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Contact Us

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Calendar

FEB 19-25 – [National Engineers Week](#)

FEB 21, Tues –Mardi Gras (aka Fat Tuesday)

FEB 23, Thurs – **Engineering Career Fair**. CH2M Hill Alumni Center, 11 - 4pm

FEB 24, Fri – Congratulations to our [COE Oregon Stater Award](#) alumnae, who will be honored at a reception at the CH2M-Hill Alumni Center.

Hall of Fame

- Robert Chapman (BSCE '65, MSCE '67), Retired, Senior Vice President, CH2M Hill
- Donald Russell (BSCE '61), Chairman, Sheedy Drayage Co.

Academy

- Rod Ballard (BSCE '78), VP, Construction Testing & Engineering, Inc., VP/Principle Engineer, QC Southwest Inc.

Council

- Stacy Frost (BSCE 2001), Senior Engineer, Maul Foster & Alongi, Inc.
- JD Vetter (BSCEM '97), Executive Vice President, Kiewit Building Group, Inc.

FEB 25, Sat - [CH2M Hill / OSU High School Bridge Contest](#), Owen Hall.

Seminars

FEB 20, Mon – **Geomatics** Faculty Candidate Presentation, 311 Kearney Library, 1-2pm. Open to all. [Abstract here](#).

FEB 22, Wed – **Transportation** Faculty Candidate Presentation, Kearney Library, 1-2pm. Open to all. [Abstract here](#).

Opportunities

Faculty Regalia Rental – through the OSU Bookstore. Deadline to request faculty graduation regalia is April 16. [Details here](#).

[PEER Earthquake Engineering REU](#) deadline is Feb. 21.

[Lifelines REU](#), Cornell or U-Buffalo. *Students to participate in a research project that seeks to rehabilitate aging, underground lifelines, especially those located in areas with seismic risk and constructed of brittle materials such as cast iron.* March 6 application deadline.

Energy Class for Freshmen and Sophomores - ENGR-231, Understanding Energy offered Spring Term. Understand why some types of energy are more useful than others, learn how to interpret all of the rhetoric surrounding alternative and sustainable energy, and be able to solve some basic engineering problems involving the conversion, storage, distribution, and conservation of energy. The material will be based on two paperback books: (1) Engines, Energy and Entropy by Nobel Prize winning author John B. Fenn, and (2) Sustainability Without the Hot Air by David MacKay (free download at <http://www.withouthotair.com/>). You would be taking this class because you're interested in learning more about this subject; it won't count towards your engineering degree. However, this does mean that you can take this class

S/U if desired. Contact Prof. Joe Zaworski with questions, jrz@enr.orst.edu

The **North American Wholesale Lumber Association** (NAWLA) Education Foundation is collaborating with OSU to offer a one-week workshop on campus June 18 – 22, 2012, for business, engineering, forestry, and renewable materials majors. The 4-credit course uses field trips, tours of state-of-the-art facilities, and presentations by diverse instructors to introduce students to career opportunities in today's high-tech, highly green wood products industry. Students completing the workshop will be eligible for paid summer internships and may be able to use course credit to satisfy degree requirements. Space is limited! Course is posted as WSE 499. Contact Chris Knowles, Forest Products Marketing, at Chris.Knowles@oregonstate.edu for more information. Please sign up for the Information Session at

https://www.surveymonkey.com/s/NAWLA_OSU_Info. The President of NAWLA will give a seminar, and OSU faculty will be on hand for Q&A, at two sessions:

- Mon, Feb. 27 - College of Forestry, 5:00 p.m., Richardson Hall 115
- Tues, Feb. 28, : College of Business, 4:00 p.m., Bexell Room 322

Discovery Channel Seeking America's Top Inventors, Machinists, And Engineers To Compete For A Huge Grand Prize – APPLY BY MARCH 7, 2012. Are you a designer who can build? Are you a machinist who can design? The Discovery Channel is looking for America's most creative and daring techies, machinists, inventors, and engineers to design, build, and BLAST their way to a grand prize on a new competition TV show called TOP ENGINEER. No, you don't need to have an engineering degree to compete on this show, but you MUST be able to design, build, test, and integrate an idea into a final product that WORKS. These will be fast-paced, hands-on, VISCERAL challenges! If your experience is strictly behind the keyboard, then this show is NOT for you. We are looking for visual effects experts, accomplished home shop machinists, contractors, and engineers with backgrounds in electrical, civil, structural, or mechanical engineering. If you have an outgoing personality and are ready to get your hands dirty for the chance to win a grand prize and the title of TOP ENGINEER, then we want to hear from you. Email topengineercasting@gmail.com with your name, age, location, phone number, a recent photo and a brief explanation of why you are perfect for this competition show. Deadline to submit is MARCH 7, 2012. Applicants must be US citizens or residents at least 21 years of age. For more information, please visit <http://www.pilgrimstudios.com/casting/topengineer>

Engineering Career Fair

FEB 22, Wed – **Bechtel Info Session**, 102 Bexell Hall, 5-7:00pm. All invited to attend.

FEB 23, Thurs – **Engineering Career Fair**, CH2M Hill Alumni Center, 11:00am - 4:00pm

- [See who's coming](#), then research by major, industry, or positions hiring
- Network with employers, find jobs, internships, talk with various Grad schools, and more!
- Prepare for the Fair by attending FREE workshops in Career Services, in the basement of Kerr Administration:
 - FEB 20, Mon | 11-12 Job Search Strategies in a Challenging Economy | 12-1 Creating a Stand-Out Resume | 3-4 Success at the Career Fair
 - FEB 21, Tues | 11-12 Brand Yourself into the Job of Choice | 12-1 How to Ace Your Interview

Student Chapters

FEB 20, Mon – **ASCE Speaker Meeting**, 312 Kearney Hall, 6pm. Ryan Dow, a Dallas High School and Oregon State University graduate, is currently vice president of WSP Cantor Seinuk, Structural Engineers, and project director of the structural engineering

teams designing the new World Trade Center Towers 2 and 3 in New York City.

FEB 29, Wed - **EERI /ASCE Speaker Meeting**, 212 Kearney Hall, 6 pm. Cory Kilcullen from Miyamoto International will speak about the damage and reconstruction efforts in Haiti after the 2010 earthquake. Refreshments provided.

Interviews

This week – Don't miss the Engineering Career Fair on Thursday, February 23rd.

Sign ups will be available in Margie's office (101 Kearney) for K&E Excavating.

Many companies will be setting up their own schedules as well. Don't miss out on this opportunity to secure a summer internship or post-graduation full-time employment.

Jobs

The Office of Admissions and University Housing and Dining Services (UHDS) are looking for candidates to fill positions as TOUR and/or UHDS Ambassadors for the 2012-13 school year. US News and World Report listed on-campus tour guide as the [best college job to boost your resume](#). To apply for this amazing student job, click this link: <http://oregonstate.edu/visitosu/app>. Application deadline has been extended to Friday, February 24.

Geomatics Faculty Candidate Presentation

Scientific and Engineering Challenges Addressed at the Speed of Light: by LIDAR, an Advanced Measurement Technology

presented by Darion Grant, 2/20

Abstract:

The ability to accurately determine the round-trip travel time of pulses of light has led to the advanced measurement technology known as Light Detection And Ranging (LIDAR). This revolutionary, remote-mapping technology predominantly utilizes the near-infrared portion of the electromagnetic spectrum. It captures high resolution and high precision three-dimensional (3D) coordinates, which give rise to accurate and rapid 3D models of our dynamic global environment.

LIDAR technology is at the forefront of many scientific and engineering communities. Some applications of the technology include (1) 3D building modeling, digital preservation of cultural heritage, and detailed forensics documentation (2) the study of plate tectonics, volcanology and earthquakes and their effects on the built and natural environment; (3) the study of vegetation biomass and forest structure; and (4) the localization of robots and autonomous vehicles. This talk will first introduce the fundamentals of LIDAR, and then I will highlight some of the applications and research challenges that are relevant to the scientific and engineering community. Finally, one of the research questions will be explored, and my research findings will be provided.

Bio:

Darion Grant obtained a BSc in Surveying and Land Information at the University of the West Indies, Trinidad, in June 2000. He then completed a MSc in Geomatics Engineering at California State University, Fresno in December 2005. Darion is completing his PhD in the Department of Geomatics Engineering at Purdue, working on the automatic merging of laser datasets, acquired from terrestrial platforms. His

research interests lie in autonomous and remote mapping applications, and the development of algorithm techniques for these applications.

Transportation Faculty Candidate Presentation

Stochastic Modeling of the Equilibrium Speed-Density Relationship: A Behavioral Perspective

presented by Haizhong Wang, 2/22

Abstract:

Mobility is one of the greatest freedoms that people desire to enjoy, but congestion across all of our transportation modes continues to limit predictable, reliable movement of people and goods, and poses a serious threat to the economic growth. Americans are experiencing longer delays, longer periods of congestion not only on roads in larger urban areas, but also in suburban and rural areas. Transportation decision-makers and researchers are striving to reduce traffic congestion and increase system capacity, but this requires a better understanding of how congestion forms and dissipates on our highways. To unveil the underlying mechanism, transportation researchers and practitioners generally start with the fundamental diagram of traffic flow.

This talk focuses on modeling the fundamental diagram of traffic flow in stochastic ways (fundamental diagram is a graphical representation of the relation among traffic flow, speed, and density) which has been the foundation of traffic flow theory and transportation engineering analysis. For example, the analysis of traffic dynamics relies on input from this fundamental diagram to find when and where congestion builds up and how it dissipates; traffic engineers use a fundamental diagram to determine how well a highway facility serves its users (i.e., level of service) and how to plan for new facilities in case of capacity expansion (i.e., highway capacity analysis). Underlying a fundamental diagram is the relation between traffic speed and density which roughly corresponds to drivers' speed choices under varying car-following distances.

First rigorously documented by Dr. Bruce D. Greenshields in 1935, such a relation has been explored in many follow-up studies, but these attempts are dominantly deterministic in nature, i.e., they model traffic speed solely as a function of traffic density. Though these functional speed-density models are able to coarsely explain how traffic slows down as more vehicles are crowded on highways, empirical observations show a wide-scattering of traffic speeds around the values predicted by these models. In addition, functional speed-density models lead to deterministic prediction of traffic dynamics, which lack the power to address the uncertainty brought about by random factors (i.e., driver perception-reaction differences, driver and vehicle heterogeneity) in traffic flow. Therefore, it appears more appropriate to view the speed-density relation as a stochastic process, in which a certain density level gives rise not only to an average value of traffic speed but also to its variation because of the randomness of drivers' speed choices. Therefore, a stochastic speed-density model is developed to better represent empirical observations and provide a basis for a probabilistic prediction of traffic dynamics. Following the results, a stochastic fundamental diagram of traffic flow can be established. On the application side, the stochastic speed-density relationship model can potentially be used for real-time on-line prediction and to explain phenomena (i.e., capacity drop, spontaneous congestion, and traffic hysteresis) in a similar manner. This enables dynamic control and management systems to anticipate problems before they occur rather than simply reacting to existing conditions.