



HOTLINE

FIRE PROTECTION ENGINEERING

A NEWSLETTER
FOR ALUMNI AND
FRIENDS OF THE
DEPARTMENT OF
FIRE PROTECTION
ENGINEERING

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Fire Testing and Evaluation Center FireTEC Seeks Expanded Client Base

The Fire Testing and Evaluation Center (FireTEC) is beginning an ambitious program to expand its services beyond the walls of the University of Maryland. The Center, which was formalized in 2009, has seen many changes. It is now a state-of-the-art facility that offers standard fire tests, custom small and medium scale test capabilities, and spray diagnostic equipment. Large scale tests can also be coordinated in collaboration with the Maryland Fire and Rescue Institute (MFRI).

FireTEC will reach out to FPE alumni and organizations to encourage them to use FireTEC's laboratory capabilities whenever testing is required. FireTEC provides many benefits, not the least of which includes cost-effectiveness and a mission to integrate the education of future FPE's tightly within its function. Students may assist, participate, and witness tests, when appropriate, and the analysis of the data

and interpretation of results can be performed by University staff or by the contracting party.

FireTEC will play an important role in the continuing development of the department. State budget cuts and the increased prominence of the department within the School of Engineering challenge us to find alternative ways of funding activities, scholarships, and laboratory operating costs. FireTEC will make a significant contribution by leveraging existing state of the art facilities that, until now, have largely been reserved for class and research uses. FireTEC provides the department with much needed financial support while offering FPE professionals access to unique facilities and encouraging meaningful interactions between professionals, students, and faculty. Moreover, this initiative will provide undergraduate students with hands-on training

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and experience through exposure to real problems relevant to industry. Students will benefit by developing a skill set that is both marketable for post-baccalaureate employment and for graduate school recruitment.

The Department has recently joined in a Memorandum of Understanding with Packer Engineering, Inc., to collaborate with

a Packer engineer, Noah Ryder, P.E. Ryder will spend significant time in the Department as visiting research associate and will assist with

the development and management of FireTEC activities. An alumnus of the University of Maryland, he received a B.S. in 1999 and a M.S. in 2000 from the Department of Fire Protection Engineering, and a M.B.A. in 2004 from the Robert H. Smith School of Business.

FireTEC offers a unique opportunity for anyone who requires fire testing services, and with our unique combination of facilities, students, staff, and partners we believe that we can establish a program that benefits all of our stakeholders.

For more information about FireTEC, please contact André Marshall (301-405-8507 or awmarsh@umd.edu) or visit www.firetec.umd.edu.

Message from the Chair



Marino di Marzo, Professor and Chair

On behalf of the faculty, students and staff of the Department, I send you my very best wishes. The climate of cooperation and the level of interaction among the faculty, students and staff that we have been able to nurture and grow within the Department over the past year are for me a great source of pride. I am filled with admiration for the accomplishments of the individual faculty members and of their ability to come together for the common good.

Our search for a new junior faculty member has concluded and we are thrilled to announce the appointment of Stanislav "Stas" Stoliarov as assistant professor. Stas has been associated for several years with SRA International, Inc., working on material flammability and fire safety for the Federal Aviation Administration. He received his PhD in Chemistry from the Catholic University of America after having completed his undergraduate work in Moscow, Russia. Stas has published widely and his papers on polymer-based material flammability have been very well received and broadly cited. I am sure that, in bringing his impressive research expertise to the department, he will contribute greatly to the undergraduate and graduate programs.

I would like to thank Jim Quintiere for his leadership of the Faculty Search Committee and the excellent job the committee did in bringing in highly qualified and talented candidates for this search. One of the recurring comments from the candidates in the interviews was praise for our research team and the aspiration to joining such a well-integrated and successful group of researchers.

As we look ahead, I am pleased to share that under André Marshall's leadership, we have launched the Fire Testing and Evaluation Center - FireTEC. In the past, the Department has provided limited service to the profession with cone calorimetry and other test support. Now we intend to expand these activities to more fully utilize our renovated laboratory facilities in the J. M. Patterson Building. We are fortunate to have a strong relationship with Packer Engineering associated with the FireTEC initiative. Noah Ryder has joined the department on a part-time basis as visiting research associate and is helping us manage and promote the services offered by FireTEC. We are looking forward to a long and fruitful association with him and with Packer. We are staffed

with one full-time lab technician, Olga Zeller, and with several undergraduate students eager to assist companies and individuals with a variety of standard testing in support of product development and certification with national laboratories.

I would like to recognize Arnaud Trouvé's contributions in leading a group of students to Burkina Faso twice in the past year. As faculty advisor to the UMCP chapter of Engineers Without Borders, Arnaud demonstrates the commitment of our faculty to service and to providing students with a wide range of opportunities and experiences in service to less fortunate people.

Our undergraduate enrollment is reaching an all time high with 135 students registered this fall. I would like to acknowledge Peter Sunderland and Jim Milke for recruiting and nurturing our undergraduate students. In my exit interviews, I hear consistent praise for the program and satisfaction with having achieved a degree that opens doors to one of the best and most rewarding professions in engineering. Under the leadership of Jim Quintiere, we have embarked in a full review of the undergraduate program that will be implemented in two phases.

The Curriculum Advisory Committee, co-chaired with dedication by David Icove and David Banwarth, has carefully considered these revisions and has given us a green light to proceed with the implementation. The first phase is already ongoing with the introduction of a second fire modeling course focusing on using FDS and the introduction of the Performance Based Design course replacing the capstone design and the fire hazard assessment courses. The second phase will be implemented in 2012 with the introduction of several new courses in engineering fundamentals (thermo, fluid and heat transfer), suppression, smoke management, alarms, and detection.

The Department is in the middle of a bold and forward looking strategic planning exercise. In the next months, we hope to bring to our constituencies a strategic plan document outlining the visions and goals for the next ten years. We will consult with the department's Board of Visitors to finalize the draft strategic plan and we will broadly disseminate the information thereafter. We are poised to start a significant growth and expansion of the activities of the Department, bringing us to the forefront in fire science and technology, education and professional outreach.

In closing, I would like to thank the faculty, staff and students for making fire protection engineering at the University of Maryland a success. Finally, my gratitude goes to the alumni and friends of the Department for their unwavering support throughout the years. We could not do it without you!



Noah Ryder

Alumni News



MAT CHIBBARO, P.E. (B.S. '81) received the *Secretary of Labor's Exceptional Achievement Award* for leading the team addressing combustible dust explosions in the workplace. Chibbaro

is a Fire Protection Engineer with OSHA's Directorate of Standards and Guidance in Washington, DC. He also authored an article in the winter 2009 edition of *Fire Protection Engineering Magazine*, examining the protection and prevention features of different construction phases, and describing how the fire protection engineer can play a role in efficiently and effectively implementing these features. Chibbaro serves on the Department of Fire Protection Engineering's Curriculum Advisory Committee and was co-instructor for ENFP250 *Introduction to Life Safety Analysis* in fall 2009.

GREG JAKUBOWSKI, P.E., CSP, FSFPE (B.S. '85) is working full-time for Fire Planning Associates, Inc., a consulting firm he co-founded in 2006 in Washington Crossing, PA. The firm provides a full suite of fire protection and safety engineering services, specializing in pre-emergency planning using their proprietary web-based preplanning software, BLAZEMARK. BLAZEMARK provides an interoperable solution between businesses and emergency responders to identify and catalog key information that must be accessed quickly during an incident. It has been used to preplan more than 20 million square feet of a variety of buildings, as well as major transportation routes/facilities. Greg was recently awarded the Philadelphia-Delaware Valley Chapter of SFPE Frank J. Spitz Chapter Service Award. He serves as Chief of the Lingohocken (PA) Fire Company and as a Deputy Leader of the Bucks County Counter Terrorism Fire Task Force. He is currently working on the 2nd edition of his text, *Rapid Intervention Teams* for Fire Protection Publications.

JENNIFER ZAWORSKI, E.I.T., (B.S. '05, M.S. '06) has been promoted to Assistant Consultant at Schirmer Engineering Corporation.

In Memoriam

LYDIA A. BUTTERWORTH (B.S. '83) passed away on October 29, 2006, and was the first FPE to be elected posthumously as SFPE Fellow in 2007.

NICHOLAS P. CHERGOTIS was a good friend of FPE, who generously gave his time and support during the successful campaign to raise funds to establish the Department's first named chair, the John L. Bryan Chair in Fire Protection Engineering. Chergotis died on August 21, 2009, at his home in Shrewsbury, PA. He was 80 years old. During his accomplished career as a Fire Protection Engineer, Chergotis helped to develop one of the first residential smoke detectors. He became a fire protection advisor for the White House, Camp David, many Federal facilities, and the private homes of several Presidents. He was a past-President and longtime member of the New Jersey Society of Fire Protection Engineers.

DAVID L. HUFFMAN (B.S. '87) died at his home on December 18, 2009; he was 44 years old. His interest in Fire Safety started in high school, while helping the Wyalusing Valley (Penn.) Volunteer Fire Department and continued at Chillum Adelphi Volunteer Fire Department near the University. He then moved to Gainesville, Florida, and served as Fire Protection Engineer and Assistant Fire Chief for the City of Gainesville. David was enrolled in the prestigious Executive Fire Officer Program of the National Fire Academy in Emmitsburg, Maryland. He served as the secretary for the Society of Fire Protection Engineers Florida Chapter in 1989. In October 1992 he successfully completed his exam for Licensed Professional Engineer in Fire Protection. Through his engineering consulting practice he traveled extensively in the United States and U.S. Territories to certify the fire safety of properties owned by multiple federal agencies. He started Priest Huffman Productions, an investment and real estate company, in the mid 90's with his business partner, Steve Priest.

THOMAS SKIPWITH "SKIP" LEWIS, longtime friend of the Department of Fire Protection Engineering, died on October 10, 2009 at his home in Virginia. He was 72. Lewis' career included appointments as dean of the College of Engineering, University of Hartford, for 15 years, and executive vice president of the Engineering Department at the Hartford Steam Boiler (HSB) Insurance Company. During his time at HSB, Lewis was instrumental in securing the company's \$100,000 endowment of the Hartford Steam Boiler Scholarship associated with the establishment of the John L. Bryan Chair in Fire Protection Engineering.

WILLIAM QUINN SCHILLING (B.S. '80) died of leukemia on May 19, 2008, at the University of Miami Cancer Center in Miami, Florida. Schilling was 50 years old and is survived by two daughters, Kaleah and Hana Schilling, and a step-daughter, Natalie. He was pre-deceased by his wife, Dawn. Schilling was known as "Quinn" to his family. His sister, Malea Daughton, a member of the Jarrettsville Volunteer Fire Department and President of the Jarrettsville Auxiliary, shared the news of Schilling's passing with FPE. Daughton said, "Quinn studied very hard [at Maryland] and also belonged to the Hillandale Volunteer Fire Department while he was in school. I am proud of my brother and of how much he inspired others – family, friends and colleagues. I just want everyone to know that my brother, Quinn, really loved his job and his family. He will be truly missed."

Graduate Student Honored with Minority Fellowship



LUIS G. BRAVO, a Ph.D. candidate advised by Associate Professor Arnaud Trouvé and a graduate research assistant in the Department of Fire Protection Engineering, has received a prestigious GEM Fellowship. GEM is the National Consortium for Graduate Degrees for Minorities in Engineering and Science, Inc., whose mission is to address the critical shortfall in the production of American engineering and

scientific talent. In addition to receiving University of Maryland sponsorship for this award, Bravo will also receive employer sponsorship from Sandia National Laboratories.

“Luis is a hard-working student with an impressive drive to reach the highest academic levels and succeed in his professional life,” said Arnaud Trouvé, “and I am very glad to see him a recipient of the GEM Fellowship.”

Bravo’s dissertation topic is turbulent simulations and boundary layer combustion, and he expects to complete his Ph.D and graduate in May 2010. He received a Master of Science in Mechanical Engineering in 2006 from The Graduate Center, City University of New York, and a Bachelor of Science in Mechanical Engineering in 2005 from The City College, City University of New York.

Fred Mowrer Receives Emeritus Status

FREDERICK MOWRER, who retired from the Department of Fire Protection Engineering in December 2008, was named associate professor *emeritus* on the recommendation of the faculty of the Department and with the approval of University of Maryland President Dr. Daniel C. Mote. Mowrer joined the College Park faculty in 1987 as assistant professor and was promoted to associate professor in 1993.

“As chair of the Department of Fire Protection Engineering, I witnessed Fred’s unwavering dedication to the profession and to teaching,” said Marino di Marzo, professor and chair. “He contributed significantly to the improvement of the Department’s offerings by developing several courses that were, and still are, extremely well-received by the students.”

In addition to his responsibilities as associate professor, Mowrer was director of the FIRE Center (2003-2008) and co-director of the online Master of Engineering Program (2005-2008). He contributed five chapters to the National Fire Protection Association (NFPA) and Society of Fire Protection Engineers (SFPE) handbooks. He served as President of SFPE and holds the title Fellow of the Society.

Mowrer earned his Ph.D. (1987) in Fire Protection Engineering and Combustion Science, and his M.S. (1981) in Engineering, both from the University of California, Berkeley. He earned a B.S. (1976) in Fire Protection and Safety Engineering from the Illinois Institute of Technology.

Mowrer is currently serving as a visiting professor and acting director of Fire Protection Engineering Programs at California Polytechnic State University (Cal Poly), where he is spearheading the establishment of a fire protection engineering graduate program.

FPE Appoints New Faculty Member

The Department of Fire Protection Engineering is pleased to announce the appointment of a new tenure-track assistant professor. **STANISLAV I. “STAS” STOLIAROV** joined the faculty in January 2010 and was most recently principal scientist at SRA International, Inc., where he conducted research in the field of fire safety for the Federal Aviation Administration.

Stoliarov’s research interests include material flammability, pyrolysis mechanisms, and fire growth modeling. He served as post-doctoral research associate in the Department of Chemical Engineering at the University of Massachusetts Amherst.

“Dr. Stoliarov comes with a wealth of experience in the fire community. We are delighted that he decided to join the Clark School,” says Dr. Darryll J. Pines,

Farvardin Professor and Dean of the A. James Clark School of Engineering.

Department Chair Marino di Marzo adds, “I was particularly impressed by Stas during his seminar presentation to the faculty. At the end of the talk, he and the other faculty members were discussing a broad range of issues associated with fire modeling, experimental techniques and fire technology applications. In looking at his interactions with the group, it seemed as if he had been on the faculty of the department for a number of years already. This realization was the turning point in my decision to hire him over several highly qualified candidates. I am sure he will be the perfect fit for our outstanding research community.”

He received his Ph.D. in Chemistry, with distinction, in 2000 from the Catholic



University of America, Washington, DC. Originally from Russia, Stoliarov received the Engineer of Chemical Technology degree (equivalent to a B.S./M.S. in the United States) in 1993 from Mendeleev University of Chemical Technology, Moscow, Russia.

Faculty News

MARINO DI MARZO has been asked by Darryll J. Pines, Farvardin Professor and Dean of the A. James Clark School of Engineering, to take on additional responsibility as Director of Facilities for the Clark School starting on July 1, 2010. In his final year as Chair of the Department, he will undertake both sets of responsibilities. The search for the new chairperson will initiate in the fall of 2010 and we anticipate bringing him or her on board by July 1, 2011.

ANDRÉ W. MARSHALL received the 2007 National Science Foundation Presidential Early Career Award for Scientists and Engineers (PECASE) in December 2008. Marshall was recognized for his research entitled 'Exploring jet fragmentation and atomization for combustion and fire suppression systems' and was honored at a White House ceremony at the Eisenhower Executive Office Building on December 19, 2008.

JAMES A. MILKE received the 2009 Professor John L. Bryan Mentoring Award from the Society for Fire Protection Engineers (SFPE) at its October 2009 Professional Development Conference and Exposition in Scottsdale, Arizona. The award is given for recognition of commitment to mentoring that enhances the practice of fire protection engineering.

JAMES G. QUINTIERE, ANDRÉ W. MARSHALL AND ARNAUD TROUVÉ received funding from the United States Department of Justice (DOJ), National Institute of Justice, totaling more than \$750K. Quintiere is principal investigator (PI) and Marshall is co-investigator on a project entitled "Scale modeling in fire reconstruction." Quintiere is also PI on "Ignition studies," a subcontract award through a DOJ award to the University of Central Florida (UCF) National Center for Forensic Science (NCFSS). Trouvé is PI on "A thermal properties



Residents of Dissin, Burkina Faso, pose with Prof. Arnaud Trouvé and members of the UM Engineers without Borders Chapter in front of one of the medical centers equipped with newly installed solar panels and lighting system.

database for fire modeling," also a subcontract award through a DOJ award to UCF.

PETER B. SUNDERLAND received the 2008 E. Robert Kent Outstanding Teaching Award for Junior Faculty. Colleagues remark that Sunderland relishes teaching—a fact underscored by the exceptional ratings he receives from students in his courses and by his appointment in the fall of 2008 as a member of the Clark School's Keystone Academy of Distinguished Professors, an unusual distinction for an assistant professor.

ARNAUD TROUVÉ returned to Burkina Faso in August 2009 on his second trip as the faculty advisor for University's student chapter of Engineers Without Borders (EWB). The EWB student chapter at the University of Maryland is one of the largest student chapters of EWB-USA. EWB-UMCP has developed over the years a strong long-term program in the village of Dissin in the region of Ioba in Burkina Faso.

Department Hosts Professional Meetings



On October 18-21, 2009, the University of Maryland hosted the Fall '09 Meeting of the Eastern States Section of the Combustion Institute (ESSCI) in the Adele H. Stamp Student Union Building. The meeting combined the joint efforts of several combustion research groups at UMCP, spread across the Departments

of Aerospace, Mechanical, and Fire Protection Engineering, and under the leadership of FPE Professors Arnaud Trouvé (Chair of the Arrangements Committee), Peter Sunderland and André Marshall.

The Combustion Institute is the premier scientific society in Combustion Science and the Fall Meeting of the ESSCI is a prestigious regular event. The meeting at UMCP convened more than 150 combustion researchers from academia, government laboratories, private corporations and government funding agencies. The event also provided a unique opportunity to promote UMCP students and faculty through the presentation of their combustion research. The program included participation and presentations from nine

faculty members and more than twenty graduate students from the A. James Clark School of Engineering. More details are available on the meeting website at www.essci-fall09.umd.edu.

"The organization of the Fall 09 ESSCI Meeting was a kind of a trial run for us," said Arnaud Trouvé, "Building on this experience, we are now looking forward to hosting the 10th International Symposium of the International Association for Fire Safety Science (IAFSS)." The IAFSS Symposium will be held at UMCP on June, 20-24, 2011.

If you would like more information on the arrangements for the upcoming Symposium, please contact Professor Trouvé at atrouve@umd.edu or visit the IAFSS website at www.iafss.org.



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More News on the Department of Fire Protection Engineering Web Site

Please visit the FPE web site for more news and information about the department.

www.fpe.umd.edu

- Scholarship awards for the 2009-2010 academic year
- Current faculty listings and homepages
- Job listings and internship opportunities
- Information about purchasing the 50th Anniversary History Book

Do you have news to share? We would love to hear from you. Please send information about your awards, honors, etc., to Robert M. Gagnon (M.S.'95, B.S.'90), robtgagnon@aol.com, or Sharon Hodgson, shodgson@umd.edu, 301-405-3963.

