

## Dr. SHAFIQ AHMAD

### PERSONAL DATA

Date of birth: 18<sup>th</sup> September 1968  
Marital status: Married  
Citizenship: Australian

### CONTACT DETAILS

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### CAREER OVERVIEW & OBJECTIVE

Over 26 years of teaching experience in Engineering and Business Colleges in Australia and Saudi Arabia, coupled with more than a decade long professional experience in reputed multinational organizations in Asia, Australia and Europe, currently I'm faculty member at the department of industrial engineering, college of engineering King Saud University Riyadh, Saudi Arabia. My doctoral research is in statistical quality control and operations research area with key focus on performance analysis of business processes. I have published a research book and more than 60 refereed (journals and conferences) articles. I am also a certified practitioner in Six Sigma business improvement model. I have strong background in statistical and quantitative analysis for business processes and look forward for opportunities to excel in academic and research environment.

### ACADEMIC QUALIFICATIONS

#### **Doctor of Philosophy (PhD)**

Operations Research & Statistics department,  
School of Mathematical and Geospatial Sciences  
RMIT University, Melbourne, AUSTRALIA  
Conferred Date: 16<sup>th</sup> Dec. 2009

Thesis title: "Process capability assessment for univariate and multivariate non-normal correlated quality characteristics". Examiner's commended my research work of highest merit and strongly competitive at international levels

#### **Master of Engineering**

Asian Institute of Technology, Bangkok,  
Thailand & Technical University Hamburg,  
Germany  
Conferred Date: 21<sup>st</sup> April 2000

Thesis title: Analysis, optimization and validation of a simulation model for Airbus A340 aircraft PACK air-conditioning system.

#### **Bachelor of Engineering (Mechanical)**

UET, Lahore, Pakistan  
Conferred Date: 31<sup>st</sup> May 1992

Thesis title: Planning and scheduling of heavy machinery maintenance activities using CPM/PERT simulation model developed in Turbo Basic language.

### PROFESSIONAL CERTIFICATIONS

#### **Design for Six Sigma (IDOV) Certificate**

Seagate Technology Six Sigma Asia Operations,  
Singapore.

Conferred Date: 31<sup>st</sup> May 2001

#### **Six Sigma Operational (DMAIC) Certificate**

Seagate Technology Six Sigma Asia Operations,  
Bangkok, Thailand

Conferred Date: 19<sup>th</sup> Sep. 2003

## **HONOURS & AWARDS**

1. April 2019, awarded excellent researcher award for excellence in scientific research; College of Engineering, King Saud University, Riyadh, Saudi Arabia.
2. May 2019, awarded for supervising Distinguished Senior Graduation Project, BAE Systems, (2<sup>nd</sup> place in IE department, 8<sup>th</sup> place in the Engineering College level)
3. January 2016, awarded best performance award; Al Yamamah University, Riyadh, Saudi Arabia
4. December 2005, awarded a full scholarship to pursue PhD at RMIT University under the prestigious Australian Post Graduate Award (APA) scheme, Melbourne, Australia.
5. February 1998, awarded a full scholarship from Siemens AG Germany to pursue master degree in Engineering under an exchange program between AIT, Bangkok and TUHH, Hamburg, Germany.
6. February 2004, awarded Seagate's most prestigious company-wide recognition award "Asian GM Award", Seagate Technology Thailand.
7. July 2004, awarded Seagate Technology's Design of Experiment "Best DOE team Ronald Fisher Award", Seagate Technology Thailand.
8. April 2004, awarded Seagate Technology's "Leader Most Valuable Performance Award", Seagate Technology Thailand.
9. August 2005, awarded Seagate's service recognition Award "Long Service Award", Seagate Technology Thailand.

## **ACADEMIC / TEACHING EXPERIENCE**

**Institution:** Industrial Engineering Department, College of Engineering, King Saud University, Riyadh, Saudi Arabia  
**Position title:** Associate Professor  
*Jan 2016- Present*

### **Academic and Administrative Duties**

- Deliver lectures to undergraduate and postgraduate level courses offer by the Industrial Engineering Department (IED).
- Undertake academic duties (i.e. setting examination questions, marking, invigilation and pastoral support of students) required to sustain the delivery of high-quality teaching.
- Serve as member of IE Department Board; serve as representative for accreditation of IE degree study program.
- Coordinate and serve for departmental activities in preparing documents for the national accreditation (NCAAA) and ABET accreditation

**Institution:** Department of Management, College of Business Administration  
Al Yamamah University, Riyadh, Saudi Arabia

**Position title:** Assistant Professor Quality Management  
*September 2011- Jan 2016*  
*July 2012 – April 2015* Chair Management Department, COBA

I have performed academic administration, prepared course materials and curriculum for undergraduate student's levels in the areas of quality management, operations management, and quantitative methods in management, business statistics and supply chain management, besides teaching such courses. For graduate level, I have prepared curriculum in the area of supply chain management, Human Resource Management, Operational Issues in Human Resource Management, Human Resource Productivity and Quantitative Business Analysis, and delivered such courses for different post-graduate programmes.

#### **Academic and Administrative Duties**

- Deliver lectures to undergraduate and postgraduate level courses.
- Performed academic duties (i.e. setting examination questions, marking, invigilation and pastoral support of students) required to sustain the delivery of high-quality teaching.
- Schedule classes and assign courses to faculty members to be taught in each semester.
- Update department curriculum, courses & programs to match with business needs of industry.
- Serve as peer mentor for classroom observations and provide feedback to faculty members.
- Foster the development of each faculty member's special talents & interests; foster good teaching in the department; stimulate faculty research & publications; encourage faculty members to participate in refereed conferences and workshops.
- Review final grades submitted by faculty members by end of each semester and report to the dean for final approval.
- Maintain a collegial atmosphere among faculty; establish department committees; develop and implement short and long-term departmental programs and plans contributory to and consistent with the COBA vision and mission.
- Serve as member of College Board; serve as representative of the college to the university & community; implement the college & university's strategic goals; coordinate department & college curriculum, development and accreditation of BBA study program.
- Supervise activities concerning faculty affairs; help in recruiting faculty members according to department needs; assign faculty responsibilities such as teaching, research & committees; evaluate faculty performance on a continuing basis; report on the faculty evaluations; conduct a planning & review session at the beginning and end of each academic year.
- Communicate department needs to the dean, and interact with upper-level management; coordinate activities with other YU groups; process department correspondence & requests for information.
- Supervise secretarial staff in the department; maintain essential department and student records.
- Coordinate and lead departmental activities in preparing documents for the national accreditation (NCAAA).
- Ensure quality education for students by encouraging the development of courses which maximize student competencies in the areas determined by the course curriculum.
- Supervise activities concerning student counseling; assign faculty for student advising; oversee and actively participate in resolution of academic & non-academic issues.
- Acting as liaison between faculty members and university senior management.

#### **Courses being taught at IE Department, KSU**

*Jan 2016- Present*

**Undergraduate level**

- IE339 Quality Engineering
- IE333 Design of Experiment
- IE 496/497: Graduation project (Supervision of 2-3 projects/semester with 6-8 students)

**Graduate level**

- IE530 Quality Engineering
- IE 520 Design and Experimental Analysis
- IE 600 Master thesis (Supervision of master thesis)
- IE 611 Advance topics in Statistics
- IE 615 Advance topics in Quality Engineering

**Master Thesis Supervision:**

1. Thesis title: “Performance Evaluation and Decision Making Of Queuing Models Involving Expert Judgment And Attitude Of Decision Maker” by Latifah Fahad Abdulrahman ALQasem for the Master Degree of Science in Statistics, Department of Statistics and Operations Research, College of Science, King Saud University, 2018
2. Thesis title: “Applying of Process Capability Indices for Non-Normal Data for Multivariate Quality Characteristics” by Moath Mohsin Alatefi for the Master Degree of Science in Engineering, Department of Industrial Engineering, College of Engineering, King Saud University, 2019

**PhD Thesis Examination**

Doctoral thesis title: Temperature influence on coefficient of friction in composite manufacture  
Institution: Department of Mechanical Engineering, School of Engineering,  
University of Melbourne, Melbourne, Australia.  
Dated: February 2018

**Courses taught at Al Yamamah University**

*September 2011- Jan 2016*

- MGT301: Operations Management
- MGT305: Quality Management
- MGT102: Organizational Behavior
- MGT201: Organization Theory
- QMGT301: Quality Assurance
- QMGT404: Design of Experiment
- STT102: Business Statistics I (Introduction to Statistics)
- QMGT403: Total Quality Management
- MGT 515: Supply Chain Management
- STT202: Business Statistics II (Intermediate Statistics)

**Courses taught at Business Colleges in RMIT University, Latrobe University and CQU University Melbourne Campus, Melbourne, Australia**

*July 2006 to June 2010*

- PROC2081: Data Collection and Analysis
- ECO1IQA: Quantitative Analysis in Economics

- QNPS2296: Physical and Quantitative Analysis
- OMGT 1082: Introduction to Logistics and Supply Chain Management (SCM)
- MGMT 19105: Quality Management
- MGMT 19106: Supply Chain Management
- MGMT 19103: Logistics Management
- LGM100: Introduction to Logistics and SCM (online delivery mode)
- OMGT1070: Procurement Management
- BUSM1482: International Trade Operations
- MATH2123: Mathematics and Statistics
- QNPS2338: Basic Statistics for Engineers
- MKTG 5666: Managing Quality and Continuous Improvement
- MIET 7266: Quality Improvements at Workplace.
- BUSM 5720C: Engineering Mathematics

#### Affiliations

- Raytheon Chair for Systems Engineering (RCSE Chair), Advanced Manufacturing Institute, King Saud University, Riyadh, Saudi Arabia
- Editorial board member of Ergonomics International Journal [ISSN: 2577-2953];  
<https://medwinpublishers.com/EOIJ/editorial-board.php>
- Associate researchers (visiting) School of Science, College of Science, Engineering and Health, RMIT University, Melbourne, Australia
- Editorial board member of Progress of Electrical and Electronic Engineering [ISSN: 2630-4643];  
<http://ojs.whioce.com/index.php/peee/about/editorialTeam>

## RESEARCH PROFILE

**1. Institution:** School of Science, College of Science, Engineering and Health, RMIT University, Melbourne, Australia  
**Position title:** Visiting Research Fellow  
*Mar 2010 – Oct 2016*

**Job Description:** Working with RMIT Operations Research and Statistics group with key focus on performance analysis of different business processes in different research areas such as clinical area and finance and banking processes.

**2. Institution:** School of Economics & Finance, La Trobe University, Melbourne  
**Position title:** Research Associate  
*July 2011- Dec 2011*

**Job Description:** Performance evaluations of Islamic finance and banking system and performance comparison of Islamic finance with conventional finance and banking system. This work was related to Islamic Finance & ARC Discovery project. Optimization of Islamic portfolio management system using metaheuristic approaches and application of intelligent computational techniques for forecasting and predictions of Islamic finance growth in future.

**3. Institution:** School of Mathematics and Geospatial Sciences, Operations Research and

Statistics Discipline, RMIT University, Melbourne  
**Position title:** **Research Assistant**  
*Mar 2007 – Dec. 2008*

**Job Description:** I worked on various research projects with Operations Research and Statistics research group to conduct statistical analysis for categorical and numerical datasets. One of them was to conduct analysis of student's feedback surveys for service subjects. This project was funded by the Australian Teaching and Learning Council (ATLC). The project involved working on a large dataset of student's feedback for 2 years teaching (2007 and 2008) period. The results of this model have been provided to the concerned authority for planning and improvement purposes.

**4 Institution:** School of Business Information Technology (BIT) and Logistics, RMIT University, Melbourne

**Position title:** **Research Assistant**  
*Nov 2009 – Feb. 2010*

**Job Description:** I worked on various research and data analysis projects with Logistics group to develop statistical and methodological analyses on large datasets. One of these research projects was funded by the Australian Research Council (ARC) and my role was to develop a fire forecast model at an aggregate level. The project involves working on a large dataset of residential fire incidents for Queensland State datasets for 10 years. The results of this model have been provided to the concerned authority for planning purposes.

## RESEARCH PUBLICATIONS

**Google scholar link:** <https://scholar.google.com/citations?hl=en&user=A4rfpboAAAAJ&scid=654444&scisq=AMD7900.A4.A4.A4.XL.75L.B-7PmSpK93eYDhMG0mrZNw19l&umla=A1sN-F7Qs2UkyfQzpsckmaIDLjDdCKY61zYd6.JE6SbLSFkbbHAKQqAeqw2TTRuesd+GEa6Uob2s9pl8Xv5Etza9OJnEtkCR5YtPUKrfYbRd5u9l2KY&scind=16725791058736963368>

## RESEARCH BOOK:

Research Book entitled “Multivariate Process Capability Assessment for Non-normal Quality Data” with ISBN 978-3-659-18888-6, published by LAP LAMBERT Academic Publishing GmbH & Co. KG Heinrich-Böcking-Str. 6-8 66121, Saarbrücken, Germany

## ARTICLES (under review)

1. Shahid Bashir, **Shafiq Ahmad**, (2019), Variability of motor evoked potentials response to navigated continuous theta burst stimulation, *Journal of Medical Science Monitor*, (*impact factor: 1.980*) eISSN: 1643-3750
2. **Shafiq Ahmad**, Khalid Alnowibet, Latifah Alqasem, Jose Merigo, Mazen Zaindin, (2019), Generalized OWA Operators for Uncertain Queuing Modeling with Application in Healthcare, *Journal of Soft Computing*, (*Impact factor: 2.784*) ISSN: 1432-7643
3. Mohammed Alkahtani, **Shafiq Ahmad**, Mohammed A. Noman, Husam Kaid & Ahmed Badwelan (2019), Bibliometric Research Indicators for Green Supply Chain Modelling, *Int. J. of Industrial and Systems Engineering*, accepted and under print, ISSN: 1748-5037. DOI: 10.1504/IJISE.2020.10019033
4. Jamil Mohsin, Amjad Hussain, Zeeshan Latif, **Shafiq Ahmad**, Naveed Ahmed, Zohaab Ashraf, Mohamed Sharaf (2019), Project Managers' Personality and Project Success: Moderating Role of External Environmental Factors, *IEEE ACCESS*, ISSN: 2169-3536 (*Impact factor: 4.01*).
5. Syed Atif Ali Shah, Irfan Uddin, Furqan Aziz, Shafiq Ahmad, Mahmoud Ahmad Al-Khasawneh &

Mohamed Sharaf (2019), An application of Deep Neural Networks for predicting workplace absenteeism, Complexity (Journal), ISSN1076-2787. (*Impact factor: 2.591*),

#### REFEREED JOURNAL ARTICLES:

6. Moath Alatefi, **Shafiq Ahmad**, Mohammed Alkahtani, (Nov. 2019), Performance Evaluation Using Multivariate Non-Normal Process Capability, International Journal “Processes”, vol. 7, issue 11, pp.1-24 (*Impact factor: 1.963*) ISSN: 2227-9717. DOI: ??? (<https://www.mdpi.com/2227-9717/7/11/833>)
7. Naveed Ahmed, **Shafiq Ahmad**, Saqib Anwar, Amjad Hussain, Madiha Rafaqat, Mazen Zaindin (Oct. 2019), Machinability of titanium alloy through laser machining: material removal and surface roughness analysis, The International Journal of Advanced Manufacturing Technology, Volume ??, Issue ??, pp ?, ISSN: 0268-3768. (*Impact factor: 2.496*).DOI:????)
8. Naveed Ahmed, Salman Pervaiz, **Shafiq Ahmad**, Madiha Rafaqat, Adeel Hassan, Mazen Zaindin (Sep., 2019), LBM of aluminium alloy: towards a control of material removal and roughness, The International Journal of Advanced Manufacturing Technology, Volume ??, Issue ??, pp ?, ISSN: 0268-3768. (*Impact factor: 2.496*). (<https://doi.org/10.1007/s00170-019-04365-y>)
9. Shahid Bashir, **Shafiq Ahmad**, Moath Alatefi, Ali Hamza, Mohamed Sharaf, Shirely Fecteau & Woo Kyoung Yoo (2019), Effects of anodal transcranial direct current stimulation on motor evoked potentials variability in humans, Journal of Physiological Reports, vol. 7, issue 13, pp. 1-11, ISSN 2051-817X. (<https://doi.org/10.14814/phy2.14087>).
10. Shahid Bashir, **Shafiq Ahmad**, Moath Alatefi, (2019), An Overview of Transcranial Magnetic Stimulation Research with Bibliometric Indicators, Journal of Nature and Science of Medicine, accepted on 26 March and ahead of printing online version @ [http://www.jnsmonline.org/temp/JNatSciMed000-2610918\\_071509.pdf](http://www.jnsmonline.org/temp/JNatSciMed000-2610918_071509.pdf)
11. Shahid Bashir, **Shafiq Ahmad**, Moath Alatefi, Ali Hamza, Mohamed Sharaf (2018), Quantifying and visualizing the transcranial direct current stimulation research indicators, International Journal of Research in Medical Sciences, vol. 6, issue 12, pp. 4136-4149. ISSN: 2320-6071. (DOI: <http://dx.doi.org/10.18203/2320-6012.ijrms20184921>)
12. **Shafiq Ahmad**, Ahmed Badwelan, Atef M. Ghaleb, et al., “Analyzing Critical Failures in a Production Process: Is Industrial IoT the Solution? Wireless Communications and Mobile Computing, vol. 2018, pp. 1-12. 1530-8669 (*Impact factor: 1.396*) (<https://doi.org/10.1155/2018/6951318>)
13. Mahmuda Akter, Abdullah Gani, Md. Obaidur Rahman, Md. Nazrul Islam, Mohammad Mehedi Hassan, **Shafiq Ahmad** (2018), “Performance Analysis of Personal Cloud Storage Services for Mobile Multimedia Health Record Management”. IEEE ACCESS, Volume 6, issue 1, pp 52625-52638. ISSN: 2169-3536 (*Impact factor: 3.557*). (DOI: [10.1109/ACCESS.2018.2869848](https://doi.org/10.1109/ACCESS.2018.2869848))
14. Prem Chhetri, Jonathan Corcoran, Shafiq Ahmad, Kiran KC, (2018) "Examining spatio-temporal patterns, drivers and trends of residential fires in South East Queensland, Australia", Disaster Prevention and Management: An International Journal, Vol. 27 Issue: 5, pp.586-603, <https://doi.org/10.1108/DPM-09-2017-0213> ISSN: 0965-3562. (*Impact factor: 1.787*)
15. **S. Ahmad**, M. Alatefi, M. Alkahtani, S. Anwar, M. Sharaf, and M. Abdollahian (2018), “Bibliometric analysis for process capability research,” Qual. Technol. Quant. Manag., vol. 16, issue 4, pp. 459–477. ISSN: 1684-3703, (*Impact factor: 0.946*), <https://doi.org/10.1080/16843703.2018.1464426>



16. **Shafiq Ahmad (2018)**, "Bibliometric Analysis of EWMA and CUSUM Control Chart Schemes", International Journal of Information Technology and Electrical Engineering (ITEE), Vol. 7 No. 2, pp. 1-11. ISSN: - 2306-708X ([http://www.iteejournal.org/Archive\\_apr\\_2018.php](http://www.iteejournal.org/Archive_apr_2018.php))
17. Shamsul Huda, Kevin Liu, Mohamed Abdelrazek, Amani Ibrahim, Sultan Alyahya, Hmood Al-Dossari, **Shafiq Ahmad** (2018), "An ensemble oversampling model for class imbalance problem in software defect prediction". IEEE ACCESS, Vol 6, 2018, pp. 24184-24195. ISSN: 2169-3536. (*Impact factor: 3.557*). (DOI: [10.1109/ACCESS.2018.2817572](https://doi.org/10.1109/ACCESS.2018.2817572))
18. **Shafiq Ahmad**, Illias Musliyar (2018), "A note on 'Designing of a Hybrid Exponentially Weighted Moving Average'", The International Journal of Advanced Manufacturing Technology, Volume 97, Issue 1-4, pp 375-377, ISSN: 0268-3768. (*Impact factor: 2.601*). (<https://link.springer.com/journal/170/97/1/page/2>)
19. Saqib Anwar, Fawaz M. Abdullah1, Mohammad Alkahtani, **Shafiq Ahmad**, Moath Alatif1 (2018), "Bibliometric Analysis of Abrasive Water Jet Machining Research", Journal of King Saud University-Engineering Sciences (JKSUES), pp. 2-9. ISSN: 1018-3639 (<https://doi.org/10.1016/j.jksues.2018.02.002>). (*SJR Impact factor: 0.68*)
20. Muhammad Habib ur Rehman, Ejaz Ahmed, Ibrar Yaqoob, Ibrahim Abaker Targio Hashem, **Shafiq Ahmad**, and Muhammad Imran. (2018), "Big Data Analytics in Industrial IoT using Concentric Computing Model". IEEE Communications Magazine, Volume: 56, Issue: 2, Pages: 37 - 43, ISSN: 0163-6804, (*Impact factor: 9.27*) DOI: [10.1109/MCOM.2018.1700632](https://doi.org/10.1109/MCOM.2018.1700632)
21. Jiafu Wan, Baotong Chen, Muhammad Imran, Fei Tao, Di Li1, Chengliang Liu, **Shafiq Ahmad** (2018), "Toward Dynamic Resources Management for IoT-based Manufacturing". IEEE Communications Magazine, Volume: 56, Issue: 2, Pages: 52 - 59, ISSN: 0163-6804. (*Impact factor: 9.27*). (DOI: [10.1109/MCOM.2018.1700629](https://doi.org/10.1109/MCOM.2018.1700629))
22. Shamsul Huda, Sultan Alyahya, Md Mohsin Ali, **Shafiq Ahmad**, Jemal Abawajy, Hmood Al-Dossariy, John Yearwood. (2017), "A Framework for Software Defect Prediction and Metric Selection". IEEE ACCESS, Vol 6, pp. 2844 - 2858. ISSN: 2169-3536. (*Impact factor: 3.557*). (DOI: [10.1109/ACCESS.2017.2785445](https://doi.org/10.1109/ACCESS.2017.2785445))
23. **Shafiq Ahmad**, Shahid Bashir. (2017), "A pilot study investigating the association between sleep and cognitive function among adolescents". Asian Journal of Psychiatry, Vol. 28, pp. 34-37. ISSN: 1876-2018. DOI: [10.1016/j.ajp.2017.03.020](https://doi.org/10.1016/j.ajp.2017.03.020)
24. **Ahmad S**, Varanasi P. (2016), "Towards Work Life Balance of Medical Professionals", Science International Journal (Sci. Int. Lahore), 28(2), pp. 1369-1375. ISSN 1013-5316.
25. G.S.Vijaya, **Shafiq Ahmad**, (2016), "Supply Chain Management in Saudi Arabian Service Organizations - Goals and challenges", International Journal for Research in Applied Science & Engineering, Issue III, March 2016, pp. 1-8, ISSN: 2321- 9653
26. **Shafiq Ahmad**, V M Prasad, Sujendra Swami.P (2014), "Performance Management towards Customer Satisfaction - A Survey of Six Sigma Belt Holders", International Journal of Arts and Commerce Vol. 3 No. 4, ISSN 1929-7106
27. Iqbal M, Al-Regaiey KA, **Ahmad S**, Al-Dokhi L, Al-Naami M, Habib SS. Body composition analysis to determine gender specific physical fitness equations in a cohort of Saudi population. Pak J Med Sci 2014;30(4):798-803, ISSN: 1682-024X
28. Shamsul Huda, Mali Abdollahian, Musa Mamadov, **Shafiq Ahmad** , John Yearwood (2014), "A



- hybrid approach to detect the source(s) of out-of-control signal in Multivariate Manufacturing Process using Maximum Relevance, Artificial Neural network Input Gain Measurement Approximation (ANNIGMA) and Global Optimization, European Journal of Operational Research, Volume 237, Issue 3, volume 237,issue 3, pp. 857–870, ISSN: 0377-2217 (*Impact factor: 3.428*)
29. **Shafiq Ahmad**, M. Ishaq Bhatti, Khalid Al Otaibi (2014), “A comparative study of ethical and conventional mutual funds using neural network forecasting”, Science International Journal 26(1) ISSN 1013-5316
  30. **Shafiq Ahmad** (2013), “Service Sector Performance Management through Six Sigma”, International Journal of Innovative Research and Development, Volume 2, issue 13, pp. 346-350, ISSN 2278 – 0211
  31. **Shafiq Ahmad**, Mali Abdollahian, Shamsul Huda, John Yearwood, Ishaq Bhatti (2013), “Performance evaluation of multivariate non-normal process using metaheuristic approaches”, Journal of Applied Statistical Science, Volume 20, Number 3, pp. 101-117, ISSN 1067-5817.
  32. **S. Ahmad**, M. Abdollahian, P. Zeephongsekul, B. Abbasi “Multivariate Non-normal Process Capability Analysis, International Journal of Advanced Manufacturing Technology, Int. J Adv Manuf. Technol. (2009) 44:757-765. ISSN: 0268-3768. (*Impact factor: 2.601*).
  33. S.Z. Hosseinifard, B. Abbasi, **S. Ahmad**, M. Abdollahian, A Transformation Technique to Estimate Process Capability Index for Non-normal Processes, International Journal of Advance Manufacturing Technology, Int. J Adv Manuf. Technol. (2009) 40:512-517, ISSN: 0268-3768. (*Impact factor: 2.601*).
  34. **S. Ahmad**, M. Abdollahian, P. Zeephongsekul, “Process Capability Estimation for non-normal quality characteristics using Clement, Burr and Box-Cox methods”, The Australian and New Zealand Industrial and Applied Mathematics Journal, pp. C642-C665, 2008. ISSN: 1446-8735.
  35. **S. Ahmad**, M. Abdollahian, P. Zeephongsekul, B. Abbasi, “Measuring Process Performance for Non-Normal Quality Characteristics Data, Ubiquitous Computing and Communication Journal, UBICC Journal, Volume 3, January 2008, pp.8-12, ISSN:1992-8424.
  36. B. Abbasi, **S. Ahmad**, M. Abdollahian and P. Zeephongsekul, Measuring Process Capability for Bivariate Non-Normal Process Using the Bivariate Burr Distribution, WSEAS Transaction on Business and Economics, Issue 5, Volume 4, 2007, ISSN: 1109-1126.

## REFEREED CONFERENCE ARTICLES

37. Khalid Alnowibet, **Shafiq Ahmad**, Latifah Alqasem, (2018), “Probabilistic aggregation operators and their application in Queuing Theory with multi-person decision-making” Proceedings of the ( IEEE Conference ID: 40353) 4<sup>th</sup> International Conference on “Computing for Sustainable Global Development”, March, 2018, pp 1436-1442
38. Saqib Anwar, Fawaz M. Abdullah, Bashir Salah, **Shafiq Ahmad**, Abdulrahman M. Al-Ahmari, (2017), “An Overview of Electron Beam Melting research with Bibliometric Indicators” 7th International Conference in Industrial Engineering and Operations Management, Rabat, Morocco, April 11-13, 2017, pp 1-10.
39. Choon Yup Park, **Shafiq Ahmad** (2015), “A Study of Entrepreneurship of Young People in Saudi Arabia” 30th International Conference on Japanese - Korean Economy and Management, Japan

40. M. Kolay, **S. Ahmed**, M. Munir, and V. Prasad (2015), "Investments in Technology and Organizational Performance in KSA", International conference on Economics and Business Administration 2015, Barcelona, Spain 7-9 April 2015, pp 36-40
41. P. Varanasi and **S. Ahmad** (2015), "Factors Affecting Work Life Balance of Medical Professionals", International conference on Economics and Business Administration 2015, Barcelona, Spain 7-9 April 2015, pp 61-65
42. Khalid Alnowibet, **Shafiq Ahmad** (2013), "Saudi school assessment system for predicting admissions to science colleges" International conference on quality in higher education, December 12-14, Turkey, pp. 810-817
43. **Shafiq Ahmad**, V M Prasad, Lalitha (2013), "CRM in Telecom Sector and Customer Retention" International conference on Consumer dynamics and marketing strategies in a globalized economic ERA- perspectives and challenges, October 29-30, India, pp. 369-372, ISBN 978-81-928677-0-0
44. **Ahmad S.**, Bhatti I., (2013) "Islamic and conventional mutual funds forecasting using neural network method" 21st International Business Research Conference 10 – 11 June, 2013 Toronto Canada
45. Khan Habib.U., **Ahmad S.**, Abdollahian M., (2013) "Supply chain technology acceptance, adoption, and possible challenges: A case study of service organizations of Saudi Arabia.", 10th International Conference on Information Technology: New Generations, ITNG 2013, Las Vegas, Nevada, USA, April 15 - 17, 2013, pp. 590-595
46. Khan Habib.U., **Ahmad S.** (2013) "The Possible Challenges of Information Technology Adoption In the Framework of Supply Chain Management: A Case Study Of Leading Private and Public Based Service Organizations Of UAE.", 44th annual conference of Southwest Decision Sciences Institute (SWDSI), Albuquerque, New Mexico, USA, March 12 - 16, 2013 pp. 731-739
47. M. Abdollahian, **S. Ahmad**, S. Huda, S. Nuryan, D. Anggrainiy, (2012) "Investigating the Relationship Between Neonatal Mortality Rate and Mother's characteristics", accepted for publication in 2012 International Conference on Information and Knowledge Engineering (IKE'12) July 16-19, 2012, Las Vegas, USA.
48. Habib Ullah Khan, **Shafiq Ahmad**, and Mahmood A. Awan, (2012) "Challenges of IT Adoption and Outsourcing in Supply Chain Framework: A Comparison of Service Firms in China and United Arab Emirates, 10th Annual International Smart Sourcing Conference, 28th – 29th June, 2012, Daejeon, Korea, pp. 63 - 66
49. Aisha Mohsin, **Shafiq Ahmad**, (2012), "Towards the Selection of Future 4G Mobile Service Provider From Customers' Perspective", 9th International Joint Conference on Computer Science and Software Engineering (JCSSE 2012, IEEE Thailand Section) 30 May– 01 June 2012, Bangkok, Thailand, pp. 120-125
50. M. Abdollahian, **S. Ahmad**, S. Huda, (2011) "Multivariate control charts for surgical procedures" 4th International Symposium on Applied Sciences in Biomedical and Communication Technologies (Isabel 2011) October 26-29, 2011, Barcelona Spain
51. M. Abdollahian, **S. Ahmad**, S. Nuryani, and D. Anggraini, (2011) "Assessment of Hemoglobin Level of Pregnant Women Before and After Iron Deficiency Treatment Using Nonparametric Statistics", 2011 International Conference on Information and Knowledge Engineering, July 18-21, 2011, Las Vegas, USA, pp. 301-305
52. S Rahman, A Abareshi, S Bakir, **S Ahmad**, (2011) "Research Orientations of the Selected Supply Chain Management Periodicals: A Critical Review", 16th International Symposium on Logistics, 10-13 July 2011, Berlin, Germany: pp. 73-80
53. **S. Ahmad**, M. Abdollahian, S. Nuryani, and D. Anggraini, (2011) "Modelling Non-Normal Neonatal Weight Data to Estimate Mortality Rate of New Born Babies" 2011 International

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## RESEARCH INTERESTS

Key research areas are:

- IIOT and Big Data Analytics
- Statistical quality control and process monitoring
- Performance analysis for multivariate processes
- Material characterization and classification techniques
- Quantitative analysis for clinical area.
- Operations research in queuing modelling.
- Supply Chain Management.
- Forecasting and predictions using advance statistical and deep learning techniques

## PROFESSIONAL EXPERIENCE

**Institution:** Australian Government: Department of Families, Housing, Community Services and Indigenous Affairs, Canberra, AUSTRALIA

**Position title:** Senior Policy Analyst & Researcher

*July 2010 to July 2011*

**Job Description:** I have completed a number of data analyses, policy research and analytical research projects. Key functions included analysis of surveyed data from various governmental sources to explore main trends affecting Indigenous Australians mobility. This project was a part of Baseline Mapping and Remote Service Delivery (RSD) initiative of Australian Government. Other functions included analysis and development of performance indicators, provide advice and collate information funded by the department and conducted by various agencies like Centre for Aboriginal Economic Policy Research (CAEPR), provide quantitative analysis and modeling to explore new policy formulation and the monitoring of existing policy initiatives.

**Organization:** Seagate Technology Limited, Bangkok, THAILAND

**Position title:** Engineering Manager

*Jul 2000 – Jan 2006*

**Job Responsibilities:** Key responsibilities fall in the area of project planning and management, budget planning, continuous process improvement, supply chain management, maintenance planning, vendor liaison and management and system analysis and design consultations. I've managed development projects with capital budgets ranging from 500K-4M USD from

conception through to installation. Also led several Transfers of Technology (TOT) projects between design & development centers in USA and manufacturing sites in Asia.

**Organization:** Airbus (DASA) Kreetslag 10, 21129 Hamburg, GERMANY  
**Position title:** Research Associate  
*Aug 1999 – Mar 2000*

**Job Responsibilities:** I have conducted a research project covering analysis, optimization and validation of a simulation model for Airbus A340 aircraft PACK air-conditioning system. The research aim was to conduct mathematical analysis of the existing simulation model by interfacing subroutines for environmental parameters like temperature, pressure, enthalpy, and humidity and compare simulation results with the real time flight data. Improved model was finally integrated and successfully tested with ADS3000 (real time climate simulation and monitoring system) for the validation and implementation purposes.

**Organization:** Heavy Industries Taxila, HIT Taxila, Pakistan  
**Position title:** Assistant Works Manager (AWM)  
*Jul 1994 – April 1998*

**Job Responsibilities:** For a period of four years, I served as AWM manufacturing as well as AWM Maintenance & Facility Support departments and directly report to GM production. My duties covered business process re-engineering through productivity, process and design improvement initiatives. I also led technology transfer projects covering multiples heavy machinery manufacturing lines (armoured personal carriers) from NORINCO, China.

**Organization:** Ibrahim Textile Mills, ITML, Faisalabad, Pakistan  
**Position title:** Maintenance Engineer  
*Jul 1992 – Jul 1994*

**Job Responsibilities:** Key functions were to coordinate with KPMG staff for development and implementation of computerized Planned Plant Maintenance (PPM) system at spinning unit (capacity 50,000 spindles), thus supporting the overall ERP system setup at the operational site.

## **INDUSTRIAL CONSULTANCY**

- Conducted 6 weeks (Feb – Mar 2006) Six Sigma (DMAIC) Operational training for Al-Rahmat Textile's management (10 managers, 2 senior managers and 2 directors), Faisalabad Pakistan. Training was organized in such a manner that it has achieved its objective to give hands on experience to trainees to utilize Six Sigma knowledge for solving real problems related to dying process yield and optimization of the existing chemical process.
- Conducted 2 days (21-22 November 2005) Six Sigma Green belt training "a compact Six Sigma methodology overview" to all engineers and managers of Al-Rahmat Textile Mills, Faisalabad Pakistan.
- Conducted a 2 Days National Workshop on Six Sigma organized by National Productivity Organization (NPO); a chapter of Asian Productivity Organization (APO) Tokyo, Japan, in collaboration with Executive Development Centre of GIFT University Business School, Gujranwala, Pakistan, (17-18 November 2005)

- Conducted 2 days training workshop on Reliability Centered Maintenance (RCM) methodology organized by Seagate Technology Maintenance department at Seagate, Bangkok, Thailand, (19-20 October 2005) for all maintenance engineers (40 engineers participated in that training).

## **COMPUTER SKILLS & PROFESSIONAL TRAININGS**

- Proficient PC skills, e.g. MS Office, MS Project, MATLAB, MINITAB, SPSS softwares.
- DFSS Project base training organized by Seagate in consultation with Berryman & Associates, L.P. USA.
- Reliability for Engineers organized by Seagate Technology in consultation with NUS Singapore.
- Occupational Health and Safety OHSAS 18001 training organized by Seagate Technology Thailand
- Lean Manufacturing Concept & Tools for Engineer organized by Seagate, Thailand.
- Implementation of Equipment Safety Standards organized by Seagate corporate USA.
- Ergonomics for volume manufacturing equipment conducted by Moduspec Risk Management, Malaysia.
- ISO 9000 organized by Pakistan Institute of Quality Control, Lahore, Pakistan
- Kaizen - 7 Tools for continuous improvement organized by Pakistan Institute of Management.

## **REFERENCES**

References are available upon request.