



University of Maine
College of Engineering
www.engineering.umaine.edu

CollegeNews

Orono, Maine · Spring 2013

Dear (Contact First Name),

Welcome to the Spring 2013 edition of the College of Engineering quarterly e-newsletter. As you may notice, we have taken on a new look more in line with the Blue Sky Plan at the University of Maine. To find out more about the Blue Sky Plan, visit - umaine.edu/blueskyplan.

In this issue, we will find out about important capital improvements coming to the University of Maine that impact the College of Engineering, hear about recent and well deserved promotions of our faculty, a special feature by our own Knud Hermansen, as well as a mix of news to keep you updated about UMaine Engineering.

As always, we hope that you are well and that you and yours are enjoying good health as we all look forward to warmer weather.

We'd appreciate knowing just where your UMaine Engineering degree has taken you. So, please [drop us a line](#) and keep in touch to catch us up on your career and what's happening in your life.

Sincerely,

Dana N. Humphrey, P.E., Ph.D.
Dean of College of Engineering
University of Maine College of Engineering

Engineering Faculty Promotions

The University of Maine System Board of Trustees has approved promotion and/or tenure for 22 University of Maine faculty members, including four College of Engineering faculty members.

The professors were nominated by UMaine President Paul Ferguson based on a peer and administrative review of their successful work in teaching, research and public service.

"These faculty are among our academic leaders, providing some of the best teaching, research and community outreach in their fields," says Ferguson.

"We appreciate their caliber of excellence, innovation, inquiry and commitment to our students and state, and we celebrate their achievement. They are key to helping UMaine reach its goal of being



The College of Engineering at the University of Maine is the sole institution in Maine to offer 11 engineering and engineering technology majors and full M.S. and Ph.D. programs.

Alumni Updates

Fred J Blackstone, Jr. '41

b '19 Caribou, Maine.

Circumnavigated earth '39 on Norwegian tramp steamer.

Army Air Corps '40-46 1st Lt. '42 m Madeline Sutter, U of M '40, Presque Isle.

Bush pilot Alaska, Canada, crop duster, engineer Boeing, Gen Dynamics, patents,

2 caustic books thrash our corrupt, paralytic Congress. 2 dau Dorothy U of M '65 Phi Beta Kappa; Sandra UVM '69 (See 1995 Who's Who in America). Widowed '98.

Flew high performance a/c until age 83. . 2002: sig. other Lani Gerrard, MA '05 Boston Univ Med School.

Anticipating 8th tour of Europe in 2019.

To read more alumni updates and to submit yours, go online to <http://engineering.umaine.edu/home/alumni/alumni-updates/>

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Black Bear Robotics

5th annual Maine VEX Robotics Championship was held Feb. 2 at Cape Elizabeth Middle School for middle and high school students. [News Coverage Channel 2 \(WLBZ\)](#)

Maine VEX Championship Sack Attack 2013 Cape Elizabeth Finals

among the most student-centered and community-engaged research universities in the country."

Promoted to professor
College of Engineering

- William DeSisto, Chemical Engineering
- Karen Horton, Mechanical Engineering Technology
- David Neivandt, Chemical Engineering
- Bruce Segee, Electrical and Computer Engineering

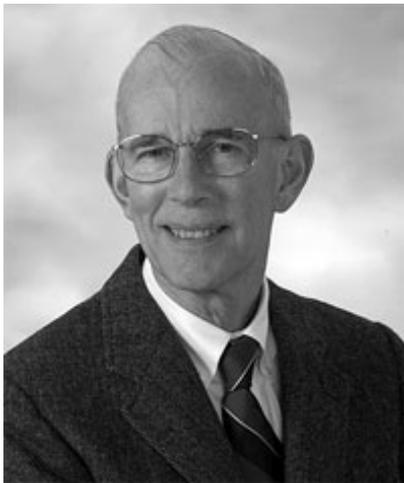


Maine VEX Championship Sack Attack
2013 Cape Elizabeth Finals

UMaine Paint & Polish

The University of Maine's Paint, Plant and Polish Program, which began last year as a Presidential Initiative, continues to improve the UMaine campus as part of the Blue Sky Plan Pathway 5, chaired by UMaine alumnus John Rohman and co-chaired by Stewart Harvey, executive director of facilities and capital management services.

To improve campus infrastructure and appearance, UMaine President Paul Ferguson initially reallocated approximately \$2.5 million. This funding was derived from energy cost-savings realized through improved utility and fuel contracts, increased campuswide efficiencies, as well as overall cost reductions on a one-time basis.



Thomas P. Hosmer
Mechanical Engineering 1958

Paint, Plant and Polish now will be sustained annually by approximately \$320,000 from the newly endowed Hosmer Fund in the University of Maine Foundation.

Among the buildings slated for improvements:

Crosby Lab, where an elevator will be installed to provide handicapped access to the second floor, and restrooms will be renovated to meet ADA guidelines. The project is expected to be completed this summer.

Other capital improvement projects include:

- Memorial Gym and New Balance Field House will receive a \$15 million renovation, made possible by a state-backed revenue bond, gifts from New Balance, the Harold Alford Foundation, and several other private donors, including Tom and Sally Savage. Renovations are expected to begin May 13.
- A \$6.4 million Wind and Wave Research Facility will be built as a 12,000-square-foot addition to the Offshore Wind Laboratory of the Advanced Structures and Composites Center. The facility will house a robotics laboratory for the manufacture of wind blade components and a 10-meter by 30-meter freshwater basin for testing scale models of scale-model turbines. The 5-meter deep basin will be equipped with wind and wave generators. The facility

Organized by the University of Maine Black Bears Robotics Club, the annual event introduces students to real-world engineering and encourages them to apply math and science skills they have learned in school.



Check out their t-shirt launcher at a recent UMaine Hockey Game in February.

Making a Difference



University of Maine Professor of Mechanical Engineering Mick Peterson, who also is a cooperating professor of animal and veterinary sciences and co-

is funded by a \$2.9 million EDA grant and a \$3.5 million match from UMaine. Construction will begin in March and is expected to be completed this fall.

[Read More](#)

Business & Academic - Partners, Working Towards a Future

by Knud E. Hermansen, P.L.S., P.E., Ph.D., Esq.
Professor, Construction Management Technology

The small community of Stillwater, Maine is the home to Sargent Corporation - a dynamic construction company that is a leader in construction, innovative construction practices, and community leadership. Sargent Corporation combines almost a century of experience with the commitment of great people to deliver earthmoving excellence.

Helping the Sargent Corporation to achieve this laudable reputation, Sargent Corporation employs 30 graduates from the University of Maine's Construction Management Technology program and its predecessor, the Civil Engineering Technology program. Graduates of the Construction Management Technology program are an important and integral part of Sargent Corporation's management personnel for its nearly 400 person workforce and Sargent Corporation's substantial and extensive projects.

After a rigorous and comprehensive internship, graduates of the Construction Management Technology program are initially employed as foremen and, over time, advance to project managers and superintendents for Sargent Corporation projects across New England and the Mid-Atlantic states. The graduates take on management responsibilities in such diverse construction projects as commercial and institutional site preparation, landfill construction and closures, highway and utility projects, airports, athletic fields, and wind power infrastructure.

There is a reason for the large number of Construction Management Technology graduates employed by the Sargent Corporation. The Sargent Corporation, through its President, Herb Sargent, have formed a partnership between business and engineering education that empowers excellence in construction management education at the University of Maine.

The Sargent Corporation, along with other construction firms, takes an active role in the education of the graduates. The Sargent Corporation, with decades of experience, knows what is needed for successful construction managers. The knowledge composition of the ideal graduate is a combination of quality education and practical experience. Accordingly, Sargent Corporation embarks on an active partnership with the Construction Management Technology program to ensure the company will be able to hire graduates with the knowledge, motivation, experience, and skills to provide what they and other constructors require in management personnel.

founder of the Racing Surfaces Testing Laboratory in Orono, is listed by BloodHorse.com Thoroughbred horse-racing magazine as being among 12 influential people improving the Thoroughbred racing industry, but not often recognized for their contributions.

Through his work analyzing track surfaces with a biometrical track-testing device, Peterson can assess factors affecting both track safety and performance.

A profile of Peterson in the Feb. 16, 2013 edition of Blood Horse, notes that Peterson's laboratory and track analysis equipment have become "an invaluable component in the industry's wide-ranging efforts to improve the safety of its athletes."

Others on the list include philanthropists who have contributed to improving training and working conditions of "backstretch" employees behind the scenes, supported and strengthened horse farms and breeding programs, created safe havens for retired racehorses, and establishing a fund for permanently disabled jockeys.

Lombard Log Hauler Restoration



Lombard Steam Log Hauler Restoration Team

Professor Herb Crosby's Mechanical Engineering Technology students have been hard at work helping to restore a Lombard Steam Log Hauler that is owned by the Maine Forest and Logging Museum in Bradley.

Greetings from Mike

It's hard to believe the 2013 academic year is in its waning weeks, but graduation is just around the bend, along with summer jobs, internships, co-ops and full time employment for our nearly graduated engineers. Just as students and graduates are gearing up for the summer season, so is the Dean's office in high gear as we recognize this year's donors and all they've given to the College of Engineering, and continue to build new relationships with alumni, friends and businesses who care about the College.

On April 3rd and 4th the College of Engineering will participate in the annual Paper Days celebration, which brings hundreds of pulp and paper industry participants to campus for two days of presentations, meetings and recognition events. On May 3rd the College will join the wider University community in recognizing donors who have passed the \$25,000 mark in total giving at the annual Stillwater Dinner, to be held this year at the Sable Oaks Marriott in South Portland. And of course May 11 marks graduation and many related events held

Herb Sargent, along with other leaders in the construction industry serve on the advisory board of the Construction Management Technology program. The advisory board continuously assesses the program, content, and faculty in order to provide guidance on critical knowledge graduates should have. Beyond wise counsel, Sargent Corporation has made a commitment to send employees into the classroom to provide practical, comprehensive, and necessary education for students. Sargent Corporation makes available a member of their safety team each year to teach students in the critical area of construction safety. They also send managers to the classroom to talk to students about such diverse topics as GPS machine control to interviewing for a job. Construction Management Technology graduates benefit not only from practical instruction in the classroom, but also benefit from Sargent scholarships, summer internships, and informal social gatherings where students informally meet with Herb Sargent and other Sargent Corporation management to share pizza, burgers and friendly conversation. When the program has needed funds to teach critical topics, Sargent Corporation, and others companies in the construction industry have provided critical financial support to ensure a quality education.

Summer employment is another important aid in educating students and provides a practical side to the academic education the students are receiving. Summer employment brings together diverse academic subjects to the practical realities of the project. Students interning at the Sargent Corporation are not pampered. Beginning immediately, students are assessed for their commitment to work hard and provide quality efforts on behalf of the company. In return, they are well-paid and provided extensive experience and practical training on all aspects of Sargent Corporation projects.

The Sargent Corporation also shares with and instills in the students a commitment to complete charitable community projects. The Sargent Corporation, as a leader in community projects has provided support for the student chapter of Associated General Contractors in its charitable efforts. In some cases, even providing construction equipment for students to learn and use when working on these charitable projects.



Superintendent Terry Watts at a Sargent Corporation airport project

Superintendent, Terry Watts, a 1980 graduate of the Civil Engineering

here on campus to recognize graduates, alums and friends who will be in attendance.

Following graduation Dean Humphrey will resume travel in support of the College, and by mid- summer will have completed trips to Florida, two trips to California and one to the Washington State, all to visit with UMaine alums from the College of Engineering. These trips are yet another measure of the quality and reach of the College, and of alumni's desire to stay in touch and up to date on developments here on campus and in Maine.

For those of you who are reading this newsletter and have given your time, talent or resources in support of the College this year, thank you - we are grateful for all that you've done.

If you have not made a gift this year, or would like to make an additional donation, it would of course be deeply appreciated. You can do so by clicking on the "Give Now" button on the College of Engineering Website at <http://www.engineering.umaine.edu/>

Please contact me personally at michael.d.higgins1@umaine.edu or my colleague Pat Cummings at pat.cummings@umitmaine.edu or call us at 800-671-7085 if you wish to become involved or invest in the college of engineering.

Warm regards,



Mike Higgins

Senior Development Officer
College of Engineering
Pulp & Paper Foundation

UMaine Annual Fund



The University of Maine's Annual Fund is a comprehensive fundraising initiative designed to enhance academic, student, faculty and cultural programs.

The College of Engineering Deans Fund is dedicated solely to providing scholarships, increasing graduate fellowships, facilitating research, upgrading technology and laboratories, and expanding our on-line graduate course offerings. Our main objective is to ensure there are funds available to allow us to respond quickly and appropriately to the areas of greatest need within the department. Your donations, combined with those of others, will make a significant and

Technology program, had this to say about his education and what Sargent Corporation has done for him:

"I have worked with the Sargent family of companies since my graduation in 1980, making this my 34th season. My education from the University of Maine gave me a well-rounded background in all phases of our company's expertise. My studies in surveying, soils engineering, drafting and highway design helped me understand what was expected from a foreman trainee within the Sargent organization. My advice to current or prospective students would be to use the field positions offered by general contracting companies [like Sargent Corporation] to help understand what the company does and help them become a better project or construction manager. I have enjoyed the outcome of my work... seeing a shopping center or a hospital or a wind project [built] and having the ability to tell people [that] a great bunch of people [at Sargent Corporation] built that."

While the Sargent Corporation has been a leader in the number of construction management technology graduates hired by one firm, it is not alone in providing training, leadership, and hiring graduates from the program. Other firms, too numerous to mention, also contribute considerably to the program and its success through scholarships, guest speakers, faculty, summer employment, and financial support. Graduates from the Construction Management Technology program are found throughout the management of many successful firms. While other construction firms may not hire as many graduates as Sargent Corporation, the graduates that are hired by construction firms serve equally important roles.

It is also important to mention the notable firms supporting the program and serving on the advisory committee that are lead by Construction Management Technology graduates. One graduate leading a successful construction firm is Mark Bancroft (1994), chief executive of Bancroft Construction. This firm is a leader in commercial and dam construction. Another impressive and notable graduate and leader in the construction field is Karl Ward (1993) who is chief executive office of Nickerson & O'Day, a firm that has been greater Bangor area's top commercial builder for over half a century. These individuals serve as role models and a goal for all graduates.

The future of the Construction Management Technology program is bright and holds great promise given the partnership between the program, Sargent Corporation and other constructors. The partnership not only provides a well-rounded education, but leads to a rewarding and exciting future for graduates in the construction field.

immediate impact on the quality of the 'UMaine Experience' for our students.

We invite you to become an active part of this initiative by visiting us on-line at www.umaine.edu/give and making your gift on behalf of the College of Engineering or calling 207-581-1148 or toll-free at 866-578-2156. Remember, it isn't just about how much you give, but the fact that you give that makes a real difference.

For more information about The Annual Fund, contact Ulysses Tucker, Jr. (ulysses.tucker@maine.edu), Director of Annual Giving at 207-581-1157.