



Fenn Focus

Parker Hannifin Partnership Yields New Lab and More

What can a \$100,000 gift do? Thanks to the Parker Hannifin Corporation, a \$100,000 gift will establish a Motion and Control Laboratory in the Fenn College of Engineering.

Last November, Parker Hannifin Corporation presented its gift to Dr. Claire Van Ummersen, President of Cleveland State University, Dr. John Hemann, Interim Dean of the Fenn College of Engineering, and Dr. Mounir Ibrahim, Chairman of the Mechanical Engineering Department. Parker Hannifin President and Chief Operating Officer and Fenn College of Engineering alumnus, Don Washkewicz (BME '72), along with seven of his colleagues, attended the presentation ceremony held at the College. The gift will be used to equip the new lab, which is scheduled for completion by August 2001, in time for use by fall semester students.

The lab will enable students to develop and validate models of control systems for hydraulic components using modern computer-aided engineering tools to compress the design and verification steps into one seamless process. These tools bridge the gap between control theory and the engineering control application, thereby enhancing the learning environment for the students. Using these processes in the lab, students move seamlessly from control theory, system modeling, and simulation to real-time control of physical systems.

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Check presentation ceremony participants included (l-r) Cleveland State's Mounir Ibrahim, chairman, mechanical engineering; President Claire Van Ummersen, and John Hemann, interim dean; and Parker Hannifin's Duane Crockrom, human resource and development manager; hydraulic group; Marwan Kashkoush, president, worldwide hydraulic; Dan Serbin JD '88, vice president of human resources for automation and hydraulics; and Donald Washkewicz BME '72, president and chief operating officer.

Letter from the Dean

Dear Alumni and Friends,



Challenges. We all face them. Serving as Interim Dean, I've come to realize that the challenges sometimes seem daunting. But the beauty of facing these challenges head-on is overcoming the obstacle and being successful.

Take the College's enrollment as one example of a challenge. Our enrollment topped out in the early 1980's. Unfortunately, Fenn College followed the national trend of declining enrollment for engineering schools, to a point where we hit an all-time low in 1999.

During the past several years, the College has faced this issue head-on. Implementing ideas from our visiting committee, admissions, faculty and staff, we have reversed our downward cycle and have seen modest increases during the past three semesters. This year, we have brought in over 500 local high school students for tours and hands-on laboratory programs through our ACE Program (doubling our number over last year). Our faculty have visited an additional seven high schools, talking about various aspects of engineering, as a way to spark interest in the field among our young people. We have also raised additional scholarship money, and look forward to the University investing in engineering scholarships during the next

several years. Special thanks are in order to **Avery Dennison**, **Parker Hannifin** and the **National Electrical Contractors Association** for implementing new scholarships this year.

A second challenge we face is limited resources. Student credit hours provide tuition, fees and state subsidy dollars that help operate the College; the declining enrollment is causing a budget squeeze. The formula for allocating state subsidy continues to change and get tighter. Cleveland State, a state-assisted institution, actually receives only about 40% of its operating money from the state. In addition, the college's operating budget has not increased in 15 years.

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Student Profile

Reinaldo Gonzalez

Reinaldo Gonzalez came to Cleveland from Venezuela. He was seeking a better education that was more updated with the latest technological trends and he was in search of a city with a small Hispanic community, so he could practice his English. After arriving in Cleveland, it was recommended to him that he attend Cleveland State University's Fenn College of Engineering, known in Ohio for its top industrial engineering program. "I grew up in Valencia, a very industrial city. I was always attracted to the process of changing raw material into a finished product."



Reinaldo, a May 2001 graduate with a bachelor's degree in industrial engineering, maintained a 3.7 cumulative grade point average while staying active in several student organizations and working. He was president of the National Society of Black Engineers and involved in the Institute of Industrial Engineers. He is currently working for Godfrey and Wing, a metal finishing company.

Reinaldo feels he took full advantage of all that Fenn has to offer. Working with Dr. Tugrul Ozel of the Industrial & Manufacturing Engineering Department on the Manchester Tool Program, Reinaldo analyzed cutting forces using super alloys and diamond-like tools. He also had the opportunity to work on an engineering project in London as part of a student exchange program. When asked what he likes best about the College, Reinaldo states, "I liked the hands-on experience the best. What I learned, I was able to immediately use."

In July, Reinaldo will start a position in General Electric's Operations Management Program. This two-year intensive training program rotates employees to various work assignments around the United States, training them for manufacturing and technical leadership positions within GE. Although Reinaldo will be traveling, he plans to keep in touch with his alma mater and some day give back. "I put myself through school and at times it was a struggle. Fenn College helped me out whenever possible," states Reinaldo. "I plan to some day give back to the Fenn College of Engineering by providing a scholarship for another student facing the same situation. It's like the movie, *Pay It Forward*. If alumni each sponsor one student, they not only help those students, but help the community as well." ■

IEEE Student Branch Recognized for Leadership

The Fenn College of Engineering's Institute of Electrical and Electronic Engineers (IEEE) student chapter has been nominated for the IEEE Student Professional Awareness Hall of Fame. This national recognition found on the organization's webpage is new this year and is given to a limited number of student chapters each year. The qualifications are based on how activities of each student branch compare to the general operations of typical branches.

The IEEE student branch has a long history of bringing an awareness of the professional nature of electrical engineering to its members and other students. For example, a total of eight Student Professional Awareness Conferences (S-PACs) have been hosted by this student branch in 1984, 1990, 1991, 1993, 1995, 1997, 1998 and 2000. This is evidence of one of the most consistent conference programs in the United States and has resulted in hundreds of students increasing their understanding of the value of including professionalism in their career plans.

This year's student chapter, under the leadership of officers Rajiv Chokshi, William Stempowski, David Wladyka and Eric Rossi, planned three major new activities. In September, the organization hosted a Student Leadership Training Workshop for its students and representatives from several schools in Ohio and Pennsylvania. Because of the workshop, three visiting student chapters initiated S-PACs for this spring.

Under the leadership and technical expertise of David Wladyka, the organization implemented the Graduate Resource And Network Database (GRAND) Student Professional Awareness Venture (S-PAVe). In the organization's website, a database exists for students and alumni to input contact



During the Student Leadership Lunch held in March, the IEEE student chapter received the College of Engineering's Student Chapter of the Year award. Attending the lunch were (l-r) Eric Rossi, Secretary IEEE, Mike Wladyka (JEC President for 2001-2002), Stan Pinchak, IEEE member, Anne Yanke and Rajiv Chokshi, IEEE president.

information, experience and interests, as well as evaluation of co-op assignments. This important networking tool allows future student chapters to keep in touch with alumni and provides contacts for jobs. The webpage database was packaged and offered as a resource to other student branches. Alumni are encouraged to enter their information by visiting <http://ieeegr.csuohio.edu/grand/>.

Finally, the student chapter hosted a networking workshop and business card exchange earlier this spring. The organization printed business cards for all students in attendance. Alumni and other industrial representatives attended. Students were taught how to make positive impressions when meeting people, how to write professional thank you letters, and how to interact in a social environment. They then practiced their newly learned skills and sent follow-up thank you letters.

Because of the chapter's numerous activities this year, it also received the College's Student Chapter of the Year award during the Student Leadership Award's lunch held in March. ■

Tradition Lives On at Fenn

The Fenn College of Engineering is rich in tradition. One tradition that has existed since 1970 is the Steel Ring Ceremony, an event at which graduating seniors participate in the Order of the Engineer Induction Rite. Twenty-nine seniors were inducted this year. Held in April, this event also incorporated an award ceremony, with departmental awards, scholarships and student activity awards presented.

The "Order of the Engineer" originated in Canada in 1926 as the "Ritual of the Calling of the Engineer". Canadian engineers felt a need to foster a spirit of unity and pride among themselves and to provide a visible symbol identifying the engineer. Their ceremony included the reading and accepting of an obligation written by English author, Rudyard Kipling, and receiving a wrought-iron ring to be worn on the small finger of the working hand.

The symbol of the iron ring stems from the construction of the bridge that plunged into the St. Lawrence River at Quebec City killing 76 workers in August, 1907. The investigation that followed placed blame on the principal engineers for deviating from accepted design procedures for the bridge. The symbol of the iron ring serves as a reminder of the engineer's responsibility to perform his/her duties in an ethical and professional manner.

In 1962, Homer Borton, past president of the Ohio Society of Professional Engineers, and G. Brooks Earnest, past president of Fenn College, received iron rings in Canada. The Canadians considered the "Calling" to be a uniquely

Canadian ceremony and rejected the Americans' attempts to extend it to chapters outside of Canada.

On May 9, 1970, Burl Bush, Dean of the Fenn College of Engineering, recommended to the student president of the Joint Engineering Council that the engineering students create a ring ceremony recognizing the profession of engineering similar to the Canadian Calling of the Engineer.

Stainless steel rings were machined in the Industrial Engineering machine shop and on June 4, 1970, 169 senior engineering students, faculty, and practicing engineers accepted the obligation of the Order of the Engineer and received their steel rings, taking an oath to perform their engineering duties in an ethical and professional manner.

The National Board of Governors of the Order of the Engineer granted the Fenn College of Engineering the first Link (or chapter) of the Order in May, 1975. Today, there are approximately 175 Links at engineering schools throughout the United States. The Fenn College of Engineering has over 2000 members of the Order. ■



Senior mechanical engineering student Milka Medved, accepts an SAE Distinguished Service Award from (l-r) Mounir Ibrahim, chairman of mechanical engineering and John Frater, SAE faculty advisor.



A 31-year tradition at the Fenn College of Engineering, the steel ring ceremony provides graduating students with an opportunity to be inducted into the "Order of the Engineer" and sign the Obligation of an Engineer oath, professing to integrity and honesty in the engineering profession.



Michael Mazzocco (r), senior civil engineering student, receives his steel ring from interim dean, John Hemann.

Dean's Letter

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Consider how inflation has adversely affected our college.

So, how do we meet the challenge of running an excellent engineering program with limited resources? Several ways: research grants, gifts, and increasing enrollment. When faculty write research grants, a portion of the overhead costs are returned to the college, providing important operational dollars for all departments. We also hired a

development officer in the fall of 1999 to help raise funds for college initiatives.

As alumni and friends of the Fenn College of Engineering, how can you help? If you are a graduate, spread the word about your fabulous education. Alumni can be some of the best recruiters for a school. If you have discretion over research dollars, gifts, or equipment donations for your organization, contact me or Deborah Miller and

we'll connect you with the appropriate faculty or staff member. Finally, when you receive your annual fund request, send in your gift. Every little bit really does make a difference! However you choose to get involved, know that you are helping to advance your alma mater.

*John H. Hemann
Interim Dean*

New Cleveland State Provost a Former Dean of Engineering

Chin Y. Kuo began as the new provost/senior vice president for academic and student affairs at Cleveland State University on May 1. He comes to CSU from Wayne State University where he served as the dean of the College of Engineering. The provost is the University's chief academic officer and has broad responsibilities for the planning, development, and administration of the full array of the University's academic programs and student services.



Chin Y. Kuo

"I am very pleased and honored to join Cleveland State University," said Dr. Kuo. "I look forward to working with the entire University community and its external partners to continue, expand and create programs that promote aca-

ademic excellence and further position the University as a major resource within the Northeast Ohio region."

Dr. Kuo is an internationally known expert in the field of hydrology, hydraulics and water resources engineering. He received his doctorate and two master's degrees from Princeton University, an additional master's degree from the University of Missouri and bachelor's degree from National Taiwan University.

Before his appointment as dean at Wayne State in 1996, he was a professor and head of the civil and environmental engineering department at Pennsylvania State University and a professor of civil engineering at Virginia Polytechnic Institute and State University.

At Wayne State, he reversed the downward trend in enrollment, achieved continuing professional accreditation for the college, and was a highly successful fundraiser of multi-million dollar gifts.

"Everyone at Cleveland State University should be very pleased with what the University has accomplished so far,"

Dr. Kuo added. "There are many high visibility, top quality programs and activities in place. I hope to keep the momentum going."

Other new leaders joining Cleveland State recently are Roy Ray, vice president of finance and administration (former senator from the Akron area) and Wayne Davenport, vice president for university relations and development and executive director of the CSU Foundation (former vice president for university advancement/executive director of the University Foundation at Southeast Missouri State University). The board of trustees also approved the appointment of former Kent State University President Michael Schwartz as Cleveland State's interim president. Dr. Schwartz, president emeritus at Kent State, holds a Ph.D. in sociology, an M.A. in industrial relations and a B.S. in psychology, all from the University of Illinois. He served as Kent's president from 1982-90 and still teaches there. He began as Cleveland State's interim president on May 15. ■

ACE Program Sees Major Growth

The Fenn College of Engineering's unique Access to Careers in Engineering (ACE) Program is becoming more and more popular with area high schools. The program is designed to introduce high school students to careers in engineering through six topical half-day, hands-on sessions with faculty members and staff. Students also receive a tour of the College and general information about the field of engineering, as well as information about Cleveland State scholarships and admission criteria. "By introducing young people to engineering, we are hoping to not only encourage them to pursue a career in this field, but to consider obtaining their education at the Fenn College of Engineering," states Gregg Schoof, Manager of Engineering Student Programs.

This academic year, participation saw a 50% increase, with over 500 students participating in activities. In addition, faculty members visited an additional 300 students at area high schools as part of the Faculty Lecture Program. ■



(Above) Chemical Engineering Associate Professor Sridhar Ungarala (r) leads a group of North Olmsted High School students through the operation and computer control of a heat exchanger.



(Left) Students from St. Edward High School worked with Dr. Tugrul Ozel, assistant professor in industrial and manufacturing engineering. Students learned about the measurement of forces and simulation of cutting in the metal turning process.

Bits and Pieces...

NEWS FROM AROUND THE COLLEGE

● Congratulations to the *American Society of Civil Engineers* student chapter for placing second in the state for OCA's Construction, Planning and Engineering contest.

● Mechanical Engineering Junior, *Keith Spalsbury*, received the Outstanding Engineering Student of the Year award by the Cleveland Area National Engineers Week Committee in February during Engineers Week. Keith is currently employed in a cooperative education position at the Nutro Corporation in Strongsville as a designer draftsman. He is also the owner and operator of Cascade Home Services, a home improvement company specializing in carpentry, painting, lighting and plumbing. He is a member of the Cleveland Engineering Society, Tau Beta Pi, and American Society of Mechanical Engineers. Keith, his wife and two daughters reside in Ravenna, where he is designing and building a retirement home for his mother.

● The Ohio Board of Regents has approved the new *Bachelor in Computer Engineering degree program*. Freshmen students who have been admitted to the program this year are expected to graduate in Spring of 2004. Two new faculty members have been

hired and two more will be added in 2002, bringing the total number of Computer Engineering faculty members to six. The current Computer Engineering option within the Bachelor of Electrical Engineering degree program will be phased out. Graduates from this option are eligible to obtain a second degree (Bachelor of Computer Engineering) by taking a few extra courses. For information on the new curriculum, contact Ms. Janet Basch at 216-687-2589 or by email at jandu@hotmail.com.

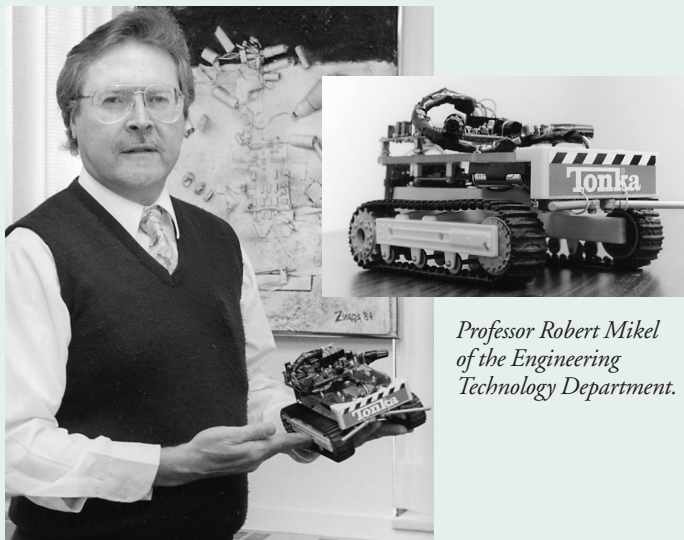
● The student chapter of the *Institute of Industrial Engineers* placed first in the student display contest sponsored by the Cleveland Engineering Society during Engineers Week.

● The Fenn College of Engineering received a \$90,000 grant from the *Ohio Learning Network* of the Ohio Board of Regents, as part of a consortium of universities throughout Ohio. The money will be used toward developing a world-class manufacturing certificate and master's program in engineering management. Emphasis will be placed on web-based courses, so that students can take various courses from different universities to earn their degree or certificate.

● The student chapter of the *American Institute of Chemical Engineers* placed third in the regional Chem-E car competition held at the University of Wisconsin in March.

● *Dr. Joseph Svestka* has been named Chairman of the Industrial & Manufacturing Engineering Department. He obtained his Ph.D. from Case Western Reserve University. *Dr. Eugenio F. Villaseca* has been named chairman of the Electrical & Computer Engineering Department. His Ph.D. is from Arizona State University.

● *Dr. Fuqin Xiong*, Associate Professor of Electrical and Computer Engineering, saw his book "Digital Modulation Techniques" published by Artech House in February 2000. Since then, the book has been acquired by more than 110 libraries around the world, and has become the publisher's best-seller. The 654 page long graduate level book includes the most recent research results of prominent scholars in the field of communications and also the results of the research work that Dr. Xiong and his students have conducted at CSU. His current research efforts are funded by the NASA Glenn Research Center. ■



Professor Robert Mikel of the Engineering Technology Department.

Dr. John Spring, Assistant Professor of Engineering Technology and *Dr. John Frater*, Professor of Mechanical Engineering advised groups of high school students as they designed and built robots for NASA's FIRST (For Inspiration & Recognition of Science & Technology) Robotics Education Project. This program is designed to show students that engineering and science can be fun. Dr. Spring worked with students from Max Hayes High School and Dr. Frater with students from East Technical High School. Associate Professor *Robert Mikel's* engineering technology senior design class competed in the Autonomous Robotics Competition on May 12. Professor Mikel developed this class several years ago to allow students to apply their knowledge in a robot created using various materials. ■

Focus on FACULTY

Dr. William Atherton

Department of Mechanical Engineering

Dr. William Atherton joined the Fenn College of Engineering as an assistant professor in 1982, upon graduating from the University of Cincinnati with his Ph.D. in Mechanical Engineering. He was promoted to Associate Professor in 1988. Throughout his tenure at CSU, he has fulfilled numerous university assignments, including serving on many department and college committees, serving as faculty advisor for student organizations, and serving as the chairman of the mechanical engineering department from 1994 – 1998.

As chairman, Dr. Atherton faced many challenges, including successfully leading the department through accreditation in 1995, implementing faculty collective bargaining procedures, and



converting department coursework from quarters to semesters.

One of Dr. Atherton's unique contributions to CSU was to lead the project team that constructed the University's parade float for Cleveland's Bicentennial in 1996. Utilizing engineering, artistic design, and management skills combined with hours of sweat and labor, the team successfully completed a float that featured Haggar cruising the sea in his Viking ship followed by a City of Bridges section celebrating four of the city's landmark bridges with Moses Cleaveland sailing up the Cuyahoga in a dingy.

Dr. Atherton's research has focused on dynamics, controls and system simulation. Past research projects include

designing and constructing a micro-processor based controller for a five-axis robot for NASA and designing and constructing a coolant refill system for Ford Motor Co. Throughout his career, he has brought in over \$1 million in research money to the College. His most recent work involves serving as a member of the team of faculty that wrote the proposal leading to the Parker Hannifin Motion and Control Laboratory gift. As a member of this team, Dr. Atherton has worked to implement curriculum changes incorporating this new lab and write additional proposals to fund lab activities. He will be teaching a new motion & control course in fall 2001.

Dr. William Atherton can be reached at 216.687.2595 or w.atherton@csuohio.edu for further information about his work. ■

Dr. Patrick M. Flanagan

Department of Mechanical Engineering

Dr. Patrick M. Flanagan is an Associate Professor of Mechanical Engineering in the Fenn College of Engineering. He holds degrees from Clarkson College of Technology, Massachusetts Institute of Technology and the University of Cincinnati. Dr. Flanagan's areas of expertise include sensor design, instrumentation, measurements, vibrations and acoustics. He has taught both undergraduate and graduate engineering courses for 25 years and is cited by the annual senior class survey as one of the best Mechanical Engineering instructors in the department.

Dr. Flanagan's innovations and technology achievements have led to the awarding of over two million dollars of funded research. He has published 31 papers, receiving two Marshall V. Yokelson Memorial Awards from the Wire Association International in 1999 and 2001. Dr. Flanagan also consults for

both industries and government agencies. He has received four patents for his consulting work with industry and an EDI Innovation Award for his advanced sensor technology with NASA.

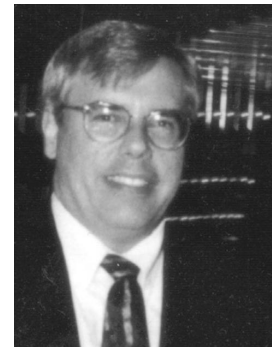
Dr. Flanagan is an active member of CSU's Advanced Manufacturing Center helping local industries solve their manufacturing challenges. He provides test services and custom measurement systems. He is currently working on two industrial projects, with the help of an undergraduate student, Andy Dragmen. He is implementing a novel in-situ measurement system to improve productivity as well as measuring fretting corrosion problems in connectors. His work has helped improve the manufacturing excellence of several Northeast Ohio companies and is cited in a Manny award.

This spring, Dr. Flanagan will install his new sensor diagnostic system

at NASA Stennis, upgrading the accelerometers used on the main engines

of the Space Shuttle. Thanks to a donation of equipment from *Keithley Instruments*, he has been developing software to integrate the equipment into the Instrumentation and Measurements course. Through a grant from the Ohio Board of Regents' Ohio Learning Network, he is also developing a web-based course in the area of sensors in manufacturing. Finally, he is a member of the team working on the Parker Hannifin Motion and Control Laboratory.

Dr. Patrick Flanagan can be reached at 216.687.2554 or at PFlana4625@aol.com for further information about his work. ■



Dr. Majid Rashidi

Department of Mechanical Engineering

Dr. Majid Rashidi joined the Fenn College of Engineering as an assistant professor in 1987 upon graduating with his Ph.D. in Mechanical Engineering from Case Western Reserve University. He was promoted to associate professor in 1993. Dr. Rashidi teaches a number of undergraduate and graduate level courses (of which he has developed four) and has been recognized as Faculty Member of the Year in the Mechanical Engineering Department seven times.

Dr. Rashidi has expanded his teaching area of interest to include the newly developed Biomedical Engineering Doctoral Specialty, that is a collaborative teaching and research partnership between CSU and the Cleveland Clinic Foundation. He developed a course, "Mechanics of Living Tissues, Tissue



Dr. Majid Rashidi (r) is pictured with two of his mechanical engineering students, Brian Belfiore and Ray Cepulo (l-r). The students presented their senior project "Adjustable Radial Clearance Hydrodynamic Journal Bearings" to the Ohio Aerospace Institute this spring and together with Dr. Rashidi have applied for a patent for the project.

Engineering," which includes both analytical and experimental studies of living tissues.

Dr. Rashidi's areas of research include machine design, bearing design, vibrations of rotating machinery and fluid-solid interactions in machinery. For the past 14 years, he has been involved in a number of industrial research projects through the Advanced Manufacturing Center for companies such as Fomo Products, Inc. and Aqua Tech. These projects have resulted in two patents: Front Mount Hose Reel Assembly for Sewer Cleaning Trucks and a Two Component Gun Design for Foam Dispensing Application.

His research activities have brought more than \$400,000 to the College. Dr. Rashidi is also a member of the faculty team that is establishing the Parker Hannifin laboratory.

Dr. Rashidi has written for a number of publications, does consulting, has served as an expert witness for several technical court cases, and reviews technical journals, including the *ASME Transaction Journal of Mechanical Design*.

For further information about Dr. Majid Rashidi's work, he can be reached at 216-687-2575 or by email at M.Rashidi@csvax.egr.csuohio.edu. ■

Dr. Jerzy T. Sawicki, P.E.

Department of Mechanical Engineering

Dr. Jerzy Sawicki joined the faculty of the Mechanical Engineering Department in Fall, 1993, after earning a Ph.D. from Case Western Reserve University in Mechanical & Aerospace Engineering. He was promoted to Associate Professor with tenure in 1997, and recently was promoted to the rank of Professor. Dr. Sawicki's areas of interest include dynamics and tribology of rotor-bearing systems, active vibration control and diagnostics of rotating machinery and equipment, and mechatronic systems.

Dr. Sawicki is the Director of the Rotor-Bearing Dynamics & Diagnostics Laboratory, which he established in 1997 based on a grant received from the Ohio Board of Regents. The main objective of this laboratory is to conduct theoretical and experimental research in

general areas of rotor dynamics, the application of modern control to the dynamics of rotating machinery, magnetic bearings, diagnostics of rotor-bearing systems, fluid-film and rolling element bearings, and seals. The laboratory has been receiving continuous funding from *NASA* and numerous companies, including *Allied Signal*, *General Electric*, *Federal Mogul*, *Honeywell Corp.*, and others. Dr. Sawicki has individually generated over \$500,000 in grants during the last five years. He has taught more than 20 different courses within the Mechanical Engineering Department and has been invited to participate on numerous national and international committees. Dr. Sawicki has published over 60 refereed journal and conference papers in the

area of rotor-bearing systems, tribology, mechatronics and modern control.

Dr. Sawicki is currently working on several major industrial projects, including the development of advanced control strategies for smart manufacturing applications (Federal Mogul), problems of instability in large steam turbines for power utilities (GE), and the development of new health-monitoring techniques for aircraft engine rotors (NASA).

Dr. Jerzy Sawicki can be reached at 216.687.2565 or j.sawicki@csuohio.edu for further information about his work. ■



Parker Hannifin

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A team of faculty members is leading the charge to implement the lab into current coursework, as well as developing three new courses that will incorporate lab technologies. Dr. William Atherton, Dr. Patrick Flanagan, Dr. Majid Rashidi, and Dr. Jerzy Sawicki, who were responsible for the final proposal that led to the gift, have written additional proposals to further develop the laboratory.

Parker Hannifin also demonstrated its commitment to the students of the Fenn College of Engineering by presenting two \$1,000 scholarships for the 2001-2002 academic year. Their initial scholarship gifts made last year were presented to Brian Belfiore, senior, and Anthony Cafardi, junior, of the Mechanical Engineering Department during the gift presentation ceremony.

"This generous gift is a winner for our students, Parker Hannifin, and industry throughout Northeast Ohio. Through our working partnership with Parker Hannifin, our students will have the opportunity to use state-of-the-art equipment that is being used every day in corporations both large and small," said John Hemann. "Industry will benefit by having an employment pool of



Recipients of the first Parker Hannifin Scholarships receive certificates of recognition during the check presentation ceremony in November. Pictured are (l-r) Dan Serbin, Brian Belfiore, senior mechanical engineering student, Marwan Kashkoush, Anthony Cafardi, junior mechanical engineering student, and Don Washkewicz.

engineering graduates with practical experience in the current tools of the fluid power trade." Parker Hannifin further dedicated its commitment to the lab and Fenn College students. "We don't plan to let the lab deteriorate, but

intend to keep the equipment state-of-the-art through our continuing support," stated Don Washkewicz. "This includes supporting the education of CSU students demonstrated by our commitment to scholarships." ■

Thanks to Our Volunteers

Throughout the year, many engineering alumni give of their time to the Fenn College of Engineering and Cleveland State University. Alumni serve on the College's and department visiting committees, get involved with research projects, speak to student groups, and set up alumni events, just to name a few of the many activities. We'd like to thank those that have been involved during the past year and are named.

Special thanks are also in order to **Alice (Jalics) Claus** and **Michael Claus** who are completing their two-year term as co-presidents of the engineering alumni association. Under their leadership, several new activities have taken place, including the Fenn Speaker Series and a Cleveland Browns Stadium tour.

George Baaklini, BCE '80, MSCE '81, DRE '91
Robert Bassett, BEE '98
Steve Belovich, MSEE '83, DRE '87
Ron Bender, BCE '62
Paul E. Boskovitch, BEE '90
Carl F. Breth II, BSET '94
John Buehner, BEE '73
Joel Chaney, BSET '95
Rick Cherney, BEE '99
Alice (Jalics) Claus, BME '99
Michael Claus, BIE '99
Bill Compton, BEE '41
Joe Dabrowski, BME '78
Scott Darpel, BIE '98, MSIE '00
Brian David, BEE '92
Steven Del Rio, BEE '92
Glen DeWyer, BES '43
Paul Emerson, BEE '97
Jeffrey Filarski, BCE '87
Alicia (Janecek) Francisco, BEE '94
Armando Francisco, BEE '94
John Frater, BME '65, MSME '70
Dennis J. Fundzak, BEE '75
El Gentry, BIE '45, JD '59
Ken Hall, BEE '74
David Huiett, BES '66

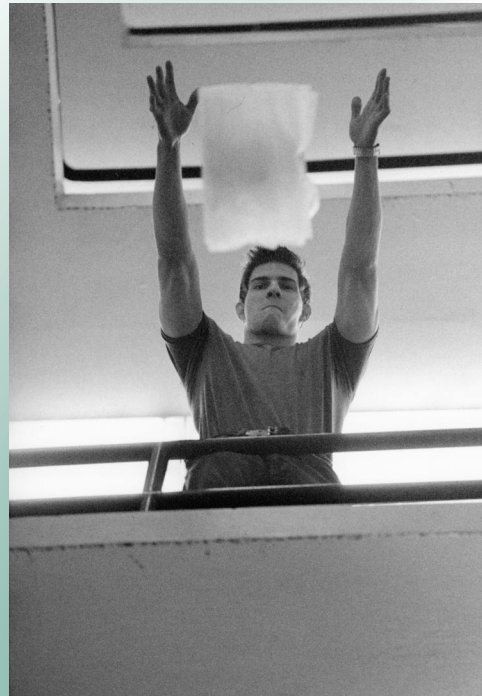
Peter Jancar, BCE '75
Frank Jankowski, MSME '80
Ed Jayjack Sr., BME '49
Ward L. "Bud" Kinney, BME '77
Yaakov Korb, BSET '98
Mike Krasowski, BSET '85, MSEE '87
Joni Ledinsky, BIE '00
Henry "Skip" Lewandowski, MSIE '89, DRE '92
Jim MacMillan, BME '89
George Madzsar, BME '85, MSME '86
William David Mohat, BSET '79, MSCIS '93
Louis Nerone, BEE '82, MSEE '86, DRE '95
Erwin J. Odeal, BCE '67
George J. Palko, BCE '88, MBA '93
Mark Papke, BCE '96
Frank Renovich Jr., MSEE '82, DRE '89
Fred Rodgers, BCE '81
Hugo Stockman, BME '51
Jeff Svoboda, BIE '74
Paul O. Szentkiralyi, BME '87
Mike Thiel, BEE '92
Don Washkewicz, BME '72
Clarence Watkins, BCE '77, MSCE '92
Timothy Wolfe, BCE '73
Ray Zucker, Jr., BChE, MSCHE '74 ■

Engineers Week Celebrates 50 Years

National Engineers Week celebrated 50 years this year and encompassed a variety of activities at the Fenn College of Engineering. Annual activities, such as the local egg drop competition sponsored by Tau Beta Pi and the spaghetti bridge competition sponsored by ASCE, were coupled with new events like sex wars, sponsored by SWE and Black Science and Engineering Trivia game sponsored by NSBE.

One of the highlights of the week was the Engineer-For-A-Day Program sponsored in cooperation with the Cleveland Engineering Society. Students from 26 area high schools were placed in job shadowing opportunities at 43 companies and government organizations. Prior to the job placement experience, students and their parents participated in a one-day program held at the College. Keynote speaker was Thomas Benson, Aeronautical Engineer in NASA's Engine Systems Technology Branch. Students learned about engineering and viewed lab demonstrations in various engineering disciplines. They also had an opportunity to learn about Cleveland State from our Director of Admissions, Dewey Holleman.

Special thanks to the following companies that hosted high school students in February: Adache Ciuni Lynn Associates, Inc., Advanced Ceramics Corp., Advanced Manufacturing Center at Cleveland State University, Allied Construction Products, Ameritech, Analex Corp., Bacik Karpinski Associates, Inc., Batelle, BBC & M Engineering, Inc., Camp Dresser & McKee, City of Cleveland - Division of Water Pollution Control, Cleveland Clinic Foundation - Biomedical Engineering Dept., County-wide RDF, CT Consultants, Inc., Cuyahoga County Engineer, Dick Corporation, DLZ Ohio, Inc., Euthenics, Inc., Ford Motor Company, The Great Lakes Construction Company, HWH Architects Engineers Planners, Inc., The Illuminating Company, LTV Steel Company, Malcolm Pirnie, Inc., Middough Associates, Inc., Moen Incorporated, MTD Products, Neff and Associates, Nordson Corp., Ohio Dept. of Transportation, Osborn Architects & Engineers, Parsons Brinckershaft, Project and Construction Services, Inc., Ralph Tyler Companies, Rockwell Automation, Rovisys, Schirmer Construction Company, Shook Heavy & Environmental Group, Smart Data, Solar Testing Labs, Inc., Stephen Hovancsek & Associates, Inc., URS Greiner. ■



Egg Drop

Bob Szabo, a junior mechanical engineering student, won the egg drop competition when his "egg-mobile" survived a five-story fall from University Center.

Spaghetti Bridge

Chairman Paul Bosela and Professor John Tomko (l-r) of the civil and environmental engineering department, test the weight capacity of one of the projects entered in the spaghetti bridge competition.

Focus on ALUMNI

Class Notes

Dr. Richard August (MSME '80, DRE '83) has been named vice president of the newly created Science & Engineering Division of RS Information Systems, Inc. He was formally vice president of Federal Data Corporation's Aerospace Division.

Edward D. Basta (BME '82) was named vice president of Technology and Market Development at Atlas Steel Co.

James E. Blum (BSET '85, MS in Biology '90) completed his doctorate work at the University of Maine in Clinical Research and Biostatistics. He is a partner in the consulting firm of Marshall-Blum, which works in both the medical field performing

Outcomes and CQI work at various hospitals and for physician groups and conducting clinical trials for herbal products.

Richard R. Dean (BSET '83) has been promoted to director of pigment operations of Kerr-McGee Chemical LLC, a wholly owned subsidiary of Kerr-McGee Corp.

Larry B. Donovan (BEE '89) has joined Arter & Hadden as an associate in the intellectual property office. He focuses his practice mainly in the areas of foreign and domestic patent and trademark applications.

Gregory G. Finn (MSEE '92) has joined Antenna Specialists as a senior RF/antenna design engineer. Finn will be responsible for the design and development

of antennas and antenna interface electronics including prototyping, testing, documentation and coordination of release to production.

Gary J. Gambino (BChE '93) stole the March 1 show of ABC's "Who Wants to Be a Millionaire?" when he went to the final, \$1 million-plus question. Not sure of the answer, he left, winning \$500,000. Congratulations!

Timothy J. Hassett (BSET '88) was named president of Hawk Corporation's rotor division.

James P. Marcella (BME '66) has been appointed executive director of manufacturing and SNP operations at Orchid Bio-Sciences, Inc. Prior to joining

Orchid, Mr. Marcella was vice president of operations of Vysis, Inc.

Robert Misencik (BIE '81, MSIE '85) was promoted to director of customer service for Glass Equipment Development Inc. He joined the company in 1994 as director of quality assurance.

George J. Palko (BCE '88, MBA '93) was honored as one of Crain's Cleveland Business' annual "40 Under Forty" representatives in November. George is president and CEO of Great Lakes Construction Company.

John Pesec (MSEE '87) was promoted to director of worldwide sales at Keithley Instruments, Inc.

James John Petrana (BSET '96) has been working as an engineer at DaimlerChrysler Corporation for the past five years.

Michael Romano (BME '97) works for Kirby as manager of their Engineering Laboratory. He expects to graduate in August with his MBA from Baldwin Wallace.

Jeffrey Saxon (BME '71) was named president and chief executive officer of Camp Invention Inc., an educational program of the National Inventor's Hall of Fame.

Robert J. Smolinski, PE (BEE '87) was recently promoted to an associate of van Dijk Pace Westlake, an architectural/engineering firm. He is a member of the inaugural engineering team that began in 1997 to establish an engineering element to the architectural firm.

Donald E. Washkewicz (BME '72) was elected CEO of Parker Hannifin Corporation effective July 1, 2001. Last year, he was named president and chief operating officer.

In Memoriam

John Cavaluchi (BEE '61)
January 2001

Richard H. Damon (BSE '42)
October 2000

William F. Druckenbrod (BME '36)
January 2001

Karman Duchon (BChE '43)
December 2000

Dennis A. Fehlner (BME '72)
(MSME '80)
March 2001

Bindh Yachal Prasad (MSIE '77)
October 2000

William C. Uhl (BChE '37)
November 2000

David A. Zackowski (BEE '75)
November 2000 ■

Upcoming Events

For further information about these events, contact the Office of Alumni Affairs at 216-687-2078.

Spring Reunion Weekend Honoring the Classes of 1941 and 1951

Those celebrating their 50th and 60th reunions are encouraged to attend Spring Reunion Weekend **Friday, June 22 and Saturday, June 23**. The reunion begins with brunch at the Cleveland State University Maxine Goodman Levin College of Urban Affairs at 10:30 a.m. Featured speaker is Dr. John F. Burke, Associate Professor Emeritus. Class directories and gifts will be presented by **Dr. William A. "Doc" Patterson**, former dean of engineering at Fenn College. A campus tour will follow the brunch. In the evening, celebrate with other alumni at the Distinguished Alumni Awards Banquet (below). The reunion caps off with a luncheon cruise on the Goodtime III on Saturday beginning at 11:00 a.m.

Distinguished Alumni Awards Banquet and Dance

Come celebrate with over 500 alumni and friends on **Friday, June 22** at 6:00 p.m. at the

11th Annual Distinguished Alumni Awards Banquet. Held at Executive Caterers at Landerhaven, this event will feature the presentation of six Cleveland State University alumni awards along with several other awards. Two of our own alumni will be honored that evening. **George Baaklini**, BCE '80, MSCE '81, DRE '91 will receive the George B. Davis Award for service to the University. **Stephen Guard**, BCE '81, will receive the Fenn College of Engineering Distinguished Alumni Award.

Alumni & Friends Golf Classic

Gather a team and attend this annual event held at Quail Hollow Country Club on **September 10**. Corporate sponsorships are available. Further details will follow.

Cleveland State University Homecoming Week

Save the week of November 5 – 11 as Cleveland State Alumni celebrate homecoming. A variety of events will take place including a dance and Greek organization reunions. Watch for details. ■

Alumna Expresses Gratitude to Fenn College

In the 1950's, there weren't many educational choices for women who wanted to pursue a degree in engineering. Some universities did not even accept women to their engineering schools! But Fenn College did and thanks to a freshman scholarship, **Dr. Margaret Taber** chose to enroll in the College's engineering program. For Margaret, it was her freshman scholarship to Fenn that helped her get started. And, as a way to encourage other people to attend the Fenn College of Engineering, she has established the Margaret R. Taber Endowed Scholarship.

It was Margaret's cooperative education experience that kept her in Fenn College and ultimately helped her land her first job after graduation at the TOCCO Division of The Ohio Crankshaft Company of Cleveland. TOCCO specialized in induction heating equipment. "I recommend co-op because it helps you gain industrial experience and get a better feeling for how industry works. This is particularly important for women, because the field of engineering is not highly populated by women," states Margaret.

After six years, Margaret left TOCCO to assist in the development of an electrical-

electronic engineering technology program at Cuyahoga Community College. This decision forever changed her career, and she quickly worked her way up through the various ranks of professor. By 1977, she was chair of the engineering technology department. She also went on to earn a master's in engineering from the University of Akron, and doctorate in education from Nova Southeastern University.

In 1979, Margaret joined Purdue University as an associate professor. Four years later, she became the first woman full professor in Purdue's School of Technology. For nine years, Margaret served as the faculty advisor to SWE (Society of Women Engineers). She strongly believes that there are not enough women in the fields of engineering and engineering technology. Margaret's career at Purdue lasted until her retirement in 2000. During her tenure, Margaret earned numerous awards and honors, including having the microcomputer laboratory at Purdue renamed the Margaret R. Taber Microcomputer Laboratory in recognition of her contributions to the university.

Margaret has chosen to fund this scholarship with the establishment of a gift



William J. (BBA '58) and Margaret (BES '58) Taber

annuity, which offers the advantage of income payments for life, along with an income tax deduction. "Financial help might be just enough to encourage someone to attend a university," states Margaret. "I encourage others to also do their part, and support our future engineers." ■

If you would like more information about planned giving opportunities at the Fenn College of Engineering, contact the office of development at 216-687-5513.

Return to:

**Deborah Miller, Development Officer
College of Engineering
Cleveland State University
1960 E. 24th Street
Cleveland, OH 44115-2425**

What's New?

Complete the form below or email d.s.miller@csuohio.edu. We're interested in hearing your good news about job changes, awards and personal achievements (also your input on our newsletter).

If you need more space, feel free to attach a separate sheet.

Here's what's new with me.

Name _____

Former Name (if applicable) _____

Degree _____ Graduation Date _____

Address _____

City _____ State _____ Zip _____

[] _____ [] _____

Telephone (Day) _____ (Evening) _____

Email _____

Job Title/Place of Employment _____

Send us your email address!
Fenn College will use email more often to inform alumni of current news.

A look at our past...

Alumnus Patented Latex Paint

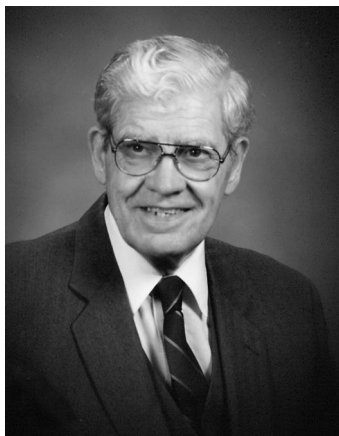
Inventions are a wonderful thing. For instance, think back to the last time you applied a coat of paint to your home or office. Remember the mess you had? Remember the smell? Both of these would have been magnified if you were using an oil-based paint. Just think if latex paint had never been discovered...

Well, fortunately it was and it revolutionized the painting industry!

We can thank a Fenn College of Engineering alumnus for the discovery of latex paint! **Philip C. Herzog**, a 1938 graduate of Fenn College's Chemical Engineering Program can largely be credited for this discovery.

Phil was working for Glidden Paint Company. Adrian Joyce, founder and president of Glidden, had been trying for years to develop a water-thinned paint that could hide marks and wash easily. When Phil became head of the Glidden research lab, Mr. Joyce challenged Phil to find the answer.

A letter from Phil's wife, Kate Herzog, describes the discovery... "It took four years of hard work by



Philip C. Herzog

Phil and his staff but in 1947, the first latex paint came on the market. Easy to apply, fast to dry, fantastic hiding and scrub ability, a cinch to clean up after applying; it introduced a whole new painting technique. It made do-it-yourselfers out of the average homeowners who up to that time had to hire professionals to have painting done in their homes. Now any member of a family could paint a room with ease, even the kids."

Glidden, which is now a part of ICI Paints, holds the patent for Spred Satin and Phil Herzog's name is on it. Phil maintained that he did

not do it alone – it took a dedicated staff of lab technicians and a company president with the vision to bring the first latex paint to fruition.

Phil Herzog passed away in 1993, but his wife Kate fondly remembers him and the discovery he made. Phil Herzog may not be a household word, but latex paint is. The Fenn College of Engineering is proud that one of its alumni made such an important discovery! ■

What would a website of the past look like? Go to <http://web.ulib.csuohio.edu/fenn> to view Fenn College in 1962.

Office of the Dean

Dr. John H. Hemann
Interim Dean
216.687.2558
hemann@csvax.csuohio.edu

Dr. Paul X. Bellini
Associate Dean for Operations
216.687.6899
p.bellini@csuohio.edu

Dr. Joanne M. Belovich
Associate Dean for
Academic Affairs
216.687.2556
belovich@csvax.csuohio.edu

Dr. George L. Kramerich
Interim Assistant Dean for
Outreach/Industrial
Partnerships
216.687.2405
kramerich@csvax.csuohio.edu

Pamela C. Charity
Director of Undergraduate
Affairs
216.687.6912
p.charity@csuohio.edu

Gregg G. Schoof
Manager of Student Programs
216.687.5272
g.schoof@csuohio.edu

Deborah S. Miller
Development Officer
216.687.5513
d.s.miller@csuohio.edu

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Fenn College of Engineering
Cleveland State University
1983 East 24th Street
Cleveland, Ohio 44115

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