A Message from the Chair

Dear QSR section members,

Greetings!

This year’s INFORMS annual meeting will be held at Minneapolis, MN from October 6-9. The QSR business meeting will take place on Monday, October 7th from 6:15pm to 7:15pm. On behalf of the QSR officers, I would like to welcome every one of you to the meeting. This will probably be the main convenient venue for us to get together and share our ideas. So I hope to see you all there.

The QSR cluster continues to be one of the largest clusters in the INFORMS annual meetings! This year, the QSR cluster contains 39 sponsored sessions, including two journal sponsored sessions by Technometrics and IIE Transactions, four sessions co-sponsored with other INFORMS clusters and non-INFORMS societies, one of which is a panel discussion session on Funding Opportunities sponsored by QSR/DM. The sessions will cover a broad spectrum of topics related to QSR, such as data fusion, sensors, SPC and monitoring, data analysis, Big & Complex Data Problems, reliability, predictive and condition based maintenance, Bayesian methods and system modeling. I would like to thank all the session organizers and especially, the QSR cluster chair and chair-elect Dr. Haitao Liao for putting together this interesting and broad program. I thank also Dr. Qiang Huang our former Chair, for his tremendous help during the last months while I was traveling.

I would like to particularly highlight the session on best student paper competition session on Monday (October 7) morning at 8:00am. The winner will be chosen by a panel of judges and will be announced at the QSR business meeting.

QSR continues to be a prominent professional organization of our discipline. We have an appreciable increase of member size, particularly from student members. Presently, we have 209 members, of which about 59 are student members. I hope we can grow further and impact our society in a greater way.

Finally, I would like to encourage all of us to continue and promote research, collaboration and education in these exiting times when topics such as analytics, data-driven applications, monitoring and Big Data are gaining so much attention. These topics are opening new opportunities for us as a society that is equipped with the right approaches and tools to address such great challenges.

I look forward to seeing you all in Minneapolis and thank each and every one of you for your dedication and service to the QSR section.

With Best Regards
Irad Ben-Gal

Phoenix Conference Review

INFORMS Annual Meeting, October 14-17, 2012

The 2012 Annual Meeting in Phoenix featured a QSR Sponsored Cluster with 40 sessions that spanned the entire duration of the conference. Our section’s relationship with leading relevant journals continues to be strong as evidenced by the panel discussion among editors and invited sessions sponsored by IIE Transactions, Journal of Quality Technology, and Technometrics.

Our section hosted engaging panel discussions on renewable power system, research in BigData, nanomanufacturing & nanoinformatics, and other strategic research directions in QSR.

Joint sessions with Data Mining, Health Applications, Minority Issues Forum, and Simulation highlighted the importance of quality, statistics and reliability to multidisciplinary research and development.

The Annual Meeting in Phoenix also included finalist presentations for the 2012 QSR Best Student Paper Award. The winner was Matthew Plumlee from Georgia Institute
of Technology for his article entitled “Tractable Functional Response Modeling using Nonstationary Covariance Functions”. Other 2012 finalists included Linkan Bian (Georgia Institute of Technology), Kaibo Liu (Georgia Institute of Technology) and Li Wang (University of Southern California).

2012 QSR Best Student Paper Award winner Matthew Plumlee with Qiang Huang (left) and Rajesh Ganesan (right)

Here are this year’s finalists that will make presentations in Minneapolis, and be recognized at our business meeting:

- Lulu Bao, Tsinghua University, A Run-to-Run Controller for Product Surface Quality Improvement. Advisor: Prof. Kaibo Wang
- Arash Pourhabib, Texas A & M University, Bayesian Site Selection for Gaussian Process Regression. Advisor: Prof. Yu Ding
- Arman Sabaaghi, Harvard University, Indicator Functions and the Algebra of the Linear-Quadratic Parametrization. Advisor: Prof. Tirthankar Dasgupta
- Linmiao Zhang, National University of Singapore, Monitoring Wafer Geometric Quality using Additive Gaussian Process Model. Advisor: Prof. Nan Chen

Member Updates

- **Honors and Awards Received**

Soundar Kumara was named a fellow of the American Association of Advancement of Science (AAAS). He was also named a fellow of American Association of Mechanical Engineers (ASME).

Kaibo Liu received the ASQ 2013 Richard A. Freund International Scholarship. His paper “Adaptive Sensor Allocation Strategy for Process Monitoring and Diagnosis in a Bayesian Network” was awarded as the best student paper in the Industrial and Systems Engineering Research Conference (ISERC) in 2013.

Chiwoo Park received Ralph E. Powe Junior Faculty Enhancement Award, Oak Ridge Associated Universities (2013).

Matthew Plumlee won the 2013 Mary G. and Joseph Natrella Scholarship from the Quality and Productivity Section of the American Statistical Association (ASA).

Janjun (Jan) Shi, was elected an Academician of the International Academy for Quality (IAQ) based upon his “knowledge, leadership experience, and accomplishments.” He delivered his acceptance speech at the European Organization for Quality Congress in Tallinn, Estonia on June 19, 2013.

Alice E. Smith was named a Senior Fulbright Fellow at Bilkent University, Turkey. She taught Quality Assurance there.

William H. Woodall and late George E. P. Box received the first Soren Bisgaard award, selected by the ASQ Statistics Division, for the paper “Innovation, Quality Engineering, and Statistics” Quality Engineering, Vol. 24:1, 20-29. This recognizes the paper in the 2012 volume of the journal Quality Engineering with the "greatest potential for advancing the practice of quality improvement."

- **Grants received**

David Coit received $110,000 of U.S. Army ARDEC grant, for the proposal entitled “ARDEC Risk and Reliability Models for Condition-Based Ammunition Management”.

David Coit received $66,000 of U.S. Navy NAVAIR grant, for the proposal entitled “Development of Reliability Models to Support the Recovery Gear Service Life Analysis Program - Phase 4”.

Qiang Huang, Yong Chen (USC) and Tirthankar Dasgupta received $400,000 from National Science Foundation, for the proposal entitled “Collaborative Research: Geometric Shape Error Control for High-Precision Additive Manufacturing”.

Chiwoo Park received $284,993 from National Science Foundation, for the proposal entitled “Understanding and Monitoring Nanoparticle Self-assembly Processes with Online Transmission Electron Microscopic Data”.

Chiwoo Park received $267,662 from AFOSR through Texas A&M University, for the proposal “Dynamic Data-Driven Modeling of Nano Particle Self Assembly Processes”.

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INFORMS Quality, Statistics, and Reliability Section  http://www.informs.org/site/qsr  QSR News Page 2
Hao Peng received €100,000 from the Marie Curie Career Integration Grant by European Commission, for the proposal entitled “Integrated Modeling and Optimization of Quality Control, Product Reliability, and Maintenance for Advanced and Evolving Technologies”.

Jeff Wu and Roshan J. Vengazhiyil received $450,000 from Department of Energy, for the proposal entitled “A Mathematical Environment for Quantifying Uncertainty: Integrated and Optimized at the Extreme-Scale”.

Hui Yang and Eric Bennett received a grant from National Science Foundation, for the proposal entitled "Regulated Sialylation Modulates Cardiac Excitability and Conduction”.

Hui Yang and Roshan J. Vengazhiyil received a grant from National Science Foundation, for the proposal entitled "Collaborative Research: Physical-Statistical Modeling and Optimization of Cardiovascular System”.

Li Zeng received $275,000 from National Science Foundation, for the proposal entitled “Collaborative Research: Quality Profile Modeling and Control with Applications in Tissue-engineered Scaffolds Fabrication”.

• Ph.D. degrees earned


Hyun-Jin Kim (2013), "Development of Scales for Measuring Quality of Mobile Content Services" Ph.D. Dissertation, Postech University, Korea, Advisor: Kwang-Jae Kim

Kaibo Liu (2013), "Data Fusion for System Modeling, Performance Assessment and Improvement" Ph.D. Dissertation, Georgia Institute of Technology, Advisor: Jianjun (Jan) Shi

Mahmoud Mistarihi (2013), "Non-linear and Non-stationary Dynamic Analysis for Online Structural Health Monitoring" Ph.D. Dissertation, Oklahoma State University, Advisors: Zhenyu (James) Kong and Satish T.S. Bukkapatnam


• Promotions and news

Linkan Bian joined the Department of Industrial and Systems Engineering at Mississippi State University as an assistant professor.

Tongdan Jin was promoted to Associate Professor in Ingram School of Engineering at Texas State University effective from September, 2013

Ozgur Kabadurmus joined Yasar University, Turkey as an assistant professor.

Zhenyu (James) Kong joined the Grado Department of Industrial and Systems Engineering at Virginia Tech as Associate Professor with tenure in August, 2013.

Haitao Liao and Yongpei Guan are the program co-chairs for the 2014 ISERC, May 31-June 3, 2014, Montreal, Canada.

Kaibo Liu is joining the Department of Industrial and Systems Engineering at University of Wisconsin-Madison as an assistant professor.

Abhishek Shrivastava joined the Department of Industrial and Manufacturing Engineering in FAMU-FSU College of Engineering, Tallahassee, Florida as an assistant professor.

Roshan J. Vengazhiyil was promoted to Professor in H. Milton Stewart School of Industrial and Systems Engineering at Georgia Institute of Technology.

• Call for Papers and Special Issue Proposals

International Journal of Six Sigma and Competitive Advantage (IJSSCA) aims to publish original research articles that advance the theory of statistical process improvement and its application to a diversity of fields including but not limited to healthcare, manufacturing, service and sustainability. IJSSCA appears in print and online at http://inderscience.com/ijssca
If you are interested in being a guest editor, please send your special issue idea to Justin Chimka, jchimka@uark.edu

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Certified Analytics Professional (CAP®) is the new vendor-, application-, and software-neutral analytics certification offered by INFORMS, the world’s largest professional association devoted to analytics. Certification is designed to enhance the credibility of your professional profile and separate you from the crowd. Surveys show that certification has a positive impact on salaries and continued professional development. See other benefits of certification.

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Questions? See Frequently Asked Questions and then Contact INFORMS.

**Job Opening**

**University of Southern California**

The University of Southern California, one of the nation’s top research universities, invites applications for tenure-track positions in the Daniel J. Epstein Department of Industrial and Systems Engineering in the Viterbi School of Engineering. Applications for the levels of Assistant and Associate Professor will be considered.

These positions are targeted toward growth in systems modeling, design, and analysis, with an emphasis on areas of current and increasing importance to the ISE research community (e.g., data science, informatics, and analytics in healthcare, production/manufacturing, etc).

We seek energetic individuals who will participate in the university’s research enterprise and engage in classroom teaching at the graduate and undergraduate levels. Successful candidates will establish a strong, externally funded, research program of national prominence while contributing to the core teaching mission of the ISE department. An earned doctorate in a field closely related to Industrial and Systems Engineering is required.

Positions are available starting August 16, 2014.

Candidates should apply at ise.usc.edu. Applications should include: a cover letter; curriculum vitae detailing educational background, research accomplishments and work experience; a one-page statement of current and future research; and names of a least four professional references. In order to receive full consideration, all materials should be received by December 6, 2013, but earlier application is encouraged. Interested individuals may contact Professor Julie Higle, Chair of the Daniel J. Epstein Department of Industrial and Systems Engineering (julie.higle@usc.edu).

**City University of Hong Kong**

**Chair Professor/Professor/Associate Professor/Assistant Professor**

City University of Hong Kong is a dynamic, fast-growing university that is pursuing excellence in research and professional education. The Department of Systems Engineering and Engineering Management is looking for talented faculty in emerging and interdisciplinary research areas such as risk engineering and management, quality and reliability engineering, system informatics and data mining, logistics and supply chain management, energy and environment, and other IE/OR related areas. Good academic credential and excellent communication skills are required. All classes are taught in English.

**Requirements:** A PhD in a closely related discipline with a promising research record and a strong teaching ability. The successful candidates are expected to develop new research directions and courses.

**Salary and Conditions of Service:** Remuneration package will be driven by market competitiveness and individual performance. Excellent fringe benefits include gratuity, leave, medical and dental schemes, and relocation assistance (where applicable). Initial appointment will be made on a fixed-term contract.

**Application and Information:** Further information on the University is available at http://www.cityu.edu.hk. Additional information about the Department is available at http://www.cityu.edu.hk/seem. Please send an application letter enclosing i) a current CV with evidence of teaching ability in English; ii) a concise (up to 1 page) statement of research interests and teaching philosophy to the Head, Department of Systems Engineering and Engineering Management, City University of Hong Kong by email (sehead@cityu.edu.hk) or by post. Applications will be considered until positions are filled. The University reserves the right to consider late applications and nominations, and to fill or not to fill the positions. Personal data provided by applicants will be used for recruitment and other employment-related purposes.
University of Arkansas

Assistant Professor

The Department of Industrial Engineering at the University of Arkansas invites applications for two tenure-track, Assistant Professor positions with an anticipated start date of August 2014. Successful candidates must possess a Ph.D. in Industrial Engineering or closely related field, be eligible to work in the United States, and have excellent communication skills. Candidates should also demonstrate abilities in high quality research for competitive funding, teaching both undergraduate and graduate courses, advising PhD students, and providing appropriate service to the department, university and the profession. The department is seeking applicants in all areas of industrial engineering. Preference will be given to candidates whose research aligns with departmental research areas: Engineering Management, Healthcare Systems Engineering, Human Factors & Ergonomics, Manufacturing & Automation, Reliability Maintainability & Quality Engineering, and Transportation Logistics & Distribution.

Applicants are asked to provide electronically (preferred) a single PDF file that includes: a one-page letter of application, a curriculum vita, a one-page statement of research interests, a one-page statement of teaching interests, and a list of three references (including an e-mail address for each reference). This PDF file should be sent to iesearch@uark.edu or send hard copy to IE Faculty Search Chair, University of Arkansas, 4207 Bell Engineering Center, Fayetteville, AR 72701. To ensure full consideration, this file should be submitted by December 1, 2013. Applications submitted after that date will be reviewed until the position is filled.

Endowed Faculty Position

The Department of Industrial Engineering at the University of Arkansas invites applications for its endowed faculty position, with an anticipated start date of August 2014. Candidates in all areas of industrial engineering, whose credentials warrant appointment at the full professor level, with exceptional track records in scholarship and external funding, as well as outstanding teaching at the undergraduate and graduate levels, are encouraged to apply. The successful candidate will be a nationally prominent scholar who will lead funded research endeavors that ideally complement or extend the current strengths of the department. An endowment will provide the successful candidate with significant resources to continue and further the scholar’s contributions to teaching, research and public service.

Applications submitted after that date will be reviewed until the position is filled. Please send the appropriate material and inquiries to:
Edward A. Pohl, Ph.D.
Professor of Industrial Engineering
Department of Industrial Engineering
4167 Bell Engineering Center
University of Arkansas
Fayetteville AR 72701
endwprof@uark.edu

The Department of Industrial Engineering is ranked among the best graduate programs in industrial/manufacturing engineering by U.S. News and World Report. The department’s faculty have received significant research and teaching awards and hold key leadership positions at the University of Arkansas and in professional societies. Faculty research supports multiple research centers including: the National Science Foundation Center for Excellence in Logistics and Distribution (http://celd.i neg.uark.edu ), the Center for Innovation in Healthcare Logistics (http://cihl.uark.edu ), and the Mack-Blackwell Rural Transportation Center (http://mackblackwell.org ).

The University of Arkansas is an Affirmative Action/Equal Opportunity Employer. All applicants are subject to public disclosure under the Arkansas Freedom of Information Act and persons hired must have proof of legal authority to work in the United States.
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