INDRAJEET CHAUBEY

Purdue University
Department of Earth, Atmospheric, and Planetary Sciences
Department of Agricultural and Biological Engineering
550 Stadium Mall Drive, West Lafayette, IN 47907-2093
Phone: (765) 494-3258 Fax: (765) 496-1115 E-mail: ichaubey@purdue.edu
Web: http://engineering.purdue.edu/ecohydrology

ACADEMIC BACKGROUND

Ph.D., Biosystems Engineering, Oklahoma State University, Stillwater, 1997

M.S., Biological & Agricultural Engineering, University of Arkansas, Fayetteville, 1994

B.S., Agricultural Engineering, University of Allahabad, India, 1991

Appointments

Professor and Head, 2013- Present. Department of Earth, Atmospheric, and Planetary Sciences, Purdue University, West Lafayette, IN

Professor, August 2011 – Present; **Associate Professor:** 2007 – 2011, Department of Agricultural and Biological Engineering; Department of Earth, Atmospheric, and Planetary Sciences; Purdue University, West Lafayette, IN

Associate Director, 2012-2015. Purdue Water Community

Associate Professor, 2005 – 2006; **Assistant Professor:** 2000 – 2005, Department of Biological and Agricultural Engineering, University of Arkansas, Fayetteville, AR

Adjunct Professor, 2002 – 2006, Environmental Dynamics Program, University of Arkansas

Assistant Research Scientist, 1998-2000. Center for Freshwater Studies, University of Alabama, Tuscaloosa, AL

HONORS/AWARDS

- **Fellow**, American Society of Agricultural and Biological Engineers. Class of 2017.
- **Arkansas Academy of Biological and Agricultural Engineering**. Inducted, 2016
- **Fellow**, Indian Society of Agricultural Engineers. 2015
- **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
- **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, Fayetteville
- **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
- **Who's Who in Agricultural Academia**. 2009
- **Merit Cum Means Scholarship**, Indian Council of Agricultural Research, 1986-1989

SELECTED ADMINISTRATIVE ACCOMPLISHMENTS/ACTIVITIES

Department Head:

- Recruited 10 new faculty since 2013 including five women faculty to the department. Hired 12 new staff members since 2013
- Diversity in the department has increased in many areas; EAPS currently has 7 female faculty – the largest number in history. A historically highest percent of female undergraduate (40%) and graduate students (47%) in the department. Largest number of Native American graduate students among any Ph.D. granting earth science programs in the USA
- Led the development of a new strategic plan (2015-2019) for the department
- Led the successful external review of the department (2014)
- Student credit hours taught by EAPS faculty have increased from <6,000 (2012) to more than >10,000 (2016) each semester
- Initiated energy research – a new research theme in the department
- Encouraged and supported faculty to participate in IMPACT and on-line digital education program development. EAPS faculty teach top two most enrolled classes supported by Purdue Digital Education
- Oversaw revision of undergraduate curriculum
- Philanthropic giving increased to more than >$1 million each year. Six new endowed scholarships

created by friends and alumni of the department

- First endowed professorship (Stephen and Karen Brand of Unconventional Energy) created in the department with a total endowment of $2 million

Chair of Graduate Programs

- Develop Graduate Student Learning Outcomes (GSLO) for the department
- Collected, analyzed, and presented data related to GLSO and proposed initiatives to improve learning outcomes
- University of Arkansas – Revised the graduate curriculum of the department. Authored a proposal to start a new M.S. degree in the department. The graduate enrollment in the department quadrupled during my tenure as the graduate program chair

INTERNATIONAL PROGRAM ACTIVITIES

- I have developed active international collaboration with scientists from China, Colombia, Germany, India, Mexico, South Korea, Taiwan, and Panama. For example, I have been collaborating with Dr. K.P. Sudheer, Professor of Civil Engineering, Indian Institute of Technology-Madras, Indian, since 2005. I have hosted Dr. Sudheer in my laboratory for almost every year since in 2005. We have an active student collaboration program in which 4 of his graduate students have visited my lab for extended periods of time (4 weeks to 6 months) and have worked on joint research project. Currently I am working on the following projects with these collaborators:
    - Impact of climate change on water availability and water quality in agricultural watersheds
    - Development of methods and tools to improve uncertainty analyses in watershed models
    - Development of methods to improve flow and water quality predictions in ungauged basins
- I have participated in research proposal development with collaborators from multiple countries including China, India, Colombia, Canada, Mexico, and Panama. I led a discussion and presented a proposal to the Indo-U.S. Science and Technology Forum Team on water and climate related issues. Purdue University. June 19, 2008. As a direct outcome of this meeting, I was invited to submit a proposal to create a virtual center.
- International Coordinator, Indian Society of Agricultural Engineers. 2012-2014
- I have travelled with Purdue teams to multiple countries (Australia, China, Colombia, India, Mexico, Panama) with a goal to develop new institutional collaborations. For example, I was invited to travel to Mexico City as a member of the Purdue Global Engineering team with Profs. Rabi Mohtar, Antonio Bobet, and Inez Hua to attend a series of meetings with faculty from the Universidad National Autonoma De Mexico and Universidad Autonoma Metropolitana. In this meeting I led a series of discussions with the faculty, department heads, and directors to explore possibilities of student, post-doc, and faculty exchanges in various areas of engineering, agriculture, and science. Similar travels were made to Colombia and China. I regularly meet with faculty from various universities in China, Colombia, and India to facilitate student and faculty exchange programs. I have developed and submitted proposals for funding to these countries.
- I have provided leadership to various international scientific conferences, including
    - Technical Program Advisory Committee, Environmental Water Resources Institute of the American Society of Civil Engineering

- 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).

- I was invited to attend the Joint US-China Workshop on Climate-Energy Nexus where I presented a talk entitled "Environmental Impact Assessment of Biofeedstock Production in the USA". Subsequently, I was invited to travel to China in 2011, 2012, and 2016 to continue discussion on furthering collaborations with Chinese counterparts on this project.
- Chair, International Conference on Global Water Security, to be held in February 2018 in New Delhi, India.

PROFESSIONAL AFFILIATIONS

- **Member**, ASAE *(Society for Engineering in Agricultural, Food, and Biological Systems);* American Water Resources Association; Soil and Water Conservation Society; American Geophysical Union; Geological Society of America; 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 that will guide policy decision makers. My research program integrates simulation modeling and innovative field research to improve our understanding of various rainfall-runoff and pollutant transport processes at field, stream reach and watershed scales.

My current research activities include evaluation of land use, land management and climate change impacts on ecohydrology and water quality of agricultural 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 state and federal 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. The following research programs are currently underway at Purdue University:

1. Impact of increased biomass for biofuel production on ecohydrology and water quality in Midwestern watersheds – 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 – 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 US 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 of agricultural watersheds – I am working on research projects to comprehensively evaluate linkages between climate change and agricultural production in the Midwest USA 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. At Purdue University 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 30 graduate students (18 M.S. and 12 Ph.D.). 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 employ 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 the 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 actively seek grant funding to develop innovative teaching methods. I have integrated instruments/equipment for field and laboratory data collection, simulation models, and cyber-infrastructure to describe how land use/land management influences water availability, and water quality.

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

At Purdue University, I have taken 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. I have analyzed GSLO data, preparation of reports, and discussion with the faculty on how weaknesses found related to specific learning outcomes can be addressed. As a member of the Curriculum Committee in the EEE, I have developed undergraduate curriculum for a new degree in EEE at Purdue. I have also worked with agricultural and biological engineering faculty to develop a new minor in EEE. 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. Three 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. 13 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

Course #	**Title**	Institution	**No. of times taught**
ABE591C[1]	Ecohydrology	Purdue	4
ABE 529[1]	Nonpoint Source Pollution Eng.	Purdue	3
ABE591C/EAS591N[1]	Future of Water Resources	Purdue	1
BAST 2903	AGHE Appl. Micro Computers	U. Arkansas	2
BENG 2612	Design in Biological Engineering II	U. Arkansas	1
BENG4903	Natural Resources Engineering	U. Arkansas	3
BENG 4923[1]	Nonpoint Source Pollution Engineering	U. Arkansas	2
BENG 5613[1]	Modeling and Simulation	U. Arkansas	1
BENG 5923[1]	NPS Pollution Control and Modeling	U. Arkansas	3
BENG 450(v)	Special problems (Undergraduates)	U. Arkansas	3
BENG 500(v)	Special Topics (Graduate)	U. Arkansas	3

[1]New courses that were developed and taught by Dr. Chaubey

Short courses and workshops taught.

1. **Introduction to geographic information system (GIS) applications in engineering**. A three-hour workshop at the 2002 meeting of the Arkansas Section of ASAE. Number of participants = 35.
2. **Managing Animal Resources for Environmental Quality**. 2002. No. of Participants = 14.
3. **Introduction to GPS and GIS for Engineers**. University of Arkansas Cooperative Extension Service. 2002. Number of participants = 24.
4. Three workshops in Arkansas on **Soil and Water Assessment Tool**. 2004. Total number of participants = 100.

5. **BMP optimization using SWAT model and genetic algorithms.** Purdue University. April 2010. Total number of participants = 12.
6. **Load estimation tools.** Indiana Department of Environmental Management. Co-taught with Dr. J. Frankenberger. September 13, 2010. Total number of participants = 15.

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. TBD (Co-Advised with Dr. Sylvie Brouder).
17. Amanda Brock. TBD.

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. TBD. 2014 (Expected)
11. Garrett Pignotti. 2017 (Exptected)
12. Femeena V. 2018 (Expected)
13. Ping Li. Northwest Agricultural University of Forestry and Agriculture, China.

Graduate Student Awards

The following list of student accomplishments, **working under my supervision**, illustrates my dedication toward their best professional development.

a. Various Awards in student competitions. I work very closely with my students to nominate them for various awards or help prepare presentations/posters for these competitions**.**

i. **First Place** in ASABE Student Ethics Video Challenge. 2016. (Femeena, V.).

ii. **First Place** in the poster competition in the 2013 AWRA Specialty Conference on Agricultural Hydrology and Water Quality. St. Louis, MO. (M. Kalcic).

iii. **First Place** in the poster competition in the 2012 ESE Symposium, Purdue University (M. Kalcic).

iv. **Second Place** (G. Pignotti) and **Third Place** (Q. Feng) in the 2012 GIS Day Poster Competition, Purdue University.

v. **Outstanding Graduate Student Award**. 2012. (Laurent Ahiablame)

vi. **2012 Emily M. Wadsworth Graduate Mentoring Award**. Given by Purdue Women in Engineering (R. Logsdon)

vii. **Third Place** in the poster competition in the 2011 ESE Symposium Poster Competition, Purdue University. November 9, 2011. (E. Trybula and R. Cibin)

viii. **Robert E. Stewart Engineering Humanities Award**. American Society of Agricultural and Biological Engineering. 2011. (Rebecca Logsdon)

ix. **First Place** Award by the Southern Agricultural Economics Association for the poster presented at the Annual Conference. February 8, 2010. Orlando, FL. (German Rodriguez and Chetan Maringanti)

x. **First place** in the poster competition in the Annual conference of the Center for the Environment, Purdue University. 2008. (Mark Thomas)

xi. **First place** in the **national student paper competition** in Ph.D. category (Mark Thomas) and **third place** in the M.S. category (Chetan Maringanti), organized by the American Society of Agricultural and Biological Engineering. 2008. (Mark Thomas)

xii. **First place** in the 2nd Annual Technology Summit Research Symposium: Poster Contest. (Vijay Garg)

xiii. **Second place** (Kati White) and **Third Place** (Debabrata Sahoo) in student poster competition in the 2003 annual conference of the Arkansas Section of the ASAE.

xiv. **First place** in student presentation competition at the 2002 Annual Conference of Arkansas Water Works and Water Environment Association. (Amy Cotter).

b. **Fellowships and Scholarships.**

i. **National Science Foundation** Graduate Research Fellowship (Rebecca Logsdon), Honorable Mention, NSF GRF (Margaret McCahon)

ii. **Ivanhoe Foundation Scholarship.** This scholarship is given to only one international graduate student on any university campus. (Laurent Ahiablame was the first student from Purdue to get this fellowship in 2008. Richa Srivastava, 2006).

iii. **Bilsland Dissertation Fellowship** (R. Cibin)

iv. **Magoon Excellence in Teaching Award,** 2012 (M. Kalcic)

v. **Ph.D. Fellowship** (Margaret McCahon, Rebecca Logsdon)

vi. **Southern Regional Education Board Fellowship** (Mansour Leh)

vii. **W.R. Thomas Fellowship** in Engineering. (Vijay Garg and Mansour Leh)

viii. **Gentry Land and Water Scholarship** awarded by Arkansas Water Resources Center (AWRC). (Kati White)

ix. **Randall Mathis Scholarship** awarded by Arkansas Environment Federation**.** (Kati White).

c. **Research Grants.** The following students working under Dr. Chaubey's supervision have successfully authored externally funded research proposals (*student name, funding agency*)

i. Cibin Raj: Indiana Corn Marketing Council

ii. Laurent Ahiablame, NSF; Hydrologists Helping Others (H2) – Purdue University; India Illinois Sea Grant; EPA

iii. Vijay Garg, Arkansas Space Grant Consortium

iv. Kati White, USGS

v. Rebecca Logsdon, Margaret M. Kalcic, and E. Trybula, North Central Region-Sustainable Agriculture Research and Education (NCR-SARE) Program

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 committees and professional societies. My significant service contributions are summarized below.

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

- **Search Committee** for the 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-present
- **Division of Ecological and Environmental Engineering,** Purdue University. Dr. Chaubey has spent 25% of his time in DEEE since Fall 2008 to develop a teaching and research program in DEEE
    - **Executive Committee.** 2008-present
    - **Curriculum Committee.** 2009-2010
    - **Faculty Success Committee, Chair.** 2011-2013
- **Governance Committee**, Ecological Sciences and Engineering, Purdue University, 08/2008 – present
- **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. 2005 – 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 other faculty members to prepare ABET materials. This involved extensive review of course materials, educational outcome assessment, and document preparation. Worked with other faculty members to revise BENG curriculum, including review of credit hours required for degree in BSBE, review of required and elective courses, sequencing of course offerings, and revision of some of the course materials (e.g., BENG 4903: Natural Resources Engineering)
    - **Teaching Quality Committee,** Department of Biological and Agricultural Engineering, University of Arkansas. 2002 – 2006
    - **Faculty Advisor**, Friends of India. University of Arkansas. 2001-2002
    - **Library Committee**, University of Arkansas. 2000-2004
    - **CAFLS Computer and Technology Transfer Committee.** University of Arkansas., 2000-2006
    - **College of Engineering COOP Committee**, University of Arkansas. 2000-2005

- **Computer Committee**, Department of Biosystems and Agricultural Engineering, Oklahoma State University, 1996-1997

- **Library Advisory Committee**, Oklahoma State University, 1994-1995

Service to government or professional organization

Professional Organizations

- **Committees of the American Society of Agricultural and Biological Engineers:**
  - **Member, M152, ADS/Hancor Soil and Water Engineering Award Committee.** 2013-2018
  - **Member,** Membership Development Council. 2011-2013
  - **Member, M-114, New Holland Young Researcher Award Committee**. 2008-2010. **Chair,** 2010
  - **Chair, SW-01: Executive Committee** (Soil and Water Division), 2010-2011
  - **Secretary, SW-02: Steering Committee** (Soil and Water Division), 2008-2009. **Chair**, 2010-1011. As a chair of the committee, Dr. Chaubey was responsible for all abstract submission and organizing all oral and poster sessions in the Soil and Water Division in the International ASABE conference in 2010 (19 different sessions with a total of 120 presentations)
  - **Vice-Chair,** SW-21 (Hydrology Group), 2003 – 2005. **Chair,** 2006-2008
  - **Founding President, Association of Agricultural, Food, and Biological Engineers of Indian Origin.** 2009-2011
  - **Member,** SW-21 (Hydrology Group), SW-22, SW-223 (Soil Erosion Research), and SW 224 (Pollution by Erosion) Committee, 1997-present
- **Associate Editor**, Transactions of the American Society of Agricultural and Biological Engineers; Applied Engineering in Agriculture, 2008-present
- **Co-Chair**, International Soil and Water Assessment Tool Conference, West Lafayette, IN. October 14-16, 2015
- **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-NRI (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 ASAE (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 work 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 devoted a significant amount of his time to solving complex environmental problems affecting economic development of 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 in assessing watershed land use impact on water quality
- I have worked with various stakeholder groups, such as Audubon Arkansas, Washington County Conservation District to develop a participatory approach for issue identification, problem solving, and watershed management plan development for nonpoint source pollution control

FUNDED RESEARCH PROJECTS

Summary of External Funding

Principal Investigator

Federal:	$5,893,608
Non-federal/Other:	$468,624

Co-Principal Investigator

Federal:	$8,502,651
Non-federal	$395,130

1. **Chaubey. I.** A grid-based modular watershed model for landscape-river continuum. Texas A&M University. $30,000. 2016-2017.
2. Filley, T., and **I. Chaubey**. Critical Zone Observatory for Intensively Managed Landscape (IML-CZO). $234,791. University of Illinois. 2013-2016.
3. Frisbee, M., and **I. Chaubey**. What is the source of baseflow in the Wabash River watershed. Indiana Water Resources Center. $15,000. 2015-2016.
4. **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.
5. Cherkauer, K. and **I. Chaubey**. Quantifying the optical properties of Wabash River water using remote sensing. Purdue Water Community, Water Drops Program. $6,000.
6. Cherkauer, K. and **I. Chaubey**. Unmanned Aerial Vehicle for environmental monitoring. Purdue Laboratory Research Equipment Program. $80,750. 2012-2013.
7. 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 $25 million project funded through Iowa State University. 2011-2016.

8. 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.

9. 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.

10. **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

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

12. 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.

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

14. 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

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

16. **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.

17. 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.

18. 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.

19. **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.

20. 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.

21. 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.

22. 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.

23. 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.

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

25. 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.

26. 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.

27. 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.

28. **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.

29. **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.

30. **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.

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

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

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

34. **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. 2004 – 2005. $60,671.

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

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

37. **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. 2003 – 2006. $550,000.

38. **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. 2003 – 2006. $446,100.

39. **Chaubey, I.,** B.E. Haggard, and P. Srivastava. Differentiating runoff contributing areas for effective water quality management. USDA-NRI. 2003 – 2005. $75,000.

40. **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. 2003- 2004. $85,184.

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

42. Bajwa, S.G., **I. Chaubey**, and D.R. Gardisser. Pesticide pollution risk assessment and mitigation

training in Arkansas Delta. EPA Region 6. 2003- 2005. $41,995.

43. **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. 2003-2004. $14,838.

44. **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. 2002 – 2004. $12,345. Supplement to this grant. $22,842.

45. **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. 2002 – 2005. $269,973.

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

47. Matlock, M. (P.I.), **I. Chaubey,** B.E. Haggard, D. Storm, M. Smolen, and W. Focht. A Nutrient Management Decision Support System for the Eucha Basin. Nutrient Science for the Improved Watershed Management Program, USDA/EPA. 2002 – 2005. $686,000.

48. Haggard, B.E. (P.I.), M. Matlock, **I. Chaubey**, and P.A. Moore, Jr. Phosphorus Concentrations and Flux in Streams and Reservoirs: Effect of Chemical Amendments on Sediment Phosphorus Flux and Implications for Watershed Management Strategies. USGS/Arkansas Water Resources Center. 2002 – 2003. $24,812.

49. Dillahunty, W., **I. Chaubey** and M. Matlock. Quantification of Dissolved Oxygen, Nutrients and Other Water Quality Parameters as Affected by Agricultural and Urban Land Use. Undergraduate Research program. DBCAFLS. $450.

50. **Chaubey, I.**, M.A. Nelson, T.A. Costello, and K. Teague, and K. VanDevender . Optimizing BMPs, Water Quality and Sustained Agriculture in the Lincoln Lake Watershed. EPA/Arkansas Soil and Water Conservation Commission. 2001 – 2004. $272,713.

51. **Chaubey, I.,** T.A. Costello, M.A. Nelson, and T.S. Soerens. Critical evaluation of spatial and temporal data requirements for TMDL Development. USGS/Arkansas Water Resources Center. 2001 – 2002. $20,305.

52. Bonzongo, J.J., E.E. Roden, H.C. Bryan, W.B. Lyons, **I. Chaubey**, and G.M. Ward. Social impact assessment of human exposure to mercury related to land use and physicochemical settings in the Alabama-Mobile river basin. 1998 – 2001. NSF/EPA/USDA. $804,534.

53. **Chaubey, I.**, L. Han, and S.N. Addy. Environmental and economic impact assessment of animal waste pollution potential using geographic information system. School of Mining and Energy Development, University of Alabama. 1998 – 1999. $22,457.

PUBLICATIONS

Summary of Publications

a.	Refereed	
	i. Journal Articles	121
	ii. Conference Proceedings	11
	iii. Book Chapters	5
b.	Invited Seminars:	55
c.	Technical Papers/Conference Proceedings:	184
d.	Papers Presented in Various Conferences:	25
e.	Research Reports:	16
f.	Other:	26

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

1. Panagopoulos, Y., P.W. Gassman, C.L. Kling, R. Cibin[2], and **I. Chaubey**. Assessment of large-scale bioenergy cropping scenarios for the Upper Mississippi and Ohio-Tennessee River basins. *J. American Water Resources Association. Accepted.*

2. Sharma[2], S. and **I. Chaubey**. 2017. Surface and subsurface transport of nitrate loss from the selected bioenergy crop fields: systematic review, analysis, and future directions. *Agriculture. In Press.*

3. Song, J., B. Gramig, R. Cibin[2], and **I. Chaubey**. 2017. Integrated economic and environmental assessment of cellulosic biofuel production in an agricultural watershed. *BioEnergy Research* *http://doi.org/10.1007/s12155-017-9817-g*.

4. Bailey, R.T., H. Rathjens[2], K. Bieger, **I. Chaubey**, and J. Arnold. 2017. SWATMOD-Prep: Graphical user interface for preparing coupled SWAT-MODFLOW simulations. *J. American Water Resources Association* *http://doi.org/10.1111/1752-1688.12502*.

5. Cibin[2], R., **I. Chaubey**, R.L. Muenich, K.A. Cherkauer, I. Panagopoulos, P.W. Gassman, and C.L. Kling. 2017. Ecosystem service evaluation of futuristic bioenergy based land use change and their uncertainty from climate change and variability. *J. American Water Resources Association. In Print.*

6. Kling, C.L., **I. Chaubey**, R. Cibin, P.W. Gassman, and Y. Panagopoulos. 2017. Policy implications from multi-scale watershed models of biofuel crop adoption across the Corn Belt. *J. American Water Resources Association. In Print.*

7. **Chaubey, I.,** D.D. Bosch, R. Munoz-Carpena, R.D. Harmel, K. Douglas-Mankin, A.P. Nejadhashemi, P. Srivastava, and A. Shirmohammadi. 2016. Climate Change: A call for adaptation and mitigation strategies. *Transactions of the ASABE 59(6):1709-1713. DOI: http://doi.org/10.13031/trans.59.12138*.

8. Anandhi, N., N. Omani[2], **I. Chaubey**, R. Horton, D. Bader, and R.S. Nanjundiah. 2016. What changes do the CMIP5 climate models predict for South Asia and what are some potential impacts on managed ecosystems and water resources? *Transactions of the ASABE 59(6):1715-1731. http://doi.org/10.12031/trans.59.11585*.

9. Athira, P., K.P. Sudheer, R. Cibin, and **I. Chaubey**. 2016. Predictions in ungauged basins: an approach for regionalization of hydrological models considering the probability distribution of model parameters. *Stoch. Environ. Res. Risk Assessment 30(4):1131-1149. DOI: http://doi.org/10.1007/s00477-015-1190-6*

10. Her, Y., **I. Chaubey**, J. Frankenberger, and J. Jeong. 2016. Implications of spatial and temporal

variations in effects of conservation practices on water management strategies. *Agricultural Water Management* http://dx.doi.org/10.1016/j.agwat.2016.07.004

11. Wang, R., L.C. Bowling, K.A. Cherkauer, C. Raj[2], Y. Her[2], and **I. Chaubey**. 2016. Biophysical and hydrological effects of future climate change including trends in CO2 in the St. Joseph River Watershed, Eastern Corn Belt. *Agricultural Water Management* http://dx.doi.org/10.1016/j.agwat.2016.09.017
12. Liu, Y, **I. Chaubey**, L.C. Bowling, V. Bralts, and B.A. Engel. 2016. Sensitivity and uncertainty analysis of the L-THIA-LID 2.1 model. *Water Resources Management 30:4927-4949. DOI 10.1007/s11269-016-1462-z*
13. Muenich, R.L., **I. Chaubey**, and M. Pyron. 2016. Evaluating potential water quality drivers of a fish regime shift using the SWAT model: a case study of the Wabash River. *Ecological Modeling 340:116-125.* http://dx.doi.org/10.1016/j.ecolmodel.2016.09.010
14. Bieger, K., H. Rathjens[2], J.G. Arnold, **I. Chaubey**, and P. Allen. 2016. Development and comparison of multiple regression models to predict bankfull channel dimensions for use in hydrologic models. *J. American Water Resources Association 52(6):1385-1400. DOI: 10.1111/1752-1688.12460*
15. Li[1], P., **I. Chaubey**, R. Muenich, and X. Wei. 2016. Evaluation of freshwater ecosystem provision in the Upper Mississippi River Basin: current status and drivers. *Water 8(7), 288. Doi:* http://doi.org/10.3390/w8070288
16. Tan, J., K.A. Cherkauer, and **I. Chaubey**. 2016. Developing a comprehensive spectral-biogeochemical database of Midwestern rivers for water quality retrieval using remote sensing data: A case study of Wabash River and its tributary, Indiana. *Remote Sensing 8, 517.* http://www.mdpi.com/2072-4292/8/6/517
17. Rathjens[2], H., K. Bieger, **I. Chaubey**, J.G. Arnold, P.M. Allen, R. Srinivasan, D.D. Bosch, and M. Volk. 2015. Delineating floodplain and upland areas for hydrologic models – a comparison of methods. *Hydrological Processes 30:4367-4383. DOI: 10.1002/hyp.10918*
18. Cibin[1], R. E. Trybula[1], **I. Chaubey**, S. Brouder, and J.J. Volenec. 2016. Watershed scale impacts of bioenergy crops on hydrology and water quality using improved SWAT model. *Global Change Biology-Bioenergy 8(4):837-848. DOI:* http://doi.org/10.1111/gcbb.12307
19. Liu, Y., R. Cibin[1], V. Bralts, **I. Chaubey**, L. Bowling, and B. Engel. 2016. Optimal selection and placement of BMPs and LID practices with a rainfall-runoff model. *Environmental Modelling and Software 80:281-296. Doi:* http://doi.org/10.1016/j.envsoft.2016.03.005
20. Dennedy-Frank, P.J., R.L. Muenich[1], **I. Chaubey**, and G. Ziv. 2016. Comparing two tools for ecosystem service assessments regarding water resources decisions. *Environmental Management 177:331-340.* http://doi.org/10.1016/j.jenvman.2016.03.012
21. Tan, J, K.A. Cherkauer, **I. Chaubey**, C.D. Troy, and R. Essig. 2016. Water quality estimation of river plumes in Southern Lake Michigan using Hyperion. *J. Great Lakes Research 42(3):524-535.* http://doi.org/10.1016/j.jglr.2016.02.009
22. Muenich[1], R.L., S. Peel, L.C. Bowling, M.H. Haas, R.F. Turco, J.R. Frankenberger, and **I. Chaubey**. 2016. The Wabash sampling blitz: A case study on the effectiveness of citizen science. *Citizen Science: Theory and Practice 1(1),p.3. doi:* http://doi.org/10.5334/cstp.1
23. Her[2], Y, **I. Chaubey**, J. Frankenberger, and D. Smith. 2016. Effect of conservation practice implemented by USDA programs at field and watershed scales. *J. Soil and Water Conservation 71(3):249-266.* http://doi.org/10.2489/jswc.71.3.249

24. Trybula[1], E.M., R. Cibin[2], J.L. Burks, **I. Chaubey**, S.M. Brouder, and J. Volenec. 2015. Perennial rhizomatous grasses as bioenergy feedstock in SWAT: parameter development and model improvement. *Global Change Biology – Bioenergy 7(6):1185-1202. DOI: http://doi.org/10.1111/gcbb.12210*

25. Tan, J., K.A. Cherkauer, and **I. Chaubey**. 2015. Using field and remotely sensed hyperspectral data to quantify water quality parameters in the Wabash River and its tributary, Indiana. *International Journal of Remote Sensing 36(21): 5466-5484.* http://dx.doi.org/10.1080/01431161.2015.1101654

26. Feng[1], Q., **I. Chaubey**, Y. Her, R. Cibin, B. Engel, J. Volenec, and X. Wang. 2015. Hydrologic/water quality impacts and biomass production potential on marginal lands. *Environmental Modelling and Software 72-230-238. Doi: http://doi.org/10.1016/j.envsoft.2015.07.004*

27. Her[2], Y. and **I. Chaubey**. 2015. Impact of the numbers of observations and calibration parameters on equifinality, model performance, and output and parameter uncertainty. *Hydrological Processes 29(19):4220-4237. DOI: http://doi.org/10.1002/hyp.10487*

28. Kalcic[1], M.M., J. Frankenberger, **I. Chaubey**, L. Prokopy, and L. Bowling. 2015. Adaptive targeting: engaging farmers to improve targeting and adoption of agricultural conservation practices. *J. American Water Resources Association. DOI: http://doi.org/10.1111/1752-1688.12336*

29. Kalcic[1], M.M., J. Frankenberger, and **I. Chaubey**. 2015. Spatial optimization of six conservation practices using SWAT in tile drained agricultural watersheds. *J. American Water Resources Association DOI: http://doi.org/10.1111/1752-1688.12338*

30. Cibin[1], R., and **I. Chaubey**. 2015. A computationally efficient approach for watershed scale spatial optimization. *Environmental Modelling and Software 66:1-11. http://dx.doi.org/10.1080/21513732.2014.99871*

31. Park, Y.S., B.A. Engel, J. Kim, L. Theller, **I. Chaubey**, V. Merwade, K.J. Lim. 2015. A Web Tool for STORET/WQX Water Quality Data Retrieval and Best Management Practice Scenario Suggestion. *Journal of Environmental Management 150:21-27. http://dx.doi.org/10.1016/j.jenvman.2014.11.006*

32. Kalcic[1], M.M., **I. Chaubey**, and J. Frankenberger. 2015. Defining Soil and Water Assessment Tool (SWAT) hydrologic response units (HRUs) by field boundaries. *International J. of Agricultural and Biological Engineering doi: http://doi.org/10.3965/j.ijabe.20150801.006*

33. Her[2], Y., C. Raj[2], and **I. Chaubey**. 2015. Application of parallel computing methods for improving efficiency of optimization in hydrologic and water quality modeling. *Applied Engineering in Agriculture 31(3):455-468.*

34. Her[2], Y., J. Frankenberger, **I. Chaubey**, and R. Srinivasan. 2015. Threshold effects in HRU definition of Soil and Water Assessment Tool. *Transactions of the ASABE 58(2):367-378. Doi: http://doi.org/10.13031/trans.58.10805*

35. Logsdon[1], R.A., M.M. Kalcic[1], E.M. Trybula, **I. Chaubey**, and J.R. Frankenberger. 2015. Ecosystem services in Indiana agriculture: farmer and conservation perceptions. *International Journal of Biodiversity, Science, Ecosystem Services, and Management doi: http://doi.org/10.1080/2153732.2014.998711*

36. Thomas, M.A., L.M. Ahiablame[1], B.A. Engel, and **I. Chaubey**. 2014. Modeling water quality impacts of growing corn, switchgrass, and *Miscanthus* on marginal lands. *Journal of Water Resources and Protection 6,1352-1368. http://dx.doi.org/10.4236/jwarp.2014.614125*.

37. Kalcic[1], M.M., J. Frankenberger, L. Prokopy, and **I. Chaubey**. 2014. An in-depth examination of farmer perception of targeting conservation practices. *Environmental Management 54:795-813. DOI: http://doi.org/10.1007/s00267-014-0342-7*

38. Chiang[1], L., Y. Yuan, M. Mehaffey, M. Jackson, and **I. Chaubey**. 2014. Assessing SWAT's performance in the Kaskaskia River watershed as influenced by the number of calibration stations used. *Hydrological Processes 28:676-687. Doi: http://doi.org/10.1002/hyp.9589*

39. Chiang[1], L., **I. Chaubey**, C. Maringanti[1], and T. Huang. 2014. Comparing the selection and placement of best management practices in improving water quality using a multiobjective optimization and targeting method. *International Journal of Environmental Research and Public Health 11(3):2992-3014. Doi http://doi.org/10.3390/ijerph110302992*

40. Harmel, R.D., P.K. Smith, K.W. Migliaccio, **I. Chaubey**, K.R. Douglas-Mankin, B. Benham, S. Shukla, R. Munoz-Carpena, B. Robson. 2014. Evaluating, interpreting, and communicating hydrologic/water quality model performance considering intended use: recommendations and review of best practices. *Environmental Modelling and Software 57:40-51.* http://dx.doi.org/10.1016/j.envsoft.2014.02.013

41. Thomas, M.A., L.M. Ahiablame[2], B.A. Engel., **I. Chaubey**, and N. Mosier. 2014. Modeling water quality impacts of cellulosic biofuel production from corn silage. *Bioenergy Research 7:636-653. doi http://doi.org/10.1007/s12155-013-9391-7*

42. Hoque, Y.M., R. Cibin[1], M.M. Hantush, **I. Chaubey**, and R.S. Govindaraju. 2013. How do land use and climate change affect watershed health? A scenario-based analysis. *Water Quality, Exposure, and Health doi http://doi.org/10.1007/s12403-013-0102-6*

43. Kasiviswanathan, K.S., R. Cibin[1], K.P. Sudheer, and **I. Chaubey**. 2013. Constructing prediction interval for artificial neural network rainfall runoff models based on ensemble simulations. Journal of Hydrology 499: 275-288. http://dx.doi.org/10.1016/j.hydrol.2013.06.043.

44. Logsdon[1], R.A. and **I. Chaubey**. 2013. A quantitative approach to evaluating ecosystem services. *Ecological Modelling 257:57-65.* http://dx.doi.org/10.1016/j.ecolmodel.2013.02.009

45. Gramig, B.M., C.J. Reeling, R. Cibin[1], and **I. Chaubey**. 2013. Environmental and economic tradeoffs in a watershed when using corn stover for bioenergy. *Env. Science and Technology 47:1784-1791. http://dx.doi.org/10.1021/es303459h*

46. Ahiablame[1], L., B. Engel, and **I. Chaubey**. 2013. Effectiveness of low impact development practices in urbanized watersheds: retrofitting with rain barrel/cistern and porous pavement. *Journal of Environmental Management 119:151-161.* http://dx.doi.org/10.1016/j.jenvman

47. Cibin[1], R., Athira, P., K.P. Sudheer, and **I. Chaubey**. 2013. Application of distributed hydrological models for predictions in ungauged basins: a method to quantify predictive uncertainty. *Hydrological Processes doi: http://doi.org/10.1002/hyp.9721*

48. Ahiablame[1], L., B. Engel and **I. Chaubey**. 2013. An optimization method for estimating constituent mean concentration in baseflow dominated flow. *Journal of American Water Resources Association 49(5):1167-1178.*

49. Ahiablame[1], L., **I. Chaubey**, B. Engel, K. Cherkauer, and V. Merwade. 2012. Estimation of annual baseflow at ungauged sites in Indiana, USA. *Journal of Hydrology doi: http://dx.doi.org/10.1016/j.jhydrol.2012.10.002*

50. Chiang[1], L., **I. Chaubey**, N. Hong, Y. Lin, and T. Huang. 2012. Implementation of BMP strategies for adaptation to climate change and land use change in a pasture dominated watershed. *International Journal of Environmental Research and Public Health 9:3654-3684. doi: http://doi.org/10.3390/ijerph9103654*

51. Ludwig, A., M. Matlock, B. Haggard, and **I. Chaubey**. 2012. Periphyton nutrient limitation and maximum potential productivity in the Beaver Lake basin, United States. *Journal of American Water*

Resources Association. doi: http://doi.org/10.1111/j.1752-1688.2012.00657.x

52. Ahiablame[1], L.M. B.A. Engel, and **I. Chaubey**. 2012. Effectiveness of low impact development practices: Highlights of the current knowledge and suggestions for future research. *Water, Air and Soil Pollution 223:4253-4273, doi http://doi.org/10.1007/s11270-012-1189-2*

53. Kalcic[1], M., **I. Chaubey**, J. Frankenberger, and E. Kladivko. 2012. A geospatial approach to strategically siting constructed wetlands for nitrate removal in agricultural watersheds. *Applied Engineering in Agriculture 28(3):347-357.*

54. Ahiablame[1], L., B. Engel., and **I. Chaubey**. 2012. Representation and evaluation of low impact development practices with L-THIA-LID: an example for site planning. *Environment and Pollution 1(2):1-13*, doi: *http://doi.org/*10.5539/ep.v1n2p1

55. Athira, P., C. Raj, K.P. Sudheer, and **I. Chaubey**. 2012. A multi-criterion based approach to quantify predictive uncertainty of distributed models when applied to ungauged basins. *Advances in Geosciences, Hydrologic Sciences 23:75-84.*

56. Kim, J., B.A. Engel, Y.S. Park, L. Theller, **I. Chaubey**, D.S. Kong, and K.J. Lim. 2012. Development of web-based load duration curve system for analysis of total maximum daily load and water quality characteristics in a waterbody. *J. Environmental Management 97:46-55.* doi: *http://doi.org/*10.1016/j.jenvman.2011.11.012

57. Benham, B., G. Yagow, **I. Chaubey**, and K. Douglas-Mankin. 2011. Advances in watershed management: monitoring, modeling, and assessment. *Trans. ASABE 54(6): 2167-2170.*

58. **Chaubey, I.**, K. Cherkauer, M. Crawford, and B. Engel. 2011. Multi-scale sensing and modeling framework: integrating field to continental scale. *The Bridge: 41(3): 39-46. Invited Article, Published by the National Academy of Engineering.*

59. Cibin, R[1]., **I. Chaubey**, and B. Engel. 2011. Watershed scale impacts of corn stover removal for biofuel on hydrology and water quality. *Hydrological Processes. DOI: http://doi.org/10.1002/hyp.8280*

60. Leh, M.D., S. Bajwa, and **I. Chaubey**. 2011. Impact of land use change on erosion risk: an integrated remote sensing, geographic information system and modeling methodology. *Land Degradation and Development. DOI: http://doi.org/10.1002/ldr.1137*

61. Maringanti[1], C., **I. Chaubey**, M. Arabi, and B. Engel. 2011. Application of a multi-objective optimization method to provide least cost alternatives for NPS pollution control. *Environmental Management.* DOI: *http://doi.org/*10.1007/s00267-011-9696-2

62. Rodriguez, G., J.H. Popp, E. Gbur and **I. Chaubey**. 2011. Environmental and economic impacts of reducing total phosphorus runoff in agricultural watershed. *Agricultural Systems 104:623-633.doi: http://doi.org/10.1016/j.agsy.2011.06.005*

63. Thomas, M.A., B.A. Engel and **I. Chaubey**. 2011. Multiple corn-stover removal rates for cellulosic biofuels and long-term water quality impacts. *Journal of Soil and Water Conservation 66(6):431-444.*

64. Gitau[2], M.W., L. Chiang[1], M. Sayeed, and **I. Chaubey**. 2011. Computational approaches to evaluating BMP scenarios considering stochasticity of weather. *Simulation. DOI: http://doi.org/10.1177/0037549711402524*

65. Ahiablame[1], L.M., **I. Chaubey**, D.R. Smith, and B.A. Engel. 2011. Effect of tile effluent on nutrient concentration and retention efficiency in agricultural drainage ditches. *Agricultural Water Management 98(8):1271-1279.* doi:10.1016/j.agwat.2011.03.002

66. Rodriguez, G., J. H. Popp, C. Maringanti, and **I. Chaubey**. 2011. Selection and placement of best

management practices used to reduce water quality degradation in Lincoln Lake watershed. *Water Resources Research 47, W01507, doi: http://doi.org/10.1029/2009RW008549*

67. Sudheer, K.P., G. Lakshmi, and **I. Chaubey**. 2011. Application of a pseudo-simulator to evaluate the sensitivity of parameters in complex watershed models. *Environmental Modelling and Software 26 135-143.*

68. Chiang[1], L., **I. Chaubey**, M.W. Gitau[2], and J.G. Arnold. 2010. Differentiating impacts of land use changes from pasture management in a CEAP watershed using SWAT model. T*rans. ASABE 53(5):1569-1584.*

69. **Chaubey, I.**, L. Chiang, M.W. Gitau, and M. Sayeed. 2010. Effectiveness of BMPs in improving water quality in a pasture dominated watershed. *Journal of Soil and Water Conservation 65(6):424-437.*

70. Gitau[2], M.W., **I. Chaubey**, E.Gbur, J.H. Pennington, and B. Gorham. 2010. Impact of land use change and BMP implementation in a CEAP watershed: Northwest Arkansas. *Journal of Soil and Water Conservation 65(6):353-368.*

71. Garg[1], V. and **I. Chaubey**. 2010. A computationally efficient inverse modeling approach of inherent optical properties for a remote sensing model. *International Journal of Remote Sensing 31:16, 4349-4371.*

72. Engel, B., **I. Chaubey**, M. Thomas, D. Saraswat, P. Murphy, and B. Bhaduri. 2010. Biofuels and water quality: challenges and opportunities for simulation modeling. *Biofuels 1(3): 463-477.*

73. Garg[1], V., **I. Chaubey**, C. Maringanti, and S.G. Bajwa. 2010. Inverse modeling of Beaver Reservoir's water spectral reflectance. *Transactions of the ASABE 53(2):373-383.*

74. Sudheer, K.P., P.H Gowda, **I. Chaubey**, and T.A. Howell. 2010. Artificial neural network approach for mapping contrasting tillage practices. *Remote Sensing 2(2): 579-590, doi: http://doi.org/10.3390/rs2020579*

75. Cibin[1], R., K.P. Sudheer, and **I. Chaubey**. 2010. Sensitivity and identifiability of stream flow generation parameters of the SWAT model. *Hydrological Processes 24: 1133-1148, DOI: http://doi.org/10.1002/hyp.7568*

76. Gitau, M.W. and **I. Chaubey**. 2010. Regionalization of SWAT model parameters for use in ungauged watershed. *Water 2:849-871.*

77. Ahiablame[1], L.M., **I. Chaubey**, and D.R. Smith. 2010. Nutrient interactions at the sediment-water interface of tile-fed agricultural drainage ditches. *Water 2(3): 411-428.*

78. Garg[1], V., **I. Chaubey**, and S. Singh. 2009. Evaluation of a hyperspectral optical-Monte Carlo remote sensing model in a water tank study. *Transactions of the ASABE 52(3)759-769.*

79. Thomas[1], M.A., B.E. Engel, and **I. Chaubey**. 2009. Water quality impacts of corn production to meet biofuel demands. *Journal of Environmental Engineering. 135(11): 1123-1135.*

80. Maringanti[1], C., **I. Chaubey**, and J. Popp. 2009. Development of a multi-objective optimization tool for selection and placement of best management practices for nonpoint source pollution control. *Water Resources Research, 45, W06406, doi: http://doi.org/101029/2008WR007094*

81. Merriman[1], K.R., M.W. Gitau[2], and **I. Chaubey**. 2009. A tool for estimating Best Management Practice Effectiveness in Arkansas. *Applied Engineering in Agriculture 25(2):199-213.*

82. Leh[1], M.D. and **I. Chaubey**. 2009. GIS-based predictive models of hillslope runoff generation processes. *Journal of the American Water Resources Association 45(4): 844-856. DOI*

http://doi.org/10.1111/j.1752-1688.2009.00328.x

83. Mutlu[1], E., **I. Chaubey**, H. Hexmoor, and S.G. Bajwa. 2008. Comparison of artificial neural network models for hydrologic predictions at multiple gauging stations in an agricultural watershed. *Hydrological Processes 22:5097-5106.*

84. Quansah, J.E., B.E. Engel, and **I. Chaubey**. 2008. Tillage practices usage in early warning prediction of atrazine pollution. *Transactions of the ASABE 51(4):1311-1321.*

85. Singh[1], N., S.G. Bajwa, and **I. Chaubey**. 2008. Removal of surface reflectance from above-water visible-near infrared spectroscopic measurements. *Applied Spectroscopy 62(9)1013-1021.*

86. Pennington, J.H. , M.S. Steele, K.A. Teague, B. Kurz, E. Gbur, J.H. Popp, H. German Rodriguez, **I. Chaubey**, M. Gitau, and M.A. Nelson. 2008. Breaking ground: a cooperative approach to data collection from an initially uncooperative population. *Journal of Soil and Water Conservation 63:208-211.*

87. Leh[1], M.D., **I. Chaubey**, J. Murdoch, J.V. Brahana, and B.E. Haggard. 2008. Delineating runoff processes and critical runoff areas in a pasture hillslope of the Ozark Highlands. *Hydrological Processes 22(21): 4190-4204. DOI: http://doi.org/10.1002/hyp.7021*

88. Migliaccio, K.W., and **I. Chaubey**. 2008. Influence of spatial distributions and stochastic parameters on SWAT model flow and sediment predictions. *Journal of Hydrologic Engineering 13(4):258-269. DOI: 10.1061/(ASCE)1084-0699(2008)13:4(258).*

89. Migliaccio[1], K.W., B.E. Haggard, **I. Chaubey**, and M. Matlock. 2007. Linking watershed characteristics to water quality parameters in War Eagle Creek watershed. *Transactions of the ASABE 50(6):2007-2016.*

90. Rodríguez, H.G., J.H. Popp, L.A. Rivera, **I. Chaubey**, and B. Schaffer. 2007. Implementation of Best Management Practices under cost risk to control phosphorus pollution in a crop based watershed in Arkansas. *Journal of Environmental Monitoring and Restoration 3:195-207.*

91. Srivastav, R.K., K.P. Sudheer, and **I. Chaubey**. 2007. A simplified approach to quantify predictive and parametric uncertainty in artificial neural network hydrologic models. *Water Resources Research 43, W10407, doi: http://doi.org/10.1029/2006RW005352*

92. Migliaccio, K.W. and **I. Chaubey**. 2007. Multi-site and multi-variable calibration and validation of watershed models – Comment. *Hydrological Processes 21:3226-3228. DOI: http://doi.org/10.1002.hyp.6491*

93. **Chaubey, I**. and M. Matlock. 2007. Teaching undergraduate students to manage aquatic ecosystems at the watershed level: an ecological engineering approach. *International Journal of Engineering Education 23(4):723-727.*

94. Sudheer, K.P., **I. Chaubey**, V. Garg, and K.W. Migliaccio. 2007. Impact of time scale of calibration objective function on the performance of watershed models. *Hydrological Processes 21:3409-3419. DOI: http://doi.org/10.1002/hyp.6555*

95. **Chaubey, I.** D. Sahoo, B.E. Haggard, M.D. Matlock, and T.A. Costello. 2007. Nutrient retention, nutrient limitation, and sediment-nutrient interactions in a pasture dominated stream. *Transactions of the ASAE 50(1):35-44.*

96. Sen[1], S., B.E. Haggard, **I. Chaubey**, K.R. Brye, T.A. Costello, and M.D. Matlock. 2007. Sediment phosphorus release at Beaver Reservoir, northwest Arkansas, 2002-203: a preliminary investigation. *Air, Soil, and Water Pollution 179:67-77.*

97. Migliaccio[1], K.W., **I. Chaubey,** and B.E. Haggard. 2007. Evaluation of landscape and instream

modeling to predict watershed nutrient yields. *Environmental Modeling and Software 22(7): 987-999.*

98. Sudheer, K.P., **I. Chaubey**, and V. Garg. 2006. Lake water quality assessment from Landsat thematic mapper data using neural network: An approach to optimal band combination selection. *Journal of the American Water Resources Association 42(6):1683-1695.*

99. **Chaubey, I.** and G.M. Ward. 2006. Hydrologic budget analysis of a small natural wetland in southeast USA. *Journal of Environmental Informatics 8(1):10-21*.

100. Shirmohammadi, A., **I. Chaubey**, R.D. Harmel, D.D. Bosch, R. Munoz-Carpena, C. Dharmasri, A. Sexton, M. Arabi, M.L. Wolfe, J. Frankenberger, C. Graff, and T.M. Sohrabi. 2006. Uncertainty in TMDL models. *Transactions of the ASABE 49(4):1033-1049.*

101. Ekka, S.A., B.E. Haggard, M.D. Matlock, and **I. Chaubey**. 2006. Dissolved phosphorus concentrations and sediment interactions in effluent dominated Ozark streams. *Ecological Engineering 26:375-391.*

102. DeLaune[2], P.B., B.E. Haggard, T.C. Daniel, **I. Chaubey**, and M.J. Cochran. 2006. The Eucha/Spavinaw Phosphorus Index: A court mandated index for litter management. *Journal of Soil and Water Conservation 61(2):96-105.*

103. Merriman[3], K., M. Gitau, and **I. Chaubey**. 2006. A tool for estimating best management practices effectiveness in Arkansas. *Discovery 7:57-65*.

104. White[1], K.L., and **I. Chaubey**. 2005. Multi-site and multi-variable calibration of the SWAT model. *J. American Water Resources Association 41(5):1077-1089*.

105. Warner, K.A., J.C. Bonzongo, E.E. Roden, M.G. Ward, A. Green, **I. Chaubey**, W.B. Lyons, and D. A. Arrington. 2005. Effect of watershed parameters on mercury distribution in different environmental compartments in the Mobile Alabama River Basin, USA. *Science for the Total Environment 347:187-207.*

106. **Chaubey, I.**, Cotter, A.S., T.A. Costello, and T. Soerens. 2005. Effect of DEM data resolution on SWAT output uncertainty. *Hydrological Processes 19:621-628*.

107. Panda[2], S., V. Garg[1], and **I. Chaubey**. 2004. Artificial neural networks application in lake water quality estimation using satellite imagery. *Journal of Environmental Informatics* 4(2):65-74.

108. Haggard, B.E., S.A. Ekka, M.D. Matlock, and **I. Chaubey**. 2004. Phosphate equilibrium between stream sediments and water: potential effects of chemical amendments. *Transactions of the ASAE 47(4):1113-1118*.

109. White[1], K.L., B.E. Haggard, and **I. Chaubey**. 2003. Water quality during base flow and surface runoff conditions at the Buffalo National river near St. Joe, Arkansas. *Transactions of the ASAE 42(2) 407-417*.

110. Haggard, B.E., P.A. Moore, Jr., **I. Chaubey**, and E.H. Stanley. 2003. Nitrogen and phosphorus concentrations and export from Ozark Plateau catchment in the United States. *Journal of Biosystems Engineering 86(1): 75 - 85*.

111. Garg[1], V., **I. Chaubey**, and B.E. Haggard. 2003. Impact of calibration watershed on runoff accuracy. *Transactions of the ASAE 46(5):1347-1353*.

112. Cotter[1], A.S., **I. Chaubey**, T.A. Costello, T.S. Soerens, and M.A. Nelson. 2003. Water quality model output uncertainty as affected by spatial resolution of input data. *Journal of American Water Resources Association* 39(4): 977-986.

113. Dillahunty[3], W.H., **I. Chaubey**, and M.D. Matlock. 2003. Watershed scale agricultural land use impact on instream physicochemical parameters. *Discovery* 4:21-25.

114. Matlock, M.M., **I. Chaubey**, B.E. Haggard, and K.L. White. 2002. Is the fairness principle fair? *Impact* 4(6): 17-21.

115. Dennis[3], S., **I. Chaubey**, and B.E. Haggard. 2002. Quantification of land use impact on stream water quality. *Discovery* 3: 35-39.

116. Benke, A.C., **I. Chaubey**, G.M. Ward and E.L. Dunn. 2000. Flood pulse dynamics of an unregulated river floodplain in the southeastern U.S. coastal plain. *Ecology* 81(10):2730-2741.

117. Ward, G.M. and **I. Chaubey**. 2000. Diurnal variability of stage in a wetland pond in the Southeastern United States. *Verh. Internat. Verein. Limnol.* 27:1703-1706.

118. **Chaubey, I.**, C.T. Haan, J.M. Salisbury and S. Grunwald. 1999. Quantifying model output uncertainty due to spatial variability of rainfall. *Journal of American Water Resources Association* 38(5):1113-1123.

119. **Chaubey, I.**, C.T. Haan, S. Grunwald and J.M. Salisbury. 1999. Uncertainty in the model parameters due to spatial variability of rainfall. *Journal of Hydrology 220(1-2):*48-61.

120. **Chaubey, I.**, D.R. Edwards, T.C. Daniel, P.A. Moore, Jr. and D.J. Nichols. 1995. Effectiveness of vegetative filter strips in controlling losses of surface-applied poultry litter constituents. *Transactions of the ASAE* 38(6):1687-1692.

121. **Chaubey, I.**, D.R. Edwards, T.C. Daniel, P.A. Moore, Jr. and D.J. Nichols. 1994. Effectiveness of vegetative filter strips in retaining surface-applied swine manure constituents. *Transactions of the ASAE* 37(3):845-850.

Refereed Journal Articles (in Review):

1. Feng, Q., I. Chaubey, R. Cibin, B. Engel, K.P. Sudheer, J. Volenec, and N. Omani. 2017. Perennial biomass production from marginal land in the Upper Mississippi River basin. *Land Degradation and Development. In Review (3/6/2017).*
2. Li, P., N. Omani, I. Chaubey, and X. Wei. 2017. Evaluation of drought implications on ecosystem services: freshwater provisioning and food provisioning in the Upper Mississippi River basin. *International Journal of Environmental Research and Public Health. In Review (02/24/2017).*
3. Feng, Q., I. Chaubey, R. Cibin, B. Engel, K.P. Sudheer, and J. Volenec. Simulating establishment period of perennial bioenergy grasses in the SWAT model. *Transactions of ASABE*. *In Review (01/04/2017).*
4. Gassman, P.W., A. Valcu, C.L. Kling, Y. Panagopoulos, R. Cibin, I. Chaubey, C.F. Volter, and K.E. Schilling. Assessment of cropping scenarios for the Boone River watershed in North Central Iowa, United States. *J. American Water Resources Association. In Review (05/15/2016)*
5. Feng, Q. I. Chaubey, B. Engel, C. Raj, K.P. Sudheer, and J. Volenec. 2015. Marginal land suitability analysis for switchgrass, *Miscanthus* and hybrid poplar in the Upper Mississippi River Basin (UMRB). *Environmental Modelling and Software*. *In Review (revised 01/03/2017).*
6. Rathjens, H., K. Bieger, I. Chaubey, J.G. Arnold, P.M. Allen, R. Srinivasan, D.D. Bosch, and M. Volk. 2015. Development of a landscape unit delineation framework for eco-hydrologic models. *Environmental Modelling and Software*. *In Review.*

Refereed Conference Proceedings:

1. Kim, J. Y. Park, B.A. Engel, J. E. Quansah, **I. Chaubey**, L. Theller, and K.J. Lim. Development of web-based load duration curve system for TMDL analysis. *TMDL 2010 Conference. Baltimore, MD. November 15-17, 2010.*
2. Ahiablame, L.M., **I. Chaubey**, D.R. Smith, and B. Engel. 2010. Nutrient attenuation under natural conditions in tile-fed agricultural drainage ditches. *3rd International Perspective on Current and Future State of Water Resources and the Environment. IIT-Madras, Chennai, India. January 5-7, 2010.*
3. Athira, P., K.P. Sudheer, and **I. Chaubey**. 2010. A method to minimize predictive uncertainty of distributed hydrologic models in an ungauged basin. *3rd International Perspective on Current and Future State of Water Resources and the Environment. IIT-Madras, Chennai, India. January 5-7, 2010.*
4. **Chaubey, I.** and K.P. Sudheer. 2005. A framework to stochastically evaluate watershed models. *Proc. 2nd Indian International Conference on Artificial Intelligence Applications. B. Prasad (ed.). pp 1095-1109.* ***Invited.***
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. Cotter[1], 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. White[1], 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. Garg[1], 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 Conferences:

1. **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.

2. **Chaubey, I.** 2017. Toward ecohydrologic assessment of bioenergy production. IIT Madras-Purdue University Seminary Series. IIT-Madras, Chennai, India. February 14, 2017.

3. **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.

4. **Chaubey, I.** and R. Cibin. 2016. Bioenergy-driven vulnerability and sustainability assessment in the Midwest USA. ASABE International Conference, Orlando, FL. July 20, 2016.

5. **Chaubey, I.** 2015. Toward ecohydrologic solutions of mixed land use watershed management challenges. Indian Institute of Technology-Delhi. December 30, 2015.

6. **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.

7. **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.

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

9. **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.

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

11. **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.*

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

13. **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.*

14. **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.*

15. **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.*

16. **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.

17. **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.*

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

19. **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.*

20. **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.*

21. **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, 2011.*

22. **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, Chennai, India. January 5-7, 2010.*

23. **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, 2010.*

24. **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.*

25. **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, 2010.*

26. **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, 2009.*

27. **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, 2009.*

28. **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, 2007.*

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

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

31. **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, 2005.*

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

33. **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, 2003.*

34. **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, 2003.*

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

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

Regional:

37. 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, 2013.*

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

39. **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, 2009.*

40. **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, 2008.*

41. **Chaubey, I.** 2006. Mathematical modeling of watershed processes. *Public Policy Symposium. Little*

Rock, AR. November 17, 2006.

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

43. **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, 2006.*

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

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

46. **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, 2004.*

47. **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, 2004.*

48. **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.*

49. 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.*

50. 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.*

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

52. **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, 2002.*

53. 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, 2002.*

54. 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, 2002.*

55. **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, 2002.*

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

1. 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, 2016.

2. 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, 2016.*
3. 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, 2016.*
4. 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, 2016.*
5. 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, 2015.
6. 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, 2015.
7. 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, 2015.*
8. 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, 2015.*
9. 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, 2015.*
10. 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, 2015.*
11. 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, 2015.*
12. 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, 2015.*
13. 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, 2015.*
14. 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, 2015.*
15. 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, 2015.*

16. 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, 2015.*

17. **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, 2015.*

18. 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, 2015.*

19. 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, 2015.*

20. 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, 2015.*

21. 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, 2015.*

22. 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, 2015.*

23. 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.*

24. 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.*

25. 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.*

26. 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.*

27. 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.*

28. 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.*

29. 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.

30. 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.*

31. **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.*

32. 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.*

33. 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.*

34. 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.*

35. 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)

36. 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).

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

38. Kalcic, M., Frankenberger, **J., Chaubey**, I., Prokopy, L., and L. Bowling. 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, 2014.

39. **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.

40. 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.

41. 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

42. **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.*

43. 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, Missouri, U.S.A.*

44. 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, California, U.S.A.*

45. 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.*

46. 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, Missouri, U.S.A.*

47. 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, Indiana, U.S.A.*

48. 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, Missouri, U.S.A.*

49. 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, Missouri, U.S.A.*

50. **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, Missouri, U.S.A.*

51. 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, Texas.*

52. **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.*

53. 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.*

54. 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.*

55. 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.

56. 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.*

57. 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.*

58. 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.*

59. 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.*

60. Cibin[1], R., E. Trybula[1], **I. Chaubey**, and B. Engel. 2011. Watershed scale impacts of bioenergy production on hydrology and water quality using SWAT model. *American Geophysical Union Conference. December 6-10, 2011. San Francisco, CA.*

61. Tan, J. K.A. Cherkauer, and **I. Chaubey**. 2011. Quantification of water quality parameters for the Wabash River using hyperspectral remote sensing. *American Geophysical Union Conference. December 6-10, 2011. San Francisco, CA.*

62. Cibin[1], R., **I. Chaubey**, M. Thomas, and B. Engel. 2011. Impacts of corn stover removal for biofuel on hydrology/water quality in Indiana. *Paper No. 1111176, Annual Conference of the ASABE, Louisville, KY.*

63. Cibin[1], R., **I. Chaubey**, E. Trybula, M. Thomas, and B. Engel. 2011. Watershed scale impacts of energy crops on hydrology and water quality. *Paper No. 1111177, Annual Conference of the ASABE, Louisville, KY.*

64. Thomas, M., B. Engel, and **I. Chaubey**. 2011. An assessment of the water quality impacts of corn-silage asa bioenergy feedstock for cellulosic biofuel production. *Paper No. 1111802, Annual Conference of the ASABE, Louisville, KY.*

65. Athira, P., K.P. Sudheer, R. Cibin, and **I. Chaubey**. 2011. Sensitivity analysis of stream flow generation parameters of SWAT model. *Paper No. 1111731, Annual Conference of the ASABE, Louisville, KY.*

66. Kalcic[1], M.M, **I. Chaubey**, J. Frankenberger, and E. Kladivko. 2011. Estimating nitrate removal from headwater constructed wetlands using Soil and Water Assessment Tool (SWAT). Paper No. *1111586, Annual Conference of the ASABE, Louisville, KY.*

67. Antony, A., B. Engel, and **I. Chaubey**. 2011. Effect of STATSGO and SSURGO soil databases on nutrient and pesticide losses with NAPRA model. *Paper No. 1111476, Annual Conference of the ASABE, Louisville, KY.*

68. Ahiablame[1], L., **I. Chaubey**, B. Engel, K. Cherkauer, and V. Merwade. 2011. Regional estimation of baseflow for Indiana (Poster). *Paper No. 1111698, Annual Conference of the ASABE, Louisville, KY.*

69. **Chaubey, I.**, R. Cibin, E. Trybula, J. Frankenberger, S. Brouder, and J. Volenec. 2011. Improving the simulation of biofuel crop sustainability assessment using SWAT model. *2011 International SWAT Conference, Toledo, Spain. June 15-17.*

70. Feng, Q., **I. Chaubey**, J. Volenec, M.M. Kalcic, Y. Gu Her, M.A. Thomas, and C. Raj. 2011.

Identification of available marginal land for biofeedstock production in Wildcat Creek watershed. *Poster presented at the 6th Frontiers in Bioenergy Conference; US-Brazil Symposium on Sustainable Bioenergy. May 16-18, 2011, West Lafayette, IN.*

71. **Chaubey, I.**, J.H. Popp, J. Pennington, E. Gbur, M.W. Gitau, L. Chiang, C. Maringanti, and G. Rodriguez. 2011. Effectiveness and optimization of best management practices in improving water quality from AR CEAP watershed. *Land Grant and Sea Grant National Water Conference, Washington, DC. January 31 – February 1, 2011.*

72. Frankenberger, J., E. Trybula, **I. Chaubey**, C. Maringanti, B. Engel, M. Arabi, and M. Ahmadi. 2011. Stakeholder perspectives on the use of optimization in watershed management. *Land Grant and Sea Grant National Water Conference, Washington, DC. January 31 – February 1, 2011.*

73. **Chaubey, I.** and C. Maringanti[1]. 2010. Uncertainty in BMP optimization to improve watershed scale water quality. *2010 AGU Fall Meeting. San Francisco. December 13-17, 2010.*

74. Thomas[1], M.A, B.A. Engel, and **I. Chaubey**, A. Acushla, C. Raj, J. Volenec, S. Brouder, W. Tyner. 2010. A Spatial Decision Support Tool to Evaluate the Environmental Impacts of Biofeedstocks. *Poster presented at Soil and Water Conservation Society: Sustainable Feedstocks for Advanced Biofuels Workshop. September 28-30, Atlanta, Georgia.*

75. Chiang[1], L. and **I. Chaubey**. 2010. Hindcasting of sediment and nutrient losses from a dynamic land use watershed. *Paper No. 1009162, Annual Conference of the ASABE, Pittsburgh, PA.*

76. Logsdon[1], R., **I. Chaubey**, C. Maringanti, and B. Engel. 2010. Development of a methodology to quantify ecosystem services using landscape models. *Paper No. 1008839, Annual Conference of the ASABE, Pittsburgh, PA.*

77. Thomas[1], M.A., B.A. Engel, and **I. Chaubey**. 2010. Environmental effects of harvesting agricultural residues for second generation biofuels. *Paper No. 1000007, Annual Conference of the ASABE, Pittsburgh, PA.*

78. Antony, A., B.A. Engel, and **I. Chaubey**. 2010. Web-based decision support tool to forecast nutrient losses from agricultural watersheds. *Paper No. 1009064, Annual Conference of the ASABE, Pittsburgh, PA.*

79. Birt, L.N., J. Frankenberger, **I. Chaubey**, and B.A. Engel. 2010. Evaluation of watershed management outcomes using empirical models and comparison to project implementation goals. *Paper No. 1009168, Annual Conference of the ASABE, Pittsburgh, PA.*

80. Trybula[1], E.M., J. Frankenberger, **I. Chaubey**, M. Arabi, M. Ahmadi, and C. Maringanti. 2010. Impact of optimized model outputs on stakeholder decisions about agricultural BMPs. *Paper No. 1009549, Annual Conference of the ASABE, Pittsburgh, PA.*

81. McCahon[1], M., J. Frankenberger, E. Kladivko, and **I. Chaubey**. 2010. A GIS methodology to strategically place constructed wetlands for nitrate removal in tile-drained agricultural watersheds. *Spring Specialty Conference of the American Water Resources Association, Orlando, FL. March 30, 2010.*

82. **Chaubey, I.**, B. Engel, M. Thomas, and A. Antony. 2010. Quantifying impact of biofeedstock production on hydrology/water quality in Midwest USA. *Annual Conference of the European Geosciences Union. Vienna, Austria.*

83. **Chaubey, I.** and C. Maringanti. 2010. An approach to evaluate BMP optimization and uncertainty in water quality improvement using Bayesian Analysis and BMP tool. *Land Grant and Sea Grant National Water Conference, Hilton Head, SC. February 21-25, 2010.*

84. **Chaubey, I.**, B. Bhaduri, B. Engel, P. Murphy, D. Saraswat, A. Antony, C. Raj, and M. Thomas.

2010. Impact of biofeedstock production on hydrology/water quality in Midwest and Southeast USA. *Land Grant and Sea Grant National Water Conference, Hilton Head, SC. February 21-25, 2010.*

85. Maringanti, C., **I. Chaubey**, B. Engel, and M. Arabi. 2009. Development of a tool to estimate best management practice efficiency using SWAT. *2009 International SWAT Conference, Boulder, CO. August 5-7, 2009.*

86. **Chaubey, I.** 2009. Effectiveness of BMPs in controlling nonpoint source pollutants from a CEAP watershed. *2009 International SWAT Conference, Boulder, CO. August 5-7, 2009.*

87. Zhao, L., K.S. Subramanian, C.X. Song, S. Kumar, V. Merwade, C. Maringanti, **I. Chaubey**, M. Sayeed, and R.S. Govindaraju. 2009. A web-interface for SWAT modeling on the TeraGrid. *2009 International SWAT Conference, Boulder, CO. August 5-7, 2009.*

88. Thomas, M.A., B. Engel, and **I. Chaubey**. 2009. Modeling the sustainability of cellulosic feedstock production for biofuel production. *Paper No. 090007, Annual Conference of the ASABE, Reno, NV.*

89. Ahiablame[1], L., **I. Chaubey**, and D. Smith. 2009. Nutrient interactions at the sediment-water interface of tile-fed drainage ditches. *Paper No. 097433, Annual Conference of the ASABE, Reno, NV.*

90. Mariganti[1], C., and **I. Chaubey**. 2009. High performance computing application to address nonpoint source pollution at a watershed scale. *Paper No. 097469, Annual Conference of the ASABE, Reno, NV.*

91. Athira, P., K.P. Sudheer, and **I. Chaubey**. 2009. Regionalization of parameter probability distribution function for distributed water models for their application in ungauged basin simulation. *Paper No. 095964, Annual Conference of the ASABE, Reno, NV.*

92. Chiang[1], L., and **I. Chaubey**. 2009. Quantifying the impacts of land use changes on BMP performance in a pasture dominated watershed. *Paper No. 097437, Annual Conference of the ASABE, Reno, NV.*

93. Ale, S., L. Bowling, K. Merriman, **I. Chaubey**, and J. Frankenberger. 2009. Drainage water management impact on nitrate load from subsurface drainage systems in the Hoagland watershed in Indiana. *Paper No. 096895, Annual Conference of the ASABE, Reno, NV.*

94. Leh, M.D., S.G. Bajwa, **I. Chaubey**, and J. Cothren. 2009. Monitoring and measuring streambank erosion using digital photogrammetry. *Paper No. 090010, Annual Conference of the ASABE, Reno, NV.*

95. **Chaubey, I.**, C. Maringanti, M. Arabi, B. Engel, and J. Quansah. 2009. Development of a multi-objective optimization tool for the selection and placement of BMPs for pesticide control. *2009 USDA-CSREES National Water Conference, St. Louis, MO.*

96. Gbur, E.E., M.W. Gitau, **I. Chaubey**, and J.H. Pennington. 2009. Water quality trend in a CEAP watershed. *2009 USDA-CSREES National Water Conference, St. Louis, MO.*

97. Pennington, J., J. Popp, G. Rodriguez, E. Gbur, **I. Chaubey**, M.W. Gitau, L. Chiang, and M.A. Nelson. 2009. Cooperative stakeholder engagement and participation for gaining effective results. *2009 USDA-CSREES National Water Conference, St. Louis, MO.*

98. **Chaubey, I.**, L. Chiang, M.W. Gitau, and J.H. Pennington. 2009. BMP effectiveness evaluation in a CEAP watershed: what have we learned from watershed modeling? *2009 USDA-CSREES National Water Conference, St. Louis, MO.*

99. Quansah, J., B. Engel, M. Arabi, **I. Chaubey**, and C. Maringanti. 2009. Modeling and optimization approach to managing critical pollution areas within watershed. *2009 USDA-CSREES National Water*

Conference, St. Louis, MO.

100. Maringanti[1], C., **I. Chaubey**, and B. Engel. 2008. Development of a multi-objective optimization tool for the selection and placement of BMPs for pesticide control. *Paper No. 083536, Annual Conference of the ASABE, Providence, RI.*

101. Leh[1], M.D., S.G. Bajwa, **I. Chaubey**, and J. Cothren. 2008. A remote sensing methodology of delineating stream channel morphology. *Paper No. 083734, Annual Conference of the ASABE, Providence, RI.*
Chiang[1], L., M. Gitau[2], and **I. Chaubey**. 2008. Effectiveness of BMPs considering uncertainties in weather patterns in a pasture dominated watershed. *Paper No. 083549, Annual Conference of the ASABE, Providence, RI.*

102. Gitau[2], M., L. Chiang[1], **I. Chaubey**, and M. Sayeed. 2008. Computational approaches to evaluating BMPs considering stochasticity of weather. *Paper No. 083577, Annual Conference of the ASABE, Providence, RI.*

103. Cibin, R., K.P. Sudheer, and **I. Chaubey**. 2008. Global sensitivity analysis of distributed hydrologic models. *Paper No. 084910, Annual Conference of the ASABE, Providence, RI.*

104. Merriman[1], K.R., **I. Chaubey**, S. Ale, and L. Bowling. 2008. Quantification of nutrient dynamics in agricultural drainage ditches with BMPs Hoagland Ditch watershed in Indiana. *Paper No. 083530, Annual Conference of the ASABE, Providence, RI.*

105. Thomas, M., B. Engel, and **I. Chaubey**. 2008. Unintended consequences of biofuel production on water quality. *Paper No. 084824, Annual Conference of the ASABE, Providence, RI.*

106. **Chaubey, I.**, C. Maringanti, B.K. Schaffer, and J.H. Popp. 2008. Targeting vs. optimization: Critical evaluation of BMP implementation plan for watershed management. *EWRI World Environmental and Water Resources Congress, Honolulu, HI. May 12-16, 2008.*

107. **Chaubey, I.,** M. Gitau, L. Chiang, J.H. Popp, E. Gbur, M.A. Nelson, J. Pennington, G. Rodriguez, and B. Kurz. 2008. BMP effectiveness assessment for a pasture dominated watershed: results from two years of CEAP assessment. *Annual Conference of the USDA-CSREES. Sparks, NV. February 4–7,2008.*

108. Gitau[2], M.W., L. Chiang, **I. Chaubey**, and M. Sayeed. 2008. Evaluating BMP scenario under CEAP: approaches to handling a multitude of runs and large datasets. *Annual Conference of the USDA-CSREES. Sparks, NV. February 4 – 7, 2008.*

109. **Chaubey, I.** and V. Garg. 2007. Estimation of inherent optical properties of lake water using inverse modeling. *Paper No. 072100, ASABE, St. Joseph, MI.*

110. Maringanti[1], C., **I. Chaubey**, J. Popp, and M. Gitau. 2007. Development of a multi-objective optimization tool for the selection and placement of BMPs for nonpoint source pollution control. *Paper No. 072105, ASABE, St. Joseph, MI.*

111. Gitau[2], M.W., R. Srivastava[1], and **I. Chaubey**. 2007. Watershed response modeling in Arkansas Priority Watersheds: experience with SWAT autocalibration. *Paper No. 072171, ASABE, St. Joseph, MI.*

112. Schaffer[1], B.K. and **I. Chaubey**. 2007. Development of a method to produce a targeted management plan using a physical process watershed model and economic optimization to meet TMDL requirements. *Paper No. 072181, ASABE, St. Joseph, MI.*

113. Migliaccio, K.L., **I. Chaubey**, and K.P. Sudheer. 2007. Conducting multi-site calibration for watershed models. *Paper No. 072209, ASABE, St. Joseph, MI.*

114. Gitau[2], M.W., **I. Chaubey**, R. Srivastava, and M.A. Nelson. 2007. Effectiveness of BMPs in reducing pollutant losses from a northwest Arkansas Agricultural watershed. *Paper No. 072244, ASABE, St. Joseph, MI.*

115. **Chaubey, I.,** B.K. Schaffer, E. Vories, P. Tacker, J.H. Popp, and G. Rodriguez. 2007. A decision support system framework for integrated agricultural watershed management. *Annual Conference of the USDA-CSREES. Savannah, GA. January 28-31, 2007.*

116. Gitau[2], M., **I. Chaubey**, and J.H. Popp. 2007. Effectiveness and optimization of BMPs in improving water quality from agriculturally dominated watersheds. Annual *Conference of the USDA-CSREES. Savannah, GA. January 28-31, 2007.*

117. **Chaubey, I.**, M.D. Leh, J.V. Brahana, and B.E. Haggard. 2006. Where does runoff come from? A monitoring and modeling approach. *Proc. An International Perspective on Environmental and Water Resources, eds. U.P. Singh, B. Datta, B. Panigrahi, and M. Sharma. New Delhi, India. December 18-20, 2006.*

118. Vories, E.D., P. Tacker, and **I. Chaubey**. 2006. On-farm studies of water use and water quality for rice production in the USA. *Proc. An International Perspective on Environmental and Water Resources, eds. U.P. Singh, B. Datta, B. Panigrahi, and M. Sharma. New Delhi, India. December 18-20, 2006.*

119. **Chaubey, I.** M. Gitau, D. Ennannay, M. Nelson, E. Gbur, J. Popp, and J. Pennington. 2006. Effectiveness and optimization of BMPs in improving water quality impacted by land application of animal manure. *Abstract published in the proceedings of the Workshop "Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base". Kansas City, MO. October 11-13, 2006. 71 p.*

120. Popp, J., G. Rodriguez, J. Pennington, E. Gbur, M. Steele, **I. Chaubey**, and M. Gitau. From Conflict to Cooperation: Enlisting stakeholders to address water quality disputes in an embattled watershed. *Abstract published in the proceedings of the Workshop "Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base". Kansas City, MO. October 11-13, 2006. 68 p.*

121. Merriman[1], K, M. Gitau, and **I. Chaubey**. 2006. A tool for estimating best management practice effectiveness in Arkansas. *Abstract published in the proceedings of the Workshop "Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base". Kansas City, MO. October 11-13, 2006. 97 p.*

122. Gitau[2], M. and **I. Chaubey**. 2006. Regionalization of SWAT model parameters in Arkansas Priority Watersheds. *Abstract published in the proceedings of the Workshop "Managing Agricultural Landscapes for Environmental Quality: Strengthening the Science Base". Kansas City, MO. October 11-13, 2006. 29 p.*

123. **Chaubey, I.**, P. Tacker, E. Vories, and B.K. Schaffer. 2006. Development of a decision support system for integrated water quality management in Arkansas Delta. *World Congress of Computers and Electronics in Agriculture. Orlando, FL.*

124. Lakshmi, G., K.P. Sudheer, and **I. Chaubey**. 2006. Autocalibration of complex watershed models using simulation optimization framework. *ASABE Paper No. 06-2141. 2006 Annual International Conference of the ASABE. Portland, OR.*

125. **Chaubey, I.**, M. Leh, V. Brahana, and B.E. Haggard. 2006. Quantification of spatial distribution of runoff source areas in an agricultural watershed. *ASABE Paper No. 06-2126. 2006 Annual International Conference of the ASABE. Portland, OR.*

126. Shirmohammadi, A., **I. Chaubey**, R.D. Harmel, D.D. Bosch, R. Munoz-Carpena, C. Dharmasri, A.

Sexton, M. Arabi, M.L. Wolfe, J. Frankenberger, C. Graff, and T.M. Sohrabi. 2006. Uncertainty in TMDL models. *ASABE Paper No. 06-XXXX. 2006 Annual International Conference of the ASABE. Portland, OR.*

127. **Chaubey, I.,** E. Gbur, B. Kurz, M. Nelson, J. Popp, M. Steele, and K. Teague. 2006. Effectiveness and optimization of BMPs in improving water quality from an agriculturally dominated watershed. *USDA-CSREES National Water Quality Conference. San Antonio, TX.*

128. **Chaubey, I.,** E. Vories, and P. Tacker. 2006. Integrated BMP assessment for improving water quality in a rice/soybean dominated watershed in the Arkansas Delta. *USDA-CSREES National Water Quality Conference. San Antonio, TX.*

129. Schaffer[1], B.K. and **I. Chaubey**. 2005. Development of a dynamic decision tool for an impaired watershed in the Arkansas Delta using Soil and Water Assessment Tool model. *Annual Conference of the American Water Resources Association, Seattle, WA.*

130. Srivastava[1], R. and **I. Chaubey**. 2005. Comparison of sediment prediction ability of the AnnAGNPS and the SWAT model for the West Fork of the White River. *Annual Conference of the American Water Resources Association, Seattle, WA.*

131. Leh[1], M.D., **I. Chaubey**, J. Murdock, and J.V. Brahana. 2005. Quantification of runoff-contributing areas in a pasture watershed – a field scale approach. *Annual Conference of the American Water Resources Association, Seattle, WA.*

132. **Chaubey, I.,** S. Panda, K.L. White, and M. Matlock. 2005. Decision Support System Development for Beaver Lake Watershed management – an environmental informatics approach. *ASAE paper No. 052199. 2005 Annual International Conference of ASAE, Tampa, Florida.*

133. Garg[1], V. and **I. Chaubey**. 2005. Optical modeling of hyperspectral remote sensing signals to assess water quality. *ASAE paper No. 052003. 2005 Annual International Conference of ASAE, Tampa, Florida.*

134. V. Vibhava, S.G. Bajwa, and **I. Chaubey.** 2005. Hydrologic modeling of L'Anguille watershed using Soil and Water Assessment Tool model. *ASAE paper No. 052157. 2005 Annual International Conference of ASAE, Tampa, Florida.*

135. **Chaubey, I.,** and K.L. White. 2005. Influence of hydrologic response unit (HRU) distribution on SWAT model flow and sediment predictions. Proc. Watershed Management to Meet Water Quality Standards and Emerging TMDL. *ASAE, St. Joseph, MI. pp. 283-289.*

136. Brahana, J.V., T.E. Ting, M. Al-Qinna, J.F. Murdoch, R.K. Davis, J.L. Killingbeck, E. Szilbagyi, M. Doneny-Skubic, **I. Chaubey**, P.D. Hays, and G. Thoma. 2005. Quantification of hydrologic budget parameters for the vadose zone and epikarst in mantled karst. *USGS Karst Interest Group Proceedings, Rapid City, SD. Pp. 144-152.*

137. Chaubey, I., M. Leh, K.L. White, J.F. Murdock, and V. Brahana. 2005. Development of a field scale methodology to identify runoff source areas in a pasture dominated watershed. *USDA-CSREES National Water Quality Conference. San Diego, CA.*

138. Vories, E., **I. Chaubey**, P. Tacker, and B.K. Schaffer. 2005. Development of an integrated water quality-water management program in the Arkansas Delta. *USDA-CSREES National Water Quality Conference. San Diego, CA.*

139. **Chaubey, I.,** D. Sahoo, B.E. Haggard, M. Matlock, T.A. Costello, and K.L. White. 2005. Integrated assessment of BMPs, nutrient transport, and water quality in an agriculturally dominated stream. *First International Conference on Environmental Science and Technology. American Academy of Sciences. New Orleans, LA.*

140. White[1], K.L., **I. Chaubey**, and B.E. Haggard. 2005. Coupling of CE QUAL-W2 and SWAT to simulate watershed reservoir management. *First International Conference on Environmental Science and Technology. American Academy of Sciences. New Orleans, LA.*

141. **Chaubey, I.** and K.L. White. 2004. Stochastic validation of SWAT model. *Presented at the AWRA Annual International Conference, Orlando, FL.*

142. Mutlu[1], E., **I. Chaubey**, M. Matlock, R. Morgan, B. Haggard, and D.E. Storm. 2004. NMDESS: A GIS based decision support system for nutrient management. *Presented at the AWRA Annual International Conference, Orlando, FL.*

143. White[1], K.L., **I. Chaubey**, B.E. Haggard, and M. Matlock. 2004. Evaluation of reservoir water quality response to watershed management using computer modeling. *Presented at the AWRA Annual International Conference, Orlando, FL.*

144. DeLaune[2], P.B., **I. Chaubey**, B.E. Haggard, M.J. Cochran, T.C. Daniel, and V. Garg. 2004. Development of the Eucha-Spavinaw phosphorus Index within a court settlement agreement. *Poster Presented at the Annual International Conference of the ASA/SSSA/CSA. Seattle, WA.*

145. Garg[1], V., and **I. Chaubey**. 2004. Remote sensing of chlorophyll and suspended sediment concentrations. *ASAE Paper No. 042016. 2004 Annual International Conference of ASAE, Ottawa, Canada*. 12 pp.

146. Panda[2], S.S., **I. Chaubey**, and V. Garg. 2004. Artificial neural networks application in lake water quality estimation using satellite imagery. *ASAE Paper No. 042073. 2004 Annual International Conference of ASAE, Ottawa, Canada*. 13 pp.

147. Sen[1], S., B.E. Haggard, **I. Chaubey**, K.R. Brye, M.D. Matlock, and T.A. Costello. 2004. Preliminary estimation of sediment phosphorus flux in Beaver Lake, Northwest Arkansas. *ASAE Paper No. 042269. 2004 Annual International Conference, Ottawa of ASAE, Canada*. 17 pp.

148. White[1], K.L., **I. Chaubey**, B.E. Haggard, and M.D. Matlock. 2004. Comparison of two methods for modeling monthly TP yield from a watershed. *ASAE Paper No. 042075. 2004 Annual International Conference of ASAE, Ottawa, Canada*. 11 pp.

149. White[1], K.L. **I. Chaubey**, and B.E. Haggard. 2004. Linking watershed and reservoir models. *ASAE Paper No. 042075. 2004 Annual International Conference of ASAE, Ottawa, Canada*. 12 pp.

150. Garg[1], V., and **I. Chaubey**. 2004. A model for predicting spectral signature of suspended sediments. *Annual Conference of the American Ecological Engineering Society. Fayetteville, AR*. June 7- 10.

151. Panda[2], S.S., **I. Chaubey**, and M.D. Matlock. 2004. Using interactive GIS mapping in a watershed management DSS design. *Annual Conference of the American Ecological Engineering Society. Fayetteville, AR.* June 7- 10.

152. Mutlu[1], E., **I. Chaubey**, M.D. Matlock, B.E. Haggard, D.E. Storm, and M. White. 2004. NMDESS: A decision support system for nutrient management. *Annual Conference of the American Ecological Engineering Society. Fayetteville, AR.* June 7- 10.

153. White[1], K.L., **I. Chaubey**, B.E. Haggard, and M. Matlock. 2004. Comparison of two methods for modeling monthly TP yield from a watershed. *Annual Conference of the American Ecological Engineering Society. Fayetteville, AR.* June 7- 10.

154. Sen[1], S., B.E. Haggard, **I. Chaubey**, T.A. Costello, M. Matlock, and K. Brye. 2004. Quantification of internal phosphorus load in Beaver Lake, northwest Arkansas under aerobic and anaerobic conditions. *Annual Conference of the American Ecological Engineering Society. Fayetteville, AR.* June 7- 10.

155. Garg[1], V., and **I. Chaubey**. 2004. Hyperspectral remote sensing of chlorophyll-a for Beaver Reservoir, Arkansas. *ASPRS Annual Conference. Denver, CO.* May 23 – 28.

156. **Chaubey, I.,** D. Sahoo, M.D. Matlock, B.E. Haggard, and T.A. Costello. 2004. Quantifying stream nutrient retention in an agriculturally dominated stream. *Annual Conference of the Institute of Biological Engineering. Fayetteville, AR.* January 9 – 11.

157. Panda[2], S., **I. Chaubey**, M.D. Matlock, B.E. Haggard, and K.L. White. 2004. Development of GIS-based decision support system for Beaver lake watershed management. *2004 Spring Specialty Conference on GIS and Water Resources III. Nashville, TN.* May 17 – 19.

158. **Chaubey, I.**, T.A. Costello, K.L. White, and A.S. Cotter. 2003. Stochastic validation of SWAT model. *Proc. Total Maximum Daily Load: Environmental Regulations II*. ASAE, St. Joseph, MI. 168-176 pp.

159. White[1], K.L., **I. Chaubey**, and T.A. Costello. 2003. Stakeholder involvement in watershed management: lessons learned. *Proc. Total Maximum Daily Load: Environmental Regulations II*. ASAE, St. Joseph, MI. 46-50 pp.

160. Sahoo[1], D., **I. Chaubey**, B.E. Haggard, M.D. Matlock, and T.A. Costello. 2003. Stream nutrient dynamics and sediment nutrient interactions in an agricultural watershed. *ASAE Paper No. 03-2281. 2003 Annual International Conference of ASAE, Las Vegas, NV*. 6 pp.

161. Ekka, S.A., B.E. Haggard, M.D. Matlock, and **I. Chaubey**. 2003. Impact of point sources on nutrient interactions in Ozark streams. *ASAE Paper No. 03-2282. 2003Annual International Conference of ASAE, Las Vegas, NV*. 8pp.

162. White[1], K.L., B.E. Haggard, and **I. Chaubey**. 2003. Changes in water quality at Buffalo National River, Arkansas, 1991 – 2001. *Poster Presented at the AWRA Spring Specialty Conference on Agricultural Hydrology and Water Quality. Kansas City, MO.* May 12 – 14. 5 pp.

163. Ekka, S.A., B.E. Haggard, M. Matlock, and **I. Chaubey**. 2003. Impact of wastewater treatment plants in streams of Illinois River Basin. *Poster Presented at the AWRA Spring Specialty Conference on Agricultural Hydrology and Water Quality. Kansas City, MO. May 12 – 14.* 5 pp.

164. Sahoo[1], D., **I. Chaubey**, B.E. Haggard, and M. Matlock. 2003. Stream nutrient retention and limitation in Moores Creek, Northwest Arkansas. *Poster Presented at the AWRA Spring Specialty Conference on Agricultural Hydrology and Water Quality. Kansas City, MO.* May 12 – 14. 4 pp.

165. Garg[1], V., S.G. Bajwa, and **I. Chaubey**. 2003. Effect of suspended sediment distribution on spectral reflectance. *Poster Presented at the AWRA Spring Specialty Conference on Agricultural Hydrology and Water Quality. Kansas City, MO. May 12 – 14.* 4 pp.

166. Sahoo[1], D., **I. Chaubey**, M. Matlock, and B.E. Haggard. 2003. Sediment, nutrient interaction in an agricultural watershed in Northwest Arkansas. *Poster presented at the 2003 Annual International Meeting of the Institute of Biological Engineering. Athens, GA.* January 17 – 19.

167. Garg[1], V., and **I. Chaubey**. 2002. Watershed curve number estimates based on rainfall". *In Welty, C. (ed.), AWRA's 2002 Annual Water Resources Conference Proc. American Water Resources Association, Middleburg, VA, TPS-02-4*: 328.

168. **Chaubey**, I., K.L. White, and M.A. Nelson. 2002. Implementation of a mass balance and modeling approach to assess watershed-scale phosphorus source and transport. *In Welty, C. (ed.), AWRA's 2002 Annual Water Resources Conference Proc. American Water Resources Association, Middleburg, VA, TPS-02-4:* 328 p.

169. Cotter[1], A.S., **I. Chaubey**, T.A. Costello, M.A. Nelson, and T. Soerens. 2002. Effect of spatial data resolution on SWAT output uncertainty. *ASAE Paper No. 02-2012. 2002 Annual International*

Conference, Chicago, IL. 14 pp.

170. Garg[1]. V., **I. Chaubey**, and B.E. Haggard. 2002. Quantification of model output uncertainty due to watershed size. *ASAE Paper No. 022227. 2002 Annual International Conference of ASAE, Chicago, IL.* 16 pp.

171. Cotter[1], A.S., **I. Chaubey**, T.A. Costello, M.A. Nelson, and T. Soerens. 2002. TMDL data requirements for agricultural watersheds. *Proc. Total Maximum Daily Load (TMDL): Environmental Regulations Conference.* ASAE, St. Joseph, MI. 408-415 pp.

172. **Chaubey, I.**, K.A. Warner, G.M. Ward, and E.E. Roden. 2001. Statistical analysis of land use effect on in-stream nutrient concentrations. *Proc. Mini-Symposium on Statistical Methods in Hydrology. P.K. Haan and R.D. Harmel (Eds.). ASAE, St. Joseph, MI.* 33-38 pp.

173. **Chaubey, I.,** and J.M. Beck. 2001. Long-term nutrient transport assessment of animal manure from agricultural watersheds. *In John J. Warwick (ed.), AWRA Annual Spring Specialty Conference Proceedings. "Water Quality Monitoring and Modeling." American Water Resources Association, Middleburg, VA. TPS*-01-1: 211-216.

174. **Chaubey, I.**, L. Han, and S.N. Addy. 2000. Nonpoint pollution assessment of poultry litter application using GIS, remote sensing and water quality modeling. *ASAE Paper No. 002208. 2000 Annual International Conference of ASAE, Milwaukee, WI.* 18 pp.

175. **Chaubey, I.**, C.T. Haan, J.M. Salisbury, and S. Grunwald. 1998. Quantifying the impact of rainfall spatial variability on hydrology/water quality model outputs. *Annual Water Resources Conference of the American Water Resources Association. Technical Publication Series TPS-98-3:* 109.

176. **Chaubey, I.,** and G.M. Ward. 1998. Hydrologic budget analysis of a small lotic wetland in Alabama. *Annual Water Resources Conference of the American Water Resources Association. Technical Publication Series TPS-98-3*: 9.

177. Benke, A.C., **I. Chaubey**, G.M. Ward, and E.L. Dunn. 1998. Flood pulse dynamics of a blackwater coastal plain river swamp in the Southeastern United States. *XXVII Congress of International Association of Theoretical and Applied Limnology, Dublin, Ireland. August 8-14.*

178. Bosch, D.D., R.L. Bingner, F.D. Theurer, G. Felton, and **I. Chaubey**. 1998. Evaluation of the AnnAGNPS water quality model. *ASAE Paper No. 982195. St. Joseph, MI. 16 pp.*

179. **Chaubey, I.**, C.T. Haan, S. Grunwald, and J.M. Salisbury. 1997. Effect of spatial variability of rainfall on modeling hydrologic/water quality processes. *ASAE Paper No. 972099. 1997 Annual International Conference of ASAE, Minneapolis, MN.* 161-164 pp.

180. Edwards, D.R., **I. Chaubey**, T.C. Daniel, and P.A. Moore, Jr. 1995. Modeling vegetative filter Strip performance for runoff from plots receiving poultry litter. *In Proc. The International Symposium on Water Quality Modeling, Orlando, FL. April 2-5.* 78-86 p.

181. Edwards, D.R., **I. Chaubey**, T.C. Daniel, and P.A. Moore Jr. 1994. Performance of vegetated filter strips in reducing pollution by land-application of animal manures. *In Effects of Human-Induced Changes on Hydrologic Systems. Proc. AWRC 1994 Annual Summer Symposium. Jackson Hole, WY.* 1162 p.

182. **Chaubey, I.**, D.R. Edwards, T.C. Daniel, and P.A. Moore, Jr. 1994. Modeling nutrient transport in vegetative filter strips. *ASAE Paper No. 942149. 1994 Annual International Conference of ASAE, Kansas City, MO.* 28 pp.

183. Edwards D.R., **I. Chaubey**, T.C. Daniel, and P.A. Moore, Jr. 1994. Effectiveness of vegetative filter strips in reducing losses of land-applied animal manure constituents. *In Proc. XII World Conference on Agricultural Engineering, Milano, Italy, Aug. 29-Sept.1.* 409-415 pp.

184. **Chaubey, I.**, D.R. Edwards, T.C. Daniel, and D.J. Nichols. 1993. Effectiveness of vegetative filter strips in controlling losses of surface-applied poultry litter constituents. *ASAE Paper No. 932011. 1993 Annual International Conference of ASAE, Spoken, WA.* 17 pp.

Paper Presented at Regional, State, or Local Conference *([1]Graduate student; [2]Post doctoral Research Associate; [3]undergraduate student supervised by Dr. Chaubey)**:***

1. Montgomery[1], A., R. Wang, **I. Chaubey**, K. Cherkaur. 2013. TPAC East: A look at surface water losses, biomass production, and climate change. CenUSA Project Meeting. Purdue University, West Lafayette, IN. August 2013.

2. Montgomery[1], A., R. Wang, S. Brouder, **I. Chaubey**, and J. Volenec. 2013. Water quality effects of cellulosic biofuel crops grown on marginal land. *Ecological Sciences & Engineering Summit (October 21-22), Purdue University, West Lafayette, Indiana, U.S.A.*

3. Logsdon[1], R.A., S.C. Keitzer, J.S. Beugly, R.R. Goforth, **I. Chaubey**. 2013. Integrating microcosm experiments with large scale modeling to predict fish species presence in agricultural landscapes. *Ecological Sciences & Engineering Capturing Resilience Summit (October 21-22). Purdue University, West Lafayette, Indiana, U.S.A.*

4. Trybula[1], E., J. Burks, C. Raj[1], **I. Chaubey**, S. Brouder, and J. Volenec. 2011. Parameterization of perennial bioenergy feedstock grasses *Miscanthus* x giganteus and upland Shawnee switchgrass cultivar in the SWAT model using a multi-disciplinary approach. *Annual Ecological Sciences and Engineering Conference, Purdue University. November 9, 2011*.

5. **Chaubey, I.**, L. Ahiablame[1], D. Smith and B. Engel. 2010. Nutrient attenuation under natural conditions in agricultural drainage ditches. *Annual Conference of the Indiana Water Resources Association. May 26, 2010.*

6. Raj[1], C., Y. Hoque, R.S. Govindaraju, and **I. Chaubey**. Drought implications on river water quality. *Poster presented at the Annual Conference of the Indiana Water Resources Association. May 26, 2010.*

7. McCahon[1], M.M., J. Frankenberger, E. Kladivko, and **I. Chaubey**. 2009. Targeting sites for constructed wetlands to remove nitrate in an agricultural watershed. *Ecological Science and Engineering Symposium, Purdue University, West Lafayette. Sept. 25, 2009.*

8. **Chaubey, I.** 2009. Web-based flow duration and load duration curves. *EPA Region 5 TMDL Practicerners Workshop. Red Wing, MN. April 20-22, 2009.*

9. Thomas, M., B. Engel, and **I. Chaubey**. 2007. Unintended consequences of biofuel production on water quality. *Poster presented at the Annual Conference of the Center for the Environment (C4E), Purdue University, IN. November 9, 2007.*

10. Migliaccio, K.W., B.E. Haggard, **I. Chaubey**, and M.D. Matlock. 2006. Seasonality, land use, and scale influences on stream water quality. *Paper presented at the Florida section of ASABE conference.* Jupiter, FL. *June 1-3, 2006.*

11. Merriman[1], K, M. Gitau, and **I. Chaubey**. 2006. A tool for estimating best management practice effects in Arkansas. *Poster presented at the Annual Conference of the Arkansas Water Resources Association.* Fayetteville, AR. *April 18, 2006.*

12. Leh[1], M., **I. Chaubey**, J.B. Brahana, J. Murdock, and B.E. Haggard. 2006. Field investigations of rainfall-runoff processes in a Karst watershed. *Poster presented at the Annual Conference of the Arkansas Water Resources Association. Fayetteville, AR. April 18, 2006.*

13. Mutlu[1], E., **I. Chaubey**, H. Hexmoore, and S. Bajwa. 2006. Comparison of artificial neural network models for hydrologic prediction in agricultural watersheds. *Poster presented at the Annual Conference of the Arkansas Water Resources Association. Fayetteville, AR. April 18, 2006.*

14. Leh[1], M. **I. Chaubey**, J.V. Brahana, and J. Murdoch. Quantification of critical runoff contributing areas in a pasture watershed. *Poster presented at the Annual Conference of the Arkansas Water Resources Association. Fayetteville, AR. April 19, 2005.*

15. Garg[1], V. and I. Chaubey. Diffuse light effect on the accuracy of remote sensing model of water quality assessment. *Poster presented at the Annual Conference of the Arkansas Water Resources Association. Fayetteville, AR. April 19, 2005.*

16. Schaffer[1], B.K., **I. Chaubey**, and P. Tacker. Development of an integrated water quality – water management program in Arkansas Delta. *Poster presented at the Annual Conference of the Arkansas Water Resources Association. Fayetteville, AR. April 19, 2005.*

17. Mutlu[1], E.O., **I. Chaubey**, and H. Hexmoor. Development of a neural net model to predict total phosphorus concentration in Eucha watershed. *Poster presented at the Annual Conference of the Arkansas Water Resources Association. Fayetteville, AR. April 19, 2005.*

18. Cochran, M., T. Daniel, and **I. Chaubey**. Update on Eucha-Spavinaw Phosphorus Index Development. *Seminar presented at the Quad State Poultry Dialogue Symposium. Fayetteville, AR. May 6, 2004.*

19. **Chaubey, I.**, and V. Garg. Water quality modeling using hyperspectral remote sensing. *Twelfth Annual Arkansas Space Grant Symposium. Lyon College, Batesville, AR. April 30, 2004*.

20. White[1], K.L, B.E. Haggard, and **I. Chaubey**. Water quality during base flow and surface runoff conditions at the Buffalo National River near St. Joe, Arkansas from 1991 – 2001. *Poster presented at the 2003 Arkansas Water Resources Conference Center Conference on "Quality Water Resources to Meet Our Competing Needs". Fayetteville, AR. April 22 – 23.*

21. Sahoo[1], D., **I. Chaubey**, B.E. Haggard, and M. Matlock. Nutrient retention and limitation in an agriculturally dominated stream in Northwest Arkansas. *Poster presented in the 2003 Arkansas Water Resources Conference Center Conference on "Quality Water Resources to Meet Our Competing Needs". Fayetteville, AR. April 22 – 23.*

22. Ekka, S.A., B.E. Haggard, M.D. Matlock, and **I. Chaubey**. Impact of wastewater treatment plants on sediment phosphorus concentration. *Poster presented in the 2003 Arkansas Water Resources Conference Center Conference on "Quality Water Resources to Meet Our Competing Needs". Fayetteville, AR. April 22 – 23.*

23. Griffis, C.L., and **I. Chaubey**. Teaching online: an innovative pedagogical tool. *Southern Region Teaching Symposium. Fayetteville, AR. Oct 6 – 8, 2002*.

24. Garg[1], V., and **I. Chaubey**. Effect of Calibrating Watershed Characteristics on Uncertainty of Runoff Volume Modeling. *2002 AWRC Conference on "Adequate Quality Water Supplies to Meet Our Growing Needs: Scientific, Regulatory, and Public Perspectives". Fayetteville, AR.*

25. Han, L., **I. Chaubey,** and S. Addy. Modeling nonpoint source pollution from poultry litter using GIS. *First Alabama GIS Symposium, Tuscaloosa. June 22-23, 1999.*

Other Presentations/publications *([1]Graduate student; [2]Post doctoral Research Associate; [3]undergraduate student supervised by Dr. Chaubey)**:***

1. **Chaubey, I.** 2011. Large scale watershed modeling to evaluate ecohydrologic impacts. Computational

Sciences and Engineering Seminar Series. Purdue University. November 2, 2011.

2. **Chaubey, I.** 2011. Toward sustainability assessment of bioenergy production, landscape changes and ecosystem response. Department of Earth and Atmospheric Sciences Seminar Series. Purdue University. September 22, 2011.

3. Song, C.X., J. Carlson, R.S. Govindaraju, **I. Chaubey**, and D. Niyogi. 2011. DRINET Project overview. *Symposium on Data Driven Approaches to Droughts. Purdue University, West Lafayette, IN. June 21-22, 2011.*

4. Frankenberger, J., M. McCahon, **I. Chaubey**, and E. Kladivko. 2009. Nitrate removal from cropland areas by constructed wetlands. *Indiana State Department of Agriculture. June 2, 2009.*

5. Engel, B. and **I. Chaubey**. 2009. Web-based load duration curve – User's guide. *Available at https://engineering.purdue.edu/~ldc.*

6. Maringanti, C., **I. Chaubey**, M. Arabi, and B. Engel. 2008. A multi-objective optimization tool for the selection and placement of BMPs for pesticide control. *Hydrol. Earth System Science Discussion, 5, 1821-1862.*

7. Gitau[2], M., L. Chiang, **I. Chaubey**, and S. Mohammed. 2007. Evaluating best management practice impacts on water quality considering stochasticity of weather. *Poster Presented at the CRI, High Performance Computing Seminar, Purdue University. October 25,2007.*

8. **Chaubey, I.** 2006. Development of an integrated water quality – water management program in the L'Anguille River watershed. Faculty Impact Statements 2005. *Arkansas Agricultural Experiment Station Research Series 539. pp. 55.*

9. **Chaubey, I.** 2006. Identifying runoff contributing areas for water quality management. . Faculty Impact Statements 2005. *Arkansas Agricultural Experiment Station Research Series 539. pp. 55.*

10. **Chaubey, I.** Beaver Lake watershed decision support system. *The Great Plains Network Consortium Meeting, Lawrence, KS. February 25, 2005.*

11. **Chaubey, I.**, K.L. White, and C. Cooper. Using SWAT models in watershed response assessment. *Workshop conducted at the Arkansas Soil and Water Conservation Commission. July 15, and August 26, 2004.*

12. Schaffer[1], B., **I. Chaubey**, M. Matlock, J. Popp, P. Tacker, and E. Vories. Integrated water quality – water conservation program in the Arkansas Delta. *Poster presented at the L'Anguille River Watershed Awareness Day. Forest City, AR. July 29, 2004.*

13. Ludwig, A., Marty Matlock, B. Haggard, R. Morgan, **I. Chaubey**, and Monty Matlock. 2004. The influence of riparian forest canopy on stream primary productivity. *AWRA Summer Specialty Conference on "Riparian Ecosystems and Buffers: Multi-scale Structure, Function, and Management". Olympic Valley, CA. June 28-30.*

14. **Chaubey, I.** 2004. Decision Support System research activities within the Ecological Engineering program. *Presented at the Public Policy Colloquium, University of Arkansas, Fayetteville. January 21.*

15. Garg[1], V., and **I. Chaubey**. 2003. Effect of suspended sediment distribution on spectral reflectance. Abstract published in the *Proc. Total Maximum Daily Load: Environmental Regulations II. ASAE, St. Joseph, MI. 136 p.*

16. **Chaubey, I.,** M.D. Matlock, and B.E. Haggard. 2003. Managing aquatic ecosystem processes at the watershed level: an ecological engineering approach. *Resource (May 2003). 15 p.*

17. Ekka, S., B.E. Haggard, M. Matlock, and **I. Chaubey**. 2003. Phosphorus sources in the Illinois River

Basin: effect of chemical amendments on sediment phosphorus interactions. *Poster Presented at the Annual Conference of the North American Benthological Society. Athens, GA.* May 27 – 31.

18. **Chaubey, I.**, and T.A. Costello. 2002. Spatial data requirements for TMDL development use water quality models. *Faculty Impact Statements. University of Arkansas Agricultural Experiment Station. 46 p.*

19. **Chaubey, I.** 2002. New graduate class prepares students to tackle environmental problems. *Faculty Impact Statements. University of Arkansas Agricultural Experiment Station. 61 p.*

20. White[1], K.L., and **I. Chaubey**. Moores Creek and Lincoln Lake Watershed Project. *The Tri-County Conservation District Newsletter, March/April 2003.*

21. Garg[1], V., and **I. Chaubey**. Secchi Disk depth measurement using optical sensors. *Poster Presented in the Phosphorus Management Workshop. Division of Agriculture, University of Arkansas. October 15, 2002.*

22. **Chaubey, I.** M. Matlock, T.A. Costello, B. Haggard, and K.L. White. Development of a decision support system and data needs for the Beaver Lake watershed. *Poster Presented in the Phosphorus Management Workshop. Division of Agriculture, University of Arkansas. October 15, 2002.*

23. **Chaubey, I.,** T.A. Costello, K.L. White, and D. Sahoo. Optimizing BMPs, water quality and sustained agriculture in the Lincoln Lake watershed. *Poster Presented in the Phosphorus Management Workshop. Division of Agriculture, University of Arkansas. October 15, 2002.*

24. Maxwell, C.V., K. VanDevender, **I. Chaubey**, P.A. Moore, M.E. Davis, K.L. White, and S. Sen. Swine waste demonstration and training project. *Poster Presented at the Phosphorus Management Workshop. Division of Agriculture, University of Arkansas. October 15, 2002.*

25. **Chaubey, I.** A simplified methodology to identify "hot spots" for nonpoint source pollution. Faculty Impact Statements 2000. *University of Arkansas Agricultural Experiment Station. 45 p.*

26. **Chaubey, I.,** and C. Griffis. Web-based class teaches students micro-computer applications in agriculture and human environmental sciences. *Faculty Impact Statements 2000. University of Arkansas Agricultural Experiment Station. 54 p.*

Reports Written on Research Results:

1. Kling, C., R.W. Arritt, G. Calhoun, D.A. Keiser, J.M. Antle, M. Carriquiry, **I. Chaubey**, P. Christensen, B. Ganapathysubramanian, P. Gassman, W. Gutowski, T.W. Hertel, G. Hoogenboom, E. Irwin, M. Khanna, P. Merel, D. Phaneuf, A. Plantinga, S. Polasky, P. Preckel, S. Ratogyagov, I. Rudik, S. Secchi, A. Smith, A. VanLoocke, C. Wolder, J. Zhao, and W. Wendong. 2016. Research needs and challenges in FEW system: coupling economic models with agronomic, hydrologic, and bioenergy models for sustainable food, energy, and water systems. *CARD Working Papers. Paper 584.* http://lib.dr.iastate.edu/card_workingpapers/584

2. **Chaubey**, I., R. Cibin, L. Bowling, S. Brouder, K. Cherkauer, B. Engel, J. Frankenberger, R. Goforth, B. Gramig, J. Volenec. 2016. Watershed scale optimization to meet cellulosic energy crop demand. *Final Report Submitted to the US. Department of Energy. Project. No. DE-EE0004396***.**

3. **Chaubey**, I. B. Gramig, and R. Cibin. 2016. Watershed Scale Analysis to Develop Strategies for Environmentally Sustainable Corn Stover Removal for Biofuel Production in Indiana. *Final Report Submitted to Indiana Corn Marketing Council.*

4. **Chaubey**, I. B. Engel, J. Frankenberger, V. Merwade, Y. Her. 2014. Cumulative impacts of BMP implementation in the Upper Maumee River basin. Final Project Report Submitted to U.S. EPA.

Project No. GL-00E00577-0.

5. **Chaubey**, I., J.H. Popp, E. Gbur, and J.H. Pennington. 2010. Effectiveness and optimization of Best Management Practices in Improving Water Quality from an Agricultural Watershed. *Final Report Submitted to USDA-NIFA. Project No. 2005-48619-03334.*

6. Bajwa, S.G., **I. Chaubey**, M. Matlock, and M. Leh. 2010. Environmental resource management to develop watershed technologies and management tools. *Final report submitted to the EPA Region 6.*

7. **Chaubey, I**. J.H. Popp, P. Tacker, and E. Vories. 2007. Development of an integrated water quality-water management program in the Arkansas Delta. *Final report submitted to the USDA-CSREES.*

8. **Chaubey, I.**, M. Matlock, B. Haggard, P. Tacker, and E. Vories. 2007. Sustainable agriculture and water resources in Arkansas: A bioenvironmental engineering solution. *Final report submitted to the EPA Region 6.*

9. **Chaubey, I.**, B.E. Haggard and P. Srivastava. 2007. Differentiating runoff contributing areas for effective water quality management. *Abstract published in the proceedings of the 2007 Water and Watersheds PD Meeting. National Water Conference, Savannah, GA. January 29, 2007.*

10. **Chaubey, I.,** M. Matlock, and V. Garg. 2005. SWAT modeling in the Arkansas Portion of the Illinois River Watershed. *Final Report Submitted to Arkansas Soil and Water Conservation Commission. Project No. 02-1400*.

11. **Chaubey, I.,** M. Matlock, T.A. Costello, B.E. Haggard, V. Garg, S. Sen, K.L. White, and R.K. Davis. 2005. Development of a Decision Support System and Data Needs for the Beaver Lake watershed. *Final Report Submitted to Arkansas Soil and Water Conservation Commission. Project No. 02-1200*.

12. **Chaubey, I.,** T.A. Costello, K.L. White, M.A. Nelson, and M. Steele. 2005. Optimizing BMPs, water quality, and sustained agriculture in the Lincoln Lake watershed. *Final Report Submitted to Arkansas Soil and Water Conservation Commission. Project No. 01-1100*.

13. **Chaubey, I.,** M. Matlock, T. Costello, C. Cooper, and K. White. 2004. GIS database development and watershed modeling in Arkansas priority watersheds. *Final Report Submitted to Arkansas Soil and Water Conservation Commission. Project No. 04-120*.

14. Maxwell, C.V., K. W. VanDevender, K.P. Coffey, P.A. Moore, **I. Chaubey**, and D.R. Smith. 2003. Swine Waste Demonstration Project. *Final Report Submitted to Arkansas Soil and Water Conservation Commission. Contract No. 0017837.*

15. **Chaubey I.**, L. Han, and S.N. Addy. 2000. Environmental and economic impact assessment of animal waste pollution potential using Geographic Information System. *School of Mining and Energy Development, University of Alabama, Tuscaloosa, AL.*

16. **Chaubey, I.**, D.R. Edwards, and T.C. Daniel. 1994. Assessment of effectiveness of buffer zones in removing impurities in runoff from areas treated with poultry litter. *Publication No. 166. Technical Completion Report Research Project G-1549-03. Arkansas Water Resources Center, University of Arkansas.*

Appearances in media interviews and other coverage

1. Chicken Run: preserving water quality just got a lot easier for farmers. University of Arkansas New Release, July 18, 2000.

2. Technology helps farmers, animal processors preserve water quality. Water Environment Federation Waste Water Technology. Fall 2000.

3. CAST gets all wet. University of Arkansas Research Frontiers. Fall 2002.

4. Taking a SWAT at water quality models. University of Arkansas news release, July 2, 2002.
5. UA Researchers build models to aid decision making for water quality. University of Arkansas news release, November 25, 2003.
6. UA teams build models for uses of state's water. Arkansas Democrat Gazette. November 28, 2003.
7. Models by UA researchers aid water quality decision making. Northwest Arkansas Times. December 14, 2003.
8. Phosphorus Index picked for Eucha-Spavinaw Watersheds. The Morning News.
9. Study shows more corn for biofuels would hurt water. Purdue University News Release. September 28, 2009. This news article was further published more than 100 news outlets including the US News and World Report, Resource, and Science Daily
10. Water, Water Everywhere. TeraGrid Science Highlights. 2009.

    (https://www.teragrid.org/c/document_library/get_file?uuid=2a1b0e5c-68e3-482b-b301-1d0f09f31d09&groupId=14002).
11. Rainmaking, runoff, and research. Purdue Agriculture, Special Issue 2009. Pp 12-15.
12. Our cresting water crisis. Purdue Engineering Impact magazine. Winter 2009. Pp 12-17.
13. Purdue getting nearly $1.6 million for biofuels crop research. Purdue University News Release. September 16, 2010.