and N. Fohrer. 2018. Developing regression relationships between transient storage and hydraulic parameters in streams. *Annual International Conference of ASABE, Detroit, MI. July 30 – August 2*
7. Li[1], P., R.L. Muenich[1], **I. Chaubey**, and X. Wei. 2017. Evaluating BMP effectiveness in improving freshwater provisioning under changing climate in the Upper Mississippi River basin. *EGU General Assembly Conference, Vienna, Austria. Abstract No. 19,1146*
8. Femeena[1], P.V., **Chaubey, I.**, Fohrer, N., Wagner, P.D. 2017. Improved physical representation of in-stream processes for water quality models using tracer studies. *Presented at American Society of Agricultural and Biological Engineering Annual International Meeting, Spokane, Washington USA. July 16-19*
9. Femeena[1], P.V., **Chaubey, I.**, Aubeneau, A., McMillan, S., Wagner, P.D., Fohrer, N. (2017). Regression models to estimate transient storage parameters in streams. *Presented at Agricultural and Biological Engineering Graduate Industrial and Research Symposium, Purdue University, Indiana, USA. Feb 8*
10. Singh[2], S., Abebe, A., Srivastava, P., **Chaubey, I.**, 2017. Modulation of ENSO by decadal and multi-decadal climatic cycles and its impact on streamflow levels across USA. *ASABE, Annual International Meeting, July 2017, Spokane, USA*
11. Pignotti[1], G., Singh[2], S., Femeena[1], P. V., **Chaubey, I.**, Cherkauer, K., 2017. Climate Change Impacts on Indiana Water Quality, *38th Annual Indiana Water Resources Association Symposium, June, 2017, Indiana*
12. Pignotti[1], G., **Chaubey, I.,** Crawford, M. "Comparing soil hydrology schemes in watershed-scale ecohydrologic modeling." *ASABE 2017 Annual International Meeting. Spokane, WA*
13. Vamsikrishna, V., K.P. Sudheer, and **I. Chaubey. 2017**. Hydrological simulation in administrative catchments in participatory watershed management. *3rd International Conference on Status and Futures of the World's Large Rivers. April 18-21, New Delhi, India*

14. Rathjens, H., K. Bieger, **I. Chaubey**, J.G. Arnold, P. Allen, R. Srinivasan, and M. Volk. 2016. Evaluation of upland-floorplain delineation methods across scales and DEM resolution. *ASABE Annual International Meeting. Orlando, FL. July 17-20*

15. Pignotti, G., H. Rathjens, R. Cibin, **I. Chaubey**, and M. Crawford. 2016. Sensitivity and skill of SWAT model soil water content dynamics. *ASABE Annual International Meeting. Orlando, FL. July 17-20*

16. Cibin, R., **I. Chaubey**, and B. Gramig. 2016. Conservation practice strategies for economically and environmentally sustainable corn stover harvest for biofuel production in Indiana. *ASABE Annual International Meeting. Orlando, FL. July 17-20*

17. Omani, N., **I. Chaubey**, S. Sharma. 2016. Assessing sensitivity of two Indiana River basins water quality, quantity, and agriculture to drought. *ASABE Annual International Meeting. Orlando, FL. July 17-20*

18. Krishnan, N., R. Cibin, **I. Chaubey**, and K.P. Sudheer. 2015. Impact of parameter uncertainty in land use planning decisions. *Poster presented at the American Geophysical Union Conference. San Francisco, CA. December 18*

19. Hodaj, A., L.C. Bowling, R. Cibin, and **I. Chaubey**. 2015. Evaluation of the two-stage ditch as a best management practice. *Poster presented at the American Geophysical Union Conference. San Francisco, CA. December 18*

20. Cibin[2], R., **I. Chaubey**, M. Helmers, K.P. Sudheer, M. White. J. Arnold. 2015. Improved physical representation of vegetative filter strips in SWAT. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

21. Pignotti[1], G., H. Rathjens, R. Cibin, V. Vema, **I. Chaubey**, and M. Crawford. 2015. Comparative analysis of spatial resolution effects on standard and grid-based SWAT models. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

22. Omani[2], N., **I. Chaubey**, and P. Li. 2015. Assessing sensitivity of UMRB agriculture and water resources to past and current drought. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

23. Hodaj, A., Bowling, L., R. Cibin, and **I. Chaubey**. 2015. Evaluation of the two-stage ditch as a best management practice. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

24. Feng[1], Q., **I. Chaubey**, R. Cibin, B. Engel, K.P. Sudheer, and J. Volenec. 2015. Bioenergy grass production on marginal lands and hydrologic and water quality impacts in the Upper Mississippi River Basin (UMRB). *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

25. Pignotti[1], G., R. Cibin[2], **I. Chaubey**, and M. Crawford. 2015. Evaluation of SWAT soil water content model output and sensitivity. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

26. Femeena[1], P.V., **I. Chaubey**, and N. Fohrer. 2015. Developing an in-stream water quality model for improved simulation of nutrient dynamics in SWAT. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

27. Li, P., **I. Chaubey**, N. Omani, and X. Wei. 2015. Impact of drought on freshwater provisioning ecosystem services in the Upper Mississippi River basin. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

28. Papanagopoulous, Y., P. Gassman, C. Kling, R. Cibin[2], **I. Chaubey**, J. Arnold. 2015. Assessment of large scale bioenergy cropping scenarios for the Upper Mississippi and Ohio-Tennessee River

basins. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

29. Gassman, P., A. Valcu, C. Kling, Y. Panagopoulous, R. Cibin[2], **I. Chaubey**, J.G. Arnold, C. Wolter, and K. Schilling. 2015. Assessment of bioenergy cropping scenarios for the Boone River watershed in North Central Iowa, United States. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

30. **Chaubey, I.**, R. Cibin[2], S. Brouder, L. Bowling, K. Cherkauer, J. Frankenberger, R. Goforth, B. Gramig, J. Volenec. 2015. How do climate change and bioenergy crop production affect watershed sustainability. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

31. Feng[1], Q., **I. Chaubey**, R. Cibin[2], B. Engel, K.P. Sudheer, J. Volenec. 2015. Simulating establishment period of perennial bioenergy grasses in the SWAT model. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

32. Krishnan, N., R. Cibin[2], **I. Chaubey**, and K.P. Sudheer. 2015. Impact of model parametric uncertainty on land use planning decision making. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

33. Moloney, C., R. Cibin[2], J. Frankenberger, and **I. Chaubey**. 2015. Using a single HRU SWAT model to examine and improve representation of field scale processes. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

34. Song, J., B. Gramig, R. Cibin[2], and **I. Chaubey**. 2015. Water quality and cost considerations in the supply of feedstocks for cellulosic biofuels. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

35. Bieger, K., H. Rathjens[2], **I. Chaubey**, D. Bosch, P.M. Allen, M. Volk, R. Srinivasan, and J.G. Arnold. 2015. SWAT+: Introduction to the new SWAT code, input/output file structure, test datasets, and developers interface. *International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16*

36. Pignotti[1], G., H. Rathjens[2], R. Cibin[2], V. Vema, **I. Chaubey**, and M. Crawford. 2015. Effect of input data spatial resolution on output and calibration of standard and grid-based SWAT model simulations. *Paper No. 152151725. ASABE Annual International Conference. New Orleans, LA. July 2015*

37. Cibin[2], R., **I. Chaubey**, and B.M. Gramig. 2015. Watershed scale analysis to develop strategies for environmentally sustainable corn stover removal for biofuel production in Indiana. *Paper No. 152190927. ASABE Annual International Conference. New Orleans, LA. July 2015*

38. Montgomery[1], A.K., R. Dierking, S. Brouder, I. Chaubey, J. Volenec. 2015. The effects of different biofuel crops and fertilizer rates on subsurface water quality and yield on marginal lands. *Paper No. 152189916. ASABE Annual International Conference. New Orleans, LA. July 2015*

39. Rathjens[2], H., K. Bieger, **I. Chaubey**, J.G. Arnold, R. Srinivasan, D.D. Bosch, P. Allen, M. Volk. Development of a landscape unit delineation framework for SWAT. *Paper No. 152189799. ASABE Annual International Conference. New Orleans, LA. July 2015*

40. Bieger, K., H. Rathjens, P. Allen, D.D. Bosch, **I. Chaubey**, R. Srinivasan, M. Volk, J.G. Arnold. Application of the new modular SWAT code to three watersheds in the United States. *Paper No. 152189807. ASABE Annual International Conference. New Orleans, LA. July 2015*

41. Liu, Y., R. Cibin, V. Bralts, **I. Chaubey**, B. Engel. 2015. Optimal selection and placement of BMPs and LID practices with L-THIA-LID 2.1 Model. *Paper No. 152141175. ASABE Annual International Conference. New Orleans, LA. July 2015*

42. Hodaj, A., L.C. Bowling, J. Frankenberger, and **I. Chaubey**. 2015. Two-stage ditch scenarios and its future role as a best management practice. *Paper No. 152188680. ASABE Annual International Conference. New Orleans, LA. July 2015*

43. Cibin[2], R., **I. Chaubey**, E. Trybula, J. Volenec, S. Brouder, and J. Arnold. 2015. SWAT model improvements to simulate bioenergy crops production. *International Soil and Water Assessment Tool Conference, Sardinia, Italy. June 24-26, 2015*

44. **Chaubey, I.**, R. Cibin, J. Frankenberger, J. Volenec, S. Brouder, P. Gassman, Y. Panagopoulos, C. Kling, J. Arnold. 2015. Application of improved SWAT model for bioenergy production scenarios in Indiana Watersheds. *International Soil and Water Assessment Tool Conference, Sardinia, Italy. June 24-26, 2015*

45. Gassman, P., Adriana Valcu, C. Kling, Y. Panagopoulos, R. Cibin, **I. Chaubey**, J. Arnold. 2015. Assessment of Scenarios for the Boone River Watershed in North Central Iowa. *International Soil and Water Assessment Tool Conference, Sardinia, Italy. June 24-26, 2015*

46. Y. Panagopoulos, Y., P. Gassman, C. Kling, R. Cibin, **I. Chaubey**, J.G. Arnold. 2015. Assessment of large-scale scenarios for the Upper Mississippi and Ohio-Tennessee River basins. *International Soil and Water Assessment Tool Conference, Sardinia, Italy. June 24-26, 2015*

47. Srinivasan, R., H. Rathjens, C. George, **I. Chaubey**, J. Arnold, K. Abbaspour. 2015. A global SWAT model. *International Soil and Water Assessment Tool Conference, Sardinia, Italy. June 24-26, 2015*

48. Cibin R., R. Logsdon, **I. Chaubey**, K.A. Cherkauer (2015). Ecosystem services evaluation of futuristic bioenergy based land use change and their uncertainty from climate change and variability. *ASABE 1st Climate Change Symposium-Adaptation and Mitigation - Chicago, Illinois, May 3-5, 2015, Paper number 152121620, (doi: 10.13031/cc.20152121620)*

49. Rathjens H., Cibin R., **Chaubey I.**, Srinivasan R., Arnold J. (2015). Linking regional climate simulations and hydrologic models for climate-change impact studies: a data processing framework. *ASABE 1st Climate Change Symposium-Adaptation and Mitigation - Chicago, Illinois, May 3-5, 2015, Paper number 152121620, (doi: 10.13031/cc.20152121620)*

50. Montgomery, A., R. Wang, S. Brouder, **I. Chaubey**, and J. Volenec. 2014. Effect of cellulosic biofuel crops grown on marginal land. *ASABE Annual International Conference. Montreal, Canada. July 2014*

51. Kalcic, M., Frankenberger, **J., Chaubey**, I., Prokopy, L., and L. Bowling. 2014. An adaptive targeting approach for adoption of agricultural conservation practices. *21st Century Watershed Technology Conference and Workshop: Improving Water Quality and the Environment. The University of Waikato, New Zealand, November 3 - 6*

52. **Chaubey, I.**, R. Cibin, J. Frankenberger, and K. Cherkauer. 2014. Watershed scale environmental and biodiversity sustainability analysis of land use and climate change using SWAT model. *Presented at the 2014 International SWAT Conference, July 30 – August 1, 2014. Porto de Galinhas, Brazil*

53. Chicklowski[1], E., **I. Chaubey**, J. Frankenberger, and L. Bowling. 2014. Nitrate removal from subsurface drainage by denitrifying bioreactor. *Poster presented at the 2014 International Annual Meeting, American Society of Agricultural and Biological Engineers. Montreal, CA*

54. Hodaj, A, L.C. Bowling, J. Frankenberger, **I. Chaubey**, and R.R. Goforth. 2014. Monitoring a two-stage ditch and its impacts on water quality. *ASABE Paper No. 141913124. Presented at the 2014 International Annual Meeting, American Society of Agricultural and Biological Engineers. Montreal, CA*

55. **Chaubey I.**, R. Cibin, and L. Chiang. 2013. Watershed scale impacts of bioenergy, landscape changes, and ecosystem response. *European Geophysical Union General Assembly Conference (7-12 April), Vienna, Austria*

56. Cibin R., I. Chaubey, K.P. Sudheer, M.J. White, and J.G. Arnold 2013. Optimal Applicability of growing energy crops as BMPs in filter strip areas. *American Society of Agricultural and Biological Engineers Annual International Meeting (Jul 22 - 24), Kansas City, MO*

57. Cibin R., **I. Chaubey**, S. Brouder, J. Volenec, and K. Cherkauer K. 2013. Watershed scale environmental sustainability analysis of biofuel production in changing land use and climate scenarios. *American Geophysical Union Fall Meeting (December 9 - 13), San Francisco, CA*

58. Femeena, P. V., K.P. Sudheer, **I. Chaubey**, R. Cibin, and Y. Her. 2013. Spatial optimization of cropping pattern in an agricultural watershed for food and biofuel production with minimum downstream pollution. *American Geophysical Union Meeting of the Americas (May 14-17), Cancun, Mexico*

59. Feng, Q., **I. Chaubey**, X. Wang, Y. Her, and C.W. Boles. 2013. Hydrological/water quality impacts of perennial crop production on marginal land. *ASABE Annual International Meeting (July 21-24), Kansas City, MO*

60. Her, Y., I. Chaubey, and J. Frankenberger. 2013. Assessing effectiveness of targeted agricultural BMPs on sediment and nutrient loading from Upper Maumee River Watershed using SWAT. *56th Annual Conference on Great Lakes Research (June 2-6), West Lafayette, IN*

61. Her, Y., R. Cibin, and **I. Chaubey**. 2013. Simple parallel computing methods for improving efficiency of parameter calibration of SWAT and its application to spatial optimization. *ASABE Annual International Meeting (July 21-24), Kansas City, MO*

62. Sharma, S., **I. Chaubey**, and R. Cibin. 2013. Impact of Bioenergy Crops Expansion on Water Quality in Agricultural Regions of Indiana. *American Society of Agricultural and Biological Engineers Annual International Meeting (Jul 22 - 24), Kansas City, MO*

63. **Chaubey I.**, R. Cibin, Y. Her, and B.M. Gramig. 2013. Is Co-Production of Food and Energy Crops Environmentally Sustainable? A Land Use Optimization Approach. *American Water Resource Association 2013 Spring Specialty Conference on Agricultural Hydrology and Water Quality II (Mar25-27), St.Louis, MO*

64. Ahiablame, L., Engel, B., **Chaubey, I.** 2012. Effectiveness of Low Impact development Practices: Retrofitting with Rain Barrel/Cistern and Porous Pavement. *Presented at The ASABE Annual International Meeting, Dallas, TX*

65. **Chaubey, I.**, R. Cibin, Y. Her, and B. Gramig. 2012. Optimizing selection and landscape placement of energy crops. *Annual Conference of the American Water resources Association. Jacksonville, FL*

66. Feng[1], Q., **I. Chaubey**, R. Cibin, and Y. Her. 2012. Total potential yield and impacts on hydrologic cycle and water quality by growing switchgrass and miscanthus on marginal land. *Paper no. 121337201, Annual Conference of the ASABE, Dallas, TX*

67. Her[2], Y. and **I. Chaubey**. 2012. Impact of the number of parameters and observations on calibration of SWAT. *Paper no. 121338438, Annual Conference of the ASABE, Dallas, TX*

68. Park, Y.S., **I. Chaubey**, K.J. Lim, and B. Engel. 2012. Development of a web-based pollutant load interpolation tool using an optimization algorithm. *Paper no. 121337988, Annual Conference of the ASABE, Dallas, TX*

69. Buckmaster, D.R., A. Ault, **I. Chaubey**, J. Frankenberger, J. Krogmeier, and B. Engel. 2012. Water management apps – initial concepts and development approach. *Paper no. 121337077, Annual Conference of the ASABE, Dallas, TX*

70. Antony, A., B. Engel, and **I. Chaubey**. 2012. Evaluating effectiveness of NAPRA model to assess the impacts of BMPs on pesticides, phosphorus and nitrogen losses. *Paper no. 212336829, Annual Conference of the ASABE, Dallas, TX*

71. Cibin[1], R., **I. Chaubey**, and B. Engel. 2012. Optimum selection and placement of energy crops at watershed scale: a multi-objective optimization framework for sustainable bioenergy production. *Paper no. 121337030, Annual Conference of the ASABE, Dallas, TX*

72. Smith, P.K., R.D. Harmel, K.W. Migliaccio, **I. Chaubey**, K. Douglas-Mankin, B. Benham, and S. Shukla. 2012. Guidelines for project-specific model validation, interpretation, and communication. *Paper no. 121337994, Annual Conference of the ASABE, Dallas, TX*

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