

# TRANSITIONS

Civil Engineering Newsletter from Purdue

Volume 5, Issue 1 Spring/Summer 2000

## Purdue Celebrates First African-American Civil Engineering Graduate



**David Robert Lewis (1861-1929)**  
BSCE 1894

**R**ichard Lewis was one of the signers of a petition to allow "colored" children to attend public school in Greensburg, Indiana. Could he possibly have envisioned that he would have a son who would someday become Purdue University's first African American civil engineering graduate?

David Robert Lewis was born November 29, 1861, to Richard and Jennie Thompson Lewis. David, his two brothers and three sisters were raised in Greensburg, Indiana, in Decatur County. David, who was later known as D. Robert, was the second son of the family; although the Greensburg petition was signed before his birth, he went on to become the first black to graduate

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## PLANS UNVEILED FOR WORLD-CLASS LAB Excitement Builds For High-Performance, Large-Scale Testing Laboratory

**T**he project is so large Purdue University is opening a whole new west campus to contain it. The concept is so unique it will be unrivaled anywhere in the world. The disciplines it will encompass are so varied it redefines synergy. And it's happening at your School of Civil Engineering.

Conceptual plans are complete and fund raising begins this summer for a high-performance, large-scale testing laboratory the size of a football field that Civil Engineering would like to open in 2002.

### All Money Must Be Raised Privately

"It will be built and furnished entirely with private funds," says Vincent Drnevich, Head of the School of Civil Engineering. Even though the price tag for the building tops \$8 million and substantial sums will be needed for state-of-the-art equipment, interest is high. "The need for this facility couldn't be greater," Drnevich adds. "This building will put us on the map with peer institutions."

Changes in research are driving the demand, says Professor Julio Ramirez, who chairs CE's advisory committee for the project. "This facility will promote interdisciplinary research. We envision a close interaction between faculty from structural, construction, geotechnical, mechanical, electrical and civil engineering. As we move ahead in terms of the needs of our world's infrastructure, it's imperative to have this interaction."

"Civil Engineering has the vision and is now ready to share the dream," says Stuart Jones, Director of Development and Alumni Relations. "Traditionally our alumni and friends have always shared the School's vision. They have been generous in their financial support in the past, and we have every confidence that they will once again share the dream through their gifts."

### Alumni, Industry Endorse Project

Alumni, too, are already heralding the planned facility. Harold Force (BSCE'73, MSCE'74) of Columbus, Indiana's Force Construction Co. Inc. and an advisory council member stepped forward to prepare the conceptual design. "There's an increasing need to be able to validate on a full-scale or near full-scale the performance of certain structural systems or elements that

*continued on page 17*



**School Head steps down after nine successful years, see page 19**



## Civil Engineering Advisory Council

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ATC Associates

**Walter C. Bell**  
Union Railways Limited, UK

**Joseph Broyles**  
Indianapolis Water Company

**William F. Brumund**  
Golder Associates

**Christopher B. Burke**  
Christopher B. Burke Engineering

**Brian A. Erler**  
Sargent & Lundy Engineers

**Harold Force**  
Force Construction Company, Inc.

**Susan M. Frey**  
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**David S. Gedney**  
Fluor Daniel

**William H. Highter**  
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Moh and Associates, Inc.

**Alex D. Oak - Chair**  
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**Michael A. Pierle**  
Solutia Inc.

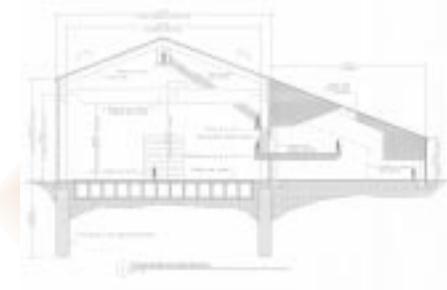
**Philip J. Stutes**  
John Chance & Associates

## FEATURES...

### Purdue Celebrates First African-American Civil Engineering Graduate



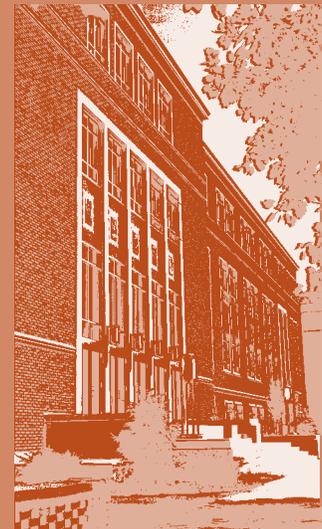
### Plans Unveiled For World-Class Lab



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## School of Civil Engineering

**Vincent P. Drnevich**  
Head

**James E. Alleman**  
Assistant Head

**V. James Meyers**  
Assistant Head

**Julio Ramirez**  
Assistant Head

### Area Heads:

**Daniel W. Halpin**  
Construction Engineering

**Chad T. Jafvert**  
Environmental & Hydraulic Engineering

**Adolph Altschaeffl**  
Geotechnical Engineering

**Jan Olek**  
Materials Engineering (Civil)

**Mark D. Bowman**  
Structural Engineering

**Edward M. Mikhail**  
Geomatics Engineering

**Kumares C. Sinha**  
Transportation and  
Infrastructure Systems Engineering





**Dr. Vincent P. Drnevich, P.E.  
Professor and Head  
School of Civil Engineering**

Dear Alumni and Friends,

**W**hen I came to Purdue University as Head of the School of Civil Engineering nine years ago, it was my game plan to give my best effort to this position for seven or eight years. Time went by very quickly and here I am completing my ninth year as Head of the School. In late January, I decided to step down from the position of Head, effective June 30, 2000. This turns out to be a good time to do so as the School of Civil Engineering is in a healthy condition. It is an opportune time for the next Head to take the School to new levels of greatness and excellence. (A faculty committee is in the process of conducting a national search for my successor.)

There is a temptation at a time like this to look back at the changes and accomplishments that occurred during my tenure as Head. I will not succumb to that temptation, but only say that thanks to the efforts of many faculty, staff, students, and alumni, the School has accomplished much. I would much rather focus on the challenges and opportunities that lie ahead. At the top of my list are people. We are blessed with exceptional faculty, students, and staff and we must continue to attract the best and brightest of these people in the future. However, renewed efforts are needed at recruiting for both undergraduate and

graduate programs because of increased competition from the seemingly more glamorous and high paying fields.

Next on my list are resources and facilities for continuing excellence in education, research, and service. The Schools of Engineering have a Master Plan for new facilities that has been endorsed by the University administration and the Board of Trustees. The keystone of the Master Plan is a new \$57M Millennium Building to be built just north of the Civil Engineering Building at the corner of Northwestern and Stadium. (Yes, the "temporary" WWII structures will finally be taken down.) As part of that plan, the School of Civil Engineering is in the advanced planning stages for a new Large-Scale, High-Performance Testing Laboratory to be built on the newly designated "West Campus" near the Purdue University Airport. See the article in this issue for more details. We also are planning for renovations of portions of the present Civil Engineering Building. Some of the space in the older wing has not been renovated since its construction in 1962 and we will have to renovate some of the space that we recapture when some units in our building move to the Millennium Building. Before leaving the position of School Head, I will be making an all-out effort to secure

funding for the Civil Engineering projects, as significant state funds for them will not be available.

My personal plans are to take a sabbatical leave for the fall semester at Carnegie Mellon University in Pittsburgh where I will try to get caught up on the backlog of research work. After that, I will "step up" to the position of a regular professor in the School of Civil Engineering at Purdue where I will spend more time in the classroom and working with students and my faculty colleagues. Roxanne and I will continue to be avid Boilermaker fans!

In closing, I wish to thank all of you for being so supportive of me and the School over these past nine years. Roxanne and I have made many new friendships that will endure forever. With the teaming relationship of our alumni, faculty, students, and staff, we will realize our vision of unrivaled impact on civil engineering worldwide.

Best regards,

A handwritten signature in black ink that reads "Vincent P. Drnevich". The signature is written in a cursive style.

Vince Drnevich

# FACULTY NEWS

The Delmar L. Bloem Award was bestowed upon **Professor Julio Ramirez** for his initiative and leadership of ACI Committee 445, Shear and Torsion, resulting in the publication of ACI-ASCE 445R: Recent Approaches to Shear Design of Structural Concrete. Formal announcement will be made during the awards breakfast at the Spring 2000 Convention in San Diego, California, at which Professor Ramirez will be a guest.

▶ **Professor Elisa Sotelino** and Professor Julio Ramirez participated in a US-Japan joint seminar sponsored by the National Science Foundation and the Japan Society for the Promotion of Science, and in a one-day workshop sponsored by the Japan Concrete Institute. The title of Professor Sotelino's lecture was "Modeling and Simulation of Concrete Materials." The seminar took place at the Lake Yamanaka, near Mount Fuji, from Oct. 27 through 29, 1999, and the workshop took place in Tokyo on Oct. 25, 1999.

▶ **Professor Dan Halpin** was notified that the Emerging Construction Technology web site has been recognized by the Web Marketing Association in the 1999 WebAward Web Site Competition. This indicates that the site is among an elite group and is probably one of the very few dealing with CE/Construction topics. The winners were announced on the Web Marketing Association web site on December 8, 1999 and through a press release with the sponsor, PR Newswire.

▶ Dean Richard Schwartz announced the following members of the Civil Engineering Head Search Advisory Committee. **Professor Mark Bowman** will chair the committee: **Professor Ernest Blatchley, Professor Steven Johnson, Professor Elisa Sotelino, Professor Jan Olek, Professor Ron Wukash, Professor Jon Fricker, Professor Kumares Sinha, and Dr. Robert Tener.**

▶ **Professor Ed Mikhail** was invited (and accepted) in October 1999, by the President of International Society for Photogrammetry and Remote Sensing, ISPRS as follows:

"On behalf of the ISPRS Council, it is my pleasure to invite you to be a member of our International Science Advisory Committee (ISAC). The ISAC is being formed as the senior advisory committee to the Council in determining and enhancing the scientific and technologic (S&T) directions and activities of the Society."

"The ISAC will be composed of distinguished scientists who have broad and deep knowledge in at least one of the fields of "the photogrammetry, remote sensing and spatial information sciences." Membership invitations are being extended to the four foremost scientists in each of these fields to compose a committee of 12 members. First Vice President Professor Shunji Murai will Chair the committee."

Professor Mikhail also received a Certificate of Recognition from the National Reconnaissance Office which states: "Edward Mikhail is hereby recognized with the Team Award for exceptional performance and outstanding contribution to the mission of the National Reconnaissance Office."

▶ In response to a photograph that appeared in a recent issue of the "Extrapolations," Purdue CE Alumni **Glenn Ross, Mike Schilling, and Jeff Schmitz** have successfully completed a fund raising project in Washington, D.C. in order to award a Purdue sweatshirt to **Professor Mete Sozen**.

▶ **Professor Ronald Wukash** was appointed a member of the Chemical Demilitarization Citizens' Advisory Committee by Governor Frank O'Bannon.

▶ **Professor Miroslaw Skibniewski** travelled to Hong Kong in late January 2000 to deliver a keynote paper at the International Conference on Construction Information Technology (INCITE 2000). The Conference was organized by the Hong Kong Polytechnic University, one of the leading Asian institutions of higher learning which has a formal strategic partnership agreement with Purdue. The presentation topic was related to Internet-based engineering project management systems and co-authored by M. Abduh, one of Professor Skibniewski's current Ph.D. students.

▶ **Professor W. Jason Weiss** was appointed to the Committee on Concrete Materials and Placement Techniques by the Transportation Research Board.

▶ **Professor Kumares C. Sinha** has been honored with the following presentations and will:

◆ deliver a keynote address at the 6th International Conference on Applications of Advanced Technologies in Transportation Engineering in Singapore in June 2000. His presentation is entitled "Can Technologies Cure Transportation Ills?"

◆ deliver another keynote address at the 2nd International Conference on Traffic and Transportation Studies in Beijing, China in July 2000, entitled "To Increase or Not to Increase Speed Limit: A Review of Safety and Other Issues."

◆ serve on a four-member panel to review the Institute of Transportation Studies of the University of California-Irvine.

◆ received the S. S. Steinberg Award for 2000 from the American Road and Transportation Builders Association for his contribution to transportation education.

◆ appointed by the Mayor of West Lafayette to serve as the Chairman of the West Lafayette Traffic Commission, replacing Professor Harold Michael.

◆ attended the World Congress of the Intelligent Transportation Society of America, Toronto, Canada, November 7-9, 2000.

Additionally, Professor Sinha and **Zongzhi Li** (Graduate Research Assistant) co-authored "Intelligent Transportation Systems" in the recently published McGraw-Hill Yearbook of Science and Technology 2000 (P. 222-226).



Prof. Kumares C. Sinha

## FACULTY AWARDS



Professor C. Douglas Sutton

**Ross Judson Buck Award**

**Harold Munson Outstanding Teacher Award**

**A.A. Potter Outstanding Teacher Award,  
Schools of Engineering**



Professor Timothy M. Whalen

**Roy E. and Myrna Wansik  
Teaching Award**



Professor Jan Olek

**Roy E. and Myrna Wansik  
Research Award**

## STAFF NEWS

**Rachel Jarratt** is the new library assistant for Indiana LTAP. Before coming to LTAP, she earned a Bachelor's degree in Elementary Education at Towson State University in Towson, Maryland. She met her husband, who is a Rossville, IN native, while attending college and after she finished school they moved to Indiana. She spent her first two years here at Purdue as a library assistant in Circulation Services and the Psychology Library. Then she went on to spend a year at International Students and Scholars as an immigration clerk. After giving birth to her second child in February 2000, she decided to work part-time, which led her to her current position with Civil Engineering.

**Stuart Jones** has accepted the position of Director of Development and Alumni Relations. A native of Lafayette, Stuart earned his BA degree from Purdue University in 1983 and an MA degree from Indianapolis in 1990. His development experience began in various not-for-profit organizations and carried over into Purdue University when he joined the staff at the Center for Career Opportunities as the Assistant Director in 1994. Stuart's responsibilities at Purdue have included working directly with thousands of students, alumni, and employers. He created various development initiatives at C.C.O. and successfully raised significant money for crucial program and equipment upgrades. Currently, Stuart resides in Brookston with his fiancée, Terri McCarty, and his two sons, Daniel and Derek.



**Bonnie Sondgeroth** has joined Construction Engineering and Management. She began working at Purdue in March of 1997 in the Engineering Library as a Billing Clerk. The last part of August 1998, she took a job in the Agricultural Business Office as an Account Clerk. She has been at her present job,



Secretary, Construction Engineering and Management, since November 29, 1999. She absolutely loves her new job working with the undergraduate students, faculty, staff and corporations. Bonnie's first few months have been filled with a whirlwind of activities and she really enjoys all the different aspects of her job and looks forward to all the things to come. She has been married to her husband Steve for 22 years. They live on a farm in Benton County and have four wonderful daughters, two of which are still at home (twins), and one sweet little granddaughter. Bonnie likes to do a lot of different things in her spare time, including crochet afghans, baby blankets, take walks, bake and teach aerobics. They also have a large garden that she and her husband tend to.

**Sharon K. Whitlock**, Assistant to the Head, School of Civil Engineering, was elected to serve as co-chair for the University Administrative Professional Staff Advisory Council (APSAC) for the 2000-2001 year. In 2001-2002 she will serve as chair of the committee.



APSAC was established in 1988 by President Beering to build a formal communication link between A/P staff and the central administration. A vice president provides a link with Purdue's central administration. APSAC is consulted by the University on many issues and is relied upon for assistance and involvement. It is comprised of 23 members who are representative of administrative and professional staff from all segments of the campus community, including the regional campuses.

APSAC's mission is to serve as, "a vehicle for leadership, innovative action, and stewardship." Its vision is, "APSAC will be viewed as a proactive, resourceful, and results-generating influence for positive change."

# AREA FEATURES

## Traffic Operations Lab One Of A Kind

**Y**ou know the 5 p.m. routine—snarled traffic, blaring horns, frayed nerves. So do Professor Kumares Sinha, Associate Professor Darcy Bullock and Assistant Professor Andrzej Tarko, who have launched Civil Engineering's new Traffic Operations Laboratory. While you might want to escape the frenzy, they invite it in to their workplace. But not without plans to improve traffic flow and teach others how to do the same.

Designed by Dr. Bullock, the research lab is the first of its kind in Indiana, dubbed by Dr. Sinha as a "major effort" and at the same time, "just the beginning." With funding from the Indiana Department of Transportation, U.S. Highway Administration, the civil engineering firm PBQD Co. and others, the lab is currently equipped for two major efforts:

1. Simulating traffic flow to develop self-tuning signal systems; and
2. Evaluating various instrumentation in a real-time setting.

What transportation faculty members learn from their research in both systems will be shared with today's Purdue students, in short courses for professionals, and with industry. "What we're learning will benefit the state and nation," Dr. Sinha says.

### Traffic Test Bed Simulates Nine Intersections

While management of isolated intersections has been achieved effectively for a couple of decades, "Today's challenge is operating a system," Dr. Bullock explains. His research simulates seven intersections in a traffic test bed that intermittently flashes its red lights, signaling activity. "It's a fairly complicated process, involving communications between signals, detection and sensors at the signals, and algorithms to move traffic," he explains.

Dr. Bullock compares the traffic signal system simulator to a flight simulator. "The flow is similar to air traffic control. The idea is to train people in the lab, then send them out to do the real thing." In his research, he asks, "How do we more effectively develop algorithms to create a system that could adjust itself?" He runs different patterns, gathering quantitative data. "Because systems are now high-maintenance, our goal is to get them to tweak themselves."



Video and signal status panels

### Real-Time System Evaluates Equipment

Across the room, the Traffic Operations Laboratory's second major area of research is a real-time system. Here, you can watch cars moving and stopping on the television screen, captured by four cameras mounted on stop lights at the busy campus intersection of Northwestern Avenue and Stadium Avenue in West Lafayette. "We bring traffic as it happens into the lab for research and management," says Dr. Bullock, who archives the patterns for study. "The fiberoptic linked indoor facility provides a controlled environment to evaluate equipment and train people on the technology. It's a safe, clean place to work, and it provides an orderly way of testing and evaluating equipment." Best of all, Dr. Bullock hopes it will lead to improved traffic signal system operation.

The next time you're caught in bumper-to-bumper traffic, blood pressure rising, think of Dr. Bullock and Dr. Sinha. They may not be breathing the fumes of some gas hog in front of them in a traffic jam, but they are hard at work in their lab, researching traffic solutions.

Just recently, Purdue University President Steven Beering approved Civil Engineering's request to rename the Transportation Lab, to the Harold L. Michael Traffic Operations Laboratory. This was done to honor the late professor and former head of Civil Engineering for forty years of teaching and research in Transportation Engineering at Purdue.



INDOT staff, vendors, and students participate in a test of a new detector



CE 565 laboratory session

# AREA FEATURES

## Seventeenth Annual Surveying and Mapping Educators' Conference

The XVII Surveying and Mapping Educators' Conference was held at Purdue University, West Lafayette, Indiana on July 10-14, 1999. The theme of the 1999 conference was "Teaching the Teacher." Topics of the several sessions included

- ◆ Challenges and progress on issues affecting surveying and mapping educators, including the role of research, program accreditation, professional registration, and program outcomes.
- ◆ Teaching methods and classroom experiences, including new course and laboratory developments, cooperative learning, and distance learning.
- ◆ Status and activities at several existing surveying and mapping programs.

A special conference workshop day was organized for Wednesday. The workshop presentations emphasized the conference theme, Teaching the Teacher. The morning workshop session acquainted attendees with principles of the world wide web and highlighted capabilities for web-based instruction and web-based distance learning. The afternoon workshop discussed student learning styles and demonstrated cooperative learning methods that can be used in the classroom.

Selected papers from the conference were published in a special edition of the American Congress on Surveying and Mapping

journal *Surveying and Land Information Systems* (SALIS). Interested persons should see the March 2000 issue of SALIS.

At the conference banquet on Tuesday evening, ACSM Presidential Citations were presented to Purdue Emeritus Professors John McEntyre and Kenneth Curtis. The citations recognized their contributions to surveying and mapping education and the establishment of the surveying degree program at Purdue. Dr. James Riley, president-elect of ACSM, presented the certificates and letters of commendation on behalf of ACSM.

In 1978, Professors McEntyre and Curtis founded the Lambda Sigma Honor Society at Purdue to recognize academic achievement of surveying students. On Tuesday evening, 15 attendees at the conference, representing surveying and mapping education programs and organizations throughout the United States, were initiated into the Purdue Lambda Sigma Society. We hope that this special initiation will be the catalyst to create Lambda Sigma chapters at several more surveying and mapping degree programs.

We wish to acknowledge the financial assistance contibuted by ASPRS, the Geospatial Information Society, by ISPLS, the Indiana Society of Professional Land Surveyors, and the local Tecumseh Chapter of ISPLS.



**First Row:** Francelina Neto, Tom Seybert, Frank Derby, Gary Jeffress, Steve Frank, Dennis Findorff, Keith Errington, Paul Wolf, Ed Mikhail, Boudewijn van Gelder, Herb Stoughton **Second Row:** Sayed Hashimi, Michael Sizer, Carol Morman, Chuck Ghilani, Jim Reilly, Earl Burkholder, Bill Mendenhall, Martin Paquette, Bruce Hicks, Steve Johnson, John McEntyre **Third Row:** Joshua Greenfeld, Hank Theiss, Dave Gibson, Art McLaughlin, Wesley Parks, Jim Elithorp, K. Jeyapalan, Jim Plasker, Dave Mezera, Dan Pusey, Ken Curtis, Jie Shan **Fourth Row:** Bob Schultz, Frank Hissong, Jim Crossfield, Jim Bethel, Fareed Nader, Jerry Taylor, Bill Hazelton

## AREA FEATURES

### 86th Purdue Road School Draws Record Crowd

What a way to start the millennium! A record 1,586 people attended the 86th Annual Purdue Road School in Stewart Center on Tuesday and Wednesday, March 21 and 22! The Opening Session, "Partnering: Issues and Answers," which also set a new attendance record this year, featured John Horsley, Executive Director of the American Association of State Highway and Transportation Officials in Washington, D.C., as well as the Indiana Department of Transportation's newly appointed Commissioner Cristine Klika (BS Purdue CE '78). Throughout the next two days, there were many topical sessions on a wide variety of subjects, all of them geared to keeping road and street officials current on techniques and technology issues, as well as offering them opportunities to polish their management skills and network with other transportation professionals. Many sessions had overflow crowds and the popularity of topics like "GIS as a Management Tool" and "Transportation 2000...Not Just Highways Anymore" told us that Road School participants want to see more new technology. At the same time, discussion of pertinent common issues proved to be very popular at the "Round Table" sessions for city and county officials on Wednesday.

This year's conference held special significance for INDOT Chief Engineer Don Lucas as it was his last official Road School before his retirement later this year. An enthusiastic crowd of 400 people paid tribute to Mr. Lucas at the Road School Luncheon on Wednesday. Mr. Firooz Zandi, INDOT's Acting Chief Engineer, contributed a very lighthearted assessment of Mr. Lucas' career contributions, which was followed by Mr. Lucas' personal reflections on his 40 years in transportation. Commissioner Klika paid tribute as well and, on behalf of Governor Frank O'Bannon, recognized Mr. Lucas as a Sagamore of the Wabash for his years of dedicated service to the citizens of Indiana.

Road School is coordinated by the Joint Transportation Research Program (JTRP) and the Local Technical Assistance Program (LTAP) at Purdue University and has been held at Purdue since 1914. The first conference of its kind in the nation, it is the largest outreach and extension activity of the School of Civil Engineering and has become a tradition among Indiana transportation professionals.



*INDOT Commissioner Cristine Klika (BSCE '78) and retiring INDOT Chief Engineer Don Lucas*



*Overflow crowds were the trend for this year's Road School*

# STUDENT FEATURES

## Environmental Engineering Team Reclaims National Title

Nineteen students from the School of Civil Engineering and one student from the School of Interdisciplinary Engineering at Purdue University are the Overall Winners of the Tenth Annual Design Contest held in Las Cruces, New Mexico from April 2- 6, 2000. Twenty-two universities were present at this year's competition. The Purdue students were divided into three teams. The teams competed in the following tasks:

- ◆ Jewelry Devestment Re-Use and Recycle  
Purdue won First Place (\$3500 prize)  
Six teams were entered in this task.
- ◆ Pipeline Waste Removal  
Purdue won First place (\$3500 prize)  
Five teams were entered in this task.
- ◆ Metal Recovery from an Open Pit Mine  
Purdue won Second place (\$1500 prize)  
Remarkably, seventeen teams were entered in this task.

The Purdue team was also named "OVERALL WINNER" of the contest by a panel of approximately 50 technical judges from various national laboratories, federal and international agencies,

and private corporations. This merits an additional \$2500. The total cash prize this year is \$11,000. Purdue will once again be in possession of the travelling trophy. This year's team recaptured the overall first place finish won by the 1999 Civil Engineering team.

The success of the teams would not have been possible without the technical expertise of many people. Dr. Changhe Xiao and the environmental engineering and hydraulics faculty interacted with the design team during the semester. Professor Chad Jafvert, Professor Dennis Lyn, Professor Menashi Cohen, and Professor Benito Marinas of the University of Illinois were especially helpful with their time and contributions to the students' success. Several practitioners (Purdue CE alumni) also read and reviewed the teams' design papers and presentations. Jennifer Fanson was the Teaching Assistant this year and did a terrific job. Mark McCormick was very helpful with the SEM studies. Don Fry was instrumental in developing corporate sponsorship and the team looks forward to working with Stuart Jones on this in the future. Nancy Elsworth has been an invaluable resource for the team, and the energy with which she attacks all the details is much appreciated! Finally, the team would like to acknowledge the financial support of Bowen Engineering, who sponsored the teams for both 1999 and 2000.

*"Thank you all again, for your support and encouragement,"  
Professor Inez Hua, Professor Larry Nies, Professor Ron Wukasch  
and the students of the 2000 Environmental Design Team.*



*Front Row: Phil "Greg" Pope, Alice Brassart, Marta Puckett, Megan Chikota, Constance Danner, Professor Inez Hua, Christina McMaken, Alicia Hightower, Joyce Atcheson, Christopher Cailles Second Row: Stephen Ernst, Marshawn Merriwether, Courtney Mickunas, Kimberly Cole, Tony Halsey, Jeremy Todd, Andy Lutz, John Dickerson Third Row: Trisha Wilson, Harmon Henderson, Professor Ron Wukasch, Anna Lyssandridou, Jennifer Fanson, Professor Larry Nies*

# STUDENT FEATURES

## Scholarships & Awards

### D.J. Angus Scien-tech Award

Ryan Clifford, Linton, IN

### Greeley and Hansen Elmer F. Ballotti Memorial Fellowship

Alan Chang, Honolulu, HI  
William Hahn, Bloomington, IN  
Jennifer Kwock, Honolulu, HI  
Shannyn Finch, Greenwood, IN

### John R. Blandford Memorial Award

Andrew Frisbie, Lafayette, IN

### Donald E. Bloodgood Memorial Award

Harmon Henderson, Goshen, IN  
Phillip Pope, West Lafayette, IN  
Kimberly Cole, New Castle, IN

### Roland S. Corning II Memorial Fellowship

Aaron Braun, Fort Wayne, IN

### Edward J. Cox Memorial Transportation Scholarship

Andrew Parker, Dover, DE

### Jacques W. Delleur Award

Yong-Kon Yi, Seoul, South Korea  
Bin Zhang, West Lafayette, IN

### Martin J. Gutzwiller Memorial Scholarship

Kara L. Elliott, Frankfort, IN  
Jeremy Gries, Indianapolis, IN  
Thomas Pace, Owensboro, KY

### Albert J. Horth, CE 1915 Memorial Scholarship

Matthew Watts, Louisville, KY  
Daniel Falda, Griffith, IN  
Andrew Saksa, Westerville, OH  
Brent Hungerford, West Des Moines, IA  
Courtney Lehman, Osceola, IN  
Scott Richmond, South Bend, IN  
Adam Marolf, Clinton, MI  
Jeffrey Schaffer, Elkhart, IN  
Stephen Ernst, Franklin, IN  
Josiah Offord, Byron, MN  
Kristin Kalitowski, Vernon Hills, IL  
Mark Teeter, Decatur, IN  
Jonathan Hoeltke, Indianapolis, IN  
Troy Larkins, Munster, IN

### Matthew Edward Kern Environmental Engineering Scholarship/Fellowship

Laura N. Gajdos, Fort Wayne, IN  
Amanda Askren, Fishers, IN

### Edna C. and William Y.H. Ling CE Scholarship

Kara L. Elliott, Frankfort, IN  
Jeremy Gries, Indianapolis, IN  
Andrew Doane, Saginaw, MI  
Yuk-Wai Ng, Hong Kong  
Mike Appelhans, Gary, IN  
Allen DeSchepper, Bremen, IN  
Douglas Colbert, Houston, TX  
Jennifer Ridd, Springboro, OH

### Estus H. And Vashti L. Magoon Outstanding Teaching Assistant Award

Ibrahim Aly, Egypt  
T.P. "Jack" Chan, Hong Kong  
Kenneth J. Mercer, Franklin, MA  
Thomas G. Pace, Owensboro, KY  
Eric J. Pagoria, Richton Park, IL  
Vandana Patidar, Bhillapi, India

### John G. McEntyre Endowment Scholarship

Justin Frazier, Greensfork, IN

### Robert D. and Margaret J. Miles CE Scholarship

Elizabeth Campagna, Omaha, NE  
Brent Byford, Scipio, IN  
Steven Cline, Chesterfield, MD  
David Mehl, Lexington, KY

### Nellie Munson Outstanding Teaching Award

T.P. "Jack" Chan, Hong Kong  
Sergio Lugo Serrato, Torreon Coahuila, Mexico

### Harold E. Rein Society of American Military Engineers Scholarship

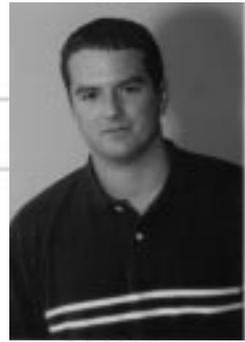
Tara Opielowski, Poway, CA  
Sean Renbarger, Cleves, OH

### Martha Dick Stevens Award

Paola Bandini, Ciudad Bolivar, Venezuela



Civil Engineering Scholarship  
Joshua Horning



Angus Scien-tech Award  
Ryan Clifford



Jacques W. Delleur Award  
Yong-Kon Yi, Bin Zhang



Ling CE Scholarship  
Jeremy Gries, Kara Elliott,  
Allen DeSchepper, Andrew Doane

### Myrtle Ford Tompt Award

Kara L. Elliott, Frankfort, IN  
Andrew Doane, Saginaw, MI  
Jeremy Gries, Indianapolis, IN  
Mike Appelhans, Gary, IN

### Gerrit H. Toebes Memorial Award

Bin Zhang, West Lafayette, IN

### Roy E. and Myrna Wansik CE/Cary Quadrangle Scholarship

Roger Radabaugh, Wabash, IN

### William L. Wood, Jr. Fellowship

Andre Haynes, Chicago, IL  
Steve Graves, Peru, IN

### Pai Tao Yeh Scholarship

Ahmad Samir Abdel-Waheb, Abu Dhabi, United Arab Emirates  
Vincent Sovis, Dubai, United Arab Emirates  
Camilo Garcia, Bogota, Columbia  
Ngiseli Diagne, Silver Springs, MD

### Eldon J. Yoder Memorial Award

Sara J. Leitner, Rochester, IN  
Raghubhushan K. Pasupathy, Allston, MA



Martha Dick Stevens Award  
Paola Bandini



**Ballotti Memorial Fellowship**

Joe Teusch, Shannyn Finch,  
Bill Hahn, Alan Chang, Jennifer Kwock



**Blandford Memorial Award**

Andrew Frisbie



**Bloodgood Memorial Award**

Kim Cole, Phillip Pope



**Kern Environmental Engineering  
Scholarship/Fellowship**

Amanda Askren, Laura Gajdos



**Gutzwiller Memorial Scholarship**

Thomas Pace, Kara Elliott, Jeremy Gries



**Corning Memorial Fellowship**

Aaron Braun



**Horth, CE 1915 Memorial Scholarship**

Steve Ernst, Jeff Schaffer, Troy Larkins,  
Kristin Kalitowski, Dan Falda, Andrew Saksu,  
Josiah Offord, Brent Hungerford



**Magoon Outstanding Teaching  
Assistant Award**

Jack Chan, Eric Pagoria, Ken Mercer, Thomas Pace



**Munson Outstanding Teaching Award**

Jack Chan, Sergio Serrato



**Pai Tao Yeh Scholarship**

Dr. Yeh, Camilo Garcia, Vincent Soris



**Myrtle Ford Tompt Award**

Jeremy Gries, Kara Elliott, Andrew Doane



**Miles CE Scholarship**

Elizabeth Campagna, Brent Byford, Robert Miles



**Eldon J. Yoder Memorial Award**

Sara Leitner, Raghubhushan Posupathy



**William L. Wood, Jr. Fellowship**

Terry Wood, Steve Graves, Christine Wood,  
Andre Haynes



**Wansik CE/Cary Quadrangle  
Scholarship**

Roger Radabaugh

**Land Surveying Awards**

**Central Indiana Chapter (ISPLS) Scholarship**

Jessica Stapleton, Anderson, IN

**Margaret Cunningham Memorial Scholarship**

Erin Darlage, Brownstown, IN

**Faculty Recognition Award**

Erica Pugh, Farmland, IN

**John G. McEntyre Endowment Scholarship**

Justin Frazier, Greens Fork, IN

**Outstanding Senior**

Dennis Mazur, Gloversville, NY

**Jud and Betty Rouch Land Surveying Scholarship**

Alan C. Smaka, Mitchell, IN

# ALUMNI FEATURES

## Civil Engineering Alumni Achievement Awardees Honored

### ◆ **David R. Bowman, PE (BSCE'65, MSCE'70)** **President, BBC&M Engineering, Inc., Dublin, OH**

BBC&M Engineering, Inc. has grown immensely under the leadership of Mr. David R. Bowman, with offices in Cincinnati and Cleveland, Ohio as well as Columbus. New headquarters were constructed in 1992 and additional services have been added such as Environmental, Drilling, Loose Bulk Material Testing and Water Resources. The firm carries on the excellence in engineering fostered by the original partners and has the reputation as one of the leaders in geotechnical engineering in Ohio.

Mr. Bowman's lifelong love of civil engineering consulting began in 1963, when, as a newly married student completing his civil engineering degree at Purdue, he took a job as a draftsman at a small consulting engineering company in Lafayette. This first job in the consulting field fueled his passion for civil engineering consulting.

During the 1970's, Mr. Bowman worked on a variety of interesting projects including the widening of two sections of the West Virginia Turnpike, design recommendations for several earth dams, as well as the corporate headquarters campus for The Limited. The early 1980's marked a boom in the construction of large high-rise buildings in Columbus and Mr. Bowman performed the geotechnical engineering for the 37-story Huntington Bank building and 26-story One Columbus building.

Mr. Bowman is a registered engineer in Ohio and Indiana and is a registered surveyor in Indiana. He has been active in the ASCE and is past president of the Central Ohio Section, The Ohio Council of Sections and District 9. He is a member of the ASCE Committee on Transmission Structure Foundation Standards and is past president of the Columbus Consulting Engineers Association.

### ◆ **Joseph C. Corradino, PE (MSCE'66)** **Chief Executive Officer, The Corradino Group, Louisville, OH**

Mr. Corradino is the founder and chief executive officer of The Corradino Group, a national civil engineering and planning practice based in Louisville, Kentucky. Established in 1970, the firm is recognized as one of the largest professional transportation engineering consulting companies in the Midwest.

He graduated from Villanova University in 1965 with a bachelor's degree in civil engineering, finishing second in his graduating class, and was a Rhodes Scholar candidate. Mr. Corradino then attended Purdue University on a National Science Foundation Fellowship, majoring in urban planning and engineering, and received his master's degree in 1966.

The Corradino Group is widely known and respected for its management of several of the nation's best engineering and urban transportation planning projects. Among the best known of the firm's major projects are the rail systems in Los Angeles and Miami. The firm is currently the project manager for the \$700 million expansion and improvement project of the Louisville International Airport, which has been often cited as one of the best-planned and managed aviation projects in the nation and one of the greatest economic success stories in the history of Kentucky.

Mr. Corradino is a member of Chi Epsilon and Tau Beta Pi and is listed in Who's Who in America.

### ◆ **Rosser B. Edwards (BSCE'60, MSCE'62)** **Chief Executive Officer, Webcor Builders, San Mateo, CA**

After graduating and receiving his BSCE in 1960 and his MSCE in Construction Management and Structures in 1962, both from Purdue University, Ross moved to Los Angeles, California, where he worked for Peter Kiewit Sons Company.

In January of 1971 Ross and David Boyd (BSCE 1960), along with Miller Ream and Bill Wilson, formed Webcor Builders. Webcor has consistently been in the top 9 have constructed many commercial projects using ideas and innovative thinking developed at Purdue.

Webcor recruits actively at Purdue for civil engineers and construction management graduates. On a recent trip, Ross was privileged to be guest lecturer to a class and discussed construction problems and solutions. As Ross now works part-time at Webcor, he is teaching a series of classes for management staff called the "Founders' Series." Purdue gets plenty of credit for the foundation of knowledge that is taught in these classes.



*Left to right: Steve Weintraut, Bill Kriesel, Lou Gurthet, John Lowney, Joe Corradino, Ross Edwards, David Bowman*

### ◆ **H. Louis Gurthet, PE (BSCE'61)** **President, American Institute of Steel Construction, Chicago, IL**

Louis Gurthet is President of the American Institute of Steel Construction, Inc. (AISC). AISC, founded in 1921, is a technical institute and trade organization responsible for providing the specifications for the design of steel structures referenced by code bodies throughout the United States. These specifications are utilized by engineers for the design and construction of steel framed buildings.

After graduating in 1961 from Purdue University and following two years as an officer in the U.S. Army, Mr. Gurthet entered the steel construction industry. Utilizing his engineering training, he developed extensive steel construction experience in all facets of the industry. He had the unique opportunity of holding the position of vice president in both operations and sales with the structural steel fabricating firm of Haven-Busch in Grand Rapids, Michigan.

In 1980 he became president of Zalk Josephs Fabricators, Inc., a Madison, Wisconsin structural steel fabrication firm. He developed Zalk Josephs Fabricators into a leading steel construction firm providing industrial and high-rise construction throughout the Midwest specializing in complex projects.

In 1996, after a successful career in private industry, Mr. Gurthet accepted the position of president of AISC in Chicago, Illinois. This career change was motivated by the challenge of adapting AISC to the age of information and technology and to assist the industry in capturing increased market share by advancing the use of structural steel.

Mr. Gurthet is a registered professional engineer in the states of Wisconsin and Michigan and a member of ASCE and NSPE.

### ◆ **William G. Kriesel, PE (BSCE'61, MSCE'65)** **Chairman of the Board, Precast Specialties, Inc., Monroeville, IN**

After serving two years in the United States Army, including duty in Korea, Bill Kriesel entered Purdue University on the G.I. Bill. Upon graduation from Purdue, Mr. Kriesel was employed by Martin Marietta Corp. at its Lafayette, Indiana, facility as a prestressed concrete bridge designer. At the insistence of Professor Martin Gutzwiller, he entered graduate school while working full time in the prestressed concrete industry and received his master's degree in 1965. Since this was a new industry in the early 1960's, Mr. Kriesel was involved in many unique and innovative projects.

In 1969 Mr. Kriesel founded Contech Architects & Engineers, a consulting firm specializing in the design of precast, prestressed concrete buildings and bridges. Contech designed the first all-precast parking garage in Indiana for Ball State University in 1970. It was during this time that Mr. Kriesel, a professional member of the Prestressed Concrete Institute, served on the Institute's prestigious Technical Activities Committee. He was co-founder and president of the PCI Central Region and served on PCI's Board of Directors.

# CIVIL ENGINEERING'S DISTINGUISHED ENGINEERING ALUMNI

In 1978 Mr. Kriesel returned to the precast concrete industry as President of Masolite Concrete Products, Inc. In 1986 he became Chairman of the Board and majority shareholder of Masolite. During his tenure, Masolite fabricated and erected many significant structures throughout the Midwest, including the award-winning Purdue Memorial Union Parking Garage.

Mr. Kriesel is currently Chairman of the Board and Vice President of Engineering for Precast Specialties, Inc., while being "semi-retired."

He is a life member of ASCE, a member of ACI and is a registered engineer in four states. He is a past president of the Northeast Indiana Building Contractors Association. Mr. Kriesel is an active Purdue alum. He served as President of the Alumni Foundation and was a recipient of the Distinguished Service Award from the John Purdue Club in 1992.

## ♦ **John V. Lowney, PE (MSCE'61)**

### **President, Lowney Associates, Mountain View, CA**

John V. Lowney is President of Lowney Associates, a geotechnical and environmental engineering consulting firm founded in 1969. The firm is ranked first in business performance of all U.S. environmental consulting firms in the 1999 survey conducted by Environmental Financial Consulting Group, an independent New York firm.

Mr. Lowney completed his BSCE in 1959 from Manhattan College. He obtained his MSCE from Purdue University in 1961, specializing in geotechnical engineering. Upon graduation, he worked for four years for Mueser Rutledge Consulting Engineers in New York followed by a year with the U.S. Army Corps of Engineers in Kansas City, working on large earth dams. Mr. Lowney then worked for a small consulting firm in Las Vegas, which had a contract at the Nevada Test Site. In 1967, Mr. Lowney joined Wahler Associates in California and worked on the engineering aspects of several earth dams in California and Peru, as well as commercial developments.

In 1969 Mr. Lowney started his own firm and served as senior project manager on numerous geotechnical investigations. He directs the firm's services to many public and private clients.

In 1988 Mr. Lowney served on a California Select Review Board to examine the qualifications of practicing geotechnical engineers for licensure under the new California registration law for geotechnical engineers. He is licensed to practice engineering in seven states.

## ♦ **Stephen F. Weintraut, PE (BSCE'71)**

### **Executive Vice President, Butler, Fairman & Seufert, Inc., Indianapolis, IN**

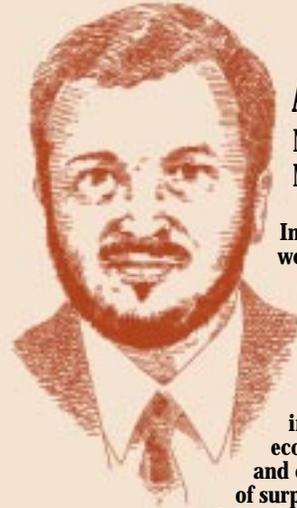
Steve Weintraut has never been content to "design by the book" but enjoys the challenge of finding a new or better way of doing things.

Although jointless integral end bent bridges are now required in new bridge construction in Indiana, he designed and oversaw the construction of the first such bridges in the State. He later worked with INDOT to develop the details which are now the established standard. He developed and refined the concept of debonding strands in prestressed bridge members. After being asked to redesign nearly 70% of the bridges being planned in Indiana at the time, INDOT issued a directive that future concrete bridge girders be designed using this method.

A major project for Mr. Weintraut was the renovation of the "G" Street Bridge in Richmond, Indiana. His report from this project, "Bridge Condition Design Study Report" was awarded the Consulting Engineers of Indiana Grand Project award. This marked the beginning of Mr. Weintraut's involvement in the evaluation and, consequently, the saving of many historically significant bridges in Indiana.

Mr. Weintraut currently works with INDOT to review their structures design manual. He also serves as chairman of two ASCE committees in order to facilitate the exchange of information between engineering consultants and INDOT. While serving as Chairman of the Joint Society Governmental Affairs Committee, he spearheaded the effort to secure a grant which allowed the establishment of the Quality Based Selection Program. His awards are numerous, including being recognized the state's Young Engineer of the Year in 1971.

Since 1996 Mr. Weintraut has been a Principal of Butler, Fairman & Seufert, Inc. and now serves as their Executive Vice President. He is active in many professional organizations and committees and has published several papers.



## **Antonio Horvath-Kiss**

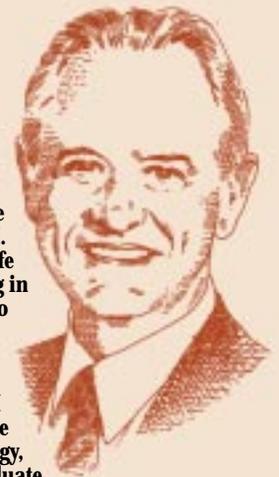
**National Senator, Republic of Chile,  
MSCE '84**

**In school, I imagined my career would be involved in attractive projects with significant social results and in areas of difficult access, or where human settlement could be made possible. This problem would have important environmental, economic, and aesthetic aspects and challenges. I was in for a lot of surprises. When I came back to Chile, I had problems with some of the authorities of the Public Works Ministry. They relocated me from the place I lived in the Patagonia (a place of pure nature with many challenges) to Santiago against my wishes. I designed my own way to return. Engineers work around different ways and means in order to define perspectives and attain their goals. Purdue taught me that.**

## **Eivald M. Q. Røren**

**Senior Vice President, Det Norske Veritas  
MSCE '61, PhD '64**

**The idea of attending Purdue originally came from IBM. Mrs. Thomas Watson [the wife of IBM's founder] was living in New York, and my aunt attended to Mrs. Watson for many years. The Watson family had high regard for Purdue, and so Purdue was strongly recommended to me. I received my first degree from the Norwegian Institute of Technology, but I spent two undergraduate semesters as an exchange student at Purdue in 1956-57. Then I came to Purdue for my graduate degrees in 1960. Purdue was a new experience, very unlike the education I had in Norway. Norway has a much freer educational system, with only one exam per course at the end of the semester, plus project work during semesters. Attending classes was not mandatory. American universities require frequent quizzes and thus mandatory class presence. You needed to be on your toes every day—just like high school.**



## Fifties

### **Richard P. Knight (BSCE'54)**

Barnstable, MA—Mr. Knight says that his “full time” civil engineering project is the design and construction of a very large model railroad using the Elmira (N.Y.) branch of the Pennsylvania Railroad as a prototype. He anticipates the layout will completely fill their 58-foot long basement.... “If I live that long!”

### **James S. Pierce (BSCE'57, MSCE'61)**

Littleton, CO—A member of the Leadership Team for the Technical Service Center of the U.S. Bureau of Reclamation in Denver, and chairman of the ASTM Board of Directors, Mr. Pierce received the Katharine and Bryant Mather Award from ASTM Committee C-9 on Concrete and Concrete Aggregates. The award was established in 1993 by Committee C-9 to recognize member Bryant Mather's leadership, dedication, determination and technical knowledge, in honor of his late wife, Katharine. As a member of the C-9 executive subcommittee, Pierce was cited for exceptional enhancement of the status of concrete technology as a discipline. After graduation, Pierce started his professional career with the New York State Department of Transportation. Subsequently, he worked for the Bureau of Reclamation, then moved to Martin Marietta Cement, and returned to work at the Bureau of Reclamation in 1976. In his current position, he is manager with direct responsibilities for Water Resource Services.

## Sixties

### **Peter Bergman (MSCE'61)**

Columbus, IN—former head geotechnical engineer of ATEC Associates, Inc. died March 28, 2000. Pete started at American Testing and Engineering Corporation (later named ATEC) right after graduating from Purdue (within the crucible of Gerry Leonards) with a Masters in Soil Mechanics in 1961. He was the first engineer that Gerry Mann hired, and was responsible for much of the success of ATEC over the next 35+ years, including its rise to the 25th largest environmental consulting firm in the United States in the early 1990s. The structural skyline of Indianapolis was built and is now literally “resting on” Pete's engineering genius. He has left a lasting legacy of great engineering projects not only in Indiana, but throughout

the Midwest and beyond. For many of those who had the wonderful opportunity in the early days of our geotechnical careers to learn from this somewhat reserved Norwegian, Pete passed on invaluable knowledge and experience, with a keen eye for what was important and what was not. He became a well-respected expert at geotechnical loss prevention and literally taught thousands of others the value of well-written contracts and reports, well-defined scopes of work, and good client communication.

### **James G. Haunty, (BSCE'65)**

Columbus, OH—Mr. Haunty has been named to a management position as American Electric Power (NYSE: AEP) and Central and South West Corp. (NYSE: CSR) continue to build the company to be created upon completion of their pending merger. Haunty, AEP's director/transmission systems engineering, will serve as vice president/transmission capital improvements in the new organization. He joined the AEP in 1969.

## Seventies

### **Donald D. Gray, Ph.D. (PhD'74)**

Morgantown, WV—Dr. Gray received his Ph.D. from the School of Civil Engineering in 1974 and was an Assistant professor from 1976 to 1983. He is now an Associate Professor and Group Coordinator for Environmental and Hydrotechnical Engineering at West Virginia University in Morgantown, West Virginia. He has written a new book, “*A First Course in Fluid Mechanics for Civil Engineers*”, which has just been published by Water Resources Publications, LLC. Information about the book is available at <http://www.wrpllc.com/fcfm.html>.

### **David Dunavant (MSCE'75)**

Chesterfield, MO—A former Assistant Professor of Structural Engineering here at Purdue from 1981-1985, David is Senior Staff Engineer for Engineered Support Systems Inc./Systems & Electronics, Inc. in Saint Louis. He was involved with a small start-up software company from 1985-1991 that was sold to the MacNeal-Schwendler Corporation (MSC). He has been in his current position since 1998. He specializes in the field of finite element analysis (FEA). David sends his best regards to former colleagues and students.

### **Chenchayya T. Bathala, P.E., (Ph.D. '76)**

Long Beach, CA—Chenchayya has joined Moffatt and Nichol Engineers, a California-based multi-disciplinary engineering and planning firm, as Principal Engineer responsible for directing the firm's water resources projects throughout its west coast offices. He has more than 25 years of experience specializing in water resources and flood control projects; and drainage design for highways, bridges and ports. Formerly, he served as Chief Drainage Engineer for the \$3 billion Orange County Toll Road projects during their preliminary engineering design. He is a Fellow of the American Society of Civil Engineers (ASCE), and he has served as President of the Orange County Branch, Los Angeles Section during 1996-1997. He is a registered civil engineer in the states of California, New Mexico and Indiana, and a professional hydrologist. He lives with his wife Sarojini and daughter Rama in Irvine, California.

### **Gary R. Kent, L.S. (CE Advisory Council, BSLSE'76)**

Indianapolis, IN—Gary was recently elected President-Elect of the American Congress on Surveying Mapping, a 7,000-member national organization which represents the surveying and mapping communities. He will serve as president in 2001. He currently is employed by The Schneider Corporation in Indianapolis.

### **Steve Verseman (BSCE'77)**

Fishers, IN—Steve has revised his career and is now at Beam, Longest and Neff, LLC, in Indianapolis.

### **Robert B. Brown, Jr. (BSCE'79)**

Orlando, FL—Robert has been promoted to Senior Construction Manager for Walt Disney Imagineering. The company recently completed the renovation to “Mousegears,” the largest retail project inside the parks at Walt Disney World. He is presently in charge of the icons (60' tall bowling pins, etc.) for Disney's Pop Century resort, a 2,880-room project at Disney World.

### **John Mundell (BSCE'79, MSCE'80)**

President, Mundell & Associates, Inc., said of Mr. Bergman: "He was the epitomy of 'an engineer's engineer', demonstrating that true business success results only from consistently delivering high quality technical work to demanding clients. I am truly grateful for having known and worked with Pete, and would suggest that if the School of Civil Engineering at Purdue ever wants to honor one of its own all-time great 'Practicioners', I can think of no greater model to set before us than Pete Bergman."

### **Tina Lott Walker, P.E. (BSCE'79, MSCE'80)**

Lufkin, TX—Tina is working for the Lufkin District of the Texas Department of Transportation. In February, their district engineer designated a project office to address the development of the IH 69 corridor through the district. There are two people managing four large consultant contracts (fees in excess of \$15 million) for schematic development on 66 miles of US 59. They will begin their first PS&E project after the first of the year for the US 59 Relief Route at Diboll. Their district has 130 miles of US 59 which will be upgraded, both on existing facility and on new location in some areas, to the interstate. They are tremendously out in front of the rest of the state (950 miles of IH 69... everything's bigger in Texas) because these projects were begun several years prior to TEA 21, but with the vision that these relief routes would be designed such that 'when and if' Interstate 69 were ever designated, all that would have to be done would be to post a few new signs.

## **Eighties**

### **Derek Earle (BSCE '83)**

Scottsdale, AZ—Derek is currently residing in Scottsdale, Arizona with his wife Cheryl (BSEE '82) and two children, Addison (age 5) and Lyndsie (age 4). He was recently promoted to Vice President of Land Development for Coventry Homes, a division of Del Webb Corporation and is involved in the acquisition and development of new residential properties for the company.

### **Richard Zielinski (BSCE'86)**

Fishers, IN—Richard recently left consulting in the transportation industry to take a sales engineering position with BridgeTek. BridgeTek is the supplier of the "ConSpan" three-sided concrete arch structures.

### **Douglas E. Noble (BSCE'88)**

Vienna, VA—Douglas was recently promoted to Senior Transportation Planning Engineer with the Washington, D.C. office of Parsons Transportation Group (formerly De Leuw, Cather). He earned an MSE in Civil Engineering from the University of Texas at Austin in 1994. Doug received his P.E. registration in Virginia in 1997 and recently received Professional Traffic Operations Engineer certification. He married Laura Washburn on November 8, 1998."

### **Stephen R. Williams (BSCE'88)**

South Bend, IN—Stephen serves as an Estimator/Project Manager for Reinke Construction Corporation. He, wife Connie, and 2-year-old son Nathaniel, are anxiously awaiting the newest arrival for their family in April 2000.

## **Nineties**

### **Matthew L. Metcalf, EIT, BSCE'94**

Kansas City, MO—The Larkin Group, Inc., a consulting engineering firm headquartered in Kansas City, MO, recently hired Matthew as a design engineer in its transportation group. During college, Matthew interned with HNTB, Inc., in its transportation planning department. Upon graduation from Purdue, Matthew received a commission in the United States Navy. He served for two years aboard the USS Curtts (FFG 38), forward deployed to Yokosuka, Japan, and one year on the USS Cleveland (LPD 7), homeported in San Diego, Ca. Matthew received numerous awards and honors, including the Navy and Marine Corps Commendation Medal and the Armed Forces Expeditionary Medal for service in the Persian Gulf.

### **Adam J. Koontz (BSCE'95)**

Bloomington, IN—Adam left his position of Project Engineer with INDoT to join Rogers Group, Inc., a Nashville, Tennessee-based highway contractor and crushed stone producer. He will be working out of Bloomington in the Construction Division. Adam's first project is to oversee reconstruction of S.R. 46 in Ellettsville.

### **Yassir Abdelrazig (PhD'99)**

Tallahassee, FL—Yassir has accepted an Assistant Professor position with Florida A&M-Florida State University's Department of Civil Engineering.

# **IN MEMORIAM**

## **1920's**

Frederick L. Ashbaucher, BSCE'28 - Indianapolis, IN  
Clyde T. Gallinger, BSCE'26 - Weslaco, TX  
Rear Adm. Harold J. Seaborg, BSCE'29 - Edmonds, WA  
Karl J. Zinkan, BSCE'28 - Indianapolis, IN

## **1930's**

Howard J. Hansen, BSCE'30 - Woodridge, IL  
Robert W. Heider, BSCE'35 - Indianapolis, IN  
Walter M. Jackson, BSCE'39 - Lakeland, FL  
Col. Frank P. McDowell, BSCE'37 - Dublin, OH  
Malcolm M. Porter, BSCE'30 - Indianapolis, IN  
Merce J. Shelton, BSCE'30 - Big Bear Lake, CA  
Kenneth J. Silvey, BSCE'30 - Indianapolis, IN  
Vinson S. Snowberger, BSCE'34 - Carmel, IN  
Frederick W. Winter, Sr., BSCE'39 - Wilmette, IL  
Robert H. Yeo, BSCE'35 - Muncie, IN

## **1940's**

Russell S. Shifley, BSCE'48 - Louisville, KY

## **1950's**

William B. Abbott, BSCE'52 - Mooresville, IN  
Peter Bergman, BSCE'59, MSCE'61 - Columbus, IN  
Paul M. Grindel, Sr., BSCE'58 - Grand Rapids, MI  
James R. Tretter, BSCE'50 - Petersburg, IN

## **1980's**

Dr. Fritz C. Leonhardt, HDR'80 - Stuttgart, Germany

## **1990's**

Julie E. DePhillips, BSCE'98 - Chicago, IL

## **Friends**

Earl A. Blakley - Indianapolis, IN  
Briant Edwards - Melvindale, MI  
Orville L. Hartman - Denver, CO  
John W. Hawkins - West Lafayette, IN  
Bohn B. Ice - Mount Summit, IN  
Byron R. Myers - Akron, OH  
James E. Pfrommer - Santa Monica, CA  
William E. Poston - Springfield, IL  
Jospeh X. Seckinger - Clarksville, IN  
James V. Towle - Kent, WA  
Charles D. Wagner - Pikeville, TN  
Stanley A. Wright - Sarasota, FL

## David Robert Lewis

*continued from front page*

from Greensburg High School. We do not know what path his life took following high school, but we do know that it eventually led to Purdue University, where he registered in 1886 at the age of 25. Sadly, his father did not live to see this day, but we can be sure his efforts played an important part in the shaping of his son's future.

While attending Purdue, D. Robert Lewis participated in the Carlyle Society. Carlyle was one of five literary organizations at Purdue during the 1880's and 90's. These organizations presented entertainment to the public endeavoring to show what they had accomplished in literary training within their society. They would present a program consisting of declamations, orations, poems, and music with each group trying to outdo the other in presentation, stage sets, and costumes. The clubs were important to the social life on campus and sponsored yearly functions which were eagerly awaited by the students. Carlyle Society was formed when certain members of the Irving Society, Purdue's first literary society, desired more social functions, and consequently, broke off on their own. *The Story of Purdue's Traditions*, published in 1944, states that the Carlyles must have been the "joes," or in today's lingo, the "in" group. They hosted many picnics and banquets. Their favorite forms of entertainment were mock trials. These fellows were the first to raise the idea of a college newspaper, and their plans eventually materialized into *The Exponent*, which remains Purdue's newspaper today.

We know little else of Lewis's activities while enrolled at Purdue. During his senior year, he was one of only 57 students enrolled in the civil engineering program. We know that, at least during his last year, he resided just across the river on Ferry Street in Lafayette.

D. R. Lewis's thesis, written in 1894 as a partial fulfillment of his degree, can be found on file at Purdue University. It is entitled "*Highway Road Construction.*" In his writing Lewis stated: "From a moral point of view the construction and maintenance of roads [that are] passable during the most inclement season of the year, when little is doing on the farm, [would make] easily accessible the schools, churches and villages, thereby promoting the social and intellectual intercourse of the people[.] [W]ith the free delivery of mails which will surely follow, home on the farm will cease to maintain its bugbear character which it now assumes, but will blossom out into happy firesides of brightness and cheer where the news of the world's doing comes promptly and regularly. This anchoring [of] the affections to the farm to become nature's first noblemen, will serve to counteract and turn in an opposite direction the tendency of the past decade to concentrate the rural population into the cities—a social problem the people are now grappling with."

In the body of his thesis, he compared various road construction methods based on location and availability of materials. He researched the underlying grade and rock formations throughout all Indiana counties and recommended various types of road construction. All methods involved covering roads with crushed stone in one manner or another. In the final section of his paper, he presents cost comparisons for construction and maintenance of both gravel and stone roads using France, a country possessing the finest roads in the world, as a basis of comparison.

Upon his graduation from Purdue in 1894 with a bachelor's degree in civil engineering, D. R. Lewis accepted a teaching position in the manual training department of the Armstrong and Slater Memorial Trade School at Hampton Normal and Agricultural Institute in Hampton, Virginia. He began teaching in July 1894 and held the position of mechanical drawing instructor until October 1906.

While serving at the Hampton Institute, Lewis spoke of class activities in letters written to the principal of the school. He mentioned the carpenters working on building designs, the machine boys building a miniature engine, and the wheelwright working out a draft for a phaeton (four-wheeled carriage) he hoped to construct—a feat never before attempted. In another letter, he discussed at length the steam plant at Hampton. He spoke of the extended system of steam heating and steam power and recommended improvements in its power and efficiency. In light of a new building being built on campus, he suggested the making of a topographical map of the campus for reference by water, sewage, and steam plant personnel.

D. R. Lewis's mother lived to see him graduate and become established in his first profession before she passed away in 1899. She must have been very proud, knowing that only nine African-Americans graduated from Indiana colleges between the time of the Civil War and 1900.

In 1929, D. R. Lewis wrote to *The Purdue Alumnus* magazine on the occasion of his graduating class's 35th reunion. He stated that he had taught at Hampton Institute for 12 years and became engaged in the real estate business in Pittsburgh, Pennsylvania, in 1907. He mentioned that he was currently Chairman of the School Visitors Committee of his ward. He was married but had no children. He conveyed his best wishes for a successful reunion and suggested that the class might start a scholarship fund.

Later that same year, on December 17, David Robert Lewis passed away, climaxing a career as one of Pittsburgh's most useful citizens. Headlines in *The Pittsburgh Courier* proclaimed, "Prominent Realtor Called by Death." The article went on to say that Mr. Lewis had taken an active part in the civic and political affairs of the city, having been on the School Board of Visitors for 8 years, a member and president of the Third Ward Voter's League since its inception, one of the city's leading real estate brokers for 19 years and a member of the Alpha Phi Alpha fraternity and the Boule. He was survived by his devoted wife Marion, two of his sisters, and two of his brothers.

Richard and Jennie Lewis would indeed have been quite proud to see the ultimate result of a simple petition to the Greensburg School Board back in the 1850's.

*Biography compiled by Roberta Ruch*



**Above:** Civil Engineering Professor Ron Wukasch, and Keva Doucette, a senior in construction engineering and management hold the plaque commemorating David Robert Lewis, Purdue's first black engineering alumnus. **Right:** Survived only by a wife, several of Lewis' grand nieces and nephews traveled to Purdue to witness the unveiling of the plaque.



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### High Performance Lab

*continued from front page*

up to now could only be tested on a theoretical basis or after the completion of the structure," Force says.

"Computers come close, but they don't truly show how structures will perform," Dr. Drnevich notes. "We have to validate theories with tests. And small-scale doesn't extrapolate to large-scale, so we have to go to near full-scale size."

One step in the discussion and planning process was an assessment of other high-performance, large-scale facilities, Force says. The shortcomings identified in those facilities will be addressed at Purdue.

#### Flexible, Multidisciplinary Facility

"We are developing a facility that will provide the greatest flexibility in its application. We envision a facility where building, bridge, earth and pavement structures can be tested," Force says. "The only limitation will be the volume of space we enclose and our ability to impose loads. And it cuts across all the disciplines, not purely structure or pavement or soil, but all of these. And we did not see that adaptability in any of the other structures."

Preliminary plans outline a 52,500-square-foot, single-story facility with a mezzanine, upper and overhead walkways;

overhead crane; conference room; offices; and shops. Half of the building will have a bolted-down structural floor. "More and more, our industry is using high-performance materials," Dr. Drnevich says. "Concrete is stronger. And high-performance steel and asphalt are more common."

#### Timing Critical

The project comes at a critical time, Dr. Ramirez says. "Our facilities dealing with experimental large-scale testing are very limited and fully utilized, to the point we are having to turn down contracts. We have no more space."

The nature of research has changed, too, he notes. "Simply put, if Purdue University is to continue as a world-class institution in our field, it's imperative—it's essential—that we do this."

"There's a recognized need for this facility by those of us in the civil engineering design business, those who manufacture some of the large-scale systems for which testing is important, and those who are users of structural elements that are more state-of-the-art," Force notes.

"We are looking at the new millennium," Dr. Ramirez says. "This facility will keep Purdue competitive for the future."

# FROM THE DEVELOPMENT OFFICE

## Time of Transitions

**T**ransitions...there couldn't be a more appropriate name for our Civil Engineering newsletter right now! It certainly describes where I am personally and professionally as the new Director of Development and Alumni Relations for our School. Furthermore, it is a seemingly appropriate description of many exciting things taking place in our fine School right now!

I transitioned into this position March 1st of this year. Previously, I had been with Purdue University's Center for Career Opportunities as an Assistant Director for the last six years. There I worked with hundreds of University alumni, students, and recruiting employers, while creating development initiatives. I graduated from Purdue University in 1983 with an undergraduate degree from H.S.S.E. I later received my Masters in 1990. Prior to coming to the professional/administrative staff at Purdue in 1994, I worked for various not-for-profit and philanthropic organizations in administrative and development capacities. On a more personal note, I am also the father of two terrific sons (Daniel who is 14 and Derek who is 10). Both children live with me, along with my fiancée Terri, in the town of Brookston (near West Lafayette). And yes, I do love to play golf and look forward to the CE Open on June 9 (check the Calendar of Events on the back cover and plan to join me!).

I am truly excited to be a part of the Civil Engineering family. I continue to be impressed by the high caliber of alumni, students, faculty and staff that we have here. It's no wonder Purdue's School of Civil Engineering has such an outstanding reputation across the world as a leading teaching and research institution. It is certainly a time of transition for me as I work to become well acquainted with everyone and everything associated with our fine School. It is a privilege to play a role in helping bring the visions and goals of our School to fruition so that we might continue to have unrivaled impact on civil engineering worldwide.

My predecessor, Don Fry, transitioned out of this position several months ago to become the Associate Director of Development for the Schools of Engineering here at Purdue University. I know you join me in congratulating Don and in wishing him continued success in his development and alumni relations initiatives. We are fortunate (especially me) in having Don still so close in order to continue to advise and guide Civil Engineering toward its future goals. Don's work at our School over the last five years has been excellent in helping facilitate generous funding for our School and improving alumni relations. My goal is to pick up where Don left off and expand upon what is being done.

It is a time of transition in our School as Dr. Vince Drnevich has chosen to step down as the Head of Civil Engineering and we seek out new leadership for our School's future. We continue to be quite fortunate, however, that Vince will remain with our teaching and researching faculty. His outstanding leadership over nine years has been substantial. Please join me in thanking Vince and his wife Roxanne for everything that they have contributed in the past and will be able to contribute in the future. Make sure you extend your words of appreciation to Vince and Roxanne personally in the next few weeks. (For more information read the article on Dr. Drnevich in this newsletter.)

It is also a vitally important time for Civil Engineering to transition itself into the twenty-first century. In order for our civil students and faculty to be better prepared to reach our vision of having an unrivaled impact on civil engineering worldwide in this new century, we must have state-of-the-art teaching and research facilities. That is why Civil Engineering is embarking upon an ambitious campaign to build a 52,500 square foot High-Performance, Large-Scale Testing Laboratory on the far-west side of the West Lafayette campus. This new facility will undoubtedly be a unique, world-class, laboratory encouraging multidisciplinary research efforts in materials, geotechnical, transportation, effort-structures, and construction engineering. With the addition of this facility we can attract funded research projects, enhance faculty development and retention, encourage commercialization of research products, and attract the best and brightest students. (For more information read the cover article on the High-Performance, Large-Scale Testing Laboratory in this newsletter.)

I continue to be thankful for the substantial number of students, faculty, staff, and alumni (like you) who give of their time and talents to serve in various leadership capacities for our School. I want to encourage those who are not as involved to consider the joy and pride that comes in giving back to the school that has given so much to you. In order for Civil Engineering to reach our future milestones we will need the collective ideas, efforts, and gifts of all our School's extended family. So much has been accomplished, but so much remains still to be done. Your gifts of time, talents, and financial resources will ensure our future success. There are many opportunities to become involved and to give. My advice is to take advantage... take pride...give generously (beyond what you thought possible)...stay involved..." Have the vision: share the dream."

I am here to listen to your ideas on alumni relations and development initiatives. I am here to talk with you about making your gift to the School. I want to assist you in helping make a difference for Civil Engineering and Purdue University. Please take the initiative to contact me and I would be happy to discuss how you can partner with us. My telephone number is (765) 494-2236 and my email address is: [sdjones@purdue.edu](mailto:sdjones@purdue.edu).

Warmest regards,



Stuart Jones  
Director of Development  
and Alumni Relations  
School of Civil Engineering



# OTHER FEATURES

## Drnevich Legacy: Solid School, Involved Alumni

If a campaign equivalent to Nike's "Just do it" existed in civil engineering, Vince Drnevich would win the gold. Hands down. That's the consensus of students, alumni and faculty as accolades pour in, paying tribute as he steps down June 30, 2000, after nine years as Head of the School of Civil Engineering.

Dr. Drnevich leaves the school at its strongest ever—top-rated academically; expertly staffed with more than fifty faculty (three of them named, distinguished professorships); and closely linked to 11,000 living alumni around the world. Refurbished facilities and new centers, labs and programs form a solid structure for study and research. And in his final lap, Dr. Drnevich is launching his most ambitious project yet: a campaign to build a high-performance, large-scale testing laboratory on the Purdue campus.

### Positioning For The Future

"We're poised for the future, and it looks really bright," Dr. Drnevich says of his work. And after a semester's sabbatical to continue his time domain reflectometry soil research at Carnegie-Mellon, he'll again be part of that future, returning to Purdue for teaching and research.

Richard Schwartz, Dean of Purdue's Engineering Schools, agrees with that positive outlook, giving Civil Engineering's School Head considerable credit. "Dr. Drnevich has shown outstanding capabilities in the area of hiring exceptional young and distinguished faculty members. He's also done an outstanding job of soliciting funds for support of civil engineering's programs and in obtaining endowed chairs."

### Energizing Students, Alumni

Important as those elements are, his legacy is more than that, too. Says student Alison Hunyar, "From promoting the heroes of civil engineering to the personal attention he gives the students, Dr. Drnevich's love of civil engineering and education is always evident. It encourages others to become excited and involved in the profession."

His enthusiasm has been particularly catching for alumni, says Harold Force, president and CEO of Force Construction Co., Inc. of Columbus, IN, and vice-chair of the Civil Engineering Advisory Council. "He's strengthened the stature of Purdue University's civil engineering within the academic environment and also raised the visibility and support from alumni and non-Purdue civil engineering practitioners."

"He has had a huge impact on bringing industry and the university together for the common good," notes alumnus Robert Bowen, chairman of the board of Indianapolis' Bowen Engineering Corp., recipient of a 1994 Civil Engineering Alumni Achievement

Award, and a Distinguished Engineering Alumni in 1999. "We have a friend at Purdue. We have a voice on issues. And the Civil Engineering Awards have been a wonderful way of recognizing alumni and fostering relationships."

Those alumni relationships have enhanced the school, says Kumares Sinha, Olson Distinguished Professor of Civil Engineering.

"Dr. Drnevich reached out and brought alumni close to us. He set up advisory councils. Bringing alumni back to school, inviting them to lecture, and creating opportunities for students and for research opens tremendous vistas."

Purdue and alumni alike benefit from that association, Drnevich believes. "The value of their degree depends on what they learned, but equally important, on the reputation of the university. The Purdue name opens lots of doors."

When he left the University of Kentucky to take the Purdue school head post in 1991, Drnevich hoped to improve civil engineering and civil engineering education. "I've had the opportunity to have some impact," he says. Particularly rewarding, he says, has been his service on the Department Heads' Council of the American Society of Civil Engineers, which he now chairs.

### Instilling A Team Spirit

Developing a more team-oriented atmosphere was another of Drnevich's goals. "The problems engineers have to solve are very complicated, involving people even outside of engineering—in economics and social behaviors, for example. To solve problems, we need

to team with other people. And a lot of that has happened," he says, citing the Joint Transportation Research Program, Indiana Clean Manufacturing Technology and Safe Materials Institute, and the Institute for Safe, Quiet, Durable Highways.

He's also applied the team philosophy to Civil Engineering operations. "One person after another contributes to make this a great place," he says. "I'm beholden to all of them," including his wife, Roxanne, who regularly participates in Civil Engineering events, hosts alumni and shares with him a zeal for Purdue women's basketball.

Dr. Drnevich's "just do it" philosophy is inexhaustible, suggests Professor V. James Meyers. "Dr. Drnevich is a seemingly tireless worker on behalf of both the school and the profession."



CIVIL ENGINEERING  
**CALENDAR OF EVENTS**

**Annual CE Golf and  
Tennis Open and Picnic  
June 9, 2000**

Lafayette Elks Country Club. Golf: Registration begins at 12 Noon, Shotgun start at 1 p.m. Cost \$50 (includes green fees, cart & picnic. Tennis: Mixed formats from 3-5 p.m. Cost \$10 (includes picnic). At Elks Club Tennis Courts. Buffet Picnic: By Van's Catering. Begins immediately following golf at 5:30 p.m. Picnic ONLY Cost \$10. Come see our keynote speakers! For more information, contact Taya Cook in CIVL, Room 1141, 765-494-2166.

**Commencement Reception  
August 6, 2000**

Immediately following graduation.  
North patio of Civil Engineering Building.  
All graduating CE students, family and friends are invited.

**Homecoming CE Breakfast  
September 23, 2000  
8:00-10:00 a.m.**

G150, Civil Engineering Building  
All CE alumni and friends are invited.



**Advisory Council  
October 6, 2000**  
Civil Engineering Building

**Indianapolis CE Alumni Reception  
October 11, 2000  
5-7:00 p.m.**  
Holiday Inn North, Indianapolis, IN  
All CE alumni and guests are welcome!  
Door prizes!!

**15th Annual CE Professional  
Development Seminar  
November 2, 2000**  
Third Floor, Stewart Center  
For more information, contact Prof. Bob McCullouch at 765-494-0643.

**OPEC Breakfast  
November 15, 2000**  
Columbus, OH  
For more information, contact Frank O'Hare,  
614-418-1761, fohare@amerons.com.



<http://ce.ecn.purdue.edu/CE>

*Transitions* is published semiannually for alumni, faculty and staff, parents, and friends of the School of Civil Engineering at Purdue University. Send comments, news, and address changes to:  
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