



THE UNIVERSITY OF
MAINE

College of Engineering

Francis Crowe Society Induction Ceremony



Saturday, May 13, 2017

9-11 a.m.

Collins Center for the Arts

Francis Crowe Society



Francis Trenholm Crowe (October 12, 1882 – February 26, 1946) was the chief engineer of the Hoover Dam. During that time, he was the superintendent of Six Companies, the construction company that oversaw the construction project.

Born in Trenholmville, Quebec, Crowe attended the University of Maine, where he graduated in 1905 with a degree in civil engineering. The University's Francis Crowe Society is named in his honor. Crowe became interested in the American west during a lecture from Frank Weymouth, an 1896 graduate of UMaine civil engineering, who was a guest speaker from the United

States Bureau of Reclamation. Crowe signed up for a summer job before the end of the lecture. That summer job began a 20-year career with the reclamation service that would change the face of the American west. In 1924, Frank Crowe left the United States Bureau of Reclamation to join the construction firm of Morrison-Knudsen in Boise, Idaho. Morrison-Knudsen had recently signed a partnership with the larger Utah Construction Company to build dams.

While working on the Arrowrock Dam in Idaho, Crowe pioneered two practices that are crucial to the construction of large dams. The first was a pneumatic delivery system to transport concrete and the second was a system of overhead cables to allow the pneumatic concrete to be pumped at any point on the construction site. With this technique, Crowe built some of the largest dams in the American west, including the Hoover Dam; Parker Dam 155 miles downstream from Hoover; Copper Basin and Gene Wash Dams on the Colorado Aqueduct system; and Shasta Dam in Northern California.

Agenda

- Society Background
- Engineer's Pledge *
- Code of Ethics Preamble *
- Induction of Distinguished Members
- Recognition of Salutatorian, Outstanding Student – Joshua Patnaude
- Induction of Graduate Members
- Recognition of Family and Friends
- Closing Remarks

engineering.umaine.edu/fcs

Master of Ceremonies:
Dana Humphrey,
Dean of Engineering

*Pledge & Preamble
Led by
Mohamad Musavi,
Associate Dean of
Engineering
* Back of program
* Please read after
Mohamad Musavi

*Please Read After Each Line Is Announced

ENGINEER'S PLEDGE

I, (state your name), pledge to give the
utmost of performance;

To participate in none but honest enterprise;

To live and work according to the laws of
society and the highest standards of
professional conduct;

To place service before profit, the honor and stand-
ing of the profession before personal
advantage, and the public welfare above
all other considerations,

In humility, I make this pledge.

CODE OF ETHICS PREAMBLE

Engineering is an important and learned
profession.

As members of this profession, engineers are
expected to exhibit the highest standards of
honesty and integrity.

Engineering has a direct and vital impact
on the quality of life for all people.

Accordingly, the services provided by
engineers require honesty, impartiality,
fairness and equity, and must be
dedicated to the protection of the
public health, safety and welfare.

Engineers must perform under a standard of
professional behavior that requires adherence to the
highest principles of ethical conduct.

Francis Crowe Society Membership

The purpose of the Francis Crowe Society is to recognize UMaine engineering graduates as they accomplish the formidable goal of completing their engineering degrees and to recognize others who have made considerable engineering contributions and honored the profession.

Distinguished Members

Individuals who have made major contributions to advancing the art, science or practice of engineering are inducted as Distinguished Members.

Glenn A. Hodgkins - Civil & Environmental Engineering



Glenn Hodgkins is a Research Hydrologist with the U.S. Geological Survey New England Water Science Center in Augusta, Maine. After graduating from UMaine Civil Engineering in 1990, he landed a full-time job with the USGS in the flatlands in Indiana. While working there, he received a Master's in Engineering from Purdue University. Glenn managed to get back to Maine in 1994 with his Hoosier wife Sara and lives in Hallowell with Sara, his daughter Anna and son Ben. Some of Glenn's projects have included developing equations to compute design-flood flows on rivers and studies of bridge-scour estimation methods, in cooperation with Maine Department of Transportation. Since 2002, he has completed many projects on historical changes in hydrologic variables, such as river flows and lake ice out dates. He has published 16 studies in journals like Journal of Hydrology and Climatic Change, and 26 USGS reports. Some of his most satisfying recent work includes leading an international group studying changes over time in major floods in North America and Europe and being an author on the Northeast chapter of the 4th National Climate Assessment.

Arvind Sharma - Chemical & Biological Engineering



Dr. Arvind Sharma graduated from UMaine in 1995 with a Ph.D. in Chemical Engineering. Winning four times the first prize in computer programming contests while at UMaine, Arvind worked on the process sensor system prototype, a complex instrument for real-time particle size distribution measurements, and did field trials at a DuPont white pigment plant in Tennessee as a part of graduate CoOp experience. After a three-year stint at the Los Alamos Nation Lab on acoustic stimulation systems for the oil and gas industry,

Arvind took on the world of real-time market data server systems, handling large data sets of 1 billion quotes for 250,000 symbols at 350,000 quotes per second. Building on his experience on electronic trading he rose through various positions at the National Stock Exchange and Philadelphia Stock Exchange. Arvind has risen to be the Vice President for Applications Development at JP Morgan Chase in New York. Arvind has made a name for himself as a "Guru of Financial Automation." Starting with computer programs for chemical plant simulations and process instrument operations, Arvind has been instrumental in running large-scale, fault-tolerant, mission-critical applications for real-time equity trading systems on stock exchanges.

John L. Thomas - *Electrical & Computer Engineering*



John L. Thomas BSEE, 1957, University of Maine; MEE, 1960, New York University; Bell Laboratories, 1957-1990. Member, Phi Kappa Phi, Tau Beta Pi. Engaged initially in design associated with special applications of submarine cable systems, two highly successful systems stand out: 1) USAF Missile Tracking and 2) system for monitoring Russian submarines. In 1961, "down range" tracking stations upgraded for Gus Grissom's suborbital flight, John Glenn orbited the following Spring. On the Navy project, made a feasibility study of the possible use of the existing undersea repeater design and designed test equipment to pinpoint undersea failures. Later, was involved in installation and testing of the first trans-Pacific telephone system, including being in Guam to insure that President Johnson's inaugural call got through to Premier Ikeda. In 1965, became supervisor responsible for the design of shore terminal transmission facilities. Later, supervised design of all undersea electronics and liaison with manufacturing to insure "ultra" reliability. In 1970's, back on land, Transmission Surveillance System created to remotely monitor high-capacity coaxial systems from a central location and significant work on digital systems.

Kenneth S. King - *Engineering Physics*



Ken King is the Founder and Chief Technology Officer of PatientStar LLC, a leading provider of healthcare communications technology solutions and nurse services based in Moorestown, NJ. Ken started the company in 2009 and has overseen its growth to over 150 employees all over the U.S., Europe and South America, and with data centers in Philadelphia, PA, Santa Clara, CA and Dublin, Ireland. PatientStar's innovative approach to integrated communication technology has attracted clients including Google and the largest

pharmaceutical and biotech companies. Prior to PatientStar, Ken was President and CEO of CRI Worldwide, a global clinical research organization, which was ultimately acquired by PRA Health Sciences. Ken was also President of PerkinElmer's \$400 million Molecular Medicine division where he built its \$100 million Cellular Imaging business. Ken also completed General Electric's Edison Engineering Program and then worked in Research and Development where he published multiple internal papers and earned seven U.S. and international patents. Ken received a Bachelor of Science in Engineering Physics from the University of Maine in 1989, a Master of Science in Physics from Case Western Reserve University and an MBA from the Wharton School of the University of Pennsylvania. While at UMaine, Ken was the President of Tau Beta Pi, where he initiated hosting the annual JETS TEAMS Engineering competition among other initiatives.

David Rubenstein - Mechanical Engineering



David Rubenstein has 25 years of industrial and research experience in aerospace guidance, navigation and control (GN&C) system design and modeling and simulation development. He has worked for a variety of major aerospace contractors including Martin Marietta (now Lockheed Martin), Raytheon Space and Missile Systems Design Laboratory and Draper Laboratory in Cambridge, MA. Dr. Rubenstein received his B.S. in Mechanical Engineering from Washington University in St. Louis and the M.S. and Ph.D. in Aerospace Engineering from the Pennsylvania State University. His areas of expertise include math models for simulation, parameter estimation and system identification, GN&C system design and analysis, estimation, sensor fusion and Kalman filtering algorithms as well as numerical optimization techniques. While in industry, Dr. Rubenstein provided algorithms for a wide variety of systems including satellites, unmanned rotary and fixed-wing aerial (UAV) and underwater (UUV) vehicles, guided parachutes and parafoils, missiles, projectiles, and even a flying saucer as well as an unmanned reusable launch vehicle. In 2013, Rubenstein founded Maine Aerospace Consulting. Currently, he is designing sensor fusion algorithms for a medical devices application to support surgical VR training, and is working on GN&C design for an autonomous vehicle capable of personnel and cargo transfers to low-Earth orbit, including the International Space Station. Dr. Rubenstein is a Research Associate Professor within the Department of Mechanical Engineering at the University of Maine, where he has developed an Aerospace Engineering Concentration.

2017 Student Awards

Outstanding Seniors for the College of Engineering

Joshua Patnaude - *Electrical & Computer Engineering*

Outstanding Senior in the College of Engineering



Joshua Patnaude of Sanford, Maine is the 2017 salutatorian. He is a double major in computer engineering and electrical engineering. Patnaude is a first-generation college student and a 2013 Mitchell Scholar with numerous honors for academic achievement, including a Maine Space Grant Award. He has held internships every summer of his academic career, working at Great Works Foundation Inc., in Sanford; Pratt & Whitney in North Berwick; Portsmouth Naval Shipyard in Kittery; and Modern Grid Partners in Portland. During the academic year, Patnaude has been an undergraduate teaching assistant in UMaine's Department of Electrical and Computer Engineering. He also served as a peer tutor. For two years, Patnaude served as president of the UMaine Black Bear Robotics Club and since 2014, has helped promote interest in engineering and science by volunteering more than 500 hours at high school VEX robotics competitions. Patnaude is an Eagle Scout and holds a black belt in karate. Patnaude plans to pursue a career in electrical and computer engineering. He eventually wants to become a licensed professional engineer and pursue an MBA.

Donald Bistri - *Mechanical Engineering*

Outstanding International Senior in the College of Engineering



Donald Bistri of Tirana, Albania is a mechanical engineering major who has been a student research assistant for two years in the Advanced Structures and Composites Center (ASCC). At UMaine, his honors included the Alton S. and Adelaide B. Hamm College of Engineering Scholarship. At ASCC, Bistri's research focused on the structure of a hypersonic inflatable aerodynamic decelerator (HIAD) technology developed by NASA to enable spaceships to carry astronauts and heavy loads to explore Mars. He also was a research assistant in the Alfond W² Ocean Engineering Lab. His capstone project involves the modeling and fabrication of a lightweight autonomous land drone to address the need for a cost-effective, safe method for patrolling borders. When not in the research lab or in class, Bistri is on the field as part of the Friday Night Soccer Club. He has been a mathematics tutor, and a grading assistant in the departments of mechanical engineering and mathematics and statistics. Bistri has been awarded a full scholarship to pursue a master's degree in aerospace engineering at Georgia Institute of Technology.

2017 Student Awards

Outstanding Seniors for each Department

Kayla Marquis - Chemical & Biological Engineering
Savannah DeVoe - Civil & Environmental Engineering
Joshua Patnaude - Electrical & Computer Engineering
Catherine Gillette - Engineering Physics
Kevin Bois - Mechanical Engineering

Francis J. Hovey Awardees

Andrew Purgiel - Chemical & Biological Engineering
Edward Gonnella Jr. - Civil & Environmental Engineering
Michael Shea - Electrical & Computer Engineering
Ben Hebert - Engineering Physics
Donald Bistri - Mechanical Engineering
Michael Rancourt - School of Engineering Technology

Congratulations 2017 Engineering Graduates!

Hanna Anderson - BEN-BS
Nicole Bowen - BEN-BS
William Breeding - BEN-BS
Mitchell Chesley - BEN-BS
Tiffany Clifford - BEN-BS
Zachariah Cribbin - BEN-BS
Atticus Dennis - BEN-BS
Jordan Endre - BEN-BS
Andria Foster - BEN-BS
Banton Heithoff - BEN-BS
Alexander LaFrance - BEN-BS
Stefan LaRose - BEN-BS
Madeline Mazjanis - BEN-BS
Evan McCormick - BEN-BS
Keegan McKim - BEN-BS
Charles Merchant - BEN-BS
Daniel Murray - BEN-BS
David Perper - BEN-BS
Jillian Redmond - BEN-BS
Emily Rosato - BEN-BS
Bethany Schulberg - BEN-BS

Jordan Seekins - BEN-BS
Benjamin Walton - BEN-BS
Clarence White - BEN-BS
Hannah Morgan - BEN-BS / F.E.
Kayla Marquis - BEN-BS /
Outstanding Senior for Chemical & Biological Engineering
Aileen Co - BLE-MS
David Holomakoff - BLE-MS
Timothy Lyford II - BLE-MS
Jonathan Overton - BLE-MS
Fuoad Saliou-Sulley - BLE-MS
Joseph Davis - CEN-BS
Jasmine Despres - CEN-BS
Conrad Ege - CEN-BS
Benjamin Grooms - CEN-BS
Thomas Howe - CEN-BS
Alan Kwok - CEN-BS
Nicholas Levesque - CEN-BS
Christopher Martin - CEN-BS
Jordan Millett - CEN-BS
Rigel Paradise - CEN-BS
Kyle Parry - CEN-BS
Carter Stevens - CEN-BS
Jacob Turcotte - CEN-BS
Christopher Verbitzki - CEN-BS
Xiang Guo - CEN-MS
Yanxiang Mao - CEN-MS
Joshua Scripture - CEN-MS
Natalie Altvater - CHE-BS
Caleb Berry - CHE-BS
Eric Britton - CHE-BS
Austin Callahan - CHE-BS
Jordan Carr - CHE-BS
Justin Chartier - CHE-BS
William Chesley - CHE-BS
Nathan Dee - CHE-BS
Jedd Dill - CHE-BS
Rachel Dow - CHE-BS
Emily Doyon - CHE-BS
Samuel Duddy - CHE-BS
Sage Duguay - CHE-BS
Carolyn Fox - CHE-BS
Nicolas Gleason-Boure - CHE-BS

Alexander Hartford - CHE-BS
Matthew Haws - CHE-BS
Ethan Howatt - CHE-BS
Ashlee Husson - CHE-BS
Ariel Kaplan - CHE-BS
Rachel Karno - CHE-BS
Sierra Kuun - CHE-BS
Marshall Larsen - CHE-BS
Samuel Lounder - CHE-BS
Kevin Luu - CHE-BS
Grace MacLean - CHE-BS
Jedediah McGill - CHE-BS
Holland Michaud - CHE-BS
Ian Miller - CHE-BS
Gabriella Morris - CHE-BS
Alexandra Njaa - CHE-BS
Michael Orsini - CHE-BS
Travis Stacey - CHE-BS
Samuel Terry - CHE-BS
Lauren Tingley - CHE-BS
Justin Tracy - CHE-BS
Alexis Vinal - CHE-BS
Autumn Wilkins - CHE-BS
Trevor Diemer - CHE-BS / F.E.
Samuel Landry - CHE-BS / F.E.
Katherine Swenson - CHE-BS / F.E.
Andrew Purgiel - CHE-BS / Hovey Award
Meredith Allen - CHE-MS
Gregory Yum - CHE-MS
Asif Masih Sharazi - CHE-PHD
James Andretta - CIE-BS
Ethan Beaulier - CIE-BS
James Brightney - CIE-BS
Cole Campbell - CIE-BS
Hugh Carroll - CIE-BS
Pianpian Chen - CIE-BS
Taylor Clark - CIE-BS
Chandler Dundas - CIE-BS
Eric Farnsworth - CIE-BS
Cheng Feng - CIE-BS
Ryan Flanagan - CIE-BS
Kendra Fox - CIE-BS
Racheal French - CIE-BS

Charles Gardner - CIE-BS
Matthew Hassler - CIE-BS
Megan Hixon - CIE-BS
Shane Howley - CIE-BS
Garrett Kaspala - CIE-BS
Tyler Kenney - CIE-BS
Christopher Lane - CIE-BS
Brandon Leblanc - CIE-BS
Tori Leonard - CIE-BS
A. Lynnae Luettich - CIE-BS
Cecelia McEachern - CIE-BS
Cameron Mullen - CIE-BS
Alexander Owens - CIE-BS
Dana Pride - CIE-BS
Kendra Ramsell - CIE-BS
Nolan Robbins - CIE-BS
Jonathan Rollins - CIE-BS
Daniel Romero - CIE-BS
Andrew Schanck - CIE-BS
Jacob Searles - CIE-BS
Benjamin Shaw - CIE-BS
Reagan Smith - CIE-BS
Preston Spicer - CIE-BS
Ronald St Pierre - CIE-BS
Michael Triglione - CIE-BS
Christopher Williams - CIE-BS
Tyler Turcotte - CIE-BS
Jessica Vallotton - CIE-BS
Zachary Bowen - CIE-BS / F.E.
Morgan Clements - CIE-BS / F.E.
Camden DesPres - CIE-BS / F.E.
Nicole Dyer - CIE-BS / F.E.
Alyssa Gartley - CIE-BS / F.E.
Emily Glennon - CIE-BS / F.E.
Dante Guzzi - CIE-BS / F.E.
Carlos Henriquez - CIE-BS / F.E.
Tucker Jones - CIE-BS / F.E.
Devon Logie - CIE-BS / F.E.
Arden McSwain - CIE-BS / F.E.
Jeffrey Pulver - CIE-BS / F.E.
Benjamin Smith - CIE-BS / F.E.
Tyler Turcotte - CIE-BS / F.E.
Jessica Vallotton - CIE-BS / F.E.

David Vitali - CIE-BS / F.E.

Jay Wegner - CIE-BS / F.E.

Katherine Wight - CIE-BS / F.E.

Edward Gonnella Jr - CIE-BS / F.E. / Hovey Award

Savannah DeVoe - CIE-BS / F.E. /

Outstanding Senior for Civil & Environmental Engineering

Sohaib Alahmed - CIE-MS

Sunil Bhandari - CIE-MS

Mark Dwyer - CIE-MS

Victoria Landl - CIE-MS

Susan Woodard - CIE-MS

Scott Tomlinson - CIE-PHD

Andrew Young - CIE-PHD

Haifei Chen - CIE-PHD / F.E.

Michael Shea - ELE BS/ECE BS / Hovey Award

Spencer Desrochers - ELE BS / CEN-BS

Armando Ayes - ELE-BS

Dakota Carll - ELE-BS

Shuqi Chen - ELE-BS

Nabil Chowdhoury - ELE-BS

Elisha Glusker - ELE-BS

Christian Knight - ELE-BS

Colin Leary - ELE-BS

Thomas Leighton - ELE-BS

Pablo Maderal - ELE-BS

Tyler Manning - ELE-BS

Nikko Noble - ELE-BS

Christopher Santos - ELE-BS

Sean Turner - ELE-BS

Kevin Wilder - ELE-BS

Forrest Smith - ELE-BS / CEN-BS

Shuqi Chen - ELE-BS / F.E.

Benjamin Rossi - ELE-BS / F.E.

Joshua Patnaude - ELE-BS / CEN-BS / F.E. /

Outstanding Senior for Electrical & Computer Engineering and for the
College of Engineering / Salutatorian for the University of Maine

Pascal Francis-Mezger - ELE-MS

Chitra Manjanai Pandian - ELE-MS

Jason McGann - ELE-MS

Yuyang Sun - ELE-MS

Chia-Tsen Yeh - ELE-MS

Shengen Chen - ELE-PHD

Praveen Gunturi - ELE-PHD

Amamihe Onwuachumba - ELE-PHD
MacKenzie Dunning - EPS-BS
Adam Dusty - EPS-BS
Kyle Forsythe - EPS-BS
Bradley Gannon - EPS-BS
John Goulet - EPS-BS
Benjamin Hebert - EPS-BS / Hovey Award
Catherine Gillette - EPS-BS /
Outstanding Senior for Engineering Physics
John Cummings III - EPS-ME
Maitham Alabbad - MEE-BS
Michael Angus II - MEE-BS
Devin Ballard - MEE-BS
William Bauld - MEE-BS
Spencer Bernier - MEE-BS
Devon Biggie - MEE-BS
Ross Brown - MEE-BS
Sean Buchanan - MEE-BS
Mitchell Burgess - MEE-BS
Vincent Caccese - MEE-BS
Benjamin Chelberg - MEE-BS
Kevin Clark - MEE-BS
Jared Cox - MEE-BS
Erick Coyle - MEE-BS
Jordon Cyr - MEE-BS
Shane Cyr - MEE-BS
Jacob Diamanti - MEE-BS
Cameron Dick - MEE-BS
Patrick Dumas - MEE-BS
Brendon Dyer - MEE-BS
Petar Filipov - MEE-BS
Daniel Fortier - MEE-BS
Aaron French - MEE-BS
Daniel Galante - MEE-BS
G Graham Garland - MEE-BS
Tyson Girsa - MEE-BS
John Golder - MEE-BS
Ryan Green - MEE-BS
Stephen Halter - MEE-BS
Dylan Hanscom - MEE-BS
Christian Harvie - MEE-BS
Todd Hillier - MEE-BS
Jesse Holland - MEE-BS

Samuel Inman - MEE-BS
Jacob Johns - MEE-BS
David Kelly - MEE-BS
Anthony Kingston - MEE-BS
Benjamin Koehler - MEE-BS
Caraline Konz - MEE-BS
Troy Kumar - MEE-BS
Justin Ladner - MEE-BS
Andrew Lamson - MEE-BS
Jordan Lang - MEE-BS
Adam Letourneau - MEE-BS
Michael Linehan - MEE-BS
Christopher Longley - MEE-BS
Colin Luce - MEE-BS
Michael Lyons - MEE-BS
Donald Martin Jr - MEE-BS
John Maxim - MEE-BS
Justin McDermott - MEE-BS
Corey McLaughlin - MEE-BS
Antonio Naranja - MEE-BS
Geoffry Nye - MEE-BS
Noah Nygren - MEE-BS
Michael Ostromecky - MEE-BS
Tia Perry - MEE-BS
Samuel Pierce - MEE-BS
Cameron Poussard - MEE-BS
Zachary Prentiss - MEE-BS
Paul-Jacob Richmond - MEE-BS
Ethan Ridge - MEE-BS
Alexander Roberts - MEE-BS
Andrew Roberts - MEE-BS
Christopher Roderick - MEE-BS
Nathan Roscoe - MEE-BS
Ryan Schermer - MEE-BS
Andrew Schluntz - MEE-BS
Kaitlyn SeeHusen - MEE-BS
Bradley Seekins - MEE-BS
Jenn Seneres - MEE-BS
Joseph Slattery - MEE-BS
Gregory Smiddy - MEE-BS
Shawn Soucie - MEE-BS
Eric Stuckey - MEE-BS
Michael Supp - MEE-BS

Matthew Taplin - MEE-BS
Jacob Theriault - MEE-BS
Wade Thurlow - MEE-BS
Forrest Tripp - MEE-BS
Anthony Verzoni - MEE-BS
Duy Vo - MEE-BS
Dean Walker - MEE-BS
Zachary Walker-Elders - MEE-BS
Allan Walsh - MEE-BS
William West - MEE-BS
Devin White - MEE-BS
Ryan Edwards - MEE-BS / F.E.
Robert Moore - MEE-BS / F.E.
Sean Murphy - MEE-BS / F.E.
Antonio Naranja - MEE-BS / F.E.
Donald Bistri - MEE-BS / Hovey Award /
Outstanding International Senior for the College of Engineering
Kevin Bois - MEE-BS /
Outstanding Senior for Mechanical Engineering
Lucas Farrar - MEE-MS
Biao Geng - MEE-MS
Vincent Lewis - MEE-MS
WilliamLondon - MEE-MS
David Lopez Rodriguez - MEE-MS
Abouhamed Saberi - MEE-PHD



Go and Do Great Things!

Legend

CHE = Chemical & Biological Engineering
CIE = Civil & Environmental Engineering
ECE = Electrical & Computer Engineering
EPS = Engineering Physics
MEE = Mechanical Engineering
B.S. = Bachelor of Science
M.S. = Master of Science
M.E. = Master of Engineering
Ph.D. = Doctor of Philosophy

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