

BOBY JOHN

SQC & OR Unit, Indian Statistical Institute
RVCE Post, 8th Mile, Mysore Road, Bangalore – 560 059

Mobile: 94487 04182

email: boby@isibang.ac.in

Employment

Technical Officer (Grade I), Statistical Quality Control & Operations Research Unit, Indian Statistical Institute, Bangalore.

Paper published in International Journals

1. "Reduction of rework in bearing end plate using six sigma methodology: A case study", *Journal of Applied Research on Industrial Engineering*, Vol. 5, No.1, pages: 10 – 26, 2018.
2. "Designing software development process to optimize multiple output performance characteristics", *Software Quality Professional*, Vol. 19, No.4, pages: 16 – 24, 2017.
3. "A brief review of software reliability prediction models", *International Journal for Research in Applied Science & Engineering Technology*, Vol. 5, No. 4, pages: 990 - 997, 2017.
4. "Application of multistage process control methodology for software quality management", *Journal of Project Management*, Vol. 1, No. 2, pages: 55 - 66. 2016.
5. "A methodology for quantitatively managing the coding phase of software development process", *International Journal of Research in Engineering and Technology*, Vol.5, No.16, pages: 13 - 20. 2016
6. "Recent advancements in software quality management: A review", *Merit Research Journal of Business and Management*, Vol. 4, No.5, pages: 018 - 026. 2016
7. "A methodology for quantitatively managing the bug fixing process using Mahalanobis Taguchi system", *Management Science Letters*, Vol 5, No.12, pages: 1081 - 1090. 2015.
8. "A methodology for reducing bench strength in information technology companies", *Journal of Engineering, Project, and Production Management*, Vol. 5, No.2, pages: 91 – 97. 2015.
9. "A dual response surface optimization methodology for achieving uniform coating thickness in powder coating process", *International Journal of Industrial Engineering Computations*, Vol. 6, No.4, pages: 469 – 480. 2015
10. "A methodology to reduce the counter gear subassembly reworks", *Journal of Engineering Science and Technology*, December 2014, pages: 46 – 56. 2014
11. "A methodology for achieving design review defect density goals in software development process", *International Journal of Manufacturing, Industrial & Management Engineering*, Vol. 2, No.1, pages: 181 - 191. 2014
12. "Application of Mahalanobis - Taguchi system and design of experiments to reduce the field failures of splined shafts", *International Journal of Quality and Reliability Management*, Vol.31, No.6, pages: 681-697. 2014
13. "Application of desirability function for optimizing the performance characteristics of carbonitrided bushes", *International Journal of Industrial Engineering Computations*, Vol. 4, No.3, pages: 305-314. 2013
14. "Identification of potential churn customers for a telecom service provider: A case study", *Quality & Reliability Journal*, Vol.6, No.1, pages: 11-13, 2013.
15. "An Approach to reduce the variation in the continuous operating voltages across lightening arrester assemblies", *International Journal of Electrical Engineering*, Vol. 5, No.6, pages: 691 – 698, 2012.

16. "An optimum test stopping criterion based on software reliability modeling and Taguchi methods", *International Journal of Reliability and Safety*. Vol. 6, No. 4, pages: 372 - 385, 2012.
17. "Simultaneous optimization of multiple performance characteristics of Carbonitrided pellets: A case study", *International Journal of Advanced Manufacturing Technology*, Vol. 61, No. 5-8, pages: 585 - 594, 2012.
18. "Modeling the defect density of embedded system software using Bayesian belief networks: A case study", *Software Quality Professional*, Vol. 14, No. 3, pages: 39 - 45, 2012.
19. "Lean Six-Sigma application in business process outsourced organizations", *International Journal of Lean Six Sigma*, Vol. 2. No.4, pages: 371-380, 2011.
20. "Optimization of actuator performance using robust engineering and feature selection methodologies – A case study", *International Journal of Productivity and Performance Management*, Vol. 60, No.6, pages: 642 – 652, 2011.
21. "SLA baselining of Non-Normal metrics: A profit optimization approach", *Software Quality Professional*, Vol. 12, No.2, pages: 42 – 44, 2010.
22. "Optimization of the induction hardening operation using robust design", *Journal of Quality Engineering Forum*, Vol. 11, No. 4, 70-80, 2003.

Papers published in Books

1. John, Bobby. And Chowdhury, K.K. "An application of dual-response surface optimization methodology to improve the yield of pulp cooking process", *Advanced Mathematical Techniques in Engineering Sciences*, Chapter 5, pages: 91 – 110, CRC Press (Taylor & Francis Group), 2018, ISBN: 978-1-31-514897-7.
2. John, Bobby. and Acharya, U.H. "Quality & reliability engineering: An introduction", *Quality and Reliability Engineering: Recent Trends and Future Directions*, pages: 1 – 3, Allied Publishers, India, 2013, ISBN: 978-81-8424-831-9.
3. John, Bobby. and Kadadevaramath, R.S. "Optimization of the yield of a code review process", *Proceedings of the International Conference on Quality, Reliability and Operations Research*, pages: 161 – 168, Excel India Publishers, India, 2013. ISBN: 978-93-82880-27-1.
4. John, Bobby. "Modeling of code review process yield using Bayesian belief networks: A case study", *Proceedings of International Conference on Software Engineering*, pages: 121 – 127, Tata McGraw Hill Education Private Limited, India, 2011. ISBN: 978-0-07-107816-9.

Books published

- Bobby, J., Acharya, U.H. and Chakraborty, A. (eds): *Quality and Reliability Engineering: Recent Trends and Future Directions*, Allied Publishers, India, 2013. ISBN: 978-81-8424-831-9.

Conference organized

- *International Conference on Quality and Reliability Engineering: Recent Trends & Future Directions*, 20 – 22 December, 2011, Hotel Atria, Bangalore.

Paper presented in Conferences

1. "Optimization of software development life cycle process to minimize the delivered defect density", presented in *International Conference on Advancing Frontiers in Operational Research: Towards a sustainable world (AFOR-2017)*, 21 – 23 December 2017, Kolkata.
2. "Improving the recruitment process quality using predictive modeling", presented in *14th Annual Conference of Indian Society for Quality*, 8 – 9 December 2017, Bangalore.

3. "A methodology for quantitatively managing agile software projects using Taguchi's loss function", presented in *International Conference on Robust Quality Engineering (ICRQE - 2017)*, 19 - 21 January 2017, Mumbai.
4. "A fuzzy optimization approach for software reliability estimation", presented in *International Conference on Advanced Materials, Manufacturing, Management and Thermal Sciences (AMMMT - 2016)*, 23 - 24 September 2016, Tumkur, Karnataka.
5. "A methodology for quantitatively managing the coding phase of software development process", presented in *International Conference on Recent Advances in Engineering Sciences (ICRAES - 2016)*, 8 -9 September 2016, Bangalore.
6. "A methodology to improve the membership renewal rate of a holiday resort group", presented in *International Conference on Statistics for Twenty First century (ICSTC-2015)*, 17 – 19 December, Trivandrum.
7. "A methodology to qualitatively managing the bug fixing process using Mahalanobis – Taguchi System", presented in *2nd International Conference on Robust Quality Engineering (ICRQE 2014)*, 15 – 17 December, Bangalore.
8. "A methodology to achieve the requirement review defect density goals in software development process", *International Conference on Business Analytics and Intelligence (ICBAI 2014)*, 18 – 20 December, 2014. Bangalore.
9. "A methodology for achieving design review defect density goals in software development process", presented in *International Conference on Recent Advances in Engineering Sciences (ICRAES 2014)*, 4-5 September, 2014. Bangalore.
10. "A Methodology to Reduce the Counter Gear Subassembly Reworks", presented in *International Conference on Mathematical Techniques in Engineering Applications (ICMTEA 2013)*, 24 – 25 October 2013, Dehradun.
11. "A dual response surface optimization approach for minimizing the variation of paint thickness in powder coating process", presented in *International Conference on Advanced Materials, Manufacturing, Management and Thermal Sciences (AMMMT 2013)*, 3 – 4 May 2013, Tumkur.
12. "Optimization of Code Review Yield Process", presented in *International Conference on Quality, Reliability & Operations Research (ICONQROR 2013)*, 7 – 9 January 2013, Mumbai.
13. "Modeling of Code Review Process Yield using Bayesian Belief Networks: A Case Study", *International Conference on Software Engineering (CONSEG 2011)*, 17 – 19 February, 2011, Bangalore.
14. "Identification of Potential Churn Customers for a Telecom Service Provider: A Case Study", Presented in *13th international Conference on Quality (ICQ 2011)*, 6 - 7 January 2011, Bangalore.
15. "Optimization of Mobile Tower Utilization for a Telecom Service Provider: A Case Study", presented in *International Congress on Productivity, Quality, Reliability, Optimization and Modeling (ICPQROM 2011)*, 7 – 8 February, 2011, New Delhi.
16. "Arriving at Optimum Test Stopping Criteria using Software Reliability Modeling: A Case Study", accepted in *13th International Conference on Reliability and Quality in Design (ISSAT 2010)*, 5 – 7 August 2010, Washington DC, USA
17. "Optimization of Bench Strength for Software Company", Presented in *4th International Conference on Quality, Reliability and Infocom Technology: Trends and Future Directions (ICQRIT 2009)*, 18 – 20 December 2009 New Delhi.
18. "Forecasting Daily Call Volumes", presented in *National Conference on Tools & Techniques for Quality and Productivity Improvement*, 8 – 9 February 2005, New Delhi.

Ongoing Research Projects

- Design and development of a methodology for controlling critical sub processes in software development life cycle to achieve software quality and reliability goals

Ongoing Consultancy Assignments

1. Training and consulting in Business Analytics funded by *Tata Steel*
2. Training and consulting in Business Analytics funded by *Hewlett Packard Inc*
3. Training and consulting in Predictive Modeling funded by *Caterpillar India*
4. Six Sigma Certification Program funded by *UltraTech Cements Ltd.*
5. Training and consulting in Design of Experiments funded by *Toyota Industries Engine India Pvt Ltd*

Major Consultancy Assignments (Completed)

- Training and Consulting in Business Analytics: *Airbus India*, 2016 – 17
- Training and Consulting in Business Analytics funded by *Adani Power*, 2016 - 17
- Training and Consulting in Business Analytics: *L&T Infotech*, 2016 – 17
- Six Sigma Black Belt and Green Belt certification programs: *Huawei Technologies*, 2016 - 17
- Training and Consulting in Business Analytics: *Deloitte*, 2015 - 17
- Six Sigma Black Belt and Green Belt certification programs: *Hinduja Global Solutions*, 2016-17.
- Process Improvements through Six Sigma methodology: Project execution, *Infosys bpo*, 2012–14.
- Process Improvements through Six Sigma methodology: Training & Project execution, *Accenture Services*, 2010–13.
- Process Improvements through Six Sigma methodology: Training & Project execution. *Infosys bpo Ltd.* 2003 – 2011.
- Process Improvements through Six Sigma Methodology: Training & Project execution. *Hinduja Global Solutions Ltd.* 2009 – 2011.
- Development of Statistical approach for Service Level Agreement Baselineing. *Wipro Technologies Ltd*, 2009.
- Development of Process Performance Models: *Robert Bosch (India) Ltd*, 2001 – 03 & 2007 – 08.
- Development of Orthogonal Array based Software Testing Methodology. *Wipro Technologies Ltd*, 2004 – 06.
- Development of Residual Bugs Estimation Methodology using Software Reliability Modeling. *Wipro Technologies Ltd*, 2004 – 06.
- Statistical Data Analysis: *ITC Tobacco Technology Center*, 2004 – 05.
- Process improvements through Six Sigma methodology: Training & Project execution. *Harihar Polyfibers & Grasilene Division*, 2000 – 03

Major Teaching & Training Assignments (Completed)

- **General Programs**
 1. Foundation Course on Business Analytics using R: ISI, Hyderabad (2 batches)
 2. Foundation Course on Business Forecasting using R: 4 batches
 3. Program on Problem Solving using Design of Experiments: 5 batches
 4. Foundation Course on Business Analytics using R: 6 batches
 5. Foundation Course on Predictive Modeling using Python: 2 batch
 6. Program on Advanced Data Analysis using R (North-East): Agartala, Tripura
 7. Program on Advanced Data Analysis: North East: Imphal, Manipur
 8. Program on Advanced Data Analysis: Cochin
 9. Program on Data Mining and Business Analytics - North East: Aizawl, Mizoram

10. Program on Data Mining and Business Analytics: 10 batches (ISI, Mumbai)
11. Program on Statistics for Data Exploration and Modeling: 1 batch
12. Six Sigma Black Belt (with Lean) Training Program for IT / ITES Industries: 4 batches
13. Six Sigma Advanced Green Belt Training Program for IT / ITES Industries: 2 batches
14. Workshop on Statistical Techniques for Data Mining & Business Analytics: 12 batches
15. Workshop on Statistical Techniques for Software Metrics Analysis: 2 batches.
16. Workshop on Statistical Models & Techniques for Quantitative Project Management (QPM): 5 batches

- **Corporate Training Programs**

1. Program on Design of Experiments: *Syngene International 2018*
2. Advanced Course on Analytics: *Tata Steel 2018*
3. Foundation Course on Business Analytics using R: *Hewlett Packard Inc. 2018*
4. Foundation Course on Predictive Modeling using Python: *Caterpillar 2018*
5. Foundation Course on Business Analytics using R: *Ernst & Young 2018*
6. Program on Six Sigma Green Belt Certification: *Rajshree Cement Works 2018*
7. Program on Six Sigma Green Belt Certification: *Gujarat Cement Works 2018*
8. Program on Business Analytics: *Tata Steel 2018*
9. Program on Statistical Techniques: *Altran Technologies 2017*
10. Foundation Course on Business Analytics: *Tesco 2017*
11. Program on Design of Experiments: *Toyota Industries Engine India 2017*
12. Program on Business Analytics: *Airbus India 2017*
13. Program on Business Analytics: *Adani Power 2017*
14. Program on Design of Experiments: *Titan Jewellery Division 2017*
15. Program on Business Analytics: *L&T Infotech 2016-17*
16. Six Sigma Black Belt Certification Program: *Huawei Technologies 2016*
17. Program on Business Forecasting: *SIAM 2016*
18. Program on Business Analytics: *Deloitte 2016*
19. Program on Advanced Data Analysis: *Hewlett Packard Enterprise 2016*
20. Six Sigma Black Belt Certification Program: *Hinduja Global Solutions 2016*
21. Program on Business Analytics: *Infosys Technologies, 2016*
22. Program on Design of Experiments: *Hical Technologies, 2015*
23. Program on Business Analytics: *Infosys Technologies, 2015*
24. Program on Total Quality Management: *Tractors India Pvt Ltd. Kolkata, 2015.*
25. Program on Business Analytics: *TCS, 2015*
26. Six Sigma Green Belt Program: *Accenture, 2015*
27. Six Sigma Green Belt Program: *Huawei Technologies, 2015.*
28. Data Science program – *Samsung, 2015.*
29. Program on Statistics for Data Exploration and Modeling: *Deloitte, Mumbai, 2015.*
30. Program on Statistical Tools and Techniques for Six Sigma Green Belts: *Mindtree Solutions, 2015.*
31. Statistics for Data Exploration and Modeling: *Deloitte, Hyderabad, 2015.*
32. Program on Business Analytics: *Infosys Technologies, 2015.*
33. Six Sigma Green Belt Program: *Hinduja Global Solutions, 2015*

34. Program on Business Analytics: *Infosys Technologies*, 2014.
35. Six Sigma Green Belt Program: *Hinduja Global Solutions*, 2014
36. Program on Statistical Techniques for Business Intelligence: *Cross-domain Solutions Private Ltd*, 2014.
37. Program on Statistical Techniques for Business Intelligence: *Tally Solutions*, 2014.
38. Program on Statistical Tools and Techniques for Six Sigma Green Belts: *Mindtree Solutions*, 2014.
39. Program on Statistical Techniques for IT Analytics: *Honeywell Technology Solutions*, 2014
40. Statistical Techniques for Business Analytics: *Adobe Systems*, New Delhi, 2013
41. Six Sigma Black Belt Program: *Bharat Electronics*, 2013
42. Design For Six Sigma Program: *Bharat Electronics*, 2013
43. Six Sigma Black Belt Program: *TVS Motors*, Hosur, 2012.
44. Six Sigma Black Belt Program: *Barat Electronics*, Bangalore, 2012
45. Statistical Techniques for Business Analytics: *Apollo Munich*, New Delhi, 2012
46. Statistical Techniques for Data Mining & Business Analytics: *Hewlett Packard e Global Operations*, 2012.
47. Six Sigma Green Belt Program: *Visionet Systems*, 2012.
48. Statistical Models & Techniques for Quantitative Project Management. *Siemens Information Systems Ltd.*. 2011.
49. Statistical Techniques for Business Analytics. *Firstsource Solutions*, 2011.
50. Six Sigma Green Belt Program: *Accenture Services*, 2011.
51. Statistical Techniques for Business Analytics. *Microsoft India (R & D) Pvt Ltd.*, 2010.
52. Design of Experiments & Advanced Taguchi Methods. *Beceem Communications*. 2010.
53. Statistical Models & Techniques for Quantitative Project Management. *Beceem Communications*. 2010.
54. Six Sigma Green Belt Program. *Bharat Electronics*. 2010
55. Six Sigma Black Belt Program. *Hewlett Packard e Global*, 2010
56. Program on Business Analytics & Optimization Techniques. *Honeywell Technologies Ltd*. 2009.
57. Program on Business Analytics & Optimization Techniques. *Tesco HSC*. 2009.
58. Program on Software Reliability Modeling. *Cognizant Technologies Ltd*. 2009.
59. Program on Advanced Statistical Techniques for Six Sigma Black Belts. *First Source Solutions*. 2009.
60. Six Sigma Black Belt Training Program. *IBM Daksh*. 2008.
61. Program on Statistical Techniques for Software Metrics Analysis. *Unisys Global Services*. 2008.
62. Program on Quantitative Project Management. *Huawei Technologies*. 2008.
63. Program on Quantitative Project Management. *Cognizant Technologies Ltd*. 2008.
64. Program on Six Sigma Green Belt tools. *Wipro Technologies*. 2008.
65. Program on Statistical Techniques for Software Metrics Analysis. *Torry Harris Solutions*. 2007.
66. Program on Statistical Techniques for Software Metrics Analysis. *Cognizant Technologies Ltd*. 2007.
67. Program on Statistical Techniques for Software Metrics Analysis. *Unisys Global Services*. 2007.

68. Program on Statistical Techniques for Software Metrics Analysis. *Nokia Siemens Networks*. 2006

Invited talks / lectures delivered (2017 - 18)

1. Faculty Development Program on Predictive Modeling using R organized by Crescent Institute of Science and Technology, Chennai.
2. Workshop on Design of Experiments organized by CMTI, Bangalore
3. Faculty Development Program on R programming and Predictive Modeling organized by JSS Academy of Technical Education, Bangalore.
4. Faculty Development Program on Predictive Modeling using Python organized by Sri Ramakrishna Engineering College, Coimbatore
5. Workshop on Predictive Modeling using Python organized by RMK College of Engineering and Technology, Chennai
6. Workshop on Advanced Data Computing using R Programming organized by PSNA College of Engineering and Technology, Dindigul, Tamil Nadu

Software Skills

1. MS Excel and programming using Visual Basic for Applications (VBA)
2. Minitab
3. SPSS and Amos
4. R and R Studio
5. SAS
6. Python

Other Activities

- Editor in Chief, "The Beacon", National Institution for Quality & Reliability (NIQR) newsletter. 2005 – 2008.
- Associate Editor, SQC & OR Division Newsletter, 2008 – 2012.

Work Experience

1. Technical Officer Grade I (Since 2013) : Statistical Quality Control & Operations Research Unit, Indian Statistical Institute, Bangalore
2. Technical Officer Grade II (2009 - 2013) : Statistical Quality Control & Operations Research Unit, Indian Statistical Institute, Bangalore
3. Technical Officer Grade III (2004 - 2009) : Statistical Quality Control & Operations Research Unit, Indian Statistical Institute, Bangalore
4. Consultant (2003 – 2004): Infosys, Bangalore. Taken sabbatical from Indian Statistical Institute and worked for Infosys bpo as a full time consultant.
5. Technical Officer Grade III (1999 - 2003) : Statistical Quality Control & Operations Research Unit, Indian Statistical Institute, Bangalore

Awards and Recognition

- Best paper award for the paper titled "A methodology to qualitatively managing the agile software projects using Taguchi's loss function" at *3rd International Conference on Robust Quality Engineering (ICRQE 2017)*, 19 – 21 January, Bangalore.
- Best paper award for the paper titled "A methodology to qualitatively managing the bug fixing process using Mahalanobis – Taguchi System" at *2nd International Conference on Robust Quality Engineering (ICRQE 2014)*, 15 – 17 December, Bangalore.

Education

Degree	Subjects	University / Institute	Year
PhD	Mechanical Engineering Sciences	Visvesvaraya Technological University, Belagavi	2018
Master of Technology	Quality, Reliability & Operations Research	Indian Statistical Institute, Kolkata	1997
Master of Science	Statistics	Mahatma Gandhi University, Kottayam	1995