2006
Summary of Activities
Department of Civil & Environmental Engineering
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**Captions for front cover:**
- Steel Bridge Team
- Professor Jim Stoner
- Professor Thanos Papanicolaou teaching

**Captions for back cover:**
- Chi Epsilon Initiation
- ASCE Concrete Canoe Presentation
- ASCE Road Clean Up
- ASCE Golf Tournament: Hashim Ali, Andrea Rogers, David Cwietny, Wilfrid Nixon
- Heather McDonald, Sachiyo Tanaka, Laura Brentner
- Professor Tim Mattes
- Fluids Class

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**Department of Civil and Environmental Engineering**
From the Department Executive Officer

This Summary of Activities documents and celebrates the 2006 accomplishments of the faculty, staff, and students of The University of Iowa’s Department of Civil and Environmental Engineering (CEE). The Summary lists CEE’s graduating classes of undergraduate students and graduate students. It also lists CEE’s current body of graduate-student students, faculty, research professionals, staff, adjunct faculty, and CEE’s Advisory Board. Further, it serves as a collective record of the papers, books, and reports that CEE people published in 2006, as well as briefly indicating the range of professional service activities with which they were engaged. The table tailing this introduction lists some quick reference facts about CEE.

In addition to documenting accomplishments and listing the names of the many people engaged in CEE’s activities, this Summary is an occasion to thank the people and organizations that have supported CEE and its students during 2006. That support significantly enhances the quality of the education and research experiences that CEE offers students. My colleagues and I very much appreciate the support given to CEE.

Three faculty members with primary appointments in CEE were promoted during 2006. Also, one faculty member with a secondary appointment in CEE was promoted. Drs. Asghar Bhatti and Colby Swan, who both hold 100-percent primary appointments in CEE, were promoted to the rank of Professor. Dr. Walter Illman, who holds a 10-percent appointment in CEE, was promoted to the rank of Associate Professor with tenure. His main faculty appointment is in the Geoscience Department. Dr. Paul Hanley, who has a secondary appointment in CEE, was promoted to the rank of Associate Professor with tenure. His primary appointment is in the Urban and Regional Planning Program.

Building upon CEE’s review and planning efforts during the previous three or more years, CEE thoroughly revamped its Strategic Plan. Faculty and staff view the Plan’s development and implementation activities as an on-going effort, a project requiring continuous work. The Plan, designed to be a “continuous work in progress,” will evolve over time in accordance with annual assessment of progress, as well as adjustment of priorities and tasks in accordance with developments in opportunity and need. In broad terms, the Plan links CEE’s development to the conceptual goals expressed in the strategic plans formulated by the College of Engineering and The University of Iowa.

This Summary moreover is a chance to thank CEE Administrative Assistant Ginny Miller and CEE Secretary Judy Holland for their smooth running of CEE’s office and overall support provided to everyone involved with CEE. Thanks also to Collin Just for his work as manager of the environmental laboratories associated with CEE. Further thanks to Barbara Booth as Assistant Editor, and Christie Pinter as Editorial Assistant, for their fine work assisting Dr. Jerry Schnoor as editor of the journal Environmental Science and Technology.

Robert Ettema
Department Executive Officer

This edition of CEE’s Summary of Activities was compiled and prepared by Ginny Miller, with the help of Scott Romine in design and layout.
Some Quick Facts for 2006

- CEE faculty numbered 23 people holding a primary appointment in CEE. Presently, 19.85 FTE salary lines reside in CEE, and CEE has 18.85 FTE available for teaching.

- Faculty and research staff members presently are clustered in four broad groups: environmental engineering and science (6.25 FTE salary); hydrology & hydraulic systems (7.10 FTE salary); structures, mechanics & materials (4.00 FTE salary); and, transportation information systems (2.50 FTE salary).

- CEE has 2 office staff, 1 research assistant (environmental), and 2 post-doctoral scholars. Two additional office staff members work solely as editorial staff for the Journal Environmental Science & Technology. An additional research assistant and post-doctoral scholar working with CEE faculty and are staff members in IIHR.

- CEE had 11 Adjunct faculty members, and 7 Secondary faculty members.

- CEE had an undergraduate enrollment of 150 students (Spring ’06), and graduated 35 B.Sc. students in AY05-06.

- The majority of B.Sc. students come from Eastern Iowa and Western Illinois.

- A survey of freshmen entering the B.Sc. (Civil) program reveals that major (~80%) interest is in the “structures” area of civil.

- Ph.D. enrollment was 84; 13 graduated in 2006.

- M.S. student enrollment was 52; 9 (thesis), 6 (non-thesis) graduated in 2006.

- Faculty and staff annually publish an average of 1.8 journal papers per head.

- Research expenditures tallied to $10.406M during FY 05-06.

- The balance of women to men undergraduate students was 17% to 83%.

- The balance of women to men graduate students was 25% to 75%.

- The percentage of minority undergraduate students was 4% (6 in 150)

- The percentage of minority graduate students was ~1% (1 in 80)

- There continues to be strong employer demand for the graduates from CEE’s B.Sc., M.S., and Ph.D. programs.
CEE’s Advisory Board, established in 2000, met twice this year; in May and November. The Board provided important feedback and guidance regarding CEE’s BSc (Eng.) Civil Engineering Program, and on CEE’s M.S. graduate program. An important activity of the Board is its interview of graduating BSc (Eng.) students as well as MS and PhD students.

This year the Board added three new members and rotated off three serving members. The new members are Jane Driscoll, Jay Brady, and Forrest Holly. Additionally, it was decided that a CEE faculty member should serve as a Board member, thereby further enhancing the interaction between CEE faculty and the Board. Jane Carlson, Sherri McIntyre, and Rick Fosse rotated off the Board. Board members typically serve three-year terms. The faculty Board member will serve a two-year term.

CEE’s faculty and staff warmly thank all of its Board members for their efforts and contributed wisdom.

Advisory Board

William Ashton
Principal Engineer
Ashton Engineering Inc.
Davenport, Iowa

William Ashton
Principal Engineer
Ashton Engineering Inc.
Davenport, Iowa

Doug Bottorff
Team Leader, Civil Engineering
Shive-Hattery, Inc
Iowa City, Iowa

Doug Bottorff
Team Leader, Civil Engineering
Shive-Hattery, Inc
Iowa City, Iowa

Jay M. Brady
Senior Civil Engineer
Stanley Consultants
Muscatine, Iowa

Jay M. Brady
Senior Civil Engineer
Stanley Consultants
Muscatine, Iowa

David C. Convy
Senior Program/Project Manager
URS Corporation
Overton Park, Kansas

David C. Convy
Senior Program/Project Manager
URS Corporation
Overton Park, Kansas

Jane Driscoll
Structural Engineer
NNW, Inc.
Iowa City, Iowa

Jane Driscoll
Structural Engineer
NNW, Inc.
Iowa City, Iowa

Jonathan P. Fitch
Project Manager
Carter-Kirkpatrick Services
North Liberty, Iowa

Jonathan P. Fitch
Project Manager
Carter-Kirkpatrick Services
North Liberty, Iowa

Forrest Holly, Jr.
CEE Professor Emeritus
Forrest Holly & Associates
Iowa City, Iowa

Forrest Holly, Jr.
CEE Professor Emeritus
Forrest Holly & Associates
Iowa City, Iowa

Dan Johnson
Chief, Regulatory Branch
Corps of Engineers
Rock Island District

Dan Johnson
Chief, Regulatory Branch
Corps of Engineers
Rock Island District

Brian Keierleber
County Engineer
Buchanan County
Independence, Iowa

Brian Keierleber
County Engineer
Buchanan County
Independence, Iowa

Michael J. Kennerly
Director, Office of Design
Iowa DOT
Ames, Iowa

Michael J. Kennerly
Director, Office of Design
Iowa DOT
Ames, Iowa

Sherri McIntyre
Senior Project Manager
HDR Engineering
Kansas City, Missouri

Sherri McIntyre
Senior Project Manager
HDR Engineering
Kansas City, Missouri

John Meyer
V. P., Operations of
Case Ready Division
Tyson Foods, Inc.
Dakota Dunes, South Dakota

John Meyer
V. P., Operations of
Case Ready Division
Tyson Foods, Inc.
Dakota Dunes, South Dakota
Advisory Board Meeting – May 2006
Senior Projects Class
Project Design and Management

Ryan Asman
Brian Bartlett
Beyer Pieter
Aaron Burkhardt
Lauren Catalano
Eric Dean
Philip Dierickx
Tim Fredregill
Brian Hines
James Howard
Robert Hubbard
Daniel Kimball
Cole Landau
Nathaniel Larson
James Langel
Nathaniel Larson
Ryan Livingston
Wyatt McCain
Ross McWhirter
Michael Muhlenbruch
John Ostola
Frank Palladino
Stephanie Petrie
Nicholas Rentel
Matthew Reusswig
Andrea Rogers
Rashelle Russell
Nick Schaefer
Dallas Schechinger
Daniel Schmit
Eldon Schneider
Erik Tefteller
Andrea Untrauer
Tyle VanderLinden
Lindsey Woehlk
William Wombacher
Two hands-on statics labs were introduced in the Fall 2006 semester. Over 200 students from Professor Bhatti’s and Professor Grosland’s classes used recently purchased equipment in the Structures, Mechanics, and Materials Teaching Lab (G430) to investigate the impact of forces and their reactions in our everyday world.

The first lab dealt with the forces on an inclined plane. Of the three required values (mass of the cart, hanging mass, and angle of inclination), the students were given two and had to calculate the third so that the system remained in static equilibrium. They then set up the inclined plane according to their scenario to see if their calculations were correct.

The second lab consisted of a “bridge” made up of a meter stick hanging from force scales on each end. By placing a hanging mass somewhere along the bridge, they used the equations of equilibrium to find the reactions on the ends of the bridge and checked their work by comparing their answers to the reading on the scales.

Future statics labs will include hands-on experience with friction and centroids.
New Course Taught in Fall 2006
By Craig Just
053:141 – Design for the Developing World

This course provides our students the opportunity to work in interdisciplinary teams to propose solutions to problems people face in the “developing world.”

Students will interact with local community partners to explore the service-learning objectives designed into the course.

Appropriate technologies to improve water and sanitation, energy, housing, and health will be studied and developed.

Community building strategies, participatory methods and other techniques essential to a good design will be explored.
Undergraduate Student Awards & Achievements

**Nick Amelon**  
Archie N. Carter Civil Engineering Scholarship

**Ryan Pianetto**  
County Engineers Scholarship  
Fritz W. Louis Scholarship

---

**Nicholas Amelon**  
County Engineers Scholarship  
Concrete Pipe Association Scholarship

**Ryan Asman**  
John F. Kennedy, Memorial Fellowship

**Jim Guarino**  
Hal W. Hunt Civil Engineering Scholarship

**Curtis Kampman**  
Hal W. Hunt Civil Engineering Scholarship  
James L. Shive Memorial Fellowship

**Michael Schaefer**  
B. J. Lambert Scholarship • ASCE Scholarship

**Ricky Teed**  
Archie N. Carter Civil Engineering Scholarship

**Sara Walsh**  
Joseph B. Summers Scholarship  
ASCE - Outstanding Senior

**Kyle Whisner**  
ASCE Scholarship

**David Salazar**  
Case Study for Cargill, Summer Internship,  
“Pollution Prevention”
## B. S. Degrees Conferred

<table>
<thead>
<tr>
<th>May 2006</th>
<th>December 2006</th>
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<tbody>
<tr>
<td>Ryan Asman</td>
<td>Philip Dierickx</td>
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<tr>
<td>Brian Bartlett</td>
<td>James Howard</td>
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<tr>
<td>Pieter Beyer</td>
<td>Robert Hubbard</td>
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<td>Aaron Burkhardt</td>
<td>James Langel</td>
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<td>Lauren Catalano</td>
<td>Ryan Livingston</td>
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<td>Cole Landau</td>
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<td>Daniel Schmit</td>
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<td>Erik Tefteller</td>
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<td>Tyler VanderLinden</td>
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<td>Lindsey Woehlk</td>
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<tr>
<td>William Wombacher</td>
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Student Organizations – American Society of Civil Engineers

ASCE Officers
ASCE Faculty Advisor.......................... Allen Bradley
Canoe Faculty Advisor...................... William Eichinger

January – May 2006
President........................................... Aaron Burkhardt
Vice President .................................. Stephanie Petrie
Secretary ........................................... Jenna Kusmierek
Treasurer .......................................... Philip Dierickx
YMG Rep ......................................... Andrea Rogers
Social Chair ..................................... Brian Bartlett
Steel Bridge Chairs......................... Eldon Schneider,
                                       Jenna Kusmierek, Dan Kimball
Concrete Canoe Host...................... Lindsey Woehlk
Concrete Canoe Co Chairs ................. Sara Walsh,
                                       Tom Smith, Eric Dean

August – December 2006
President............................................ Lea Ljumanovic
Vice President .................................... Dana Weir
Secretary ............................................ Tara Olds
Treasurer ............................................ Scott Foley
Steel Bridge Chairs ......................... Benjamin Rebholz,
                                       Kyle Whisner, Jim Guarino
Canoe Co-chairs ......................... Sara Walsh, Dan Schimpf
YMG/Rep/Soc. Chair ...................... Mike Schaefer

ASCE enjoyed another active and successful year

The University of Iowa American Society of Civil Engineers Chapter had another very active and successful year. The chapter held its bi-annual road cleanup followed by a picnic and softball game with the CEE faculty. The annual student-faculty bowling challenge was also a big hit and a nice stress reliever right before fall finals. ASCE also had many social events co-hosted with the local Younger Members Group where students got to meet professionals from the area.

The student chapter also competes annually in both the ASCE’s National Steel Bridge and Concrete Canoe Competitions. Steel Bridge has the primary goal of designing a strong, yet lightweight bridge. Building the concrete canoe is a year-long project where students work in a group to design and build a canoe made of lightweight concrete. In addition to providing great opportunities to apply their in-class knowledge, students have plenty of opportunities to build their team skills and have fun with each project.

The Steel Bridge team traveled to the University of Wisconsin-Platteville for the annual Regional Conference and Steel Bridge Competition. The team competed hard, and, while they didn’t leave with a trophy, they won a moral victory as they watched all of their hard work pay off as the bridge withheld the applied loading.

The University of Iowa Concrete Canoe team recently repeated their last year’s great performance when they once again took second place in the Concrete Canoe Midwest Regional Competition. The competition, held on April 29th, was hosted by the University of Iowa. The winner of the regional competition goes
to the Nationals. The participants are judged based on four parts: design paper, presentation, aesthetics and racing. Each area carries an equivalent weight towards the final score. The racing involves five separate races: two man sprint, two women sprint, three man endurance, three women endurance, and a four person co-ed sprint.

In addition to the University of Iowa team, captained by Eric Dean and Sara Walsh, other participating schools were the University of Wisconsin-Platteville (first place winner), Iowa State University (third place), University of Minnesota, University of Minnesota-Mankato state, North Dakota State University and South Dakota State University.

All in all, ASCE had a very successful year, and looks forward to its future accomplishments at the University of Iowa.

Concrete Canoe Team members:
Eric Dean
Scott Foley
Cole Kopca
Casey Henson
Lea Ljumanovic
Tara Olds
Dan Schimpf
Jess Smith
Sara Walsh
Dana Weir

Steel Bridge Team Members:
Eldon Schneider
Phil Dierickx
Stephanie Petrie
Lindsey Woehlk
Jenna Kusmierek
Tara Olds
Brian Bartlett
Dan Kimball
Eric Dean
Student Organizations – Chi Epsilon

Chi Epsilon Officers

Faculty Advisor ....................... Richard Valentine

January – May 2006
President .................................. Andrea Rogers
Vice President .......................... Dana Weir
Secretary ................................. Bill Wombacher
Treasurer ................................. James Howard
Marshall ................................. James Langel
Editor ................................. Tim Fredregill

August – December 2006
President .............................. Dana Weir
Vice President .................. James Langel
Secretary ......................... Kyle Whisner
Treasurer ......................... Sara Walsh
Marshall ......................... Marc Wendell
Editor ......................... Adrian Strain

May ‘06 Initiates
Marc Wendell
Kyle Whisner
Lea Ljumanovic
Dan Schimpf
Tara Olds

August ‘06 Initiates
Mike Schaefer
Travis Baxter
Ryan Pianetto
Andy Laird
Graduate Program
Graduate Students Enrolled

Ozan Abaci
Lisa Alam
Ryan Asman
Jodi Benson
David Bequeaith
Brandon Billing
Laura Brentner
Zachariah Brownson
Elliott Campbell
Zhuo Chen
Adina Chuang
Michael Cloos
Luciana Cunha
Joseph Daraio
Dimitrios Dermisis
Piotr Domaszczynski
Claudia Espinosa
Benjamin Fennelly
Gaston Ferrari
Brittany Flokstra
Renato Frasson
Christopher Frasson
Robert Handler
Md Manjurul Haque
Linda Hattier Schmoll
Peter Hansen
Hao-Che Ho
Jennifer Holman-Dodds
Natalya Hunt
Kasey Hutchinson
Soohyok Im
Yangoh Jin
Michael Kelly

Dongsu Kim
Jung Kim
Yongjoo Kim
Gokhan Kirkil
Mete Koken
Catherine Krahe
Philip Larese-Casanova
Gregory Larson
Drew Latta
Haegyun Lee
Piotr Lewandowski
John Loperfido
Xiaolin Man
Venkata Mandapaka
Maria Victoria Martin
Andres Martinez
Antonio Massi
Andrew McCoy
Brady McDaniel
Heather McDonald
Richard Meggo
Marcelo Mena
Shinjiro Miyawaki
Smitha Mohan
Reinaldo Morales
Lalith Nadimpalli
Nirupama Narayan
Kwaku Oben-Nyarko
Seng Keat Ooi
Carmen Owens
Ju Qiu
Lin Qiu
Matthew Rasmussen

Anne Schwarzkopf
Bong Seo
Mehmet Serdaroglu
Rahul Sharma
Sumit Sinha
Sharon Smith-Tembe
Kyle Strom
Garrett Struckhoff
Sultan A. Sultan
Sachiyo Tanaka
Ranjani Therapowda
John Thomas
Talia Tokyay
Archilleas Tsakiris
Cagri Turan
Gabriele Villarini
Qian Wang
Zhiguo Wang
Brian Wardman
Mark Weldon
Loren Weymeyer
Robert Williams
William Wombacher
Brett Woods
Yujiang Xiang
Ping Xiao
Jun Yang
Su Seon Yang
Aubrey Yates
Jie Zeng
Graduate Students Degrees Conferred

Masters Non-Thesis
Zachariah Brownson – Peter Hansen
Michael Kelly – Lalith Nadimpalli
Maria Victoria Araujo Martin – Ping Xiao

Masters
Benjamin Fennelly
“Three-Dimensional Hydrodynamic Model of Pool 13, Mississippi River”

Brady McDaniel
“Brownlee Dam Spillway Deflector Verification and Entrainment Study”

Garcia Reinaldo Morales
“Performance Evaluation of Riprap Apron Scour Countermeasure for Spill through Abutment”

Christopher Mutel
“Estimating Wind Speed Distributions for Modeling Power Generation at Oakdale Campus”

Carolyn Persoon
“Assessment of PCBS in Indoor Air: Determination using Passive Samplers and Tandem Mass Spectrometry”

John Thomas Sanford
“One Dimensional Sediment Transport Model to Simulate Rill Erosion Processes”

Loren Wehmeyer
“Evaluation of Design Flood Frequency Methods for Iowa Streams”

Brett Woods
“The Fate of Pharmaceuticals, Antibiotics, and Endocrine Disruptors in Wastewater Treatment Plants”

Su Seon Yang
“Enhancing Pavement Management Information System (PMIS) by Integrating Digital Image Processing & Management Features”

Doctorates
Jennifer Holman-Dodds
“Evaluation of the Hydrologic Benefits of Infiltration-based Storm Water Management”

Youngsung Kim
“Uncertainty Analysis for Non-intrusive Measurement of Rover Discharge Using Image Velocimetry”

Philip Larese-Casanova
“Heterogeneous Ferrous Iron Reactions in Subsurface Environments: A 57 Fe Mossbauer Spectroscopy Investigation”

Xiaolin Man
“A Mathematical and Computational Multiscale Clothing Modeling Framework”

Andrew McCoy

Seng Keat Ooi
“High Resolution Numerical Simulations of Lock-exchange Gravity-driven Flows”

Ceyda Polatel
“Large-scale Roughness Effect on Free-surface and Bulk Flow Characteristics”

Sharon Smith-Tembe
“Abiotic Reduction of Nitrite, Uranium (VI), and Chlorinated Ethenes by Fe(II) Species”

Kyle Strom
“Discrete Cluster Microforms in Mountain Rivers”

Qian Wang
“A Study of Alternative Formulations for Optimization of Structural and Mechanical Systems Subjected to Static and Dynamic Loads”

Nathan Young
“Physical Characterization of Freshwater Mussel Habitats in Upper Mississippi River Pool 16”

Jie Zeng
“Fully 3D Non-hydrostatic Model to Compute Flow, Sediment Transport and Bed Morphology Changes for an Alluvial Open Channel Bend”
Graduate Students Awards & Achievements

Gregory Larson
Neil B. Fisher Fellowship

Qian Wang
2005 Chinese Government Award for Outstanding Self-financed Students Abroad.

William Wombacher
Neil B. Fisher Fellowship
Tau Beta Pi Outstanding CEE Senior Award
CHEEC Seed Grant

Laura Brentner
Best Poster in Civil & Environmental Engineering at the University of Iowa College of Engineering Research Open House, April 20, 2006

Graduate Student Publications, Papers, and Presentations


Laura Brentner.

Ozan Abaci
University of Iowa Center for Global and Regional Environmental Research (CGRER) Graduate Student Travel Award (2006).

Piotr Lewandowski
American Geophysical Union (AGU) Outstanding Student Paper Award for presentation at the 2005 Fall Meeting. “A new concept for calculating the height of planetary boundary layer from lidar returns using a spatial variance algorithm”


Kim, Y. and H. Lee.


University students and staff are shown in boldface type.


The national Engineers for a Sustainable World Conference brought 350 people to Iowa City from around the world to envision sustainability for the “developed” world and the “developing” world made possible through practical action and partnerships.

In addition to hosting the 2006 national ESW conference, the chapter pioneered and led the UI Green Campus Initiative and the UI Progressive Career Fair. The members have held various campus leadership positions including student body president. Members serve on the campus-wide Energy Conservation Advisory Council charged with reducing our $55 million dollar annual energy bill by $750,000 (As of 2006, $2,000,000 in savings have been obtained).

In partnership with the Iowa Department of Natural Resources and UI Facilities Management, the EPA P3 Sustainability Competition project, the P3 Exchange, won honorable mention at the awards ceremony in Washington, D.C., in May 2006. One of the members was showcased during a National Carbon Conference because he biked and took a train to the conference to reduce his greenhouse gas emissions.

Engineers for a Sustainable World has also participated in formulating curriculum for two courses: Sustainable Systems, and Design for the Developing World.
A team of senior Civil Engineering students chose to combine their extramural interests with the curriculum and are building a footbridge for a community in rural Peru. Their interest in providing assistance to those in the developing world, while fulfilling the senior-design project component of the curriculum has resulted in the challenge of designing and constructing a 15 meter span footbridge in Yavina, Peru.

Team members included Avery Bang, Sergio Awan, Ryan Wallace, Jenna Kusmierek and Tara Olds, all active members of the University of Iowa chapter of Engineers for a Sustainable World (ESW).

The group has teamed with Bridges to Prosperity, an organization that has helped facilitate site location and local logistics. Following the initial survey visit in November 2006, the team has begun designing the bridge that will be constructed entirely of timber and reinforcing steel tension rods, to be transported by donkey to the site.

The future bridge will service a school with 150 students as well as the local families, replacing the current crossing of two braided vine ropes. To learn more and to preview the initial site-survey trip video go to: http://continentalcrossings.org/
Environmental Engineering & Science Research Staff

Hashim Ali
Post Doctoral Scholar
Environmental Engineering & Science

Yi-Pin Lin
Post Doctoral Scholar
Environmental Engineering & Science

David Cwiertny
Post Doctoral Scholar
Environmental Engineering & Science

Karin Norstrom
Post Doctoral Scholar
IIHR- Hydrosience & Engineering

Collin Just
Research Assistant III
Civil & Environmental Engineering

Carolyn Persoon
Research Assistant II
IIHR- Hydrosience & Engineering

Environmental Science & Technology Journal Staff

Barbara Booth
Assistant Editor

Christie Pinter
Editorial Assistant

CEE Departmental Staff

Judy Holland
Secretary

Ginny Miller
Administrative Assistant

2006 Summary of Activities – 25
Visiting Scholars and Researchers

Jiyan Liu
Assistant Professor
Key Laboratory of Environmental Chemistry & Ecotoxicology
Chinese Academy of Sciences
Beijing, China

Baoliang Chen
Department of Environmental Science
Zhejiang University
Hangzhou, Zhejiang

Fereshteh Ghassemzadeh
Iran

Martin St. Clair
Associate Professor
Department of Chemistry
Coe College
Cedar Rapids, Iowa

Benoit Van Aken
Assistant Professor
Civil and Environmental Engineering
West Virginia University
Morgantown, West Virginia

Meral Dogan
Assistant Professor
Department of Geological Engineering
Hacettepe University
Ankara, Turkey

Instructors

Adjunct Faculty

Salam Rahmatalla
Center for Computer-Aided Design
University of Iowa

Practitioner Instructor

Jon Bailey
Shive Hattery, Inc.
Iowa City, Iowa

Craig Just
IIHR Hydroscience and Engineering
University of Iowa
Primary Faculty

Jasbir S. Arora
Professor
Structures, Mechanics & Materials

M. Asghar Bhatti
Professor
Structures, Mechanics & Materials

A. Allen Bradley
Professor
Hydraulic & Hydrologic Systems

George S. Constantinescu
Assistant Professor
Hydraulic & Hydrologic Systems

William E. Eichinger
Professor
Hydraulic & Hydrologic Systems

Robert Ettema
Professor
Hydraulic & Hydrologic Systems

Keri Hornbuckle
Associate Professor
Environmental Engineering & Science

Walter Illman
Associate Professor
Hydraulic & Hydrologic Systems

Witold Krajewski
Professor
Hydraulic & Hydrologic Systems

Tim Mattes
Assistant Professor
Environmental Engineering & Science

Hosin “David” Lee
Associate Professor
Transportation Infrastructure Systems
Secondary Faculty

Professors

Greg Carmichael
Chemical & Biochemical Engineering

David Forkenbrock
Public Policy Center

Peter Thorne
Preventive Medicine

You-Kuan Zhang
Geoscience

Associate Professors

Paul Hanley
Urban & Regional Planning

Frank Weirich
Geoscience

Anton Kruger
Electrical and Computer Engineering
Adjunct Professors

Konstantine Georgakakos
Hydrologic Research Center
San Diego, California

Tatsuaki Nakato
Research Engineer
IIHR Hydroscience & Engineering
University of Iowa

Adjunct Associate Professors

Lou Licht
Ecolotree, Inc.
Iowa City, Iowa

Marian Muste
Research Engineer
IIHR Hydroscience & Engineering

John Nestler
U.S. Army Corps of Engineers
Vicksburg, Mississippi
Adjunct Assistant Professors

Craig Just
Research Engineer
IIHR Hydroscience & Engineering
University of Iowa

Doug Schnoebelen
USGS
Iowa City, Iowa

Ken Lloyd
Senior Engineer
Water Plant
University of Iowa

Don Guckert
Director,
Facilities Management
University of Iowa

Salam Rahmatalla
Assistant Research Engineer
Center for Computer-Aided Design
University of Iowa

Marcela Politano
Associate Research Engineer
IIHR Hydroscience & Engineering
University of Iowa
Emeritus Faculty

Dan E. Branson

Forrest M. Holly

Harrison Kane

Subhash C. Jain

Wayne L. Paulson
Faculty Awards and Recognition

Jasbir Arora
• Distinguished Service Certificate, Structural Engineering Institute of the American Society of Civil Engineers

M. Asghar Bhatti
• Promoted to Professor

Keri Hornbuckle
• 2006 IAGLR Appreciation Award, International Association for Great Lakes Research

Jerald Schnoor
• Paper of the Year Award, Human and Ecological Risk Assessment
• Keynote Speaker, International Hazardous Waste Conference, Bangkok, Thailand
• Energy Conservation Award, Iowa Department

Tim Mattes
• 2006, Old Gold Summer Fellowship

Michelle Scherer
• UI Faculty Scholar

Colby Swan
• Promoted to Professor

Thanos Papanicolaou
• Obermann Center Research Award
• Keynote Speaker, 6th International Gravel-Bed River Conference, Vienna, Austria
Faculty Service Work
National and International

Patrick O’Shaughnessy
• Editorial Review Board member for the Journal of Occupational and Environmental Health
• Chair of the Health Effects Working Group of the American Association for Aerosol Research
• Chair of planning committee for day-long symposium on nanoparticles in the workplace held at American Industrial Hygiene Conference and Exposition annual conference, (May 2006)
• Search Committee Member for UI Associate Vice President for Research
• Campus Representative, American Society of Engineering Education (ASEE), (2000-present)
• American Association of Aerosol Research’s Health Effects Subcommittee, 1999-present Vice-Chair, 2005-06, Chair, (2006-07)
• Member of the Editorial Board for the Journal of Environmental and Occupational Health, (2004-present)

M. Asghar Bhatti
• Member, Structural Engineers Association of Eastern Iowa, (2000-present)

George Constantinescu
• Member, ASCE-EWRI Computational Hydraulics Technical Committee, (2005-present)
• Secretary, ASCE-EWRI Eco-hydraulics Technical Committee, (2006-present)
• Chair, ASCE-EWRI “Mass exchange processes around in-stream structures for habitat restoration” Task Committee, (2005-present)
• Member, IAHR Fluid Mechanics Committee (2005-present)

Robert Ettema
• Technical Program chair, IAHR Congress 2009, Vancouver

Allen Bradley
• Secretary, AGU Hydrology Section, (2004-2006)
• Member, Science Steering Group, Hydrologic Ensemble Prediction Experiment, (2004-present)
• Member, National Research Council (NRC) Committee on USGS River Science, (2004-2007)
• Member, National Research Council (NRC) Committee on USGS Water Resources Research, (2001-2007)
• Panel Member, NSF Carbon & Water Cycle Review Panel

Hosin “David” Lee
• Chairman, ASCE T&DI Highway Pavement Committee
• Editorial Board, ASCE Journal of Infrastructure System
• Technical Panel, “Quality Base Material Produced Using Full Depth Reclamation on Existing Asphalt Pavement Structure,” $1.27 Million from FHWA, South Dakota School of Mines and Technology.
• Member, ASCE Committee on Bituminous Materials
• Member, ASCE Committee on Infrastructure Management
• Member, ASCE Committee on Advanced Tech in Transportation
• Member ASTM Vehicle-Pavement Systems Committee
• TRB A2F09 Committee on Applications of Emerging Technology
• TRB A3C14 Committee on Polymer Concretes, Adhesives, and Sealers
Jasbir Arora
• Past-Chair, Executive Committee, Technica Activities Division, Structural Engineering Institute of the American Society of Civil Engineers, (2005 - 06)
• Member, Core Group, Local Steering Committee, Structures Congress 2006, SEI/ASCE, St. Louis, (2004-06)
• Member, Program Committee, 17th Analysis and Computation Conference, SEI/ASCE, St. Louis, (2004-06)
• Member, Awards Committee, Structural Engineering Institute of the American Society of Civil Engineers, (2005–2010)
• Member, Core Group of Steering Committee for 2006 Structures Congress, SEI/ASCE, St. Louis, (2004-06)
• Distinguished Lecturer, College of Engineering, Iowa State University, “Optimizations and Digital Human Modeling,” April 11, 2006

James Stoner
• Computer Image Society, Ground Vehicle Interest Group, Chair, (1993-1998)
• Transportation Research Board, A3BO8 Committee Member, (1995 – present)

Richard Valentine
• Member and Secretary, Executive Board of University of Iowa Chapter AAUP, (2004 to present)

Jacob Odgaard
• Member, International Scientific Advisory Committee for Hydroinformatics 2006, Nice, France, September 2006

Witold Krajewski
• Member of the Consortium of Universities for the Advancement of Hydrologic Sciences Sub-committee on Hydrologic Measurement Facility-Water Cycle (2006)
• National Center for Hydrologic Synthesis, University of California Berkeley, Chair of the Instrumentation Working Group (2005-2007). (Subsequently, the Center has not been established.)
• The University of Iowa Representative to the Consortium of Universities for the Advancement of Water Resources (CUAHSI) (2001-present)
• CUAHSI Committee on Hydrologic Measurement Technology Vice-Chair, (2001-present)

Thanos Papanicolaou
• Chair of the ASCE Sedimentation Committee, (2004-2006)
• Vice Chairman of a Sediment Transport Modeling Task Committee, Fluids Engineering Division, (2005-2007)
• Member ASEE
• Editor, ASCE Monograph on Dam Removal
• Member, International Bedload Monitoring & Development
• Member of the Soil and Water Conservation Society (SWCS)
• Member of the American Society for Engineering Education (ASEE)
• Member of the American Society of Civil Engineers (ASCE)
• Member of the American Geophysical Union (AGU)
• Member of the International Association for Hydraulic Research (IAHR)
• Member of the American Water Resources Association (AWRA)
• Member of the American Association for the Advancement of Science (AAAS)
• Member of the Greek Society of Civil Engineers
• Member of the Greek Engineering Chamber
• Member of the Society for Imaging Science and Technology
• Member in the Clear Creek Watershed Enhancement Board, (2005-present)
• Member of CGER for global/multidisciplinary efforts in the Midwest as of May, (2005-present)
• Member of the ASCE watershed council, (2004-2008)
Gene Parkin
• Editorial Board of Biogradation, (1997-present)
• Member, Johnson County (IA) Committee on Onsite Wastewater Systems on Lots of Less than One Acre, (1999-present)
• Panel Member, National Science Foundation proposal review (2006)

Jerry Schnoor
• National Academy of Engineering, member
• National Academy of Engineering, Section 4 Search Committee
• U.S. EPA, Science Advisory Board
• Co-Editor, Environmental Science & Technology Series, John Wiley & Sons
• Editor-in-Chief, Environmental Science and Technology

Local Community Service

Larry Weber
• Advisory Board Member, Western Dubuque High School, Project Lead the Way

Keri Hornbuckle
• Demonstration and presentation (with Grad Student Bill Wombacher) to Gary Rieck’s high school chemistry classes (One regular, two pre-AP, and two AP chemistry classes), “Synthetic Fragrances in the Natural Environment” Sept 25, 2006

Hosin Lee
• Member, Asphalt Pavement Focus Group, Iowa DOT
• Iowa Asphalt Paving Conference Committee

Robert Ettema
• Member, Iowa Highway Research Board

Thanos Papanicolaou
• Member of the Iowa Water Center Advisory Council, 2006

Allen Bradley
• Member, Iowa Comprehensive Stormwater Workgroup, (2004-present)
• Faculty Publications
Faculty Publications

Journal Articles


University students and staff are shown in boldface type.


Conference Papers


Claire, M., M. Scherer et al. (2006). “U(VI) reaction with green rusts.” In Preprints Extended Abstracts (Env. Chem. Division), American Chemical Society, 231st National Meeting, Atlanta, GA.


Books


Reviewed Chapters in Books and Edited Monographs


Thanos Papanicolaou. Committee on Modeling for the CLEANER project efforts. (2006-present). Woldt, W., Beck, Bruce, Kumar, P., Papanicolaou, A. “Advances in Watershed Modeling; State of the Art Machine Language Programs.”
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