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A Message from the Chair

Dear QSR Section members,

I would like to thank you for your strong support and endorsement to the INFORMS QSR Section! Your efforts and participations in conference organization, presentations, volunteer services, engagement to colleagues outside the QSR Section, and creation of new initiatives between INFORMS Annual Meetings have improved the synergy among the QSR members. These efforts make QSR continue to climb!

This year's INFORMS Annual Meeting will be held in Seattle, WA from October 20 to October 23, 2019. The QSR business meeting will be held on Monday, October 21 from 6:30pm to 8:00pm in CC-4C-2, Level 4 of the Washington State Convention Center. On behalf of the QSR officers, I would like to welcome every one of you to the meeting. Thanks to the QSR Advisory Board, QSR Council members, and many volunteers, QSR Section has created a lot of new activities this year. This is a great chance for us to get together, review the progress, and provide your comments and suggestions for the future.

The QSR Section is sponsoring 56 amazing sessions in the INFORMS Annual Meeting 2019, which makes us one of the most active sections in the INFORMS. These sessions include one QSR refereed session (best paper competition), two QSR student sessions (best student paper competition and student interaction/poster competition), four journal sponsored sessions (IISE Transactions, Technometrics, JQT, and IEEE-TASE), two panel discussion sessions on academic job application and interview process and promotion process for assistant professors, one tutorial session on Gaussian process, and six joint sessions with

Data Mining, Healthcare Application System and Energy clusters. For the first time, the "QSR Orientation" session has been created to help members in academic or industry career preparation. Research and industrial leaders are invited to interact with QSR members and provide QA opportunities. For the first time, the "QSR Industrial Data Challenge" has been created. The topic for the challenge this year is "Data Augmentation for Rare Events in Multivariate Time Series" sponsored by ProcessMiner, Inc. In summary, the QSR sessions will cover a broad spectrum of topics including smart and connected systems, machine learning, high dimensional data analysis, spatial-temporal data analysis, and quality and reliability engineering. I would like to thank all the session organizers and especially, the QSR chair-elect Dr. Eushin Byon for putting together this exciting program.

The QSR Best Student Paper Competition received 37 high-quality submissions this year. I would like to thank Dr. Eunshin Byon (University of Michigan), Dr. Mingyang Li (University of South Florida) and Dr. Wenmeng Tian (Mississippi State University) for organizing this competition. I would like to thank all the reviewers and the judges for their hard work in reviewing the papers. Four finalist papers will be presented on Monday (8:00 - 9:30AM). All the finalists and the awardees will be recognized in the business meeting.

The QSR Best Refereed Paper Competition received 23 excellent papers. I would like to thank Dr. Bianca Maria Colosimo (Politecnico di Milano), Dr. Arman Sabbaghi (Purdue University), and Dr. Hui Yang (Penn State University) for organizing this competition. I would like to thank all the referees and judges for their efforts in reviewing the papers. Four finalist papers will be presented on Sunday (4:30PM - 6:00PM). All the finalists and the awardees will be recognized in the business meeting.

The Student Interaction session, together with the QSR Best Student Poster Competition, is organized by Dr. Dongping Du (Texas Tech University) and Dr. Ying Lin (University of Houston). I would like to acknowledge their efforts, especially to overcome the challenges in poster presentations, due to the conference facility requirements. This session provides a unique opportunity for QSR student members to introduce their research to the QSR community and potential employers. The Student Interaction session is

scheduled on Sunday (1:30pm-3:00PM). All QSR members are welcome to meet with QSR young talents!

With the spirit of reformation, QSR Council has made efforts in order to improve member services and membership, such that every QSR member gets more benefits and QSR Section can keep growing stronger in long term. To continue the efforts led by Dr. Kamran Paynabar (Georgia Institute of Technology, QSR Immediate Past Chair), we have created several QSR subcommittees and helped each subcommittee to become fully operational this year. These subcommittees were formed by QSR Council members and energetic volunteers. They implemented the initiatives discussed by QSR Council and QSR Advisory Board. While the details of their achievements have been summarized in the Appendix of this newsletter, here I would like to highlight the subcommittee activities and the major initiatives. We welcome more QSR members to join us in those activities to help all QSR members in their career development and collaboration.

QSR Conference Subcommittee. Led by Dr. Eunshin Byon (University of Michigan, QSR Chair-Elect), the conference activities at the INFORMS Annual Meeting are now organized by the QSR Conference Subcommittee. The objective of this subcommittee is to provide high-quality sessions with topics interested by QSR members and improve the conference organization efficiency.

QSR Academic Subcommittee. Dr. Lulu Kang (Illinois Institute of Technology, QSR Council Member) worked with a group of QSR volunteers, including Dr. Read AI Kontar (University of Michigan), Dr. Mingyang Li (University of South Florida), Dr. Shyam Ranganathan (Virginia Tech), Dr. Wujun Si (Wichita State University), and Dr. Wenmeng Tian (Mississippi State University), to develop new initiatives for QSR Academic related activities. They organized two sessions with emerging topics: “Big Data Science: Classical Origins and New Frontiers” and “Statistical design for Controlled Experiments in the Big Data Era”. Meanwhile, in collaboration with INFORMS volume editors, Dr. Lulu Kang (Illinois Institute of Technology, QSR Council Member), Dr. Xiao Liu (University of Arkansas, QSR Council Member), Dr. Hongyue Sun (University at Buffalo), and I are preparing the coming new volume “Quality, Statistics, and Reliability (QSR) in the Age of Analytics” for INFORMS Editor’s Cut online publication.

QSR Membership Growth Subcommittee. Co-led by Dr. Adel Alaeddini (University of Texas at San Antonio) and Dr. Kamran Paynabar (Georgia Tech University, QSR Immediate Past Chair) along with the volunteers, including Dr. Xiaolei Fang (North Carolina State University), Dr. Ramin Moghaddass (University of Miami), Dr. Hao Yan (Arizona State University), Dr. Hui Yang (Pennsylvania State University), and Dr. Xiaowei Yue (Virginia Tech University), they have held regular brainstorming sessions

as well as multiple surveys/interviews with board members of other INFORMS communities, including the Data Mining Section and the Simulation Society, to identify key areas of improvement and strategies for QSR growth. They also conducted membership analysis of INFORMS QSR current/past members and presenters, IISE QCRE current/past members, and IISE Transactions - Quality and Reliability Engineering authors. The results of the research and surveys helped the subcommittee identify different short-term and long-term strategies for growing the QSR membership. As a short-term plan, the team targeted several groups that have close connections with QSR but do not benefit from QSR membership, and sent out emails and flyers to invite and encourage them to become QSR members.

QSR Industry Relation Subcommittee. Dr. Kaibo Liu (University of Wisconsin-Madison, QSR Council Member) along with the volunteers Dr. Linkan Bian (Mississippi State University), Dr. William Brennehan (Procter & Gamble), Dr. Abdallah Chehade (University of Michigan-Dearborn), and Dr. Weihong Guo (Rutgers University) focused on enhancing the industry-academia collaborations and increasing our QSR visibility and impact in the industry. Two special sessions have been created in the INFORMS Annual Meeting 2019, including “Industry Job Hunting” (October 21, 2019, 11:00 AM - 12:30 PM) and “Industry Data Science” (October 22, 2019, 7:30 AM - 9:00 AM). In the QSR Industrial Data Challenge, we had participation of around 40 teams with completed submissions from several teams. The submissions were evaluated by the Data Science team at ProcessMiner led by Dr. Chitta Ranjan. Based on the evaluation, four finalists are identified and will be presenting on Monday (11:00AM – 12:30PM). All the finalists and the awardees will be recognized in the business meeting and the winner will receive a cash prize of \$1,000 sponsored by ProcessMiner, Inc. To encourage practitioners from Industry and the INFORMS non-QSR members to participate in the QSR Section, the QSR Industry Relation Subcommittee has created a QSR promotion flyer, which has been distributed to potential members. Please see the Appendix for an example of the QSR promotion flyer.

QSR International Subcommittee. To foster international collaborations, increase the visibility of QSR Section, and expand QSR membership worldwide, Dr. Xiao Liu (University of Arkansas, QSR Council Member) led the efforts, together with QSR member volunteers, including Dr. Nan Chen (National University of Singapore), Dr. Yao Cheng (University of Hong Kong), Dr. Xiaolei Fang (North Carolina State University), Dr. Marco Grasso (Politecnico Di Milano), Dr. Chen Zhang (Tsinghua University), and Dr. Xi Zhang (Peking University). They developed strategies to engage international academic societies, such as ENBIS. In the INFORMS Annual Meeting 2019, the QSR

International Subcommittee created two sessions: QSR International Activities I: QSR Research in Asia, and QSR International Activities II: Machine Learning Methods in Smart Manufacturing (MC60 and MD60 at CC, Chelan 4), featuring QSR research-education activities in both Asia and Europe. Research projects, education initiatives and collaboration opportunities will be discussed within these special sessions.

QSR Webinar Series Initiative. Led and organized by Dr. Linkan Bian (Mississippi State University), three inspiration webinars have been offered by Dr. Yu Ding (Texas A&M University), Dr. Qiang Huang (University of South California), and Dr. Shiyu Zhou (University of Wisconsin at Madison). The topics cover data analytics, new energy, smart manufacturing, and Internet of Things. The webinar series have provided unique opportunities for members to learn about cutting edge research enabled by the QSR Section and discuss research questions with leaders in relevant fields. QSR members can find the presentation videos and slides at INFORMS/QSR Connect. If you are interested to become a future webinar speaker and publicize your research, please contact me to sign up.

QSR By-Laws Revision. The QSR Council has discussed and voted in majority favor of two revisions in the By-Laws. These revisions have been communicated with the QSR Advisory Board for comments and feedback. Then the updated By-Laws has been submitted and approved by the INFORMS. I would like to take this opportunity to report the revisions to all QSR members.

- “The Council of the Section shall consist of the officers, the two past Chairpersons most recently retired from office and *five* Council members, each serving for a two-year period with two or three elected Council members every year.” This revision increases the QSR Council Member from four to five, due to the increased service load in QSR Council. (Eight out of Nine QSR Council Members voted in favor, and one abstained.)
- “The immediate past Chairperson will take major leadership in promoting QSR membership.” This revision officially recognizes the leadership role for the immediate past Chairperson in membership promotion, although the immediate past Chairperson can still take the leadership in other initiatives on demand by QSR Council. (All nine QSR Council Members voted in favor.)

New QSR Website. Mr. Xiaoyu Chen (Virginia Tech Ph.D. candidate, QSR Webmaster), Ms. Shan Yuan (Virginia Tech undergraduate student) and I developed a new QSR Website template, which aims to provide a better presentation of QSR members and their activities in future engagement efforts. A demo of the website will be presented to QSR members in the business meeting in the INFORMS Annual Meeting 2019. Further improvement

and implementation efforts of the website will continue next year, after getting your comments and feedback. Please see the Appendix for the first look of the new QSR Website.

These tremendous efforts made within the subcommittees and the new initiatives show our commitments to all QSR members, i.e., to represent and to better serve QSR members. These progresses are impossible without the diligent and devoted colleagues from the QSR Council and the energetic volunteers. Many of them sacrificed their time in these efforts, since they put the QSR initiatives as their priority. I would like to take this opportunity to thank you all for your services to QSR members and your support to me. Meanwhile, I look forward to having more QSR members to join in the new initiatives in future years. I would like to thank the QSR Advisor Board for their advice and support to our community! I would like to thank you for your trust to the QSR Council and your loyalty to QSR Section. I look forward to meeting you in Seattle!

Yours Sincerely,

Ran Jin

Chair of the QSR Section, INFORMS

Review of QSR 20th Anniversary Celebration Workshop - Past, Present, and Future

November 03, 2018, Phoenix, AZ, USA.



As QSR turned 20 last year, we held the workshop to celebrate the past accomplishments, assess the present status, and plan for the future. Attended by over 100 colleagues and friends, the workshop featured keynote speeches, panel discussions, and evening reception.



The keynote speeches were given by distinguished professors who shaped the history of the QSR Section: **Professors Jianjun Shi** (Georgia Institute of Technology), **C. F. Jeff Wu** (Georgia Institute of Technology), and **Elsayed A. Elsayed** (Rutgers University).



The keynote speeches were followed by the panel discussions that highlighted our past, present, and future. The first group of distinguished panelists were **Professors Susan Albin** (Rutgers University), **Fugee Tsung** (Hong Kong University of Science & Technology), **Russell Barton** (Penn State University), and **Soundar Kumara** (Penn State University), and moderated by **Professor Satish Bukkapatnam** (Texas A&M University). The second group of distinguished panelists were **Professors Bianca Colosimo** (Politecnico di Milano), **Judy Jin** (University of Michigan), **Kwok-Leung Tsui** (City University of Hong Kong), **Daniel Apley** (Northwestern University), and moderated by **Professor Irad Ben-Gal** (Tel Aviv University).

In the evening reception moderated by **Professors Yu Ding** (Texas A&M University) and **Kamran Paynabar** (Georgia Institute of Technology), the attendees celebrated this anniversary with long-time friends and supporters of QSR, including **Professors John R. Birge** (University of Chicago), **Shane G. Henderson** (Cornell University), **Ramayya Krishnan** (Carnegie Mellon University), **Gino J. Lim** (University of Houston), **Edwin Romeijn** (Georgia Institute of Technology), **J. Cole Smith** (Clemson University), and **Candace A. Yano** (University of California, Berkeley).



This successful event was not possible without the support of the QSR community, especially the workshop organizing committee including **Professors Kaibo Liu** (University of Wisconsin-Madison), **Kamran Paynabar** (Georgia Institute of Technology), **Kaibo Wang** (Tsinghua University), and **Hao Yan** (Arizona State University).

More details about the workshop is available in [this handbook](#). The recorded videos of the keynote speeches, panel discussions, and evening reception are available on the QSR YouTube [channel](#). We look forward to seeing you all again on our next anniversary!

Phoenix Conference Review

INFORMS Annual Meeting, November 04-07, 2018

The 2018 Annual Meeting in Phoenix featured a QSR Sponsored Cluster with 41 sessions, including 33 research sessions (including 9 joint sponsored sessions), one panel session (funding opportunities for QSR), one QSR refereed session (best paper competition), two QSR student sessions (best student paper competition and student interaction/poster competition), four journal sponsored sessions (one IEEE TASE, one JQT, one IIEE Transactions, one Quality Engineering, one QTQM, one Technometrics). Among the research sessions, 29% were general; 27% focused on reliability; 24% focused on quality engineering; and 20% focused on Statistics. The following word cloud generated from the session titles depicts the broad spectrum of topics covered in the QSR sessions.



The Annual Meeting in Phoenix also included finalist presentations for the 2019 QSR Best Paper Award. The

winners are **Linglin He and Ying Hung** for their article entitled “Efficient Gaussian Process Prediction using Design-Based Subsampling”. Other 2018 finalists included **Guo Shenghan and Guo Weihang (Grace)** for their article entitled “Change-Point Detection by Multivariate Adaptive Regression Splines”; **Raed Al Kontar, Garvesh Raskutti, and Shiyu Zhou** for their article entitled “Minimizing Negative Transfer of Knowledge in Multivariate Gaussian Processes: A Scalable and Regularized Approach”; and **Juan Du, Xiaowei Yue, Jeffrey H. Hunt, and Jianjun Shi** for their article entitled “Optimal Placement of Actuators for Composite Fuselage Shape Control”.



2018 QSR Best Paper Award Finalists

The Annual Meeting in Phoenix also included finalist presentations for the 2018 QSR Best Student Paper Award. The winner was **Raquel de Souza Borges Ferreira** from Purdue University (Advisor: Dr. Arman Sabbaghi) for her article entitled “Predictive Comparisons for Screening and Interpreting Inputs in Machine Learning”. Other 2018 finalists included **Anh Tuan Bui** (Northwestern University, Advisor: Dr. Daniel Apley), **Shuang Li** (Georgia Institute of Technology, Advisor: Yao Xie), and **Ruizhi Zhang** (Georgia Institute of Technology, Advisors: Dr. Yajun Mei and Dr. Jianjun Shi).



2018 QSR Best Student Paper Award Finalists

Member Updates

• *Honors and Awards Received*

Linkan Bian received 2019 Mississippi State University Office of Research and Economic Development Outstanding Researcher Award as the winner for Bagley College of Engineering.

Nathan Decker won the RAMP (Reusable Abstractions of Manufacturing Processes) 2019 Competition, the 2019 ASME 14th International Manufacturing Science and Engineering Conference, Erie, PA, June 10-June 14, 2019. (Advisor: Qiang Huang).

Weihong "Grace" Guo received the 2019 Barbara M. Fossum Outstanding Young Manufacturing Engineer Award, from the Society of Manufacturing Engineers.

Zhenyu (James) Kong received the Dean’s Award for Research Excellence of the College of Engineering at Virginia Tech.

Kaibo Liu received three early career awards, including the 2019 Outstanding Young Manufacturing Engineer Award by Society of Manufacturing Engineering (SME), the 2019 Feigenbaum Medal Award by American Society for Quality (ASQ), and the 2019 Dr. Hamed K. Eldin Outstanding Early Career IE in Academia Award by Institute of Industrial and Systems Engineers (IISE).

• *Grants Received*

Linkan Bian (Co-PI), in collaboration with University of Mississippi Medical Center, received \$2M from National Institute of Health for improving the design of dental implants. This 5-year project, titled “R01: Design Optimization of Reduced-Diameter Implants in Simulated and Cadaver Bone”, aims to improve the durability of dental implants using design optimization and make health care more affordable.

Abdallah Chehade (PI) received three grants from the Ford Motor Company to develop statistical and machine learning models for “Warranty Data Maturation”. His total share is \$130K for 16 months.

Weihong "Grace" Guo received funding from Ford Motor Company University Research Program on "Real-Time Process Monitoring and Prognostics with Spatial-temporal Image Analysis," \$100K, 04/01/2019 - 03/31/2021.

Qiang Huang (PI), NSF CMMI-1901514 “Shape Deviation Generator and Learner- An Engineering-Informed Convolution Modeling and Learning Framework for Additive Manufacturing Accuracy Control“, \$350K, 08/15/2019 ~ 08/14/2022.

Qiang Huang (Co-PI), “AM Data Modeling for Machine Learning and Data-Centric Analytics”, DOE Clean Energy Smart Manufacturing Innovation Institute, \$60K, 12/2019 ~ 6/2021 (PI: Honeywell Aerospace).

Zhenyu (James) Kong and his collaborators from four other universities received a grant from the Office of Naval Research’s Manufacturing Engineering Education Program (MEEP) for a proposal entitled “Innovation Driven Research/Education Ecosystem for Advanced Manufacturing for the Defense.” The total funding is \$3.9M for three years.

Zhenyu (James) Kong and his collaborators received a grant from the Office of Naval Research’s Defense University Research Instrumentation Program (DURIP) for a proposal entitled “Acquisition of a Laser Powder Bed Fusion System to Transform the Additive Manufacturing Value Chain.”. The total funding is \$265K for one year.

Xiao Liu and Yili Hong received a grant from the National Science Foundation (CMMI-1904165) for the proposal, "Integrating System Physics with Sensor Data for Health Prognostics of Complex Engineered Systems", \$399,907, 2019-2022 (PI: Xiao Liu).

Alice Smith and her collaborators received a grant from Toyota Material Handling North America for “Real-time Rural Medicine Handling and Transport Using a Coordinated Fleet of Trucks and Drones”. This will further the work in drone logistics and include a small and very preliminary field trial. The total grant is for \$207,754 for one year.

Yao Xie (PI) received a grant from National Science Foundation (NSF) DMS-1938106, for Sequential Detection and Prediction for Solar Situation Awareness in Power Networks. The total grant is for \$241,843 for three years.

Hui Yang, Soundar Kumara and Timothy Simpson received a grant from the National Institute of Standards and Technology, for the proposal entitled “Additive Manufacturing Analytics and Sensing using Integrated Knowledge Graphs (AMASING)”.

Hui Yang and Eric Bennett received a grant from the National Science Foundation, for the proposal entitled “Data-driven integration of biological with in-silico experiments to determine mechanistic effects of N-glycosylation on cellular electromechanical functions”.

Hui Yang and Fabio Leonelli received a grant from the National Science Foundation, for the proposal entitled “Sensing, Modeling and Optimization of Postoperative Heart Health Management”.

Hui Yang received a grant from the National Science Foundation, and served as the PI & Site Director for the NSF IUCRC Pennsylvania State University Site: Center for Health Organization Transformation.

● *Ph.D. Degrees Earned*

Chen Cheng-Bang (2019), “Recurrence Analysis of High-dimensional Data”, Ph.D. Dissertation, Pennsylvania State University, Advisor: Hui Yang and Soundar Kumara. Current Position: Project Manager, NSF Center for Health Organization Transformation.

Ahmed Aziz Ezzat (2019), “Spatio-temporal modeling and analysis for wind energy applications” Ph.D. Dissertation, Texas A&M University, Advisor: Yu Ding. Current position: Assistant Professor, Department of Industrial & Systems Engineering, Rutgers University.

Raquel de Souza Borges Ferreira (2019), “Interpretable machine learning for additive manufacturing” Ph.D. Dissertation, Purdue University, Advisor: Arman Sabbaghi. Current Position: Data Scientist at Intel.

Zhe Gao (2019), “Statistical Learning for Lightweight Materials Manufacturing” Ph.D. Dissertation, Rutgers University, Advisor: Weihong "Grace" Guo. Current Position: on job market.

Chen Kan (2018), “Dynamic Network Modeling and Analysis of Large-Scale Internet of Things with Manufacturing and Healthcare Applications”, Ph.D. Dissertation, Pennsylvania State University, Advisor: Hui Yang. Current Position: Assistant Professor, Department of Industrial and Systems Engineering, The University of Texas, Arlington.

Timothy Jedidiah Keaton (2019), “Dismembering the multi-armed bandit” Ph.D. Dissertation, Purdue University, Advisor: Arman Sabbaghi. Current Position: Visiting Assistant Professor in the Department of Statistics at Purdue University.

Mojtaba Khanzadeh (2019), “Using Machine Learning for Anomaly Detection and Part Quality Improvement in Additive Manufacturing”, Ph.D. Dissertation, Mississippi State University, Advisor: Linkan Bian. Mojtaba will be joining Department of Business at Colorado Mesa University as Assistant Professor of Business.

Shuang Li (2019), “Statistical inference, modeling, and learning of point processes” Ph.D. Dissertation, Georgia Institute of Technology. Advisor: Yao Xie. Current position: Postdoc at Harvard University, Statistics Department.

Chenang Liu (2019), “Smart Additive Manufacturing using Advanced Data Analytics and Closed Loop Control”, Virginia Tech, Advisor: Zhenyu (James) Kong. Current position: Assistant Professor, School of Industrial Engineering and Management, Oklahoma State University.

Chao Wang (2019), “Data Driven Modeling, Monitoring, and Control for Smart and Connected Systems” Ph.D. Dissertation, University of Wisconsin-Madison, Advisor: Shiyu Zhou. Current Position: Assistant Professor, Department of Industrial and Systems Engineering, University of Iowa.

Xiaochen Xian (2019), “Big Data Modeling and Monitoring in Complex Systems” Ph.D. Dissertation, University of Wisconsin-Madison, Advisor: Kaibo Liu. Current Position: Assistant Professor, Department of Industrial and Systems Engineering, University of Florida.

Bing Yao (2019), “Physical-Statistical Modeling and Optimization of Complex Systems - Manufacturing and Healthcare Applications”, Ph.D. Dissertation, Pennsylvania State University, Advisor: Hui Yang. Current Position: Assistant Professor, Department of Industrial Engineering and Management, Oklahoma State University.

• *Promotions and News*

Qianmei (May) Feng was promoted to Full Professor in the Department of Industrial Engineering of the University of Houston in Fall 2019.

Zhenyu (James) Kong was promoted to Professor in the Grado Department of Industrial and System Engineering at Virginia Tech.

Jia (Peter) Liu joined the Department of Industrial and Systems Engineering at the Auburn University as an Assistant Professor in fall 2019. Peter received his Ph.D. from the Grado Department of Industrial and Systems Engineering at Virginia Tech in July 2017 under the supervision of Dr. Zhenyu (James) Kong.

Kaibo Liu was promoted to Associate Professor at University of Wisconsin-Madison.

Yao Xie was promoted to Associate Professor in the School of Industrial and Systems Engineering, at Georgia Institute of Technology with tenure in August 2019.

Call for Papers: 2020 IISE Annual Conference & Expo. Location: Hyatt Regency New Orleans, New Orleans, Louisiana. Date: May 30 – June 2, 2020. **Track:** Quality Control and Reliability Engineering (QCRE). Website: <http://conferenceabstracts.com/IISE2020.htm>

INFORMS QSR Email List

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<https://groups.google.com/group/informs-quality-statistics-reliability>

INFORMS QSR LinkedIn Group:

<https://www.linkedin.com/groups/3793057>

INFORMS QSR YouTube Channel:

https://www.youtube.com/channel/UCRscxnV_WgAGU6SOoTo0UJQ

INFORMS QSR Twitter:

https://twitter.com/INFORMS_QSR

Announcements

• *Job Openings*

P&G

The Data and Modeling Sciences (D&MS) department is looking for R&D PhD Statisticians for four positions. You will be part of an organization with 30+ statisticians working on a diverse array of interesting problems. You will consult and collaborate closely with researchers, scientists and other statisticians to develop strategies and iterative learning plans using methodologies to integrate multiple types of data and sources. You will discover new methods in partnership with internal and external experts in the field to solve complex problems and advance capabilities. The following are brief details of the four positions:

1. D&MS Statistician with an emphasis in Environmental Safety. Advanced knowledge of nonlinear models is important, background in Bayesian methods is also a plus. A focus on or exposure to safety/risk assessment methods is desired. Mastery in multivariate statistics, linear and mixed-effect models, survival analysis and data mining.

2. D&MS Statistician with an emphasis in Consumer Modeling. Exposure to Marketing Analytics, Economics, and/or Quantitative Behavioral Sciences is a plus. Ph.D. in other quantitative disciplines with expertise in statistics will also be considered. Mastery in multivariate statistics, data mining, psychometric methods and discrete choice. Knowledge of Bayesian methods is a plus.

3. D&MS Statistician with an emphasis in Biological Sciences that include Microbiology, Biotechnology, and/or Clinical. Your skills should show expertise in design of

experiments and other methods such as multivariate statistics, linear and non-linear modeling and data mining tools.

4. D&MS Statistician with expertise in the design and analysis of computer experiments, physical experiments and combining the two (hybrid modeling). Collaborate with researchers, engineers and other statisticians on efforts spanning the range of upstream design through manufacturing. Computing skills and expertise in machine learning are a plus.

<https://www.pgcareers.com/job/cincinnati/r-and-d-statistician-phd/936/12836408>

University of Wisconsin-Madison

The Department of Industrial and Systems Engineering at the University of Wisconsin-Madison invites applicants for a tenure-track or tenured faculty position beginning August 2020 or later to complement our existing research programs in manufacturing and production systems, decision sciences/operations research, health systems engineering, and human factors.

At this time, we are specifically interested in candidates who can contribute to our department's vision of building, analyzing, and leveraging smart and interconnected systems, with a focus on data analytics for industrial applications. Specific research areas of interest include but are not limited to industrial data analytics theory and algorithms for system modeling, analysis, and optimization, including product/process/service design and optimization; system automation and process control; human-technology and human-robot interaction; autonomy and decision support in smart cities and communities, and the security of cyber-physical industrial systems. Industrial domains of interest include, but are not limited to, advanced manufacturing, energy, healthcare, transportation, service, and sociotechnical systems.

Applicants should have an outstanding academic record, exceptional potential for creative research, and a commitment to both undergraduate and graduate education in industrial and systems engineering. Applicants are expected to create and maintain a strong program of research, provide classroom and individual training for undergraduate and graduate degree-seeking students, and contribute to the intellectual and academic life of the department. University and professional service will be expected as appropriate.

THE DEADLINE FOR ENSURING FULL CONSIDERATION IS OCTOBER 13, 2019, but positions will remain open and applications may be considered until the position is filled.

Applications must be submitted online at <https://jobs.hr.wisc.edu/en-us/job/502722>

Send letter of application, curriculum vitae, teaching and research statements, and the names of at least three references who are well-respected authorities in the field. The reference information also needs to be entered as requested online. The University of Wisconsin-Madison College of Engineering strives to foster a respectful, diverse, equitable, and inclusive environment. Submitted materials should include candidates' thoughts on diversity, equity, and inclusion, including previous activities and/or future plans in these areas, in relevant sections of their applications.

Northwestern University

We invite applications for a full-time, tenure-track faculty appointment at the assistant to associate professor level to begin September 2020. The search is broad, encompassing *all* methodology and application areas of industrial engineering, operations research and management science, including computational social science, healthcare analytics, machine learning, service operations, simulation, and the sharing economy. Applicants should hold an earned Ph.D. or be near completion of their doctoral studies with demonstrated research potential in industrial engineering, operations research or management science. *A commitment to rigorous and relevant research is essential.*

The hire will have opportunities for interdisciplinary collaboration via broad University research initiatives and centers including Optimization and Statistical Learning (www.osl.northwestern.edu), Engineering and Healthcare (www.ceh.northwestern.edu), Complex Systems (www.nico.northwestern.edu), and Transportation and Logistics (www.transportation.northwestern.edu).

The Department of Industrial Engineering & Management Sciences offers an undergraduate program, a Ph.D. program, a full-time master's degree in analytics and a part-time master's degree in engineering management. Both the undergraduate and graduate programs are consistently ranked among the top ten by *US News & World Report*.

Submit applications electronically at www.mccormick.northwestern.edu/industrial/career/. Materials to be uploaded include a cover letter and a curriculum vitae detailing educational background, research and work experience, statement of current and future research program, a teaching statement and one research paper. Candidates will be asked to provide contact information for three references on the application site. To receive full consideration, all materials should be received by December 1, 2019. To be considered for a meeting at INFORMS, please submit materials by October 7, 2019.

Northwestern University is an Equal Opportunity, Affirmative Action Employer of all protected classes, including veterans and individuals with disabilities. Women, underrepresented racial and ethnic minorities, individuals with disabilities, and veterans are

encouraged to apply.

Hiring is contingent upon eligibility to work in the United States.

Miami University, Ohio

Applications Invited for a Faculty Position in Business Analytics at Miami University (OH)

Job Title: Assistant Professor (click [here](#) to apply)

Duties: Teach applied statistics and machine learning courses in our Bachelor's and Master's of Business Analytics; maintain an active research agenda that results in top tier publications; advise students, and provide service to the institution and profession. Start date of the position is August 2020.

Minimum Qualifications: Candidates must have completed a doctorate in a quantitative area such as Statistics or a related field by date of appointment.

Desired Qualifications: Consideration may be given to candidates with prior teaching experience in a business school environment; previous success in teaching and/or research in the areas of statistical learning, computational statistics, longitudinal data analysis or spatiotemporal modeling; ability to attract external funding; or work experience in Data Science or a related area.

Special Instructions to Applicants: Submit letter of interest, curriculum vitae, evidence of teaching effectiveness, teaching philosophy, statement of research plans, and graduate transcripts. Evidence of teaching effectiveness can be recent teaching evaluations (preferred) or evidence of potential for excellent classroom performance. Department will request letters of recommendation from references listed in the application. For inquiries about posting, contact Dr. Allison Jones-Farmer at farmerl2@miamioh.edu.

EO/AA Statement/Clery Act: Miami University, an Equal Opportunity/Affirmative Action employer, encourages applications from minorities, women, protected veterans and individuals with disabilities. Miami University prohibits harassment, discrimination and retaliation on the basis of sex/gender (including sexual harassment, sexual violence, sexual misconduct, domestic violence, dating violence, or stalking), race, color, religion, national origin (ancestry), disability, age (40 years or older), sexual orientation, gender identity, pregnancy, status as a parent or foster parent, military status, or veteran status in its recruitment, selection, and employment practices. Requests for all reasonable accommodations for disabilities related to employment should be directed to ADAFacultyStaff@miamioh.edu or 513-529-3560.

As part of the University's commitment to maintaining a healthy and safe living, learning, and working environment, we encourage you to read Miami University's Annual

Security & Fire Safety Report at: <http://www.MiamiOH.edu/campus-safety/annual-report/index.html>, which contains information about campus safety, crime statistics, and our drug and alcohol abuse and prevention program designed to prevent the unlawful possession, use, and distribution of drugs and alcohol on campus and at university events and activities. This report also contains information on programs and policies designed to prevent and address sexual violence, domestic violence, dating violence, and stalking. Each year, email notification of this website is made to all faculty, staff, and enrolled students. Written notification is also provided to prospective students and employees. Hard copies of the Annual Security & Fire Safety Report may be obtained from the Miami University Police Department at (513) 529-2225.

Application form: <http://jobs.miamioh.edu/cw/en-us/job/495558?lApplicationSubSourceID=11250>

University of Michigan

The Department of Industrial and Operations Engineering at the University of Michigan invites applications and nominations for faculty positions beginning September 2020. We seek outstanding candidates for faculty positions at all ranks. Our department is highly multidisciplinary, with a balance of methodological research and applied research interests. From a methodological perspective, we will be considering candidates in all areas related to Industrial and Operations Engineering, including Operations Research, Ergonomics, Data Science, and related disciplines. The many application areas in the department include business, health and human safety, energy and sustainability, public policy, manufacturing, and robotics. Candidates must have, or be near completion of a Ph.D., and must demonstrate a strong commitment to high-quality research and evidence of teaching potential. Please submit your application to the following: http://ioe-2.engin.umich.edu/fac_search/application.php

Candidates should provide (i) a current C.V., (ii) a list of at least three references, and one-page summary statements describing: (iii) career teaching plans; (iv) research plans; and (v) activities, contributions, or plans related to supporting diversity, equity, and inclusion. For candidates with prior teaching experience, please provide (vi) a summary of course (teaching) evaluations. Candidates should also have their references send three letters of recommendation to us directly at IOEFacultySearch@umich.edu. Review of applications will begin on October 4, 2019, and will continue during the academic year. All positions will remain open and applications may be considered until appointments are made. Michigan Engineering's vision is to be the world's preeminent college of engineering serving the common good. This global outlook, leadership focus, and service commitment permeate our culture. Our vision is

supported by a mission and values that, together, provide the framework for all that we do. Information about our vision, mission, and values can be found at: <http://strategicvision.engin.umich.edu/>. We seek candidates who will provide inspiration and leadership in research and actively contribute to teaching. We are especially interested in candidates who can contribute, through their research, teaching and service, to the diversity and excellence of the academic community and who will build collaborative ties with other departments within the College of Engineering and the University. The University of Michigan is responsive to the needs of dual career families. If you have any questions regarding the web application submittal process or other inquiries, please contact Akosua Dow, akosuad@umich.edu. The University of Michigan is a non-discriminatory, affirmative action employer.

Rutgers University-New Brunswick

The Department of Industrial and Systems Engineering (ISE) at Rutgers University-New Brunswick invites applications for multiple faculty positions, at all levels, with a start date of fall 2020. These positions were created partially due to the growing opportunities between ISE and the Packaging Engineering Program at Rutgers.

We seek outstanding candidates with a Ph.D. in ISE or a related engineering discipline and a commitment to excellence in research and teaching. In particular, candidates whose research interests may contribute to Packaging Engineering are encouraged to apply. Our faculty inspires and leads innovative high-quality research programs supported by federal and state agencies research and industrial partners. The faculty are dedicated and enthusiastic teachers and mentors for our students at all levels. The Rutgers Packaging Engineering Program has a rigorous engineering-based curriculum and an interdisciplinary Ph.D. program. Rutgers ISE Department is routinely ranked among the top twenty nationally in the discipline.

We welcome applicants pursuing fundamental, original research applied to compelling, interdisciplinary problems. Research areas of interest include machine learning/AI and data science; applied optimization in distribution and logistics; sustainable packaging and manufacturing; innovation and extended reality; food and pharmaceutical packaging; automation and robotics; supply chain/value chain and product life-cycle management; Industry 4.0 and IoT; biomedical devices; and energy.

Rutgers, a lively and richly diverse public university, has annual research expenditures over \$700 million, encompasses 70,000 students statewide, and is a member of the Association of American Universities and the Big Ten Academic Alliance. The School of Engineering is located on the New Brunswick campus, the flagship home of Rutgers.

New Brunswick is in central New Jersey, a hub of industrial and technical activity, easily accessible from New York, Philadelphia, and Washington, D.C. Rutgers Engineering enrolls approximately 5,000 undergraduate, masters, and doctoral students in seven academic departments, has nearly \$70 million in research expenditures, and 150 tenure/tenure-track faculty members. Rutgers Engineering promotes a supportive and vibrant academic community with students and faculty committed to engineering excellence. Its mission is to integrate education and research to achieve transformational innovation that is ethically responsible and sustainable.

Please submit your application online at <http://jobs.rutgers.edu/postings/101425>. Include cover letter, curriculum vitae, two representative research papers future research plans, teaching statement plans or accomplishments in advancing diversity, equity, and inclusion, and contact information for three references.

Rutgers is an equal opportunity, affirmative action employer, and is committed to providing employment opportunities to minorities, women, veterans, disabled individuals, and other protected groups.

University of Florida

The Herbert Wertheim College of Engineering at the University of Florida invites applications for up to four full-time tenure-track or tenured faculty positions at the rank of Assistant/Associate/Full Professor in the Department of Industrial and Systems Engineering (ISE) in the areas of data analytics, operations research, production and logistics systems, and health systems.

We are seeking applicants in data analytics and applied operations research at the assistant professor level and applicants in production and logistics and health systems at the associate/full professor level. Outstanding candidates will be considered for the Trey Lauderdale ISE Faculty Fellow or Rolande Willis Endowed Professorship. In addition to having a doctorate degree in ISE or a closely related discipline, the applicant must possess a strong academic background and demonstrate potential for research and teaching excellence. Successful candidates will be expected to develop and sustain an externally-funded research program, develop a high-quality publication record, supervise Ph.D. students, and teach both undergraduate and graduate courses in ISE.

Potential candidates at the associate level should have the capability to develop/co-develop center-level research activity. Potential candidates at the full professor level will be expected to have a clear agenda for substantially adding to current department funded research combined with a passion for mentoring and leading junior faculty to success.

The George E. and Rolande G. Willis Endowed

Professorship is a five-year appointment with an endowment of approximately \$1.1M. The professorship is focused on how engineering can enhance organizational economic performance and ISE's contribution to major sectors of the economy (e.g., healthcare). The Lauderdale ISE Faculty Fellow is a two-year appointment with an endowment of \$250K. Preference will be given to persons specializing in research in data analytics in healthcare operations.

UF ISE offers BS, ME, MS, and PhD degrees. We have approximately 500 undergraduate students and 150 graduate students. The Department hosts research in various application areas including energy systems, finance, healthcare systems, supply chain systems and transportation systems. We also currently host methodological research in data analytics, health systems, human-systems, optimization and stochastic analysis. There are also outstanding opportunities for interdisciplinary work across the UF campus. More information about the department can be found at <http://www.ise.ufl.edu>.

The University of Florida is currently ranked as one of the top-10 best public universities, according to the 2020 U.S. News & World Report Best Colleges rankings. The Herbert Wertheim College of Engineering is currently implementing a major expansion of faculty and state-of-the-art research and education facilities. The College will reach 300 faculty members in the near future. For more information about these initiatives, please visit <http://eng.ufl.edu>. The University and College count among its greatest strengths a value of broad diversity among faculty, students and staff and a robust, inclusive and welcoming climate for learning and research. UF is committed to equal educational and employment opportunity and access and seeks individuals of all races, ethnicities, genders and other attributes who, among their many exceptional qualifications, have a record of including a broad diversity of individuals in research and learning activities.

The search committee will begin reviewing applications immediately with the first full committee screening occurring on October 31, 2019 and will continue to receive applications until the positions are filled. You must apply by submitting an application through Interfolio via <https://facultyjobs.hr.ufl.edu/>. (Job 53621) The application consists of attached PDF files of the following required documents: 1. Cover letter (summary and introduction; relate to hiring emphasis areas) 2. Personal statement (include synergy with UF ISE, as well as UF investigators, centers & institutes) 3. Diversity Statement 4. Curriculum vitae (include 1-page CV highlights). 5. Research program vision statement with a focus on how those plans will support college, school, and experience in working with diverse and under-represented groups in engineering 6. Teaching statement. 7. Up to three representative journal articles (co-) authored by the

applicant 8. Names, addresses, phone numbers, and email addresses of five references. The final candidate will be required to provide official transcript to the hiring department upon hire. The anticipated start date for positions is August 1, 2020 with some flexibility for an earlier start based on individual needs. Applicants attending the INFORMS and HFES annual meetings will be considered for informal interviews at the conferences, if their applications are received by October 13, 2019. For additional questions, contact Dr. Panos Pardalos at: pardalos@ufl.edu.

If an accommodation due to a disability is needed to apply for this position, please call 352-392-2477 or the Florida Relay System at 800-955-8771 (TDD). Hiring is contingent upon eligibility to work in the US. Searches are conducted in accordance with Florida's Sunshine Law.

The University of Florida is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status in all aspects of employment including recruitment, hiring, promotions, transfers, discipline, terminations, wage and salary administration, benefits, and training.

Duke University in Durham, North Carolina

The Department of Computer Science at Duke University in Durham, North Carolina, invites applications and nominations for three tenure-track or tenured faculty positions and one additional joint position between Computer Science and another department. The areas of particular interest are

- * Artificial Intelligence and Machine Learning
- * Computer Systems (broadly defined) and Security

Positions are available at all ranks and to begin July 2020.

Candidates are expected to have a doctoral degree in computer science or a related field. A successful candidate must have a solid disciplinary foundation and demonstrate the promise of outstanding scholarship in every regard, including research and teaching.

Duke is committed to further enhancing the diversity of its faculty and students. We seek faculty members who are also committed to building a diverse and inclusive community, which fosters excellence in research and teaching. We strongly encourage applications from women and underrepresented minorities in computing. Please see www.cs.duke.edu <<http://www.cs.duke.edu>> and www.faculty.duke.edu <<http://www.faculty.duke.edu>>_ for

information about the Department and advantages that Duke offers to faculty.

Applicants should submit their materials (cover letter, curriculum vita, research statement, teaching statement, contacts for at least three references) electronically through AcademicJobsOnline:

<https://academicjobsonline.org/ajo/jobs/14705>, and solicit letters of reference. For full consideration, applications and references should be received by December 15, 2019.

Durham, Chapel Hill, and the Research Triangle of North Carolina are frequently ranked among the best places in the country to live and work. Duke and the many other universities in the area offer a wealth of education and employment opportunities for spouses, partners, and families.

Duke University is an Affirmative Action/Equal Opportunity Employer committed to providing employment opportunity without regard to an individual's age, color, disability, genetic information, gender, gender expression, gender identity, national origin, race, religion, sex, sexual orientation, or veteran status.

University of Science and Technology (POSTECH)

The Department of Industrial and Management Engineering at Pohang University of Science and Technology (POSTECH) invites applications for four full-time, tenure-track or tenured faculty positions.

We are seeking candidates in the following areas, (1) Industrial Engineering (Human Factors Engineering and Data Science) and (2) Business Administration (Finance, MIS, and OM), but outstanding applicants in the other areas of Industrial and Management Engineering will also be considered.

The successful candidates are expected to establish a strong research program, participate in interdisciplinary research teams, and teach at the undergraduate and graduate levels.

Applications should include (1) a full CV, (2) statement of research and teaching, (3) copies of three (or less) research publications, and (4) names and addresses of three professional references. You are required to register at <https://facultyapplication.postech.ac.kr/eng/> with the above documents.

POSTECH was ranked 1st in the top 100 world universities under 50 years old for 3 consecutive years by Times Higher Education in 2012, 2013, and 2014. More information about POSTECH and the Department can be found at <http://www.postech.ac.kr> and <http://ime.postech.ac.kr>.

For any inquiries, please contact Prof. Byung-In Kim (bkim@postech.ac.kr), Chair of Faculty Search Committee and Head of Department.

※ POSTECH is building a culturally diverse body of faculty, students and staff. Non-Korean citizens would be welcome to apply.

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Virginia Tech

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University of Michigan

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Abdallah Chehade
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Xiaoyu Chen
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Fugee Tsung
Hong Kong University of Science and Technology

Roshan Vengazhiyil
Georgia Institute of Technology

Ming Yuan
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Kamran Paynabar (2018)
Georgia Institute of Technology

Kaibo Wang (2017)
Tsinghua University

Hui Yang (2016)
Pennsylvania State University

Tirthankar Dasgupta (2015)
Harvard University

Haitao Liao (2014)
University of Arizona

Irad E. Ben-Gal (2013)
Tel Aviv University

Qiang Huang (2012)
University of Southern California

Roshan J. Vengazhiyil (2011)
Georgia Institute of Technology

Shiyu Zhou (2010)
University of Wisconsin - Madison

Satish T.S. Bukkapatnam (2009)
Oklahoma State University

Yu Ding (2008)
Texas A&M University

Jye-Chyi (JC) Lu (2007)
Georgia Institute of Technology

Jionghua (Judy) Jin (2006)
University of Michigan

Zachary Stoumbos (2005)
Rutgers University

Fugee Tsung (2004)
Hong Kong University of Science & Technology

Daniel Apley (2003)
Northwestern University

Bruce Ankenman (2002)
Northwestern University

Dariusz (Darek) Ceglarek (2001)
University of Wisconsin - Madison

Kwok-Leung Tsui (2000)
Georgia Institute of Technology

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Chid Apte
IBM Research

Russell Barton
Penn State University

John Birge
The University of Chicago

Soren Bisgaard
University of Massachusetts – Amherst

Dariusz (Darek) Ceglarek
University of Wisconsin - Madison

John English
University of Arkansas

Flavio S. Fogliatto
Federal University of Rio Grande do Sul, Brazil

Thong Ngee Goh
National University of Singapore

Douglas M. Hawkins
University of Minnesota

Kailash Kapur
University of Washington

Jack P. C. Kleijnen
Tilburg University

Soundar Kumara
Penn State University

Way Kuo
University of Tennessee

Amit Mitra
Auburn University

Douglas C. Montgomery
Arizona State University

Vijay Nair
University of Michigan

Marion R. Reynolds, Jr.
Virginia Polytechnic Institute and State University

Lawrence Seiford
University of Michigan

Jianjun (Jan) Shi (1998 & 1999)
Georgia Institute of Technology

Jianjun (Jan) Shi
Georgia Institute of Technology

Marlin Thomas
Air Force Institute of Technology

Ajit Tamhane
Northwestern University

Kwok-Leung Tsui
Georgia Institute of Technology

William H. Woodall
Virginia Polytechnic Institute and State University

C. F. Jeff Wu
Georgia Institute of Technology

Join QSR today!

Quality, Statistics, and Reliability Section



<https://connect.informs.org/qsr/join-qsr/membership>
or scan to join!

- Student internship and recruitment
- Industry-academia collaborations
- Social media networking

Networking



- Training certificates
- Tutorials and webinars
- Recognition of successful applications

Knowledge



- Launch industrial case studies
- Give back to the profession
- Leadership opportunity

Development



Academic Subcommittee Summary

Mission Statement

To serve and promote the academic activities of QSR community within and beyond INFORMS

Subcommittee Members

Lulu Kang, Ph.D.

(Illinois Institute of Technology)

Subcommittee Chair & Council Member

Volume Editors for INFORMS Editors' Cut

Dr. Hongyue Sun, University of Buffalo

Dr. Xiao Liu, University of Arkansas



Dr. Lulu Kang



Dr. Xiao Liu



Dr. Hongyue Sun

Highlights

- Two 2019 INFORMS QSR sessions: “Big Data Science: Classical Origins and New Frontiers” and “Statistical design for controlled experiments in the Big Data Era”.
- Editing the new volume for INFORMS Editor’s Cut on “The Power of Streaming Data”. The new volume should come online soon.

Achievements

- Dr. Lulu Kang, Dr. Hongyue Sun, and Dr. Xiao Liu have performed a comprehensive survey of the publications of QSR members on INFORMS journals, magazines and online media sources, spanning the recent 10-15 years. Finally, 12 journal articles, 4 magazine publications and 7 online media materials are selected, which include a spectrum of work from both QSR and non-QSR members.
- The three editors have drafted an introduction for this Editor’s Cut volume.

Summary of Major Activities

- Brainstorming online meetings and email communications to identify the mission of this subcommittee and new initiatives to serve the QSR council and members. Surveys (on membership, webinar, etc.)
- Organize the 2019 INFORMS session “Big Data Science: Classical Origins and New Frontiers”.
- Organize the 2019 INFORMS session “Statistical design for controlled experiments in the Big Data Era”.
- Dr. Lulu Kang, Dr. Hongyue Sun, and Dr. Xiao Liu are editing the coming volume on “The Power of Streaming Data” for INFORMS Editor’s Cut.

Suggestions For Next Year

- Organize some research matching activities.
- Collaborative work with Conference Subcommittee: organize joint conference sessions with other Sessions.
- Interview Senior QSR Members for career advice

Acknowledgement

We greatly acknowledge the additional special helps from Ran Jin (QSR Chair, Virginia Tech), Linkan Bian (Mississippi State), Kaibo Liu (UW-Madison), and Qiong Zhang (Clemson) for the help on efforts for new volume of Editor’s Cut.

Industry Relation Subcommittee Summary

Mission Statement

To stimulate the industry-academia collaborations and increase our QSR society visibility and impact in industry

Subcommittee Members



William
Brennehan
P&G



Abdallah
Chehade
UM-Dearborn



Weihong
Guo
Rutgers Univ.



Linkan
Bian
Mississippi State Univ.



Kaibo
Liu
UW-Madison

Summary of Major Activities

- Hold monthly meetings
- Prioritize tasks based on the committee mission
- Create a new QSR data challenge competition under the help of Dr. Chitta Ranjan with monetary award sponsored by ProcessMiner™
- Create two industry panel discussion sessions, one for industry job hunting and one for industrial data science
- Host a series of QSR webinars that cover cutting-edge research areas (e.g., sustainable energy, smart manufacturing, and Internet of Things). Special thanks to Dr. Yu Ding, Dr. Qiang Huang, and Dr. Shiyu Zhou

Highlights

- Efforts to attract industry professionals

Join QSR today!
Quality, Statistics, and Reliability Section

<https://connect.informs.org/qsr/join-qsr/membership>
or scan to join!

Networking

- Student internship and recruitment
- Industry-academia collaborations
- Social media networking

Knowledge

- Training certificates
- Tutorials and webinars
- Recognition of successful applications

Development

- Launch industrial case studies
- Give back to the profession
- Leadership opportunity

Achievements

- 40 participated the QSR data challenge competition and 4 finalist winners were identified
- Successfully held the two industry panel discussion sessions with all panelists from industry: Uber, Amazon, Facebook, Process Miner Inc, Microsoft, Kwai Seattle AI Lab
- Over 100 registrations for webinar series and videos are exclusively shared with members

Suggestions For Next Year

- Identify industry speakers to give webinar talks and encourage nominations from QSR members
- Promote industry membership
- Invite industry members to INFORMS
- Create industry-academia collaborations

Acknowledgement

We greatly acknowledge the additional special helps from Xiaochen Xian (UFL) for helping create the flyer, and Shuai Huang (UW), Youngjun Choe (UW), and Qiong Zhang (Clemons) for helping identify industry panelists

International Subcommittee Summary

Mission Statement

- Foster international collaborations
- Increase the visibility of QSR society worldwide

Subcommittee Members Photos and names



Nan Chen
Department of Industrial Systems Engineering and Management
National University of Singapore



Yao Cheng
Department of Industrial and Manufacturing Systems Engineering
The University of Hong Kong



Xiaolei Fang
Edward P. Fitts Department of Industrial and Systems Engineering
NC State University



Marco Grasso
Department of Mechanical Engineering
Politecnico di Milano



Xiao Liu
Department of Industrial Engineering
University of Arkansas



Xi Zhang
Department of Industrial Engineering and Management
Peking University

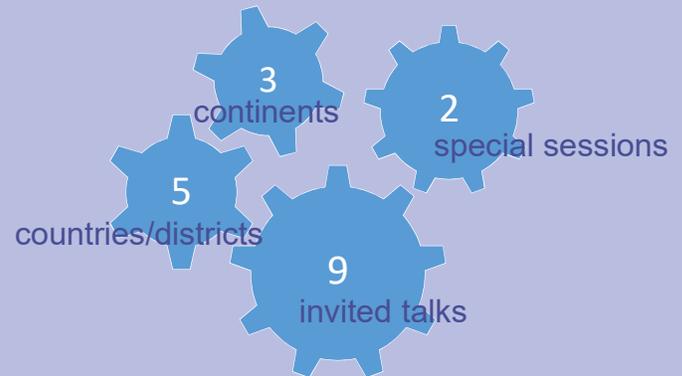


Chen Zhang
Department of Industrial Engineering
Tsinghua University

Summary of Major Activities

- Identify QSR international collaboration opportunities.
- Organize special sessions at INFORMS Annual Conference.
- Promote QSR research activities.

Highlights



Achievements

- Two special sessions at INFORMS Annual Conference featuring QSR research-education activities in both Asia and Europe.
- Research projects, education initiatives and collaboration opportunities are the main themes of focus of these special sessions.

Suggestions For Next Year

- Organize special sessions at INFORMS Annual Conference featuring QSR research-education activities in both Asia and Europe.
- Joint sessions at other international conferences.

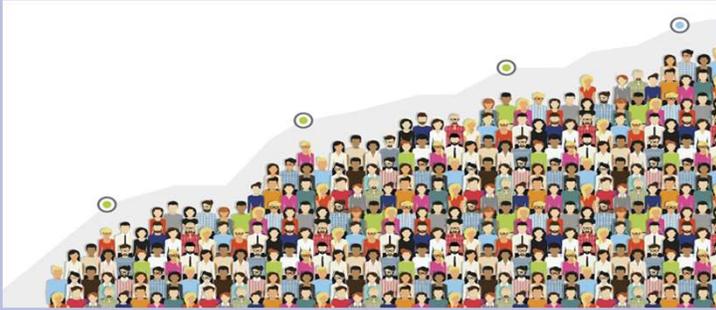
Acknowledgement

The International subcommittee would like to thank the invited speakers at the special sessions, and is grateful to the support from QSR council members and leaderships.

QSR Membership Growth Committee

Mission Statement

To propose strategies for QSR membership growth, to identify key areas of improvement and execute plans aligned with the identified strategies.



Highlights

Dear Professor XXX

Last year, as a result of the QSR 70th Anniversary Workshop, the QSR Council created a special initiative to develop strategies for growing and retaining QSR members.

To this end, the QSR Membership Growth Committee is pleased to announce the formation of a special initiative to develop strategies for growing and retaining QSR members.

We are pleased to have you as a QSR member. We are pleased to have you as a QSR member.

This is a kind reminder about the QSR 2019 Annual Conference. We are pleased to have you as a QSR member.

As you know, it is the QSR 2019 Annual Conference. We are pleased to have you as a QSR member.

We cordially request you to (1) Please register for the Annual Meeting, a detailed eligible for the early bird discount required to register by September 9.

More information about the Annual Meeting is available at <http://meetings2.informs.org/word>.

Please do not hesitate to (2) Please make sure that you become a QSR member. We are pleased to have you as a QSR member.

Sincerely,
Kamran Paynabar on behalf of the QSR Membership Growth Committee

Thank you and looking forward to seeing you at the Annual Meeting.

Join QSR today!
Quality, Statistics, and Reliability Section

<https://connect.informs.org/qsr/join-qsr/membership> or scan to join!

Networking • Connect with peers who share same interests.
• Connect with QSR centers and labs around the world
• Industry-academia collaborations
• Student interaction session

Knowledge • Meeting editors from top-tier journals
• Training certificates
• Tutorials and magazines
• Periodic webinars
• Educational & teaching materials & analytical cases

Development • Reduced rates for conferences
• Best paper awards
• Industrial data challenge award
• Mentoring & career resources
• Leadership opportunity

Subcommittee Members Photos and Names



Dr. Kamran Paynabar - Chair
(Georgia Tech University)



Dr. Adel Alaeddini - Co-chair
(University of Texas at San Antonio)



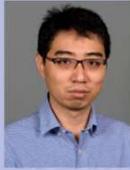
Dr. Hui Yang
(Pennsylvania State University)



Dr. Ramin Moghaddass
(University of Miami)



Dr. Xiaowei Yue
(Virginia Tech University)



Dr. Hao Yan
(Arizona State University)



Dr. Xiaolei Fang
(North Carolina State University)

Summary of Major Activities

- Brainstorming sessions
- Surveys/interviews with other communities
 - Data Mining Section and Simulation Society
- Identify improvement areas & growth strategies
- Membership analysis
 - Current/past members of INFORMS QSR
 - Student, regular, new, inactive members
 - Current/past members of IISE QCRE
 - INFORMS QSR Presenters
 - IISE Transactions - QRE authors.

Achievements

- Identified groups with close connections with QSR
 - Students
 - Speakers in the QSR sessions
 - Non-active members
- Sent out targeted emails/flyers
- Prepared promoting/marketing message and offers (in collaboration with the QSR industry committee)

Suggestions For Next Year

- Promote QSR in related societies & communities
 - Improve presence at other conference
 - Promote QSR competitions at other communities
- Offer workshop, (online) tutorials
 - Introductory/advanced & industrial/academic
- Expand industry relation
 - Industry track & co-sponsorship
 - Leadership position
- Improve public relation and communication
 - Social media & newsletter

Acknowledgement

Dr. Russel Barton (Simulation Society) and Dr. Duraikannan Sundaramoorthi (Data Mining Section), and industry committee

Public Communication Subcommittee

Mission Statement

Promote communication within INFORMS QSR Section and its visibility to industry, academia, and beyond.

Subcommittee Members

Youngjun Choe, Ph.D.
(University of Washington)
Subcommittee Chair & Council Member



Abdallah Chehade, Ph.D.
(University of Michigan-Dearborn)
Editor of QSR Annual Newsletter



Xiaoyu Chen, Ph.D. Candidate
(Virginia Tech)
Webmaster of QSR Website



Zhiyong Hu, Ph.D. Candidate
(Texas Tech)
Webmaster of QSR Social Media

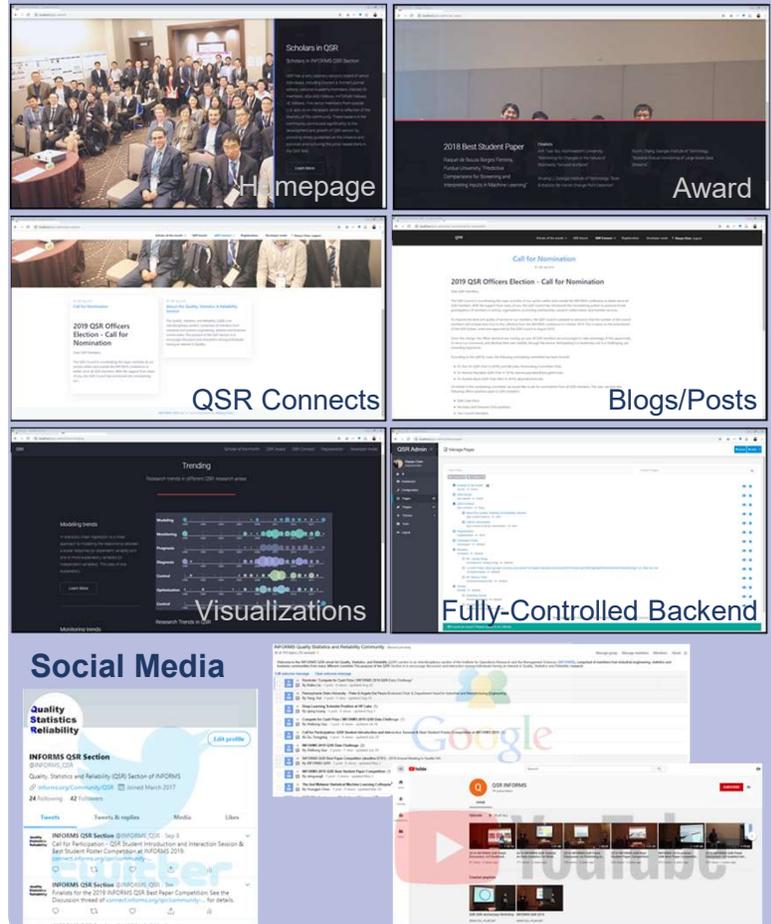


Summary of Major Activities

- Summary letter on the Annual Meeting 
- Newsletter administration (news collection, job posting, newsletter editing, dissemination) 
- Surveys (on membership, webinar, etc.)
- Social media (Twitter, LinkedIn, YouTube, Google Group)
- Email communication/moderation for the QSR mailing lists
- Student journalist recruiting and coordination for QSR news collection and dissemination
- Website maintenance
- New QSR website development

Highlights

New QSR Website



Social Media

Suggestions For Next Year

- Expansion of student journalist activity
- Campaigns to increase social media activity
- 'Ponder This' Challenge to promote community discussion on various QSR problems
- Roll-out and promotion of the new QSR website

Acknowledgement

The subcommittee gratefully acknowledges QSR newsletter contributors, student journalists, survey participants, and industry partners. A special thanks goes to Ran Jin (Virginia Tech, QSR Chair) who led the new QSR website development.

New QSR Website Demo

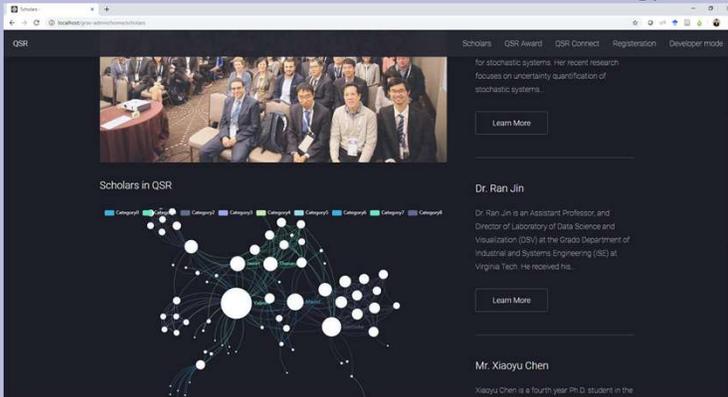
Mission Statement

To provide a better presentation of QSR members and their activities in future engagement efforts

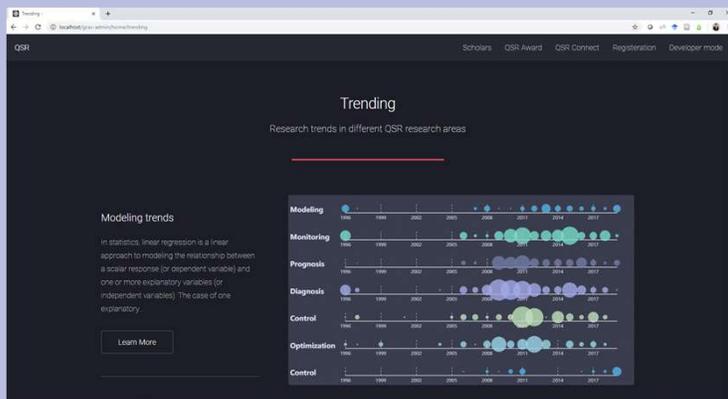
Snapshots of New Website Demo



Homepage of Scholars in QSR (Photo taken in INFORMS 2017 QSR Business Meeting)

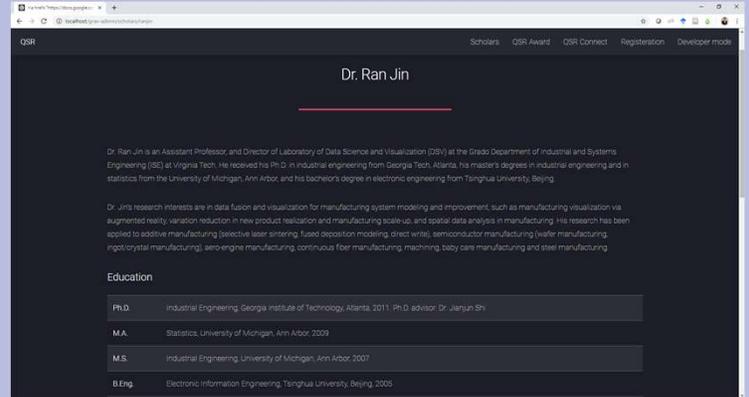


Scholars in QSR and Collaborations

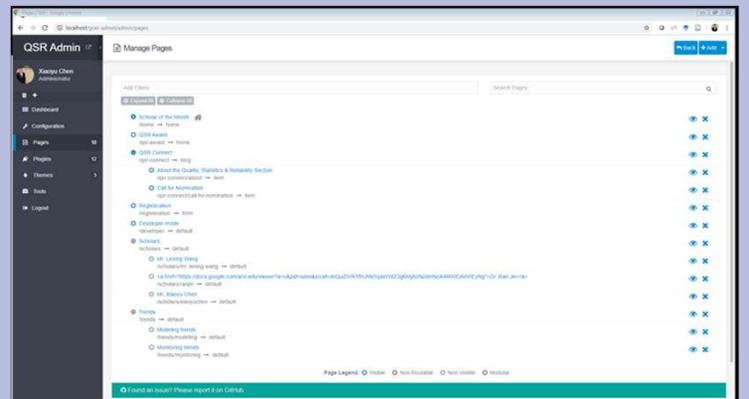


Research Trends in QSR Research Areas

Snapshots of New Website Demo (Cont'd)



An Example of Scholar Pages – Easy to Update and Maintain



Fully Controlled Backend

Developers and Designers



Mr. Xiaoyu Chen, QSR Webmaster (Virginia Tech)



Ms. Shan Yuan, Designer (Virginia Tech)



Dr. Ran Jin (Virginia Tech)