

## FACULTY PUBLICATIONS

**Bradley, Walter L.**, Grinols, A., Blalock, G., **Jordan, William**, Leman, G., **Fry, Cynthia**, "Incorporating Global Entrepreneurship Courses into an Engineering Curriculum," National Collegiate Inventors and Innovators Alliance Annual Meeting, March 2008, Dallas, TX.

Bhatt, C.P. and **McClain, Stephen T.**, "Assessment of Uncertainty in Equivalent Sand-Grain Roughness Methods," Presented at the ASME International Mechanical Engineering Congress and Exposition, November 2007, Seattle, WA, IMECE2007-42105. Note: Received the 2007 W.M. Rohsenow Award for best presentation on gas-turbine heat transfer at the 2007 IMECE.

Blekhman, D., and **McClain, Stephen T.**, "Mathematical Modeling of a Molten-Carbonate Fuel Cell Using MathCAD," Presented at the 2008 ASME Fuel Cell Science, Technology and Engineering Conference, Denver, CO, June 2008, FuelCell2008-6519.

Bons, J.P., **McClain, Stephen T.**, Wang, Z.-J., Chi, X., and Shih, T.J., "A Comparison of Approximate vs. Exact Geometrical Representations of Roughness for CFD Calculations of Cf and St," *Journal of Turbomachinery*, Vol. 30, No. 2, 021024, 2008.

Cao, M., Wang, K.W., and **Lee, Kwang Y.**, "Scalable and Invertible PMN Model for MagnetoRheological Fluid Dampers," *Journal of Vibration and Control*, 14(5): 731-751, 2008.

Choi, T.I. and **Lee, Kwang Y.**, "Communication system for distribution automation Using CDMA," IEEE Transactions in Power Delivery, Vol. 23, No. 2, April 2008, pp. 650-656.

Choi, Tae-Il, and **Lee, Kwang Y.**, "Intelligent Control of Fuel Cell Power Plant," Proceedings of the IFAC World Congress, July 2008, Seoul, Korea.

Edelman, P. and **Song, Eunjee**, "Attack Patterns and Secure Software Design," Proceedings of the International Conference on Convergence Technology and Information Convergence (CTIC) 2008, Jeju, Korea, November 2008.

**Farison, Jim** and Yang, Zhoucheng, "U.S. News Rankings of Engineering Programs in Institutions without Doctoral Programs in Engineering: A Six-Year Longitudinal study," ASEE Gulf Southwest Section Conference, Albuquerque, NM, March 2008.

**Farison, Jim** and Yang, Zhoucheng, "A Review of Accredited Multidisciplinary Engineering Programs and ASEE's Role for their ABET Accreditation," ASEE Gulf Southwest Section Conference, Albuquerque, NM, March 2008.

**Farison, Jim**, "The Multifunctional Use of a Multidisciplinary B.S.E. Degree Program: An Historical Case Study," ASEE Annual Conference, Pittsburgh, PA, June 2008.

**Farison, Jim**, "Innovations and Experiences in an Engineering Course Called 'Image Formation and Processing,'" ASEE Annual Conference (CD-ROM, 11 pages), Pittsburgh, PA, June 22-25, 2008.

Farsangli, M., Nezamabadi-Pour, H., and Lee, Kwang Y., "Multi-Objective VAR Planning with SVC Using Immune Algorithm and Guaranteed Convergence Particle Swarm Optimization," Proceedings of the IFAC World Congress, July 2008, Seoul, Korea.

Farsangli, M., Kyanzadeh, S., Nezamabadi-Pour, H., and **Lee, Kwang Y.**, "Design of a Supplementary Controller for SVC Using Hybrid Real Immune Algorithm and Local

Search," Proceedings of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 2008.

**Fry, Cynthia**, Davis, J., Shirazi-Fard, Y., "Recruitment and Retention of Females in the STEM Disciplines: The Annual Girl Scout Day Camp at Baylor University," ASEE/IEEE Frontiers in Education Conference, Saratoga Springs, NY, October 2008.

**Fry, Cynthia** and Leman, G., "Exposing Undergraduate Engineering and Computer Science Students to the Asian Business Culture in a Project-Based Abroad Program: An Assessment of Program Challenges," ASEE/IEEE Frontiers in Education Conference, Saratoga Springs, NY, October 2008.

**Grabow, Paul C.**, "An Alternative to Instrumentalism: Technology as a Form of Transcendence," *The International Journal of Technology, Knowledge and Society*, Vol. 4, No. 3, pp.197-202.

**Gravagne, Ian A.**, and **Van Treuren, Kenneth W.**, "A Christian Approach to Energy and the Environment at Baylor University," Proceedings of the CEEC, Pittsburgh, PA, June 2008

**Gravagne, Ian A.**, and **Van Treuren, Kenneth W.**, "On the Use of TRANSYS in Solar Energy Technical Elective," Proceedings of the ASEE GSW Annual Conference, University of New Mexico, NM, March 2008.

**Gravagne, Ian A.**, and **Van Treuren, Kenneth W.**, "Developing an Energy Literacy Curriculum at Baylor University," Proceedings of the ASEE GSW Annual Conference, University of New Mexico, NM, March 2008.

Haidari, S., Farsangli, M., Nezamabadi-Pour, H., and **Lee, Kwang Y.**, "Design of a Supplementary Controller for HVDC Using Memetic Algorithm," Proceedings of the IFAC World Congress, July 2008, Seoul, Korea.

Haidari, S., Farsangli, M., Nezamabadi-Pour, H., and **Lee, Kwang Y.**, "Design of a Supplementary Controller for HVDC Using Memetic Algorithm with Population Management," Proceedings of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 2008.

**Jean, B. Randall**, Green, E.C., and McClung, M.J., "A Microwave Frequency Sensor for Non-Invasive Blood-Glucose Measurement," IEEE Sensors Applications Symposium (SAS), Atlanta, GA, February 2008.

**Jordan, William**, **Bradley, Walter L.**, **Thomas, B.**, **Fry, Cynthia**, Grinols, A., Blalock, G., "Promoting an International Perspective in an Undergraduate Engineering Program," ASEE National Conference, June 2008, Pittsburgh, PA.

**Keiley, Benjamin S.**, **Doty, Robert**, **Booth, William**, **Fry, Cynthia**, "Engineering Economy Assessment of Baylor's Pilot Global Business Communications Course," 2008 ASEE National Conference, June 2008, Pittsburgh, PA.

**Keiley, Benjamin S.**, "Influences of Technology on Missions," Proceedings of the Christian Engineering Education Conference and paper presented at the CEEC Conference, June 2008, Geneva College, Beaverton, PA; 7 pps.

**Keiley, Benjamin S.**, **Doty, Robert**, **Booth, William A.**, **Fry, Cynthia**, "Engineering Economy Assessment of Baylor's Pilot Global, Business, Communications Course," Proceedings of the 2008 American Society for Engineering Education Annual Conference and Exposition and paper presented at the ASEE Annual Conference, June 2008, Pittsburgh, PA; 10 pps.

**Keiley, Benjamin S.**, Marshall, L.A., Muska, C., "Successes and Challenges with Initiating a Companion SMET Career Fair at Baylor," Proceedings of the 2008 American Society for Engineering Education Gulf Southwest Annual Conference and paper presented at the ASEE GSW Annual Conference, March 2008, Albuquerque, NM; 8 pps.

**Keiley, Benjamin S.**, Ecklund, A.P., Dabney, A., "Efforts to Steer Incoming Baylor Freshman toward Appropriate Majors," Proceedings of the 2008 American Society for Engineering Education Gulf Southwest Annual Conference and paper presented at the ASEE GSW Annual Conference, March 2008, Albuquerque, NM; 7 pps.

**Keiley, Benjamin S.**, Dittenber, D.B., Ayers, S.R., Gonzalez, R.V., Goldberg, J.R., Malkin, R., "Innovative Biomedical Design Competitions and Scenarios Exploring Underserved Populations," Proceedings of the National Collegiate Inventors and Innovators Alliance Conference and paper presented at the NCIIA Annual Conference, March 2008, Dallas, TX; pps. 125-131, 2008.

Kim, S., Kim, Y., and **Lee, Kwang Y.**, "Impact of Wind Power Generation in the Korea-Jeju Power System," Proceedings of the IEEE Power Engineering Society General Meeting, Pittsburgh, PA, July 2008.

Ko, H.-S., **Lee, Kwang Y.** and H.-C. Kim, "Electricity Price Prediction Model Based on Simultaneous Perturbation Stochastic Approximation," *Journal of Electrical Engineering & Technology*, Vol. 3, No. 1, pp. 14-19, 2008.

Kyanzadeh, S., Farsangli, M., Nezamabadi-Pour, H., and **Lee, Kwang Y.**, "Design of a Supplementary Controller for SVC Using Immune Algorithm," Proceedings of the IFAC World Congress, July 2008, Seoul, Korea.

**Lee, Kwang Y.**, and El-Sharkawi, M.A. (Editors), *Modern Heuristic Optimization Techniques with Applications to Power Systems*, IEEE Press, ISBN: 978-0-471-45711-4, Wiley: New York, 2008.

**Lee, Kwang Y.**, Van Sickle, Joel H., Hoffman, Jason A., Jung, Won-Hee, and Kim, Sung-Ho, "Controller Design for a 1000 MW Ultra Super Critical Once-Through Boiler Power Plant," Proceedings of the IFAC World Congress, July 2008, Seoul, Korea.

**Lee, Kwang Y.**, Yang, W., Junker, S., and Ghezeli-Ayagh, H., "Fault Diagnosis and Accommodation System with a Hybrid Model for Fuel Cell Power Plant," Proceedings of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 2008.

**Marks II, Robert J.**, *Handbook of Fourier Analysis and Its Applications*, Oxford University Press, (2008).

**Marks II, Robert J.**, **Gravagne, Ian A.**, Davis, J., "A Generalized Fourier Transform and Convolution on Time Scales," *Journal of Mathematical Analysis and Applications*, Vol. 340, No. 2, April 2008, pp. 901-919

**McClain, Stephen T.**, and Peters, R.W., "A Biodiesel Mini Baja Vehicle and Student Competition," Presented at the SAE World Congress, Detroit, MI, April 2008, SAE Paper No. 2008-01-1293.

**McClain, Stephen T.**, Harris, R.A., and Peters, R.W., "A Fuel Consumption Simulator for Teaching Efficient Driving Practices," Presented at the SAE World Congress, Detroit, MI, April 2008, SAE Paper No. 2008-01-291.

Meena, S. Somasundaram, **Baylis, Charles**, and Dunleavy, L., "Benchmarking Comparison of Thermal and Diode Sensors for Pulsed Power Measurement,"

Automatic RF Techniques Group (ARTG) Conference, Portland, OR, December 2008.

Moon, Un-Chul, Lee, Jae-Du, Lee, Seung-Chul, and **Lee, Kwang Y.**, "An Adaptive Dynamic Matrix Control of a Boiler-Turbine System," Proceedings of the IFAC World Congress, July 2008, Seoul, Korea.

**Song, Eunjee**, France, R., Ray, I., and Kim, H., "Checking Policy Enforcement in an Access Control Aspect Model," *The Journal of Information: Special Issue on Convergence Computing*, Vol. 11, No. 5, International Information Institute, September 2008.

**Song, Eunjee**, and Roberts, N.V., "Verifiable aspect composition in UML models," Proceedings of the IEEE International Conference on Secure System Integration and Reliability Improvement (SSIRI 2008), Yokohama, Japan, July 2008.

Trumbo, Matthew L., **Jean, B. Randall**, **Marks II, Robert J.**, "A New Modality for Microwave Tomographic Imaging: Transit Time Tomography," *International Journal of Tomography and Statistics*, Vol. 11, No. W09, Winter 2009, pp. 4-12.

Van Sickle, J., Venkatesh, P., and **Lee, Kwang Y.**, "Analysis of the Pareto Front of a Multi-objective Optimization Problem for a Fossil Fuel Power Plant," Proceedings of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 2008.

**Van Treuren, Kenneth W.**, and **Eisenbarth, S.**, "The Integration of Faith and Profession in the Engineering Discipline," Conference for the International Institute for Christian Studies, Kansas City, MO, July 2008.

**Van Treuren, Kenneth W.**, and **Gravagne, Ian A.**, "Integrating Faith into the Academic Environment at Baylor University," Proceedings of the CEEC, Pittsburgh, PA, June 2008

**Van Treuren, Kenneth W.**, and **Gravagne, Ian A.**, "Energy Awareness Efforts at Baylor University," Proceedings of the ASEE Annual Conference and Exposition, Pittsburgh, PA, June 2008

**Van Treuren, Kenneth W.**, "Addressing Contemporary Issues, Lifelong Learning, and the Impact of Engineering on Global and Societal Issues in the Classroom," Proceedings of the ASEE Annual Conference and Exposition, Pittsburgh, PA, June 2008

**Van Treuren, Kenneth W.**, "Understanding the Transition from Secondary School to the University: Factors that Influence Student Success," Education Session titled "Skills Gap: Impact on Engineering Education," June 2008, ASME International Gas Turbine Institute Turbo Expo 2008, Berlin, Germany.

**Van Treuren, Kenneth W.**, and **Gravagne, Ian A.**, "Raising Community Energy Awareness: Building an Energy Display at the Mayborn Museum," Proceedings of the ASEE GSW Annual Conference, University of New Mexico, NM, March 2008.

Venkatesh, P., and **Lee, Kwang Y.**, "Multi-Objective Evolutionary Programming for Economic Emission Dispatch Problem," Proceedings of the IEEE Power Engineering Society General Meeting, in Pittsburgh, PA, July 2008.

Zerwekh, J.E., Geng, W., **Skurja, Carolyn T.**, Odvina, C.V., "Development of An Animal Model of Bisphosphonate-Induced Severe Suppression of Bone Turnover," Proceedings of the 2008 American Society for Bone and Mineral Research, Montreal, Quebec, Canada, September 2008. *J Bone Miner Res* 2008; 23S1: pg SA511.

## ALUMNI UPDATES

### 1986

**Janet (Hickman) Fogh** (BA, Computer Science; MS '99) is a middle school principal in Vacaville, California. She and her husband Dale have two children. She wrote, "As a BU alum and the mother of a daughter who has applied to attend Baylor starting in fall 2009, this is a very exciting time in our lives." Email: djfogh@sbcglobal.net

### 1989

**Bobby Johnston** (BSE) is a patent attorney with Sonnenschein Nath & Rosenthal in Dallas, TX, and also works part-time as an ordained Episcopal priest at Church of the Incarnation in Dallas. He is married to **Robin Billie Johnston** (BA '89) and they have 4-year-old twin boys. Email: bjohnston@sonnenschein.com

### 1991

**Susan (Rhodes) Bahry** (BS, Computer Science) wrote, "I am working for a company called Pariveda Solutions. We are a relatively small but quickly growing IT consulting company. We have about 150 people now in six offices, but most are in Dallas or Houston." Email: susan.bahry@parivedasolutions.com

### 1993

**Stephen Purdy** (BS, Engineering; MS, Computer Science, '95) wrote, "I'm still in the Air Force, working in DC. I'm an Air Force Congressional Liaison, covering the Space and Nuclear portfolios. So it's pretty exciting work." Email: stephen.purdy@pentagon.af.mil

### 1995

**Dorinda Peach McCourt** (BS, Engineering) wrote, "My husband Patrick and I have been married seven years this fall and have three children: Maggie, 5-1/2; Thomas, 3; and Henry, 9 months. I still work part time (job share) as a mechanical engineer at Chrysler, but really enjoy the opportunity to be home most days with my children. Email: dp30@chrysler.com

### 1997

**Jill (Vicki) Maki** (BS, Engineering) wrote, "I am thrilled to report that my husband Jason and I welcomed our first child, a beautiful baby boy named Evan, Nov. 30, 2007. I am working as a communications manager at Motorola, and Jason works for TNS, a market research firm." Email: jillian\_maki@yahoo.com

### 1998

**Tim Franklin** (BS, Engineering) wrote, "After Baylor, I went to work for General Motors in Arlington, TX. After a few years at GM, I returned to school and earned an MBA at Vanderbilt. Following my passion for cars led my family to Michigan where I worked for Ford in Product Development on the F-150. The struggling auto industry in Michigan led me back to my home state of Tennessee in 2006 to work for Nissan. Nissan moved their US HQ to Nashville that summer. I now work in Product Planning on the Titan pickup truck. The Lord has given me some great opportunities to follow my love of cars and work for some great companies. Baylor Engineering prepared me well. I am married to **Jo (Girard) Franklin** (BSED '98) and have two boys, Graham, 3, and Wesley, 1." Email: gmvetteman@yahoo.com

### 1999

**Jason Todoroff** (BSCS; MSCS '00) and his wife **Jenny** (BBA '99) announced the arrival of their first child: Jason Steven was born Aug. 28, 2008, weighing 9 pounds, 4 ounces, and measuring 21-1/2 inches long. They live in Austin where Jason works for IBM and currently is the IBM Tivoli Directory Integrator Release Manager. Email: jtodoroff@sbcglobal.net

### 2000

**Craig Henderson** (BSCS) wrote, "I graduated from law school in 2006 and am a practicing attorney in the corporate litigation field in Las Vegas." Email: craighenderson@gmail.com

### 2001

**Nathan Cooper** (BSE) and his wife **Shabana** (BSE '01) live in Houston with their three children (2 boys and 1 girl). Nathan wrote, "I continue to work in Houston, TX, as an Engineer at Cameron, a provider of flow equipment products, systems and services to worldwide oil, gas and process industries." Email: njcooper5@yahoo.com

### 2003

**Trisha (Janak) Kimes** (BSI) wrote, "I continued to Baylor College of Dentistry and received my DDS degree in 2007. I married a dental school classmate, and we now reside in San Antonio, where he is doing a residency in orthodontics, and I am practicing General Dentistry. No children yet, but we [are] the proud parents of a Labradoodle (breed between a Labrador and Poodle)! We anticipate moving back to Dallas upon his graduation in 2010." Email: trishakimes@yahoo.com

### 2004

**Anna Grindie** (BSI) wrote, "...In June 2008, I was fortunate enough to receive an offer from Magellan Midstream in Tulsa, So. I resigned from ExxonMobil the first of August, moved to Tulsa and closed on my first house mid August, and [started] my new job at Magellan on Sept. 2. It has been quite the whirlwind, but I feel very blessed. Allison (my sister) and I took a three-week vacation to Europe. It was amazing. We traveled through England, Scotland, France, and Italy. When we came back, Allison headed right back to Baylor (she is a graduate student in computer science) and I prepared to move to Tulsa." Email: anna\_grindie@hotmail.com

**Frank Johnson** (BSI) attends the University of Iowa School of Law. Email: fjohnso@utmb.edu

### 2007

**Eric Johnston** (BSI) wrote, "I am in Houston working as an IS Analyst for ExxonMobil in the Upstream Applications Division. I married **Meredith Shipley** (BA '07) in March 2008, and we reside in Kingwood, TX." Email: ejohn54@gmail.com

### 2008

**Yasaman Shirazi** (BSME) wrote, "I'm still in school, and will be for the next four-five years in AggieLand (I don't know how that happened?). I work in the Bone Biomechanics Lab in the ME department and we collaborate closely with the Health and Kinesiology department. We started two new research grants that I'm working on: first one is a three-year project funded by NASA titled *Contributors to Long-Term Recovery of Bone Strength following Exposure to Microgravity*; the other one is a four-year project funded by NSBRI (National Space Biomedical Research Institute, an institution within NASA) and is titled *Maintaining Musculoskeletal Health in the Lunar Environment*. I'm leading the second one." Email: yasamanshirazi@gmail.com

### Please stay in touch.

If you would like to let alumni and friends of the School of Engineering and Computer Science know about recent events in your life, please contact us:  
One Bear Place #97356  
Waco, TX 76798-7356  
Leigh\_Ann\_Marshall@baylor.edu