

the M_Essenger

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Celebrating 100 Years of ME at UW



Above: Alumni from the 1980s at the Dinner on the Sound. Left: Lovely weather and views of Elliott Bay drew attendees to the deck for cocktails and conversation.

What a celebration! Alumni, family, and friends came from up and down the West Coast and from as far afield as Michigan, Ohio, and Virginia. The classes represented spanned an amazing 75 years, from 1930 to 2005. Quite a few of our alums seem to have discovered the elixir for a long, vibrant life. Friday's program looked back on a century of engineering advances, and afternoon lab tours and seminars revealed today's ME research. For more photos, see pages 4–5 and visit www.me.washington.edu/centennial. All proclaimed the celebration a huge success, and we thank Centennial co-chairs Sally and Warren Jewell ('78) for their enthusiastic leadership and support. ■

Campaign UW: Crockett Endows Undergrad Scholarships

Ron Crockett, like most engineers, is a hands-on person who relishes digging into a problem, analyzing it, and finding the precise solution. That orientation drew him into the field of mechanical engineering, propelled him through a highly diverse business career, and influences his approach to philanthropy.

A long-time donor to the UW, his latest gift of \$250,000 established the Ron Crockett Endowment for Undergraduate Scholarships in Mechanical Engineering. The first recipients

will be selected in spring 2007 — a full-circle link to his own undergrad experience.

"During my senior year at Renton High School I decided to attend the UW, but my family couldn't afford the tuition," Crockett recalls. "Then I learned about the McCurdy Scholarship and applied for it."

Soon he was interviewed by Jim McCurdy (BS '45) in his office at Puget Sound Bridge and Dredge and won the scholarship. It launched his ME education (BS '62) and marks *(continued pg 6)*

Chair's Corner



Mark Tuttle

Although it's hard to believe, we are nearing the end of Autumn Quarter 2006! There have been many exciting new developments within the ME Department over the past several months, and for me time seems to have slipped by faster than usual. This past fall we welcomed 95 new undergraduate and 42 new graduate students for a total enrollment of 228 undergrads (junior and senior) and 160 graduate students.

In September we also welcomed Dr. Alberto Aliseda as our newest assistant professor. Originally from Spain, Alberto received his PhD from the University of California at San Diego in 2004 and was a post-doctoral researcher there. He studies fundamental fluid mechanics prob-

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lems encountered in mechanical and environmental engineering and in medicine and biology. Please see pg 7 for a more detailed summary of Alberto's background and interests.

Our magnificent Centennial Celebration occurred on September 15 (see pgs 4 and 5). More than 250 ME graduates, emeritus and current faculty, staff, and friends of the department came together to celebrate our 100-year history. I met many (or perhaps all?!) of the celebrants, and again thank each of you for joining us. Many of our graduates were unable to attend, so we have provided the enclosed DVD with video highlights of the celebration. Additional images can be viewed at our website:

www.me.washington.edu/centennial/. I hope you enjoy these mementos of our celebration.

Our Alumni Corner (pg 6) focuses on Ron Crockett (BSME '62). Throughout his varied and successful career Ron has remained a committed supporter of higher education at the UW. I would like to thank Ron for his countless hours of volunteer service to the UW community, and for this most recent gift that will benefit future generations of ME undergraduate students.

In closing, let me reiterate a message from my earlier columns: You have many reasons to be proud of today's UW ME Department. We hope you will get involved!

Hall of Fame Presentation at ME Centennial



Inaugural inductees into the Mechanical Engineering Hall of Fame were honored, along with donors to the department, at a Centennial Kickoff Dinner on September 14. Inductees who received their awards at the dinner are (L-R): Roderick Kirkwood, president of Graham & Co. (retired), Professor Emeritus James Morrison ('54), Donald Petersen ('46), chairman and CEO of Ford Motor Co. (retired), and Professor Emeritus Albert Kobayashi ('52). Other inductees are Paul M. Anderson ('67), chairman and CEO of Duke Energy; Everett Owen Eastwood (posthumous), professor and ME chair (1905-47); Frank D. Robinson ('57), president and chairman, Robinson Helicopter Co.; and Karsten C. Solheim (posthumous), inventor of Ping golf clubs. For more information on these inaugural inductees, please visit the website: www.me.washington.edu/people/halloffame.

Professor Joyce Cooper Wins Fulbright Award to Continue Life Cycle Assessment Research in Finland



Joyce Cooper

Beginning in March 2007, Professor Joyce Cooper will spend five months in Espoo, Finland, as a Fulbright scholar. She will continue Life Cycle Assessment (LCA) research at VTT Technical Research Center, the largest contract research organization in northern Europe.

“While in Finland, I hope to visit and extend my network of European research collaborators,” says Professor Cooper. “VTT researchers are leaders in methodology and application advances in LCA. Our common interests in LCAs of fuel cells and advanced building technologies promise very interesting and productive collaborations.”

LCA is central for linking decisions on managing natural resources, process technology, energy conversion, and manufacturing to their impact on the environment, the economy and society. LCA is a computational model-based approach for assessing where and in what form energy and materials are used (and

wasted) throughout a technology’s life cycle. The life cycle extends from cradle-to-cradle, and provides a protocol for understanding potential impact of a technology on resource depletion, land use, global warming and other environmental impacts, manufacturing and infrastructure investment, and employment and human health effects.

Professor Cooper is currently working on research to explore the relationships between fuel cell design and life cycle impact. For this project, which is funded by the U.S. Department of Energy, the Ford Motor Company, and Plug Power, Professor Cooper has quantified the use of fuel cell vehicles for fleet materials with the potential to alter national consumption and promote recycling of materials such as steel, graphite, and platinum. The primary goal is to develop publicly available LCA data that provides results suitable for

For additional information see Joyce Cooper’s website <http://faculty.washington.edu/cooperjs> and VTT Technical Research Center website www.vtt.fi/vtt/index.jsp

both internal (the research and design process) and external (public policy development) decision-making processes.

Recently, Professor Cooper gave a presentation based on her LCA research in the 2006 University of Washington Alumni Association/ College of Engineering Lecture series. The presentation was entitled “Making the Right Choices: Can we

make decisions that are best for the environment?” In it Professor Cooper explored the broader impacts of both everyday decisions and those made by engineers in technology research, development and deployment. These include choices between disposable and reusable coffee cups and diapers, paper and plastic grocery bags, and regarding the construction of green buildings, the management of waste electronic equipment, and emerging energy sources and technologies.

Along with her LCA research, Professor Cooper also directs the UWME Design for Environment Laboratory and co-directs the Fuel Cell Durability, Remanufacturing and Recycling Lab, which engages UW researchers from various engineering disciplines in improving technology development through LCA and industrial ecology.

Joining the faculty in 1999, Professor Cooper brought extensive experience in both industry and academe. She holds a bachelors degree in mechanical engineering from Rensselaer Polytechnic Institute,

and masters and PhD degrees in environmental engineering from Duke University. She has worked in manufacturing and design for General Motors, Polaroid, and E-Systems (now a part of Raytheon), and in pollution prevention and LCA for the State of North Carolina, the U.S. Congressional Office of Technology Assessment and Battelle Memorial Institute.

Centennial Celebration Highlights



Centennial Kickoff Dinner for ME Donors & Honorees

The September 14 dinner honored department donors and the inaugural inductees to the ME Hall of Fame (see pg 2).

Top L: Chair Mark Tuttle and Don Petersen
Top R: Brian and Lee Anne Horman
Left: Former ME Chair Dave Pratt ('56) and his wife, Marilyn ('56).



Centennial Luncheon

Alumni, friends, and faculty recalled times past and celebrated ME today. Don Petersen ('46), former chairman and CEO of Ford Motor Company, gave the keynote address. Class manufacturing projects loaned by alumni were popular table decor (R) and conversation sparks.

Below L: Cliff Bartells ('30) was a classmate of Rod Scheumann, father of Dick Scheumann ('57) and grandfather of Robin Scheumann Baker ('80).
Below R: George ('59) and Myrna ('59) Eaton greet Jim McCurdy ('45).



Back to the Labs

Friday's open house put ME's research on display. Faculty and students gave demonstrations and answered questions. In the classrooms, guests could choose from among 15 brief seminars on topics such as "Use of Composites in the Boeing 787" and "Magnetic Resonance Force Microscopy: Seeing Atoms."



Above center: Undergraduate Fluid Dynamics Lab

Left center: Microcellular Plastics and Composites Research Lab

Above: Students involved in the human-powered sub team talk with an alum.

Left: Students show alums the latest SAE car.



Daniel ('79) and Roxanne Reuckert.

Celebration on the Sound

Cocktails on the deck overlooking Elliott Bay launched a festive dinner celebration at Bell Harbor International Conference Center.



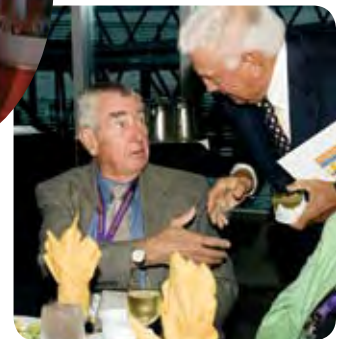
Warren Jewell ('78) (center) with Ronald ('62) and Sally Hart.



Sally Jewell ('78) gave dinner remarks.

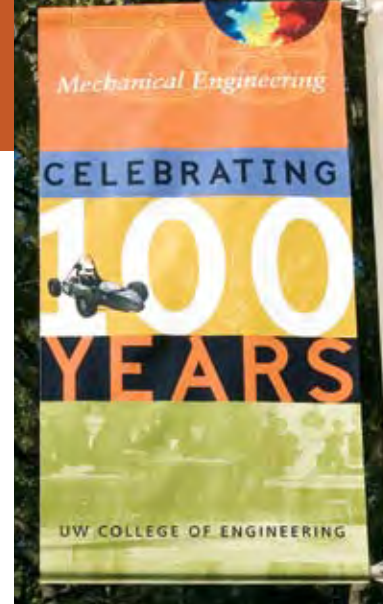


L to R: Virginia Morrison, Dick Campbell ('54), Jim Morrison ('54), Milt ('54) and Ann ('57) Bohart.



Reconnecting at dinner are (L) John Dimmer ('50) and Milt Bohart ('54).

The ME History Room was a popular place during the Friday open house. Harrison Johnson ('39) discusses a photo with ME student Bill Leath.



Street banners lined Stevens Way.

Alumni Corner

Crockett (Continued from page 1)

the genesis of his future philanthropy. As the son of an automobile mechanic and the only member of his extended family to attend college, Crockett's path exemplifies the American dream: helping hands, educational opportunity, hard work, doors opening, taking risks, building on success.

For seven years after graduation, Crockett worked in Boeing's engineering unit to configure planes to meet customer needs. Then an idea and an entrepreneurial itch evolved into his own company, Air Repair (later named Tramco), which grew into the largest commercial aircraft overhaul business in the U.S. After selling the company to B.F. Goodrich in 1988, he stayed on as CEO until 1992 and then plunged into commercial real estate development. Among many projects, he was an original investor and board member of Eagle Hardware and developed and owned several stores.

After Longacres race-track closed in 1992, Crockett merged his life-long passion for thoroughbred horse racing into a new venture as a driving force in the effort to build



Emerald Downs, which opened in 1996. He is president of Northwest Racing Associates, which runs the track. He also owns 45 horses that train at farms around the state and race here and in California.

Running through all his business successes is the engineer's reliance on analytical thinking. "I like logic and the numbers part of life. If the answer is 3.6 and you come up with 4.2, you can't say 'I'm close.' In engineering close doesn't count, because you've made a mistake

somewhere," Crockett says. "I highly value my education because it gave me logic tools and organizational systems."

In his philanthropic work, Crockett does more than write checks. He's a hands-on donor and doer who has led fundraising campaigns for Husky athletics and has also supported the UW Business School. He speaks to classes, lends an ear as a mentor to students, and follows their successes.

"It all comes down to people and having confidence that UW leaders will use the money effectively and that students will benefit. That's most important," Crockett emphasizes. ■

HONOR ROLL OF DONORS

In grateful recognition of the following individuals, corporations, and foundations for their lifetime support of \$1,500 or more to the Department of Mechanical Engineering.

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Academic Spotlight

Faculty, Staff, Student and Alumni News

JIM RILEY has been appointed associate editor for the Journal of Fluid Mechanics, the top journal in the field of fluid mechanics.

CHUNYE XU and **MINORU TAYA** have received a Technology Gap Innovation Fund (TGIF) award to develop prototypes of sunglasses and goggles employing electrochromic polymers. The lenses they have developed change from light to dark in less than a second, and can be produced in different colors.

RANDAL CHING and two UW colleagues have received a TGIF award to test patient-specific models. These plastic models will allow surgeons to see and feel the part of the body on which they will be working prior to entering the operating room.

VIPIN KUMAR and **WAYNE LI** have received an NSF award to pursue work on subcritical microcellular extrusion of environmentally benign plastics.

The Electric Power Research Institute has established a doctoral-level graduate fellowship in **PHIL MALTE'S** Energy and Environmental Combustion Lab for study in the field of ocean tidal renewable energy.

MAMIDALA RAMULU was named ME Faculty of the Year for 2005-06. His students cited him for his energy, his enthusiasm for teaching, and his genuine caring for students as an advisor and mentor.

BILL KUYKENDALL was named ME Staff of the Year for his superior maintenance of the laboratory equipment for ME classes, his patience in teaching young engineers to operate testing equipment and for his positive, can-do attitude.

WEI-CHIH WANG was named College of Engineering Faculty of the Year in recognition of his innovative research and teaching excellence.

ERIC SEIBEL has been promoted to research associate professor.

WEI (WAYNE) LI has been promoted to associate professor.

Masters candidate **AMY VINCENT** won the Margaret H. Hines Award for Outstanding Oral Presentation at the 2nd Annual Injury Biomechanics Symposium in Columbus, Ohio.

RON CROCKETT, BSME '62, established the Ron Crockett Endowed Scholarships in Mechanical Engineering. The first recipient of this undergraduate scholarship will be selected during the 2006-07 academic year. Mr. Crockett is president of Emerald Downs.

MIKE SAFOUTIN, PhD '03, is the creator of LiveVillage, a searchable digital map of Seattle that includes events. Mr. Safoutin, CEO of Villageware, a Seattle software company, is seeking to expand LiveVillage into a network of sites around the country.

SHAHROKH ETEMAD, PhD '84, received the American Society of Mechanical Engineers 2005 Gas Turbine Award for work related to low-emission engine performance. Dr. Etemad is manager of the Advanced Technology Group at Precision Combustion, Inc., North Haven, Connecticut.

JOSEPH KOO, BSME '73, has a new book entitled "Polymer Nanocomposites: Processing, Characterization, and Applications," published by McGraw-Hill. Dr. Koo is a senior research fellow at the University of Texas, at Austin.

BRIANA JOHNSON, BSME '98, was selected by the Boeing Company to receive a two-year Leaders for Manufacturing Fellowship at MIT. Ms. Johnson will earn both an MBA and an MS in engineering while at MIT.

ME Welcomes Alberto Aliseda



Alberto Aliseda

In September the department welcomed Assistant Professor Alberto Aliseda as our newest faculty member. Prior to coming to the UW, Aliseda was a

postdoctoral researcher in the Mechanical and Aerospace Engineering Department at the University of California, San Diego (UCSD). A native of Spain, Dr. Aliseda earned a combined bachelors/masters degree in aerospace engineering at the Universidad Politecnica de Madrid, followed by a masters degree and PhD at UCSD.

His specialty areas are experimental fluid mechanics, two-phase flows, and turbulence. Among his research projects is the use of micro-bubbles in combination with ultrasound waves to dissolve blood clots in arteries in the brain. He is also working on understanding and modeling the dynamics of drops and bubbles, an area with a wide range of applications such as the spraying of liquid fuels in combustion chambers and gas exchange between the ocean and the atmosphere.

Professor Aliseda will teach both graduate and undergraduate courses in energy and fluids, as well as develop new courses in his specialty areas. We expect him to contribute significantly to the department's research thrusts in the areas of health care, biothermal fluids, and environmentally sensitive energy conversion.

Academic Spotlight

Formula SAE Team Finishes 4th



SAE car on race track.

The UW FSAE car finished 4th overall in the competition held in June in California, a remarkable achievement. This year, teams were allowed to compete at both the Detroit competition in May and in Los Angeles in June. The UW team competed only in California, where the competition included 15 cars that had also competed in Detroit. Seven of these repeat competitors finished in the top ten in California. “For our team to go against teams that had already been judged and had a month to

improve their presentations and refine their cars, yet still come in 4th, is unbelievable,” said Professor Ashley Emery, faculty advisor for the FSAE car project. For the third straight year the UW FSAE team has finished in the top five at this event.

Human-Powered Sub



HPS students lowering sub into tank.

Last July, the UW HPS Team competed in Escondido, California, in 118-degree heat. The 2006 team displayed outstanding teamwork. The sub was a beautiful craft in all respects, but suffered control system problems. Twelve teams competed this year, including three from Washington state.

ME Website: www.me.washington.edu / ME Main Office: 206.543.5090

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