

Environmental Engineering Team Wins Top Honors

Civil Engineering seniors who surpassed 24 other colleges and universities to win first place at the 9th Annual Environmental Design Competition easily see the link between their challenge and that of the Hopi hoop dancer pictured in the sand painting award they received (photo on page 7). Figuratively and literally, jumping through hoops is not an easy task.

Yet that's exactly what Purdue's 28 students on four teams did at New Mexico State University in April as they tackled these real-world problems: a landfill cap, transuranic waste reduction, pipeline waste removal, and in-situ soil decontamination.

Semester-Long, Real-World Projects

Weeks of study, evaluation, testing solutions, and preparation by the CE 498 students preceded the event, where approximately 50 judges from industries and governmental agencies grilled them on their proposed solutions. "We met with 10 different judging groups and had a lot of interaction with the judges," says Dan Kamer of Chicago, a member of the pipeline project team that took second place. "Each team's solution was different, so that made the competition a lot greater."

For the landfill team, the challenge came in addressing dry New Mexico land conditions, says David Mohler of Indianapolis. "We first looked at the problem, at things that have worked and things that have not worked." The team's final cover design involved multiple layers—vegetation, polymer-enhanced soil, native soil with hydraulic conductivity, a barrier of

continued on page 7

Suresh Rao First in Civil Engineering to be Named Rieth Distinguished Professor

The Purdue Board of Trustees has named P. Suresh Chandra Rao as the first Rieth Distinguished Professor of Civil Engineering.

The appointment signals Civil Engineering's dramatically enhanced commitment to environmental engineering and an expanded focus on inter-disciplinary research.

Dr. Rao comes to Purdue from the University of Florida, where he has earned an international reputation for his work over the last quarter-century.

The Rieth Professorship in Environmental Engineering was established in 1991 to break new ground in Civil Engineering's offerings. It was funded by Mary

Jane Rieth in memory of her husband, Lee Rieth; her father-in-law, Albert Rieth; and her brothers-in-law, Blair Rieth and William Rieth. All four were graduates of Purdue's School of Civil Engineering.

Fits CE's Vision to Achieve Unrivaled Impact

"This is a very exciting time for us," says Dr. Vincent Drnevich, professor and head of the School of Civil Engineering. "Dr. Rao brings strengths in other disciplines and couples them with strengths in our disciplines



Suresh Rao

to do things we wouldn't ordinarily be engaged in doing. This is consistent with our vision for our School to have unrivaled impact on civil engineering worldwide."

> A native of Warangal, India, Dr. Rao earned his bachelor's in 1967 from A.P. Agricultural University in India; his master's in 1969 from Colorado State University; and his Ph.D. in 1974 from the University of Hawaii. In 1975, he joined the Soil Science Department at the University of Florida as a postdoctoral research fellow. Later appointments included assistant research scientist in 1977, associate professor in 1982, and professor in 1985. In 1993, he was

appointed to the special rank of graduate research professor; and in 1998, in recognition of his inter-disciplinary research contributions, he was appointed research foundation professor.

He also was an affiliate professor in the department of environmental engineering science and director of the Center for Natural Resources, where he coordinated interdisciplinary research and extension efforts in ecosystem management and restoration.

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In this issue...

Faculty Features New Faculty and Staff	
Faculty Features New Faculty and Staff Faculty News Faculty Promotions	
Student Highlights Scholarships & Awards	
Alumni Honored	
Class Notes In Memorium	
Calendar of Events	Back Page

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

T his issue of Transitions will document another exciting year for Civil Engineering at Purdue. It is hard to believe that I am completing my eighth year here. As the saying goes, "Time really flies when you are having fun." Thanks to the joint efforts of our alumni, faculty, staff, and students, we are making progress on realizing our vision of having "unrivaled impact on civil engineering worldwide." We gathered evidence of this from visits to California, Arizona, Massachusetts, Washington, as well as in our own back yard (Chicago and Indianapolis). Let me extend my thanks to all of our alums for your accomplishments and for carrying the Purdue banner so proudly.

We were especially proud of Purdue's Women's Basketball Championship this year. In April, Civil Engineering celebrated a national championship of its own with our students who won the travelling trophy in the Waste Management Engineering Research Coalition (WERC) national competition in Las Cruces, New Mexico. We are very proud of them and their faculty advisors: Inez Hua, Larry Nies, and Ron Wukasch.

Among the milestones of this past year are the retirements of Milton Harr and Gilbert Satterly, and the departure of Rick Deschamps for a position in the consulting industry. Joining us were Adam Hand in the Materials Area, Jeffrey Shan in Geomatics, and Suresh Rao, the Lee A. Rieth Distinguished Professor, in the Environmental/ Hydraulics Area. The School is poised for the future with one of the finest faculty anywhere.

We have some challenges before us. First and foremost is the recruitment of topquality students to continue the tradition of excellence associated with our program. Many of you are assisting us in recruitment and I thank you for this help. Another is our preparation for accreditation, both the North Central Association (this Fall) and the Accrediting Board for Engineering and Technology (Fall of 2001). We are engaged in curriculum review and instituting extensive outcomes assessment procedures. New accreditation criteria are much more performance-based than previous criteria. We will be enlisting the help of many of you to obtain our data. I thank you in advance for assisting us.

We hope that you enjoyed the summer and that some of you will stop by to visit us. We'd be glad to show you what changes have taken place and to share with you our plans for the future.

Best regards,

Nuncent P. Dimenich

Vince Drnevich



School of Civil Engineering

Head Vincent P. Drnevich Assistant Head **V. James Meyers** Assistant Head **Julio Ramirez** Assistant Head **James E. Alleman** Area Heads: **Construction Engineering Daniel W. Halpin Environmental & Hydraulic Engineering** Chad T. Jafvert Geotechnical Engineering Adolph Altschaeffl Materials Engineering (Civil)

Materials Engineering (Civil **Jan Olek**

Structural Engineering Mark Bowman

Geomatics Engineering Edward M. Mikhail

Transportation and Infrastructure Systems Engineering Kumares C. Sinha



Faculty News Professor Harr Retires

A fter more than four decades of triggering a sense of amazement in Civil Engineering students, Professor Milton Harr has retired from Purdue University.

"Dr. Harr was a beloved teacher and a creative thinker," says Dr. Vincent Drnevich, professor and head of the School of Civil Engineering. "He was tremendously amazed by things, often starting sentences with, 'Isn't it amazing that. . .?' and one of his favorite topics was that of probability."

Geotechnical Engineering His Expertise

Dr. Harr came to Purdue in 1955 after earning his bachelor's at Northeastern and master's at Rutgers. He also brought along several years' experience with the Massachusetts State Highway Department, where he worked on the nation's first limited-access highways. He earned his Ph.D. at Purdue in 1958.

During his tenure in geotechnical engineering, he published four books and countless journal articles, graduated about 50 Ph.D.s, earned an honorary doctorate from the University of Brussels in Belgium, and was inducted into the National Academy of Engineering. From 1991 to 1994, he served as area head of Geotechnical Engineering.

Teaching: A Way to Help Others

Teaching was his way of helping others, Dr. Harr says. "There's something innate in all of us—a desire to help others. It's one of the unwritten laws of society." Besides Civil Engineering, Dr. Harr also shared with his students a love of music, especially opera, and art. And a hallmark of Purdue's Civil Engineering program, he says, is that "Purdue recognizes civil engineering as an art as much as a science."

Dr. Harr's consulting work—which brought rich experiences to his classroom—spanned the universe, with projects ranging from the leaning tower of Pisa to the lunar vehicle used by the astronauts. His work included locks, dams, highways, levies, and airfields. He continues those interests, and this summer is consulting in Australia. Dr. Harr and his wife Florence have homes in Rhode Island and Florida. Besides the School of Engineering, Dr. Harr says he'll miss playing handball at Purdue. "And 1999 will be the first year in 44 years that I won't see Purdue football. But I'm going to get a satellite dish so I can watch the games on television."



Professor Milton Harr and Emily Ellis, ASCE Student Chapter President retirement reception, Purdue Memorial Union, December 1998.

Professor Satterly Retires

W ith a legacy of having counseled more students than any other living Purdue faculty member, Professor Gilbert Satterly has retired from Purdue University's School of Civil Engineering.

"Many students reflect fondly on the 'fatherly advice' Dr. Satterly gave them over the years," says Dr. Vincent Drnevich, professor and head of the School of Civil Engineering. "He is known particularly for treating students as individuals, and for spending thoughtful time with them."

Transportation His Specialty

Dr. Satterly earned his bachelor's and master's degrees at Wayne State University and his Ph.D. at Northwestern University. He taught at the University of Michigan and Wayne State, then joined Purdue's Civil Engineering as associate professor in 1970. He became a professor of transportation engineering and research engineer in 1974.

He sums up his devotion to his career quite simply: "I like to teach and I like to see students learn." The students from all over the world who filled Dr. Satterly's classes even included his own sons, Alan (BSCE '81) and Paul (BSCE '82 and MSCE '83).

Besides teaching, his career achievements include numerous publications and service on the landmark study committee that led to today's flexible Civil Engineering curriculum.

Recognized for Civic Involvement

Dr. Satterly also made significant civic contributions, including serving on the Indiana Governor's Advisory Board on Public Transportation for many years. He also was instrumental in studies and initiation of public transportation in Tippecanoe County,



Maeve Drummond with Vicki Gascho and Professor Gil Satterly at his retirement reception in May 1999.

Indiana, and he chaired the board of the local public transportation company for nearly a decade. For his civic participation, he earned the distinguished Sagamore of the Wabash Award from former Indiana Governor Robert Orr in 1981. The 17th Surveying and Mapping Educa-L tors Conference was held at Purdue University July 11-14, 1999. The conference marked the 62nd anniversary of the first National Surveying Teacher Conference held in 1937. Presentations covered a wide range of topics. Jeff Wright, Professor and Director, Water Resources Research Center; Assistant Dean, School of Engineering at Purdue, conducted a workshop on Educational Middleware for Distance Education. His presentation encompassed tools such as WebCT, and higher-end environments. Professor Dan Budny, award-winning Associate Professor of Freshman Engineering, provided attendees to alternative teaching methods. Presentations included Cooperative Learning Techniques and Teaching Techniques for Different Learning Styles.

A nother change in the Undergraduate Office was the retirement of Vicki Gascho, undergraduate secretary. Vicki officially retired on December 31, 1998, after 20 years of service. She started her career in the Structures Area of the School of Civil Engineering in 1979 and moved to the Undergraduate Office after 12 years.

Vicki was a vital part of the student services team and is missed by faculty, staff and students. She was presented with some "special gifts" for her retirement years at the Civil Engineering annual holiday party and also received a check, which she planned to use to purchase a computer.

An Open House was held in Vicki's honor in mid-December. Faculty, staff and students enjoyed wishing her well while sampling some delicious snacks. Vicki is looking forward to traveling with her husband and family. Rumor has it she has already taken a cruise this spring for starters. She was also anxious to spend time with her grandchildren and tending to her flower garden.

Best wishes, Vicki!

The Transportation Research Board named the following committee appointments through January 2002:

Leonard Wood —	Characteristics of Bituminous Materials
Darcy Bullock —	Applications of Emerging Technology
Bob Jacko —	Task Force on Environmen tal Impacts of Aviation
Andrzej Tarko —	Safety Data, Analysis, & Evaluation

The Purdue Research Foundation recently awarded several grants for the 1999 academic year. Receiving research grants and their projects were:

Jie Shan —	GIS-based Automatic Building Extraction from Digital Imagery
Mirek Skibniewski —	Utility Assessment of Electronic Networking Technologies for Construc- tion Project Management
Andrzej Tarko —	Automated Image-Based Evaluation of Highway Safety

Receiving summer faculty grants and their projects were:

Timothy Whalen —	Analysis of Nonlinear Passive Damping Systems with Applications to Control of Wind-Induced Vibrations
Antonio Bobet —	Optimization of Tunnel Liner Design
Graham Archer —	A Nonlinear Static Push- Over Analysis Algorithm

Receiving international travel grants were: **Ernest Blatchley**— International Symposium on The Learning Society and the Water Environment in Paris

Srinivas Peeta —14th International Symposium on Transportation and Traffic Theory in Jerusalem

Mirek Skibniewski —16th International Symposium on Automation and Robotics in Madrid **Timothy Whalen** —10th International Conference on Wind Engineering in Copenhagen

Professor **Rodrigo Salgado** is the 1999 recipient of the ASCE Arthur Casagrande Professional Development Award. **P**rofessor **W. F. Chen** received the Brown University Engineering Alumni Medal during this year's Commencement Weekend, May 30,1999. Brown University introduced this medal last year as part of its celebration of 150 years of teaching engineering at Brown, and this medal is a means of recognizing distinguished engineering alumni.

Chen also was elected to the prestigious Academia Sinica in Taiwan last year. The only other structural engineer receiving such an honor was Professor T.Y. Lin who was elected more than 20 years ago.

Professor Kumares C. Sinha chaired an invited panel to review the academic program of the Department of Civil Engineering, University of Virginia, Charlottesville, VA on January 20 and 21, 1999. He also chaired two meetings of Group 5 Council at the 1999 Annual Meeting of the Transportation Board, Washington DC.

Professor Steve Johnson has been asked to represent the American Congress on Surveying and Mapping on the Related Accreditation Commission (RAC) of ABET. The RAC accredits programs that have highlyspecialized educational requirements and close practical and academic ties to engineering. These programs do not include the engineering designation in the degree title. Survey and Mapping and similarly named degree programs are included in the RAC. Surveying engineering and similarly named degree programs are accredited by the Engineering Accreditation Committee (EAC).

CD-ROM based training tool on designing A Temporary Structures has been developed in the School of Civil Engineering. This tool utilizes a wide range of multimedia to explain and describe the following topics associated with vertical above ground temporary structures; Legal Aspects, Codes and Design Standards, Construction Loads, Formwork Design, and Shoring and Scaffolding Design. The course is offered through the Continuing Engineering Education Office and four (4) continuing education credits (CEUs) are awarded after successfully completing the course. For more information contact Bob McCullouch (765-494-0643, bgm@ecn.purdue.edu) or David Harmelink (765-496-2742, daveh@ecn.purdue.edu).

Faculty News continued

The National Engineering Week Committee I named Professor Vince Drnevich the Indiana Executive All Star for Engineering Week. To raise awareness, Dr. Drnevich contacted nearly 300 Indiana companies, agencies, and educational institutions about Engineering wrote an article for the special Engineering Week supplement to the Indianapolis Business Journal, and attended the Engineering All Star Summit in Washington on February 23, 1999. At the Summit, he learned of some exciting new initiatives to help middle school students consider engineering as a career. One is an exceptionally well done website developed by Eastman Chemical Company (http://www.discoverengineering.org) The Executive All Star from Mississippi was Governor Kirk Fordice (BSCE'56). The featured speaker was Steve Bechtel, Jr. (BSCE'46).

Professor Ed Mikhail was invited to Australia to visit Queensland University of Technology and the Cooperative Research Center for Satellite Systems in July 1998. He presented several seminars under the general theme: Cross Disciplinary Research in Digital Photogrammetry, Hyperspectral Classification, Computer Vision, and Visualization. He also participated in working sessions on current research activities of mutual interest, assisted in general planning for the 2000 International Congress in Amsterdam and assisted in planning for the 2004 Congress of the International Society for Photogrammetry and Remote Sensing where Professor Steve Johnson attended the GIS/LIS '98 Conference in November 1998 in Fort Worth, Texas, The conference is jointly sponsored by the AAG. ACSM, ASPRS, AM/FM, URISA, and the APWA. Topics of discussion included GIS and geomatics education issues. The proposed changes to the NCEES Model Law for professional surveying registration was an important topic discussed at several sessions. The Model Law for registration of "land surveyors" will likely change to include the practice of photogrammetric mapping under a title such as "professional surveyor". The issue of whether or not surveying and mapping performed by GIS practitioners will be included in the proposed registration requirements is a hotly debated issue.

The Geomatics Engineering area participated extensively in the International Symposium of Commission III, on Theory and Algorithms, of the International Society for Photogrammetry and Remote Sensing, in Columbus, Ohio. Professor **Ed Mikhail** presented the keynote address. Professors Mikhail and **James Bethel** presented four papers which were selected in the small subset of papers from the symposium proceedings to be included in a special issue of Photogrammetric Engineering and Remote Sensing.

P rofessor **Steve Johnson** was elected to Fellow membership in the American Congress on Surveying and Mapping (ACSM) at the GIS/LIS '98 Conference in Fort Worth, Texas.

T he Second Annual Review of the Multidisciplinary University Research Initiative (MURI) Project on Rapid and Affordable Generation of Terrain and Detailed Urban Feature Data, which Professor **Ed Mikhail** directed, was held at the University of Southern California in November 1998. Purdue was represented by Professors **Mikhail**, **Bethel**, and Landgrebe (ECE).

Professor **W.F. Chen** has accepted to serve as a member of the International Scientific Advisory Committee for the IMPLAST 2000, the 7th International Symposium on Structural Failure and Plasticity to be held in Melbourne, Australia, October 4-6, 2000.

The Bridge Engineering Handbook edited by Professor W. F. Chen with his former student, Dr. L. Duan, will be published by the CRC Press. The 68-chapter book contributed by an international team of experts addresses to all facets of bridge engineering—the planning, design, inspection, construction, and maintenance of variety of bridge structures.

In recognition of many years of teaching, research, and service in the specialty of cold regions engineering, C. W. "Bill" Lovell has been awarded the Harold Peyton Cold Regions Engineering Award. This recognition will occur at the 1999 National Conference of the American Society of Civil Engineers in Charlotte, North Carolina.

Bill, who has a record of almost 51 years of continuous service at Purdue University, is a Professor Emeritus of Civil Engineering. For the past 3 years, he has been assigned to Personnel Services as a Leadership Facilitator.

S everal Civil Engineering faculty members received teaching awards



Excellence in Teaching Award and the Scholarship Award were presented to Professor **Dan Budny** and Professor **Ernest "Chip" Blatchley**,



Robert J. Frosch

respectively. The Harold Munson Award, which recognizes an outstanding CE teacher, was presented to Professor **Robert J. Frosch**. The award for an outstanding undergraduate counselor, the Ross Judson Buck '07 Memorial Award, was given to Professor **Ronald F. Wukasch**.

Ronald F. Wukasch

Promotions

Congratulations to the following faculty members who received Civil Engineering promotions in March 1999.

Chip Blatchley—	full professor
Chad Jafvert —	full professor
Darcy Bullock —	receipt of tenure
S.R. Govindaraju —	receipt of tenure
Dulcy Abraham —	associate professor with tenure
Jan Olek —	associate professor with tenure
Rodrigo Salgado —	associate professor with tenure

Environmental Engineering Team continued from front page

geosynthetic clay, and a protective layer of native soil. "This was a new idea, and the judges were pretty apprehensive about our idea because it has not been tested," Mohler admits. "But people from industry were very interested," says team member Anjana Phadnis of Long

Grove, Ill. "It could be used somewhere, some day."

Students on the transuranic waste reduction team faced the added challenge of a topic brand new to them. "We spent 18 to 20 hours a day as we reached certain deadlines," says Mindy Haack of Muncie. "It became a full-time job. My team members became my family and CE became my home." The team's efforts paid off in a tie for first place and judge's interest in the students. "In a large part, our group's success came from our presentation skills and handling questions from the judges very well," Haack says. "As a bonus, we met people from a lot of companies, and many judges gave us business cards."



Professor Inez Hua and Lisa Koch display the first place award from the Environmental Design Competition.

Written and Oral Presentations, Bench-Scale Models

The competition judged written reports, oral and poster presentations, and working benchscale model solutions that covered all the bases, from regulatory to economic, health, and public relations issues.

A unique solution helped the in-situ soil decontamination team tie for first place, says member Kimberly Prather of Lafayette. "We used ethanol, while others used hydrogen and carbon dioxide." Fellow team member Melanie Craig of Indianapolis says, "The simplicity of our process contributed to our winning."

CE's First Time to Enter

Sponsored by the Waste-management Education and Research Consortium, the contest is the only one of its kind in the world challenging university students to solve an environmental problem in a competitive format. This was the first year Civil Engineering students participated in the contest.

Besides overall first place honors, the Purdue team tied for first place in two out of the four competitions it entered and took second in another. The teams brought home \$11,500 in prize money.

"We had a very motivated group of students," says CE Assistant Professor Inez Hua, one of the co-advisors. "And we had breadth as well as depth. With 28 students and three faculty advisors, we had different view points and different strengths." Assistant Professor Larry Nies and Professor Ron Wukasch also served as co-advisors for the Purdue teams.

"This is a real shot in the arm for Civil Engineering and an affirmation that our students are very capable of leadership work," says Dr. Vincent Drnevich, professor and head of the School of Civil Engineering. "Of course, it brings great recognition to Purdue University, and will help us recruit quality students in the future."

Purdue Featured in U.S. News and World Report

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The latest U.S. News and World Report
I graduate rankings were in March.
Overall, the Schools of Engineering at Purdue ranked ninth. The top ten in engi-
neering are:
Massachusetts Institute of Technology
Stanford University (CA)
Georgia Institute of Technology
University of Michigan—Ann Arbor
University of California—Berkeley
University of Illinois—Urbana-Champaign
California Institute of Technology
Carnegie Mellon University (PA)
Purdue University—West Lafayette (IN)
University of Texas—Austin
C ivil engineering ranked fifth. (We were
Usixth last year.) The rankings of the top
ten civil engineering programs are:
University of Illinois—Urbana-Champaign
University of California—Berkeley
Massachusetts Institute of Technology
University of Texas—Austin
Purdue University—West Lafayette (IN)
Stanford University (CA)
University of Michigan—Ann Arbor
Georgia Institute of Technology
Cornell University (NY)
Northwestern University (IL)
The top ten schools in Environmental Engineering/Environmental Health are:
Stanford University (CA)
University of Michigan—Ann Arbor
University of Illinois—Urbana-Champaign
University of Texas—Austin
University of California—Berkeley
California Institute of Technology
Johns Hopkins University (MD)
Massachusetts Institute of Technology
Georgia Institute of Technology
University of North Carolina—Chanel Hill

Burke Family Recognized for their Support to the School of Civil Engineering

Construction of the Burke Undergraduate Hydraulic Laboratory began in June 1998, thanks to a generous donation from Christopher B. Burke (BSCE'77, MSCE'79, PhD'83).

Located in the northwest corner of the existing Hydromechanics Lab, the new facility occupies approximately 1300 square feet and took six months to complete. The new laboratory houses the equipment used for experiments in undergraduate hydraulics (CE340), which formerly occupied the open mezzanine area on the main floor overlooking the Hydromechanics Lab.

A dedication ceremony honoring Chris and Susan (BS'78, Liberal Arts) Burke was held on Friday, April 30, 1999. The introduction was given by Dr. Vincent Drnevich, Head of the School of Civil Engineering, followed by remarks from Dean Richard Schwartz. A plaque commemorating the event was unveiled and a duplicate plaque was presented to the Burkes.

The plaque reads:

"Just as hydraulics and hyrdrology are an integral part of civil engineering, experimental observations are a necessary component of hydraulic engineering practice and education.

This laboratory provides Purdue Civil Engineering students with an opportunity to conduct experiments and thereby observe the fundamental principles of hydraulics in practice.

The laboratory is dedicated to the living and deceased faculty of the Hydraulics Area who have inculcated these principles and trained the minds of Purdue Civil Engineering students over the decades."

Dr. Burke commented on his experiences at Purdue, acknowledging the faculty and staff who guided him, as well as four additional Burke family members, to invaluable degrees in Civil Engineering at Purdue University. Those in attendance toured the lab and saw the many improvements that were made along with the equipment used in the experiments.



(Above) Dr. Burke shows students new equipment (Below) The new hydraulics lab in the midst of construction.





Purdue Grad Heads INDOT

Following more than 10 years of service, Cristine M. Klika (BSCE'78) has been promoted to Commissioner of the Indiana Department of Transportation. If all goes as planned, Klika will oversee the first major expansion of the state's interstate system since before she joined the department—the proposed extension of I-69 from Indianapolis to Evansville. The controversial project has pitted state and business officials who foresee an economic boost along the I-69 corridor against environmentalists, farmers and others fearing the destruction of farms and forest between Evansville and Bloomington.

To address the issue, INDOT is preparing to sign a contract for an 18 month study that will compare the costs and benefits of alternate routes between Indianapolis and Evansville. "By stepping back a little bit and looking at the broader picture, we're saying we're going to look at it and consider all alternatives fairly," says Klika.

Klika also wants to make sure the department uses the latest technology to assess and maintain the state's highways and bridges so taxpayers get the biggest bang for their bucks. New technologies are being developed to monitor congestion and plan for a new and expanded highways to make sure the transit system keeps pace with growth. Among the grow related projects the department plans to complete the next four to five years is reconstruction of U.S. 231 and the five-point intersection of River Road and State Street in West Lafayette.

Kumares Sinha, a Purdue civil engineering professor who knows Klika, said her years spent as a county highway engineer for Monroe County and later as an INDOT district employee may prove as valuable as any. "She has developed quite an intimate knowledge of how local government works. She's a good person, not just an engineer. She'll be open-minded, and that's the most important thing."

Governor Frank O'Bannon Speaks at 85th Annual Purdue Road School



Govenor Frank O'Bannon addresses audience at the 85th Annual Purdue Road School

T he 85th Purdue Road School achieved historical significance when Governor Frank O'Bannon spoke at the Road School luncheon on March 24, 1999, as this was the first appearance by an Indiana governor at the two-day conference in almost a quarter century. Addressing an appreciative crowd in the Memorial Union, Governor O'Bannon stressed the importance of good roads to Indiana's prosperity and shared his vision of transportation for the state in the 21st century. He also expressed his appreciation for all that Purdueeducated civil engineers have contributed through the years to the development of Indiana's transportation system.

This year's Road School had special significance also in that it was dedicated to two former Road School chairmen, Professors Emeriti Harold Michael and William Goetz, both Purdue grads and retired from long outstanding careers in Purdue's School of Civil Engineering. Many dramatic changes have occurred in transportation in the last 50 years and Professors Michael and Goetz have witnessed and contributed greatly to many of them. Many years after their retirements, both of them continue to attend Road School and were on hand for this special dedication.

More than 1,300 people attended Road School this year, which was the largest attendance in the last ten years. The opening session highlighted the recently enacted TEA-21 legislation in Congress. Speakers included Walter Sutton, Jr., associate administrator for policy for the Federal Highway Administration in Washington, DC; Curtis Wiley, commissioner of the Indiana Department of Transportation; Paul Helmke, Mayor of Fort Wayne, Indiana; and John Spangler, chairman of the board of Milestone Contractors. Each of the speakers gave their unique perspective on the legislation's impact on the citizens of Indiana and the nation as a whole. Throughout the next two days, there were many topical ses-

sions 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.

Held at Purdue University since 1914, Purdue Road School was the first state highway conference in the nation, and is the largest outreach and extension activity of the School of Civil Engineering. It is coordinated by the Joint Transportation Research Program (JTRP) and the Local Indiana Technical Assistance Program (Indiana LTAP). JTRP is a 62-year old research partnership between the School of Civil Engineering and the Indiana Department of Transportation. while Indiana LTAP provides technical support, training, and technology transfer to local government officials throughout the State of Indiana. The partnership of these two programs provides a unique blending of all levels of transportation-related professionals, from the Federal Highway Administration in Washington, DC to the smallest municipalities in the state. Road School is free and open to the general public; however, its audience consists mainly of Indiana local and state officials, consultants, and suppliers. Several professional associations, such as the Indiana Section of the Institute of Transportation Engineers, plan their regional meetings to coincide with Road School attendance by their members. Exhibitors representing numerous transportation-related products and services fill the North and South Ballrooms of the Purdue Memorial Union, where a complimentary lunch is served courtesy of the exhibitors.

Above and Beyond ...

The 85th Purdue Road School was dedicated to Harold L. Michael and William H. Goetz, Professors Emeriti of Purdue University, who served as co-chairmen of the Road School for



arold L. Michael

many decades. Although retired for several years, both of these distinguished gentlemen continue to attend Road School.

Until his untimely death in August 1999, Professor Michael's entire academic career had

been at Purdue University since earning his master's degree there in civil engineering in 1951. Over a 45-year period, he served as the associate director of the Joint Highway Research Project (now called the Joint Transportation Research Program) and eventually as its director. Professor Michael helped to establish this highly successful joint research program with INDOT, now in its 62nd year, as an enduring model for government and academic cooperation in the area of transportation research and presently serves on its board of directors. Professor Michael also was head of the School of Civil Engineering at Purdue from 1978 until his retirement in 1991.

Professor Goetz received his master's degree in chemical engineering from Purdue University in 1942 and also spent his entire academic career at Purdue, retiring in 1985. He served as assistant head of the School of



Civil Engineering from 1970 to 1982. During that same period he was also affiliated with the Highway Extension and Research Project for Indiana Cities and Counties (HERPICC). Professor Goetz made significant contributions

William H. Goetz

to his area of expertise, bituminous materials, throughout his career and participated in numerous research projects that have benefited Indiana highway design and management.

Scholarship & Awards

Tony Clark Awards

Steven P. Cline, Chesterfield, MO Douglas A. Colbert, Houston, TX Adam R. Conard, Crown Point, IN Janel M. Crosier, Orangevale, CA Allen M. DeSchepper, Bremen, IN Eddie D. Hannah. Jr., Denver, IN Jason M. Hickle, Mishawaka, IN Josh C. Latour. Hanover Park. IL Courtney S. Lehman, Osceola, IN David J. Mehl, Lexington, KY Eric J. Ortman, Greensburg, IN Kelley E. Schultz, Evansville, IN Nicholas A. Veneris, Clarenton Hill, IL Alexander W. Wood, Warsaw, IN Tyler S. Wolf, Granger, IN

Martin J. Gutzwiller Memorial Scholarship Charity D. Kruidhof. Fullerton. CA Timothy R. Phelan, Grove City, OH

Harold E. Rein Society of American Military Engineers Scholarship Adam W. McAlpine, New Carlisle, IN Tara L. Opielowski, Poway, CA

Greeley and Hansen Elmer F. Ballotti Memorial Fellowship Robert T. Threlkeld, Carmel, IN

John R. Blandford Memorial Award Chii Shang, Taipei, Taiwan

Donald E. Bloodgood Memorial Award Mark R. Knoff, West Lafayette, IN Matthew B. Mesarch, Merrillville, IN Timothy M. LaPara, South Bend, IN

Jacques W. Delleur Award Daniel J. Schuller. Crete. IL Huey-Long Chen, Keelung, Taiwan

Matthew Edward Kern Environmental Engineering Scholarship/Fellowship Julie E. Meszaros, Lafavette, IN Megan M. Chikota, St. Claire Shores, MI

Eldon J. Yoder Memorial Award William C. Eidson, Glenview, IL

Myrtle Ford Tompt Award Kara L. Elliott, Frankfort, IN Thomas G. Pace. Owensboro. KY

Gerrit H. Toebes Memorial Award Lisa D. Koch, Elk Grove Village, IL



Megan Chikota



Tara Opielowski

Sara Leitner



Heather Guinn



Matthew Cushman



Tom Pace

Albert J. Horth, CE 1915 Memorial Scholarship Kara L. Elliott, Frankfort, IN Craig W. Forgey, Huntington, IN Heather M. Guinn, Hudson, IN Tara L. Opielowski, Poway, CA

Robert D. and Margaret J. Miles Civil Engineering Scholarship Kara L. Elliott, Frankfort, IN

Edna C. and William Y.H. Ling Civil Engineering Scholarship Jeremy M. Gries, Indianapolis, IN Matthew T. Cushman, Ossian, IN

CH2M Hill Scholarship Sara J. Leitner, Rochester, MN

Pai Tao Yeh Scholarship Huan Zhao, Bridgeport, CT

Reith Riley Construction Company Scholarship Harmon N. Henderson, Goshen, IN Stephen J. Spitzer, Lafayette, IN

GAAAN Fellows Kevin L. Staton, Lebanon, IN Robert H. Kim, Lewisburg, PA

Estus H. and Vashti L. Magoon Outstanding Teaching Assistant Award Kenneth J. Mercer, Franklin, MA Ting Pong Chan, Hong Kong Theodore R. Krull, Denver, CO Kevin E. Lynch, Belmar, NJ Robert M. Wallace, West Lafayette, IN Jon A. Jonsson, Iceland

Nellie Munson Outstanding Teaching Assistant Award Kevin L. Staton, Lebanon, IN Adamaris J. Quinones, Yabucoa, PR

Rosemary K. Burke Outstanding Student Timothy R. Phelan, Grove City, OH Roger D. Radabaugh, Wabash, IN

LAND SURVEYING **Outstanding Senior** Nathaniel D. Pfeiffer, West Lafayette, IN

Faculty Recognition Award Paul É. Klodzen, Valparaiso, IN

John G. McEntyre Endowment Scholarship Erin E. Darlage, Brownstown, IN Darren Norrington, Mitchell, IN

Jud and Betty Rouch Land Surveying Scholarship Justin R. Frazier, Greensfork, IN

Roland S. Corning II Memorial Fellowship Ade Komara Mulyana, Indonesia

AGC Outstanding Student: CECon Jeff Schrock, Wakarusa, IN



Bill Eidson

Mark Knoff





Huan Zhao



Jon Jonsson



Craig Forgey



Julie Meszaros



Jennifer Schram



Tom Cooper

Chii Shang



Steven Spitzer



Kevin Lynch







Lisa Koch



Robert Threkeld



Jeremy Gries



Tim Phelan



Adamaris Quiones



Roger Radabaugh



Dan Schuller



Kara Elliott



Ting Pong Chan

Student Awards



Huan Zhao with Dr. Yeh. Zhao is the first recipient of the Pai Tao Yeh Scholarship.



Ade Mulyana

Ken Mercer

Jennifer Schramm with Professor Inez Hua receiving recognition for the Maple Point Foundation Award.



Robert Threkeld with Amanda Bauner from Greely and Hansen.



Huey-Long Chen

Student News

R ob Wallace, a Civil Engineering PhD student working with Professor Jeff Wright, received the Stevan J. Kristof Outstanding Graduate Student in Remote Sensing Award on May 12. The award is given to recognize academic achievement and professional potential in remote sensing as related to a specific discipline at Purdue University. The award recipient is chosen by the members of the LARS (Laboratory for Applications of Remote Sensing) Awards Committee and the LARS Director. The award is a certificate and a monetary award from the earnings of the Kristof Endowment Fund. Additionally, the recipient's name is engraved on a plaque in the LARS office.

J ennifer Schramm, a Civil Engineering PhD student working with Professor Inez Hua, received the Maple Point Graduate Research Fellowship Award on May 6. This award is a cash award of \$5,000 given annually to a woman graduate student in the Purdue School of Civil Engineering to further the recipient's progress toward her Ph.D. Along with the monetary award Jennifer received a framed certificate. (See photo on page 11.)

Charity Kruidhof, who graduated this past semester with her BSCE, was named the national winner of the Women's Transportation Seminar (WTS) Undergraduate Scholarship. The award was in the amount of \$2000. Charity was nominated for the national award by the Chicago Chapter, which had selected her as the recipient of its chapter's \$1000 scholarship award. Charity was presented her national award at a special reception and awards dinner banquet at the Drake Hotel in Chicago dinner during the 1999 National Conference of WTS, May 5-7th.

CE '93 Co-Op Newsletter Continues to Thrive

A ccording to Professor Leonard Wood, Director of the CE Co-Op Program, the newsletter published by Co-Op students from the Civil Engineering Class of 1993 continues to accept submissions and is well-received by those alumns. The newsletter is published twice a year and consists of letters, updates and photographs from fellow classmates. If you were a member of the Class of 1993 Co-Op Program and would like to receive the newsletter or send in your update, please contact Professor Wood at the School or call 765-494-5020.

Student Athletes

(Above I to r) Krista Waldbeiser, Ryan Weaver and Shahara Nixon

Staying eligible for an athletic scholarship means spending a lot of time at the study table in addition to attending practices and games... They are called student-athletes, not athlete-students. For athletes pursuing a degree in Civil Engineering, that point could not be stronger. Staying eligible for an athletic scholarship means spending a lot of time at the study table in addition to attending practices, games, and University functions. Civil students—and engineering students in general—tend to have more homework in relation to other degrees. They are expected to spend two to three hours for each course credit hour studying out of the classroom. Maeve Drummond, Undergraduate Program Administrator for Civil Engineering explains: "It's a full-time job...if you want to get the grades."

The School of Civil Engineering's tough curriculum is a hurdle five Purdue student-athletes have chosen to conquer. They are: Todd Stelma, Grand Rapids, MI, football (received his BSCE at the May 1999 Commencement); Christa Waldbieser, Terre Haute, IN, cheerleader (senior, graduating December 1999); Ryan Weaver, Richmond, IN, track (senior, graduating December 1999); Jeremy Zeid, Colorado, swimming (senior, graduating December 1999); and Shahara "Skeeter" Nixon, Glenwood, IL, softball (junior). All five students agreed that the most important success factor for any student-athlete is time-management. In Engineering, every class requires lots of time from the student. "There's no down time. A student cannot succeed in Civil if they are wasting time or missing class, especially when so much of their time outside of the classroom is spoken for by the sports program," says Drummond.

Purdue athletes are fortunate to have convenient access to tutors, study tables, and resources through the academic learning center. This assistance does not necessarily give student-athletes an advantage over other students because it's still up to the individual to know what's going on in class. "I found that I didn't really need the tutors to learn the material," says Weaver. "I just needed to set aside a certain amount of time each week for each class." Waldbeiser noted that going to help sessions has been a vital aspect of her studies.

Because Purdue expects its athletes to achieve at the same level as all its students, Civil Engineering student-athletes are on a particularly tough playing field. Their success in the classroom may be due in part to the competitive nature of the individual, since engineering is such a competitive field. Nixon's advice to other student-athletes is to "get to know the professors. The one-on-one talks really helped and some professors even come to my games." The coaches also emphasize success in the classroom and most set goals to have a team grade point average above the University's student average. They strictly enforce hours at the study table or with a tutor for those who need extra help. Nixon added that her coach is "very concerned and involved with our grades. We are students before we are athletes."

Participating in a Big Ten sport is a great opportunity for any athlete, but these student-athletes had more on their mind when they chose Purdue's School of Civil Engineering. "I came to Purdue because of its reputation as an excellent School of Engineering," said Stelma. Others made their choice because of family involvement in Purdue and/or Civil Engineering. Or, as Weaver quipped, "being a Purdue fan all my life might have helped out a little bit, too."

Plans after graduation vary as widely as the sports in which these students compete. Stelma has accepted a position as a graduate structural engineer with Fishbeck, Thompson, Carr and Huber, a private architectural, engineering, and environmental firm of about 230 employees located in Ada, Michigan, a suburb of Grand Rapids. Zeid anticipates working for a medium-sized consulting firm following his graduation this December. He's not ruling out returning to get a Master's degree, "but I want to get some real world experience first." Weaver plans to work for an engineering firm in the area of highway design, utilizing his structures knowledge, while Waldbeiser is considering pursuing an M.B.A. Both anticipate receiving their undergraduate degrees in December 1999. Nixon, who has a little more time before graduating with the Class of 2000, is currently interviewing for summer internships and is also contemplating graduate school.

INTERESTED IN HIRING CIVIL ENGINEERING GRADUATES?

To assist our students with job placement, the School of Civil Engineering has developed a website and is working directly with employers in assisting them with recruiting. We are posting permanent job opportunities and summer internship positions on this website. We are also providing company information to our students, even if a specific position isn't open currently.

If you would like to be included on this website, please complete the information below and return it to our office, or e-mail lhiggins@ecn.purdue.edu. You may also enclose information/literature about your company for reference. For more information, contact Linda Higgins at 765-494-2157. You may visit the website at http://www.ecn.purdue.edu/Engr/employment.

Our students resumes are also available on-line. December 1999 and May 2000 graduates will be added in September 1999. You may access our student resumes at http:// CE.www.ecn.purdue.edu/CE/Resume/.

Employment Recruiting Information

Name of Company:
Address:
City/State/Zip:
Contact Person:
Telephone:
Fax:
Email:
Website Address:
Area of Specialization:
Please provide above information to:
Linda Higgins
School of Civil Engineering
1284 Civil Engineering Building
West Lafayette, 47907-1284
765-494-2157
e-mail lhiggins@ecn.purdue.edu

CE Alumni Honored - Honorary Doctorate, Distinguished Engineering Alumni, and the

Honorary Doctorate

Purdue's highest honor, Doctor of Engineering, is bestowed upon individuals of exceptional attainment and merit.

Fred M. Fehsenfeld, has combined engineering and entrepreneurial skills in a distinguished career spanning five decades. He is chairman of the board of The Heritage Group,



an Indianapolis-based, family-owned business involved in petroleum marketing, oil refining, road building, aggregate production and environmental management with a strong emphasis on research and development.

Fred M. Fehsenfeld

An Indianapolis native, Mr. Fehsenfeld came to Purdue in 1942 to study engineering, but World War II interrupted his academic pursuits. After service as a decorated Mustang fighter pilot in Europe, he returned to West Lafayette to earn a bachelor's degree in mechanical engineering in 1948. He began his career as a petroleum engineer at the Rock Island Refining Corporation, then joined his family's small business, Crystal Flash Petroleum, in 1952. He became the driving force in developing the business into The Heritage Group, an organization with annual revenues exceeding \$800 million and more then 4,000 employees nationwide among its range of companies.

Mr. Fehsenfeld has maintained an active role in research and development, and Heritage has been in the forefront of development of such products as gelled asphalt, multigrade asphalt and an insoluble copper salt used as an animal feed additive, made from waste circuit board etchant and industrial plating wastes. Additionally, he has taken on an international leadership role in studying the long-term health effects of asphalt fumes on workers.

A 1991 Distinguished Engineering Alumnus, Mr. Fehsenfeld has kept close ties to his alma mater, working to locate the North Central Superpave Center at Purdue. Milestone Contractors, a Heritage company, did major work on the Birck Boilermaker Golf Complex upgrade. He was founding chairman of the School of Civil Engineering Advisory Council, and he is a member of the President's Council and John Purdue Club.

Bob F. Jesse is an outstanding example of a Purdue engineer who has combined a highly successful career with decades of unselfish service to his alma mater and his community.

The chairman and chief executive officer of Indiana Construction Corporation, Mr. Jesse until recently was the senior member of the Purdue Board of Trustees. Originally appointed in 1976, he was chairman of the board from 1989 until 1993. He served as chairman of the board's executive committee, and completed his eighth term as an alumni trustee.



Bob F. Jesse

president of the Indiana University-Purdue University Foundation at Fort Wayne, and is a member of the Purdue President's Council, John Purdue Club

A native of Fort Wayne,

Indiana, Mr. Jesse is

and the Indiana University-Purdue University

at Fort Wayne Advisory Board, among a range of Purdue affiliations.

Mr. Jesse enrolled in Purdue's School of Civil Engineering in 1945 after heroic wartime service in the U.S. Merchant Marine. During operations in the English Channel to supply Allied troops in Normandy, his ship and, subsequently, his lifeboat, were sunk by torpedoes. He was the sole survivor of the lifeboat sinking, and he received the Mariners Medal for his actions during the operation.

Earning his bachelor's degree in 1949, he joined the Indiana Highway Commission as a bridge design engineer. A year later, he began an affiliation with C & C Construction Company in Fort Wayne as a field engineer. He was elected executive vice president in 1959 and president in 1969 when the company became a wholly-owned subsidiary of Westinghouse Electric and was named Cebor Construction Corporation. Specializing in environmental engineering, he expanded the firm's operations worldwide. After leaving Cebor, he acquired Indiana Construction Corporation in 1974.

He is past president of the Associated General Contractor of Indiana. A registered professional engineer in Indiana, he also is a member of the National and Indiana societies of Professional Engineers. He is a member of Chi Epsilon national scholastic civil engineering fraternity, and recently received the Chapter Honor Member award from the Purdue chapter. He is a 1988 recipient of the Sagamore of the Wabash.

Distinguished Engineering Alumni

The Distinguished Engineering Alumnus Award is given by the Schools of Engineering to recognize outstanding and lasting contributions to engineering education, research, and practice.

Robert L. Bowen, BSCE 1962, President and CEO of Bowen Engineering Corporation, the son of a Purdue civil engineer, grew up spending his summers learning surveying with his father's company. Mr. Bowen later founded his own company, Bowen Engineering. His company, which is involved in municipal, utility, industrial, and environmental construction, is

the largest environmental contractor in the Indianapolis area. The company employs 350 people, 23 of which are Purdue graduates. Bowen Engineering has won AGC of America (SIR), and the Contractor of the Year Award from Habitat for Human-



Robert L. Bowen

ity. The firm is constantly looking for new and better ways of doing business; Bowen Engineering is now in the tunneling sector and is the only contractor in the state doing posttensioning concrete. Mr. Bowen was awarded the Civil Engineering Alumni Achievement Award from Purdue in 1995 and the Ernst &

Civil Engineering Alumni Achievement Awards

Young Indiana Heartland Entrepreneur of the Year in 1998.

After graduating from Purdue, **Bryan A. Erler**, BSCE 1969, MSCE 1970, joined Sargent &



Lundy and has been with the company since then. He moved up quickly in the firm and was appointed a partner in 1986. He is now Senior Vice President and Owner, Sargent & Lundy, located in Chicago. Mr. Erler was the chairman on the

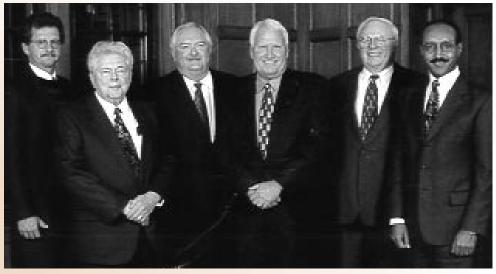
Bryan A. Erler

Joint ASME/ACI Technical Committee on Concrete Pressure Vessels for Nuclear Application, which set standards for design requirements of reinforced and pre-stressed pressure vessels and contaminants for nuclear power plants. As the president of the Structural Engineers Association of Illinois, he created a political action committee to be involved in the engineering laws in the state of Illinois. Mr. Erler was given the Civil Engineering Alumni Achievement Award from Purdue in 1996.

1998 CEAAAs

In February 1999, the School of Civil Engineering Faculty awarded the 1998 Civil Engineering Alumni Achievement Awards to six outstanding Civil Engineering alumni. The Awards are based on the exceptional careers of the awardees, which reflect credit on the value of a Purdue University Civil Engineering education.

Receiving the 1998 awards were, **Amos Joe Alter** (BSCE 1938, PCE 1949), who after serving as a commissioned officer in the US Public Health Service, acted as Alaska territorial sanitary engineer for 21 years. He was involved in the establishment of many organizations, including the Alaska section of the American Society of Civil Engineers. His work and ideas have lead to concepts in Cold Regions Engineering, which were used on such projects as the Trans Alaska Oil Pipeline.



1998 CEAAAs Albert R. Curran, MSCE 1973, CEO/Woodard & Curran, Inc., Amos Joe Alter, BSCE 1938, PCE 1949, Civil Engineer, James M. Barker, BSCE 1965, Vice President/HNTB Corporation, David R. Boyd, BSCE 1960, Chairman/ Webcor Builders, Jerry R. Kerr, BSCE 1956, Exec. Vice President (Retired)/Huber, Hunt & Nichols, Inc., Ephraim Senbetta, BSCE 1974, MSCE 1975, PHD 1981, Vice President/Sto Corporation

Through working with the Illinois Department of Transportation **James M. Barker** (BSCE 1965) was involved in the creation of castin-place segmental bridges. Later, while with Figg and Muller Engineers, Mr. Barker was the chief engineer for the Linn Cove Viaduct, which won numerous awards including the Presidential Achievement Award. As the current vice-president of HNTB Corporation, he oversees all bridge design in the firm's Southeast Division.

In 1971 **David R. Boyd** (BSCE 1960) and his closest friend Rosser Edwards co-founded Webcor Builders, Inc. The general contracting company started small but is now ranked number one in San Francisco Bay Area Construction Volume and is ranked 54th nationally by Engineering News Record. Mr. Boyd and his company are involved in many charitable organizations, such as Christmas in April and Habitat for Humanity.

Albert R. Curran (BSCE 1971, MSCE 1973) co-founded Woodard & Curran, one of the fastest growing full-service environmental companies in the country. Mr. Curran has served as project manager on many wastewater and solid waste projects, some funded with EPA innovative/alternative funding. Under Mr. Curran's direction as CEO, the company has expanded to include hazardous waste, privatization of water and wastewater utilities and information technology.

After serving in the US Army Corp of Engineers, **Jerry R. Kerr** (BSCE 1956) began working for Huber, Hunt & Nichols as a field engineer. He worked his way through the management ranks to Executive Vice President in 1995. While working with Huber, Hunt & Nichols, Mr. Kerr was involved in the construction internship program. Recently, he has been working with the construction engineering and management faculty to develop a construction management business course.

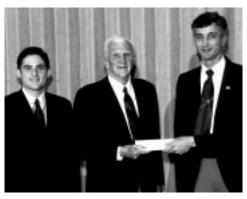
The research work of **Ephraim Senbetta** (BSCE 1974, MSCE 1975, PhD 1981) led to a standard test method that was adopted by the American Society for Testing and Materials. He is currently vice president at Sto Corporation, responsible for research and development, marketing, and technical services. Dr. Senbetta has a passion for teaching and spent ten years as adjunct associate professor of civil engineering at Cleveland State University.

12th Annual Burton D. Morgan Entrepreneurial Competition

Bigger prize money, increased publicity, and the opportunity to gain invaluable counsel during the 1999 Burton D. Morgan Entrepreneurial Competition encouraged 45 teams to submit business plans, of which only six were selected for the final presentation and competition for prizes.

Rene Yamin, a doctoral candidate in the School of Civil Engineering who is also seeking a master's degree in management, and David Harmelink, assistant professor in the School of Civil Engineering, were awarded the third-place prize of \$2,000 for "VLS Application." The VLS Application is a new software that was developed for scheduling and project management in the highway construction industry.

First and second place prizes were awarded to Christoph Weismayer, MSM'97, and the team of Malav Dani, LuAnn Evans, Jose



Morgan Burton (center) presents third prize award to Professor David Harmelink (left) and Rene Yamin (right).

Fortes, Nirav Kapadia, and Mark Lundstrom, respectively.

The entrepreneurial competition was established to help students develop an appreciation of the free market system and the role of the entrepreneur in a market economy.

Rieth Distinguished Professor continued from front page



Professor Rao stands with Mrs. Mary Jane Rieth

Extensive Research Background

Dr. Rao's most recent research is in developing innovative technologies for characterization of hazardous waste sites and for enhanced remediation of contaminated soils and aquifers. He has field tested innovative techniques for alcohol and surfactant in-situ flushing of aquifers contaminated with waste oils, and developed and tested new tracer techniques for characterizing the amount and spatial distribution of non-aqueous phase liquids at waste disposal sites.

In 1998, he received a patent for developing a new tracer technique for measuring interfacial areas between immiscible fluids in flow systems. His inter-disciplinary research has been supported by more than \$15 million in grants and contracts from industry and several state and federal agencies.

Dr. Rao's publications include more than 150 refereed articles, 30 book chapters and various technical reports and conference proceedings. He also has served as chairman or co-chairman of dissertation/thesis committees for 17 Ph.D. and 30 master's students.

The search to fill the Rieth Distinguished Professorship was a multi-year process that first identified potential candidates from the top 30 universities with highly respected environmental engineering programs. In all, about 50 different candidates were considered in the eight-year search, with about 20 making campus visits.

"I'm impressed by Purdue's academic reputation and institutional commitment to excellence," Rao says of his acceptance of the post. "The high quality of faculty members with whom I will be working and their commitment to developing strong, inter-linked programs is a major attraction."

Purdue Focus: Subsurface Hydrology, Environmental Chemistry

His goals are to establish an ambitious research program with equal emphasis on basic and applied research in subsurface hydrology and environmental chemistry. "I want to build a nationally and internationally respected program by working closely with faculty members in Civil Engineering, Agronomy and other faculty associated with the Environmental Science & Engineering Institute at Purdue," Dr. Rao says.

That goal reflects his career-long approach. "I have always dedicated my energies to developing strong, productive inter-disciplinary research and graduate education programs by bringing together faculty and students from engineering and science disciplines," Dr. Rao says. "Blurring the lines of disciplinary distinctions has allowed us to develop teams able to take on exciting projects that any one discipline could not have worked on."

Dr. Rao and his wife, Keiko, moved to West Lafayette in June 1999.

STAFF

John Habermann returns to Civil Engineering as a Research Engineer for the Indiana Local Technical Assistance Program (Indiana LTAP), previously known as HERPICC. John received his master's degree from Purdue in 1994 and specialized in bituminous materials. In his new position, John will be assisting county, city and town officials with their transportation-related problems. He will be giving short courses and providing one-onone help. John is originally from San Antonio, Texas and lives in Indianapolis.

Andrea Wisaksono transferred from the Nuclear Engineering Department where she was a Secretary to Professor Ishii. Previously she was a full-time student. She is currently completing her nursing degree. Andrea resides in West Lafayette with her husband and son. She was born in Germany and grew up in New York City. She enjoys working with computers, web designs and traveling. She will be working in the Indiana LTAP Center as their new Resource Librarian.

Taya Cook joined the School as a Secretary for Alumni Relations and Development. Taya's background is in public relations and computer graphics and she most recently worked for a small printing company in Monticello, Indiana. Taya lives in Monticello with her son Jacob and enjoys being active in sports and is coaching her son's soccer and baseball teams.

Kevin Spires is the secretary for Indiana-LTAP. Kevin transferred from the Adaptive Programs for the University and has been a Purdue employee for 17 years. She is married and has a nine year-old son, Kenny. Her family is active in both church and school functions.

Mary Hoover is returning to the University after almost two years of working in the overthe-road trucking industry. She found it very challenging; however, she missed working in the university setting. Mary and her husband, Ralph, have a home on Heritage Lake near Danville, IN. Her favorite pastimes are spending time with her daughter and three grandchildren. She also enjoys boating, crocheting and gardening.



Goldberg Distinguished Lecture Series

A celebration of structural engineering achievements in 20th century Chicago was held on the Purdue campus during the Fall 1998 semester. The John E. Goldberg Distinguished Lectures focused on engineering in the city of the 20th century. The program of twelve guest lecturers was dedicated in memory of John E. Goldberg, professor of structural engineering at Purdue University (1950 - 1975).

The program participants included: C. William Brubaker, Perkins & Will; Clyde N. Baker, Jr., STS Consultants, Inc.; Eli W. Cohen and Robert P. DeScenza, TT-CBM Engineers; John J. Zils, Skidmore, Owings, & Merrill; W. Gene Corley, Construction Technology Labs, Inc.; Barbara Schmidt Hornkohl; Anthony E. Fiorato, Portland Cement Association; Bryan A. Erler, Sargent & Lundy; Stan-Lee Kaderbek, Chicago Department of Transportation; Michael J. Tylk, Tylk Gustafson & Associates; Gary J. Klein, Wiss, Janney Elstner Associates, Inc.; R. Shankar Nair, Teng & Associates, Inc.

For information about recieving Goldberg Lecture Series text, contact Professor Robert Frosch via e-mail at: frosch@ecn.purdue.edu.

Daughter of CE Professor Receives Presidential Award

In February 1999, President Clinton awarded twenty NSF Presidential Early Career Awards for Scientists and Engineers (PECASE), the highest honor bestowed by the U.S. government on outstanding scientists and engineers whose talents and potential are so great that they are expected to emerge as leaders on the frontiers of science and engineering during the next century. The twenty recipients were selected from all disciplines in both science and engineering.

This honor was bestowed on Purdue alumna **Julie Jacko** (BSIE 1990, MSIE 1991, Ph.D. 1993) for her engineering accomplishments and research titled "Universal Access to the Graphical User Interface: Design for the Partially Sighted.

Under her father Professor Bob Jacko's tutelage and example as one of Purdue's Civil Engineering faculty, she aspired to a career in engineering education and research. Currently she is assistant professor of industrial engineering at the University of Wisconsin-Madison. She received her Ph.D. in industrial engineering from Purdue University in 1993, when she was recognized as the first daughter of an engineering professor to receive her Ph.D. in engineering from Purdue.

Incite to Insight

A new school year is about to begin and that means the Civil Engineering Alumni Relations & Development staff has many events planned. Most are listed on the back of this issue of Transitions but be sure to get the current information at our CE web site: http://CE.www.ecn.purdue.edu/CE/News/ Alumni. If you're a CE alumnus, CE friend, parent of a CE student or interested in learning more about Purdue Civil Engineering you are welcome to attend our events. If you have any questions about the upcoming events call us at (765) 494-2166 or e-mail us at cenews@ecn.purdue.edu.

I field many questions about funding needs in the School of Civil Engineering. Every day brings opportunities to the Head of the School for funding new initiatives. Each initiative has to be evaluated by how it will affect our mission and goals set forth in the CE strategic plan. When outside funding is necessary then we get to work matching individuals whose interest may align with the planned new initiative.

There are many "needs" on our list—some requiring several thousands or millions of dollars—but there are many more that can be funded by a single individual or family, or by corporate or foundation support.

The good news is that there are several consistent needs. One is student support. At the graduate level, students need financial incentives to attend our programs. We rely on private support to attract the very best U.S. and international students. Financial support is necessary for all our graduate students. At the undergraduate level, the School has, over time, improved the number of scholarships available for our CE students. All types of scholarship support are needed, but today merit-based scholarships are a priority for our programs. These allow us to recognize the academic success of individual students.

Faculty enrichment is another area that benefits from outside funding. Incentives for faculty support benefit our school. Private support is used by our faculty to learn current classroom technology and to understand the demanding changes in industry's needs. Laboratories specific to a faculty member's interest are needed and constantly require upgrades, not only to attract and retain the faculty members but to attract students too.

A few other areas that we would be delighted to talk about are completing the renovations of the environmental engineering laboratories; continuing a Distinguished Lecture Series, much like the Goldberg Series mentioned in this Transitions issue; and establishing a permanent Practitioner in Residence program. All of these "needs" are very worthwhile and you may have some ideas in mind how you could help the Purdue Civil Engineering program. If you want to help the School, we want to hear from you.

Once again the school has lost a very close friend in Professor Harold Michael. To his family and to those of you who knew him, you have my deepest condolences. His family has asked that memorial contributions be made to the Harold Michael Memorial Fund in the School of Civil Engineering. If you wish to make a contribution in Professor Michael's memory, make your check payable to the Purdue Foundation, and send to: CE Development Office, 1284 Civil Engineering Building, Purdue University, West Lafayette, IN 47906-1284. We will ensure the family is notified of your contribution to the school.

We had very encouraging responses from our last Transitions for contributions to funds established in memory of our faculty. In our next issue we will publish the CE Honor Roll and the names of donors contributing to those special funds, along with the gifts made to other funds in the CE School. We appreciate everyone who has helped in many ways to support our projects as well as those sponsoring many of our special events, like our annual Civil Engineering Golf/Tennis Open and the Indianapolis Reception. A special thanks to Bob Bowen who helped our Civil Engineering students make the trip to New Mexico to participate in the WERC competition.

If I can be of any assistance to you in making a gift to Purdue University or if you are considering including Purdue Civil Engineering in your estate planning, please let me know. I would be happy to discuss how you can help accomplish the future needs of our School. My telephone number is (765) 494-2236 and e-mail fry@ecn.purdue.edu.

Best regards,

Don Frv

Director, Alumni Relations and Development School of Civil Engineering



(I to r) Don Fry, Professor Emeritus Bob Miles and Maeve Drummund, Undergraduate Program Administrator.

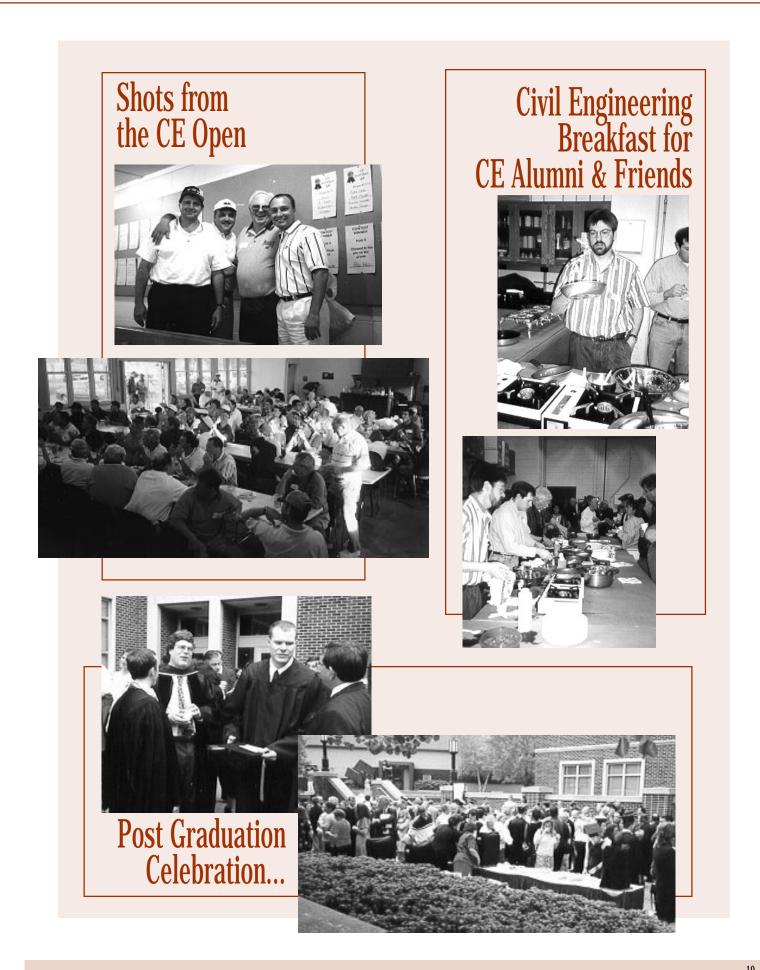


EPICS TEAM RECEIVES AWARD

The Civil Engineering EPICS (Engineering Projects in Community Service project on Constructed Wetlands won the AMD Award for Design in the Spring 1999 semester. The project team consists mainly of Civil Engineering undergraduate students, but also electrical engineering, mechanical and interdisciplinary engineering students from freshman to senior level. The project partner is Prof. George Parker in Forestry and Natural Resources. Industry advisors are Furman Smith of Eli Lilly and Mike Scott of Great Lakes Chemical. The primary faculty advisor is Ron Wukasch. Civil Engineering EPICS team members were Adrienne Flagg, Amanda Grose, Andrew Karch, Julie Meszaros, Sunie Rahardia, Brian Schmude, Chad Shockley, Jessica Starost, Jeremy Todd, and Lee Yeung.

The constructed wetlands are designed to treat once-through water from the Purdue Aquaculture center and agricultural drainage water. The photographs show the students in the process of planting some of the 9,800 wetlands plants in May.





Class Notes

Allen L. Sklare, Indianapolis, IN—Mr. Sklare was recently recognized for his nearly 50 years of service in housing and land development. As founder and President of Bay Development Corporation since 1977, Mr. Sklare leads an experienced team of professionals who are able to complete a development from the initial concept to the final sale.

1953

Gordon R. Archibald, PE, Pawtucket, RI-Mr. Archibald was presented the Freeman Award by the Providence Engineering Society at its Annual Banquet at the Biltmore Hotel on March 18, 1999. The Freeman Award is given in recognition of lifetime achievement and leadership in the engineering profession. Mr. Archibald directed his firm, Gordon R. Archibald, Inc., Professional Engineers, for 28 years before being elected as Chairman of the Board in July 1988.

1957

James E. Houmard, Akron, OH—James retired from Aircraft Braking Systems Corp. and from Goodyear Aerospace Corp. after 40 years of service on June 1,1998. The majority of his career was in structural design and analyses of inflatables for commercial, military and NASA applications. Some of these were the Goodyear advertising blimps, missile silo water seals, satellite reentry parachute systems, parachutes for Project Viking Soft Landing on Mars in 1976, and Apollo uprighting flotation bags (pages 14 &15 of *Extrapolations*, Spring 1999).

1959

John G. VanSickle, Hamilton, OH—On January 1, 1999, Mr. VanSickle assumed ownership of Criterium-Hough/Van Sickle Engineers. They are one of 65 offices associated with Criterium Engineers, one of ENR's Top 500 Engineering Companies.

1962

Christopher M. Timm, PE, Albuquerque, NM— Mr. Timm joined Commodore Advanced Sciences, Inc. as a Vice President in January 1998 and was promoted to C.O.O. in July 1998. He serves on the Board of Directors for Startup Technology Firm in Los Alamos, NM. He and his wife, Celina, own a small ranch on the Pecos River, east of Santa Fe and are redeveloping an old vineyard. They are also helping Cuban refugee families get settled in New Mexico. Mr. Timm has taken up writing and hopes to be published soon.

1965

George Y. Baladi, PhD, PE, Kirtland AFB, NM—Dr. Baladi has been named Deputy Director, Testing Division for the Defense Threat Reduction Agency at Kirtland Air Force Base

1967

Dan Powell, PE, Glendale, AZ—Dan recently moved to Glendale and is now ITS Program Manager for PBS&J. He will manage the divison's western operations. Prior to this appointment, he worked for the Arizona Department of Transportation for 26 years. Most recently, Dan served as the chief administrator for the award-winning AZ Tech Model Deployment Initiative project, one of four ITS model deployment initiative grants selected in a nationwide competition. The initiative will provide an integrated ITS system for the Phoenix metropolitan area that coordinates freeways and traffic signal systems across jurisdictional boundaries and provides a privatized advanced traveler information system. His other responsibilites for the ADOT included serving as District Engineer, Equipment Services Administrator, and Maintenance Planning Engineer. In addition to his BSCE from Purdue. Dan has a master's degree in transportation from the University of Tennessee. He is a member of the Intelligent Transportation Society (ITS) of America; a founding member and past president of the ITS of Arizona: and a member of the Institute of Transportation Engineers, the APWA, and the ASCE. He is a registered professional engineer in Arizona and California and a registered land surveyor in Arizona.

1968

Jaime Logreira, Colombia, South America— As owner of his own company, CHS Ltda., Jaime directed an AM/FM/GIS project, in the works since 1985, which is said to be one of the world's biggest and most complex (*Transmission & Distribution*, pg. 56, February 1995). On May 29, 1998, he was awarded the National Civil Engineering Excellence Award for distinguished services by the Colombian Society of Civil Engineers. He has over 40 years of experience in professional practice in environmental engineering and computer applications to civil engineering projects.

1969

Michael H. Wink, Veedersburg, IN—Michael is a District Construction Engineer for INDOT in Crawfordsville.

1973

Robert G. Carlson, Lakewood, CO—Robert has served as President of Muller Engineering since 1996. The firm is a 26-person civil engineering consulting firm that serves the state Department of Transportation and local governmental agencies. Mr. Carlson serves on the Board of Directors of the West Chamber, serving Jefferson County. He is a member of the American Consulting Engineering Council and is the ACEC Colorado Representative to the National Quality Initiative (NQI) Colorado. He is also a member of the Institute of Transportation Engineers and is a Certified Consulting Engineer.

1974

P. Frank O'Hare, PE, Columbus, OH— Frank has joined ACE American Consulting, Inc. as Vice President of their Ohio operations. ACE began business in 1966, specializing in transportation and structural engineering. Now, after 33 years of steady growth, ACE offers complete consulting services to their clients throughout the United States.

1976

Joseph M. Cibor, Houston, TX—Joseph has been named President of Fugro South, Inc., a Houston-based engineering firm serving both domestic and international clients. He received undergraduate and graduate engineering degrees from Purdue and is also an alumnus of Harvard Business School. Ranked eighth on Engineering News Record's list of the "Top 200 International Design Firms," Fugro is the world's leading provider of on- and off-shore geotechnics and positioning services. The firm also is engaged in field exploration, engineering geology and geophysics, construction materials testing, and pavement management systems. Fugro employs more than 5,000 people worldwide and operates in 40 countries. Its 1998 revenues exceeded \$600 million.

Jeffrey L. Stapleton, Aurora, CO—Jeffrey is a Senior Structural Engineer for Carter & Burgess, Inc. in Denver, Colorado. A highway bridge that he designed, the I-225/I-70 flyover ramp in Denver, won an FHWA National Quality Initiative (NQI) Award last year.

1977

Glenn Reynolds, Durham, NC—Glenn is currently employed at Duke University and was recently promoted to Assistant Director, Systems/Engineering Services. Glenn has been employed at Duke since May 1998 in the Facilities Management Department. His new job involves the planning, programming, and budget responsibilities for the campus utility distribution systems, as well as coordinating in-house and contract engineering services. Glenn's wife, Sandra, is employed by the Duke University Medical Center.

1978

Cris Klika, Indianapolis, IN—Cris has been appointed the new Commissioner of Indiana Department of Transportation (see story on page 8).

1979

Martin Brockman, Khobar, Saudi Arabia— Martin has been promoted to Operations Manager for Arabian CBI Ltd., a company of Chicago Bridge and Iron, NV. He lives in Saudi Arabia with his wife and two children and would love to hear from fellow Purdue grads in SA or from his class of 1979/80. His email address is: mmkbrock@sahara.com.sa.

1980

Mark A. Kapouralos, Southlake, TX—After nine years in Chicago, Mark moved to Dallas, Texas in 1998 to join Nokia Corporation, a Finnish-based company. Nokia is #1 in the world in cellular telecommunications. He is the Director for AMPS Product Management/ Americas.

1981

Glenn McArdle, Westlake, OH—Glenn is Manager of Retail Operations for Travel Centers of America in Westlake.

1982

Spencer Patterson, Jr., Albuquerque, NM— Spencer is now a Commander for the 877th Civil Engineer Squadron of the US Air Force, based at Kirtland AFB in New Mexico.

Dale Wills, North Liberty, IN—Dale now works as an estimator/project manager for Small Inc. in North Liberty.

Debra A. (Smith) Wright, Elkhart, IN—In October 1998, Debra accepted a part-time position as a traffic engineer for the City of Elkhart's Public Works and Utilities. She works part-time while her children are in school and enjoys being home when the bus drops them off after school. Co-worker Mike Machlan is a fellow Purdue Civil alum; both studied hydraulics.

1984

Lori Archibald Troxel, Nashville, TN—After working for Tennessee Department of Transportation for two years, Lori obtained an MS and Ph.D. in civil engineering from Vanderbilt. Currently, she is an assistant professor of civil engineering at Vanderbilt and teaches statistics and surveying. In the fall she will be teaching full time. Lori and her husband Scott have two children—Beatrice, 6, and Archie, 4.

1986

Vasilis J. Botopoulos (BSCE'86, MSCE'91, MBA'94), Athens, Greece—Vasilis has been named Vice President of Academic Affairs (Provost), for the University of Indianapolis, Athens.

1987

Girish Agrawal (MSCE'87; PhD '92), Sunnyvale, CA—Girish has resigned his position with HFA in Irvine and is now working with BSK & Associates in Pleasanton in the San Francisco Bay area. His wife, Shalini, has accepted a post-doctoral position with the Howard Hughes Medical Institute at Stanford.

1991

Frederick Mathis, Jr., Houston, TX—After working for six years as a transportation engineer for the Michigan Department of Transportation, Frederick moved to Texas where he currently works as a Bond Project Engineer for Harris Co. Public Infrastructure Dept. (HCPIO). His responsibilities include managing over 15 consultants' road design projects in the Houston area. He and his wife, Tonia, have two sons, Cedric and Frederick III, who are 3 years old and were expecting their third child in April 1999.

Jason Sun, Seattle, WA—Jason recently accepted a position with Media Passage Inc., a brokerage firm for advertising between advertising agencies and daily newspapers. He is involved in their information technology.

1994

Beth (Hickman) Emerson, PE, Durham, NC—Beth married in September 1998 and received her PE in January 1999.

Ian Lundberg, Marietta, GA—In 1998, Ian founded Resolve Environmental Engineering, an environmental consulting firm in Marietta.

Christopher M. Straub, Kansas City, MO— Chris is a project manager at Burns & McDonnell in Kansas City. He was recently named manager of Burns & McDonnell's TWA account. He and his wife, Regina, will soon be announcing the birth of their first child.



Chester N. "Chip" Hahn II, Fort Drum, NY— Chip is currently the Combat Engineer Platoon Leader in the 10th Mountain Division (LI) at Fort Drum. He is preparing for a six-month deployment to Bosnia-Herzigovina to monitor humanitarian demining efforts by the Bosnian Army. He is also conducting route and bridge surveys to ensure freedom movement for U.S. forces and Bosnians throughout the country. Chip married Melissa A. Royston (CDFS'98) in December 1998.

Tolga Kilic, Chicago, IL—Tolga graduated with a Masters of Project Management from Northwestern University in 1998, married Asli Kilic on January 30, 1999, and is currently employed as a construction engineer with HARZA in Chicago. Tolga is a member of the NSPE and American Investors Associates.

Jeffrey D. Pizanti, Pensacola, FL—Jeff graduated from Aviation Maintenance Officer School in Pensacola, FL and has orders to the USS Dwight D. Eisenhower. On board, he will work at the Aircraft Intermediate-level Maintenance Department in a logistics and management role.

Theresa Laughlin Silver, LaPorte, IN—On May 30, 1999, Theresa Laughlin married Michael Silver, Jr. in West Lafayette, IN. The couple now resides in LaPorte.

Julie (McCoy) Townsend, Richmond, VA— Julie is a project engineer for Anderson & Associates, Inc. She serves as a Chairperson for the Technical Drafting Advisory Council at Hermitage High School in Richmond. In 1998 Julie received her EIT registration. She married Brian Townsend on January 10, 1998.

1998

Kristine Nanney, Santa Monica, CA—Kristine is a Field Engineer for Charles Pankow Builders, Ltd. in Altadena, CA.

David J. Zientek, Joliet, IL—David is a land surveyor for Ruettiger, Tonelli, and Associates, Inc. in Joliet.

In Memorium

IJLUS Foster F. Schilt - BSCE '27, Delray Beach, FL

Joseph C. Paspisa - BSCE '29, Toledo, OH Eugene C. Bowman - BSCE '29, Newport, AR Worl A. Wise - BSCE '26, Bismarck, ND William H. Jacobs - BSCE '22, Coconut Grove, FL 1000'a

1930's

Thelma Weber - BSCE '34, Louisville, KY Harry P. Wood - BSCE '33, Lafayette, IN Albert W. Cramer - BSCE '32, Seattle, WA John D. Higgins - BSCE '35, San Diego, CA Chester H. Bowers - BSCE '39, Roanoke, TX Julius B. Christman, Jr. - BSCE '31, Houston, TX David Primack - BSCE '31, Silver Spring, MD Benjamin S. Sheinwald - BSCE '36, Rockport, MA William F. Traylor - BSCE '35, Evansville, IN

1940's

Max J. Farrell - BSCE '41, Topeka, KA Avis J. Anderson - BSSEH '48, West Lafayette, IN Dr. Mary F. Hernandez -BSHE '48, MSLA '59, Las Cruces, NM Charles W. Lindner, Sr. - BSCE '45, MSCE '48, Springdale, OH Roberto A. Blandon - BSCE '41, West Long Branch, NJ L. K. Modisett - BSAG '49, Lafayette, IN Robert W. Epple - BSSCI '40, West Lafayette, IN Joseph A. Romer - BSCE '46, Sacramento, CA Jean A. McCammon (wife of Lewis McCammon) - BSSCI '44, Alhambra, CA

1950's

Harold J. Michael - MSCE'51, West Lafayette George M. Eberhart - BSCE '56, Big Sandy, TX M. N. Franklin - BSCE '52, Buda, TX John L. Wesley, Jr. - BSCE '52, Lexington, KY George W. Bishop - BSCE '59, Beaufort, SC E. N. Mose - BSCE '52, Hinsdale, IL

1960's

Edward J. Cox - BSCE '65, Brownsburg, IN

1970's

Dr. Kevin K. Wolka - BSCE '72, MSCE '74, Shelby Township, MI

1990's

Brian C. Hood - MSCE95 Julie E. DePhillips - BSCE '98, Chicago, IL Friends

Don C. Foster - Mulberry, IN Kyoko A. Sato - Austin, TX George E. Schmitt - Parkersburg, WV Robert W. VanHook - Fremont, OH Isaac A. Bercovitz - Indianapolis, IN Theodore F. Hagerman - Fort Wayne, IN Salvatore D'Amico - Brooklyn, NY Samuel J. Hamrick - Robertsdale, AL George Millikan - Muncie, IN Richard A. Stapleton - Willis, TX Dr. Walter Hirsch - West Lafayette, In

GREAT TEACHERS



The Book of Great Teachers, a permanent wall display in the west fover of the Purdue Memorial Union, is an extension of Academy Park. The book bears the names of the inaugural group of 225 faculty members, past and present, who have devoted their lives to excellence in teaching and scholarship. They were chosen by their students and their peers as Purdue's finest educators. The nomination process for inclusion in this book will be repeated every five years. Honored teachers from the School of Civil Engineering include: **Robert H. Lee Robert D. Miles** William Dolch John T. Gaunt. **Bevan B. Lewis** Martin Gutzwiller.

In Memory of Harold L. Michael

(Excerpts taken from Lafayette Journal & Courier, 8/5/99, and comments of Vincent P. Drnevich, 8/7/99)

Professor Harold Michael, retired head of the Purdue School of Civil Engineering and long-time faculty member, passed away August 3, 1999 at the age of 79. He was considered a "giant" in his field and, according to Purdue President Steven Beering, "was also a true gentleman and a dear personal friend."

After World War II, Harold came to Purdue where he studied Civil Engineering and graduated with highest distinction in the class of 1950. This exceptional class is noted for many distinguished people and for its gift to Purdue of the Class of 1950 Building.

Harold earned his master's degree in 1951 and joined the faculty of the School of Civil Engineering at that time. In the 40 years of service to Purdue, he had a great impact on countless people in this community, in the states, and in the world. Over 200 graduate students claim him as their mentor. Many came to Purdue to study under him. Chang Chia-Juch, who received his Ph.D. from Purdue in 1978 and is now Republic of China vice minister of transportation and communications, said "Harold Michael was very prominent—a leading expert in his field. I went to Purdue because that's where Harold Michael was." The transportation engineering practiced in the U.S. and throughout the world is strongly influenced by his work and teaching.

He rose to leadership roles in nearly all transportation professional and technical organizations, including the Transportation Research Board, the American Road and Transportation builders Association, and the Institute of Transportation Engineers. He served them until the moment of his death where he was attending a meeting of ITE in Las Vegas. The Executive Director of ITE declared the Headquarters Library and the Institute's digital library of ITE on the worldwide web in memory of Harold.

Professor Michael received many awards and much recognition for his accomplishments. For engineers, the premier recognition is induction to the National Academy of Engineering, an honor Harold received in 1975, at age 55. Purdue awarded him an Honorary Doctorate of Engineering in 1992.

While developing his national and international reputation, Harold never forgot his home community and the state. His leadership in the Joint Highway Research Project (JHRP) from 1956 until 1991 brought this joint venture between INDoT and Purdue to new levels of prominence and a model for many states to emulate.

Harold's family has asked that contributions be made to the Harold Michael Memorial Fund established in the School of Civil Engineering at Purdue. Checks should be made payable to Purdue Foundation and sent to CE Development Office, 1284 Civil Engineering Building, Purdue University, West Lafayette, IN 47907-1284.



Harold came to

Purdue where he studied Civil Engineering and graduated with highest distinction in the class of 1950

CIVIL ENGINEERING Calendar of Events

Advisory Council October 8, 1999 Civil Engineering Building

CE Breakfast & Steel Tree Dedication October 16, 1999 8:00-10:00 a.m. Breakfast 10:15 a.m. Dedication G150, Civil Engineering Building All CE alumni and friends are invited.

CE Alumni Reception In conjunction with ASCE National Convention October 17, 1999, 4-5:30 p.m. — Reception Rm. 217A, Charlotte Convention Center October 18-20, 1999 — Convention Charlotte, North Carolina

Indianapolis CE Alumni Reception October 26, 1999 5-7:00 p.m. Holiday Inn North, Indianapolis, IN All CE alumni and guests are welcome! Door prizes!!

14th Annual CE Professional Development Seminar November 4, 1999 Third Floor, Stewart Center For more information, contact Bob McCullouch at 765-494-0643.



OTEC Breakfast

November 17, 1999 7:30-8:30 a.m. Hyatt Regency, Madison Room Columbus, Ohio For reservations or more information, contact Frank O'Hare, (614) 418-1761, ohare@americons.com, or visit the OTEC website at http://www.otecohio.org

Commencement Reception December 19, 1999 Immediately following graduation. G150, Civil Engineering Building All graduating CE students, family and friends are invited.

CE Alumni Reception In conjunction with Transportation Research Board January 10, 2000 5:30-7:30 p.m. Marriott Wardman Park Hotel, Washington, DC All Purdue CE alumni and friends are invited to attend.

CE Alumni Achievement Awards February 24, 2000 Purdue Memorial Union

Advisory Council February 25, 2000 Civil Engineering Building

Gala Week / CE Breakfast April 29, 2000 G150, Civil Engineering Building



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: Transitions Editor, School of Civil Engineering, Purdue University, 1284 Civil Engineering Building, West Lafayette, Indiana 47907-1284 or e-mail: cenews@ecn.purdue.edu



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