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EXPERIENCE

Principal Technologist - Statistician, Certified Six Sigma Quality Master Black Belt (MBB), General Electric Global Research Center, Niskayuna, NY, since 1990.

Responsible for providing leadership and new methodology to address key business concerns on quality, reliability and productivity improvement at all operating components of the General Electric Company. Typical projects:

- **Advanced Materials:** Proposed, initiated, and led R&D projects in the areas of thermoplastic resin product development, manufacturing quality improvement and productivity.
- **Corporation-wide:** Provided leadership for training in Design for Six Sigma for Business Processes.
- **Transportation Systems:** Led research on early detection of locomotive engine failures through embedded algorithms based on statistical modeling of parametric sensor data.
- **Media:** Developed and implemented methodology to address digital piracy at NBC/Universal.
- **Financial Services:** Led deployment in transactional and fulfillment processes at GE Capital Small Business Solutions; e.g., on-time delivery of credit decision and funding.
- **Aircraft Engines, Health Care, Energy:** Provided new methodology and guidance in implementation on key quality, reliability, and productivity improvement projects.
- Developed, published and/or patented applied research into reliability and life-testing, multivariate diagnostics, optimal control of short run processes, and identification of process change-points.

Adjunct Professor, Union Graduate College, School of Management, Schenectady, NY, since 2000.
Adj. Associate Professor 1995-2000; Adj. Assistant Professor 1991-1995.

M.B.A. Level Courses Taught: Quality Management Systems, Reliability Data Analysis, Experimental Design, Sampling, Time Series Analysis, Multivariate Statistical Analysis, Linear Statistical Models, Probability and Statistics.

PROFESSIONAL ACTIVITIES AND RECOGNITIONS

- William G. Hunter Award, American Society for Quality (ASQ), 2009.
- Elected Fellow of the American Society for Quality, 2008.
- Elected Fellow of the American Statistical Association (ASA), 1996.
- Elected Member of the International Statistical Institute (ISI), 1997.
- Associate Editor *Technometrics*, since 1995.
- Senior Editor *Quality Engineering*, since 2008; Associate Editor 2001-2008.
- Book: *The Role of Statistics in Business and Industry* co-authored with G.J. Hahn, Wiley, 2008.
- Publications: 45+ book chapters, articles and discussion papers, regular contributor to *Quality Progress*, numerous conference presentations.
- Associate Research Fellow, NIST/ASA/NSF, 1990-1991.
- 4 patents.

EDUCATION

- Ph.D. in Administrative and Engineering Systems (Major: Applied Statistics), 1989; M.S. in Operations Research and Applied Statistics, 1987, Union Graduate College, Schenectady, NY.
- M.B.A., 1985; B.Sc. (H.Hons) in Management, 1983, M.E.T.U. (Orta Dogu Teknik Universitesi), Ankara, Turkey.

BOOK

Hahn, G.J., N. Doganaksoy (2008). *The Role of Statistics in Business and Industry*, Hoboken, NJ: Wiley.

BOOK CHAPTERS

1. Doganaksoy, N. (1995). "Likelihood Ratio Based Confidence Intervals in Life-Data Analysis," Chapter 20 in *Recent Advances in Life-Testing and Reliability*, edited by N. Balakrishnan, Boca Raton, FL: CRC Press.
2. Nelson, W., N. Doganaksoy (1995). "Statistical Analysis of Life or Strength Data From Specimens of Various Sizes," Chapter 21 in *Recent Advances in Life-Testing and Reliability*, edited by N. Balakrishnan, Boca Raton, FL: CRC Press.
3. Nelson, W., N. Doganaksoy (1996). "Graphical Analyses of Reliability Data," Chapter 27 in *Handbook of Reliability Engineering and Management*, Second edition, edited by Clyde F. Coombs and Richard Y. Moss, New York, NY: McGraw - Hill.
4. Meeker, W., L. Escobar, N. Doganaksoy, G. Hahn (1998), "Reliability Concepts and Data Analysis," Section 48 in *Juran's Quality Handbook*, Fifth edition, edited by J. M. Juran and A. B. Godfrey, New York, NY: McGraw - Hill.
5. Hahn, G., N. Doganaksoy, R. Hoerl. (2001). "The Evolution of Six Sigma," *The Quality Yearbook*, edited by James W. Cortada and John A. Woods, New York, NY: McGraw - Hill.
6. Stein, J., N. Doganaksoy (2001). "Life-test Planning for Preliminary Screening of Materials: A Case Study," Chapter 26 in *Handbook of Statistics Volume: Advances in Reliability*, edited by C. R. Rao and N. Balakrishnan, Amsterdam, The Netherlands: North-Holland Series.
7. Agrawal, R., N. Doganaksoy (2001). "Analysis of Reliability Data from In-house Audit Laboratory Testing," Chapter 27 in *Handbook of Statistics Volume: Advances in Reliability*, edited by C. R. Rao and N. Balakrishnan, Amsterdam, The Netherlands: North-Holland Series.
8. Doganaksoy, N., G. Hahn, W. Q. Meeker (2006). "Assuring Product Reliability and Safety," Chapter in *Statistics: A Guide To The Unknown*, Fourth Edition, edited by R. Peck, G. Casella, G.W. Cobb, R. Hoerl and D. Nolan, Fourth Edition, Belmont, CA : Duxbury Press.

JOURNAL ARTICLES

1. Doganaksoy, N., J. Schmee (1991). "Comparisons of Approximate Confidence Intervals for the Smallest Extreme Value Distribution Simple Linear Regression Model under Time Censoring," *Communications in Statistics - Simulation and Computation*, Vol. 20, No. 4, 1085-1113.
2. Doganaksoy, N. (1991). "Interval Estimation from Censored and Masked System Failure Data," *IEEE Transactions on Reliability*, Vol. 40, No. 3, 280-286.
3. Doganaksoy, N., F. W. Faltin, W. T. Tucker (1991). "Identification of Out of Control Quality Characteristics in a Multivariate Manufacturing Environment," *Communications in Statistics - Theory and Methods*, Vol. 20, No. 9, 2775-2790.
4. Vander Wiel, S. A., W. Tucker, F. Faltin, N. Doganaksoy (1992). "Algorithmic Statistical Process Control: Concepts and an Application," *Technometrics*, Vol. 34, No. 3, 286-297.
5. Doganaksoy, N., J. Schmee (1993). "Comparisons of Approximate Confidence Intervals for Distributions Used in Life Data Analysis," *Technometrics*, Vol. 35, No. 2, 175-184.
6. Doganaksoy, N., J. Schmee (1993). "Orthogonal Parameters with Censored Data," *Communications in Statistics - Theory and Methods*, Vol. 22, No. 3, 669-685.
7. Doganaksoy, N., G. J. Hahn (1994). "Moving from Every Lot Inspection to Audit Sampling," *Journal of Quality Technology*, Vol. 26, No. 4, 261-273.
8. Doganaksoy, N. (1995). "Determining the Duration of a Demonstration Life-test Before All Units Fail," *IEEE Transactions on Reliability*, Vol. 44, No. 1, 26-30.
9. Doganaksoy, N., G. J. Hahn (1996). "Evaluating the Impact of Blending on Product Consistency," *Journal of Quality Technology*, Vol. 28, No. 1, 51-60.

10. Doganaksoy, N., J. Schmee, M. VanDeven (1996). "Process Monitoring with Multiple Product Grades," *Journal of Quality Technology*, Vol. 28, No. 3, 346-355.
11. Doganaksoy, N., N. Balakrishnan (1997). "A Useful Property of Best Linear Unbiased Predictors with Applications to Life-testing," *The American Statistician*, Vol. 51, No. 1, 22-28.
12. Doganaksoy, N., M. VanDeven (1997). "Process Monitoring with Multiple Products and Production Lines," *Quality Engineering*, Vol. 9, No. 4, 689-702.
13. Doganaksoy, N., W. Nelson (1998). "A Method to Compare Two Samples of Recurrence Data," *Life Data Analysis*, Vol. 4, 51-63.
14. Stein, J., N. Doganaksoy (1999). "Sample Size Considerations for Assessing the Equivalence of Two Process Means," *Quality Engineering*, Vol. 12, No. 1, 105-110.
15. Lifshin, E., N. Doganaksoy, J. Sirois, R. Gauvin (1999). "Statistical Considerations in Microanalysis by Energy-dispersive Spectrometry," *Microscopy and Microanalysis*, Vol. 4, No. 6, 598-604.
16. Hahn, G., N. Doganaksoy, R. Hoerl. (2000). "The Evolution of Six Sigma," *Quality Engineering*, Vol. 12, No. 3, 317-326.
17. Doganaksoy, N. (2000). "Assessment of Impact of Measurement Variability in the Presence of Multiple Sources of Product Variability," *Quality Engineering*, Vol. 13, No. 1, 83-89.
18. Koksoy, O., N. Doganaksoy (2003). "Simultaneous Optimization of Mean and Standard Deviation in Response Surface Experimentation," *Journal of Quality Technology*, Vol. 35, No. 3, 239-252.
19. Doganaksoy, N. G.J. Hahn (2008). "Data Mining: A Gateway to Better Data Gathering," *Statistical Analysis and Data Mining*, Vol. 1, No. 4, 280-283.

QUALITY PROGRESS STATISTICS ROUNDTABLE ARTICLES

1. Hahn, G. J., N. Doganaksoy, W. Q. Meeker (1999). "Reliability Improvement: Issues and Tools," *Quality Progress*, May issue, 133-139.
2. Doganaksoy, N., G. Hahn, W. Q. Meeker (2000). "Reliability (or Product Life) Data Analysis: A Case Study," *Quality Progress*, June issue, 115-121.
3. W. Q. Meeker, N. Doganaksoy, G. J. Hahn (2001). "Using Degradation Data for Product Reliability Analysis," *Quality Progress*, June issue, 60-65.
4. Hahn, G. J., N. Doganaksoy, C. Stanard (2001). "Statistical Tools for Six Sigma," *Quality Progress*, September issue, 78-82.
5. Doganaksoy, N., W. Meeker, G. Hahn (2002). "Divide and Conquer: Reliability Analysis by Individual Failure Modes," *Quality Progress*, June issue, 47-52.
6. Hahn, G. J., W. Q. Meeker, N. Doganaksoy (2003). "Speedier Reliability Analysis," *Quality Progress*, June issue, 58-64.
7. Hahn, G. J., W. Q. Meeker, N. Doganaksoy (2004). "Planning Life Tests for Reliability Demonstration," *Quality Progress*, August issue, 80-82.
8. W. Q. Meeker, G. J. Hahn, N. Doganaksoy, (2005). "Planning Reliability Assessment", *Quality Progress*, June issue, 90-93.
9. Doganaksoy, N., Gerald J. Hahn and William Q. Meeker (2006). "How to Analyze Reliability Data for Repairable Products," *Quality Progress*, June issue, 93-95.
10. Doganaksoy, N., Gerald J. Hahn and William Q. Meeker (2006). "Improving Reliability Through Warranty Data Analysis," *Quality Progress*, November issue, 63-67.
11. Doganaksoy, N., G. Hahn, W. Q. Meeker (2007). "Reliability Assessment by Use-Rate Acceleration," *Quality Progress*, June issue, 74-76.
12. Doganaksoy, N., Gerald J. Hahn and William Q. Meeker (2008). "Proactive Product Servicing," *Quality Progress*, November issue, 60-62.

13. Doganaksoy, N., Gerald J. Hahn and William Q. Meeker (2006). "Divide and Conquer in Reliability Analyses: Gain Understanding by Looking at Different Population Segments," *Quality Progress*, November issue.

SIX SIGMA FORUM MAGAZINE ARTICLES

1. Hahn, G. J., N. Doganaksoy. (2005). "What's Missing in Six Sigma?" *Six Sigma Forum Magazine*, November issue, 35-37.
2. Hahn, G. J., N. Doganaksoy. (2006). "Adding to the Six Sigma Statistical Toolkit," *Six Sigma Forum Magazine*, August issue.

INVITED DISCUSSIONS

1. Iversen, A. M., J. T. LaForte, R. Draper, D. G. McLaren, R. H. Rehder, N. Doganaksoy, C. W. Reed (1992). Discussion of "Relationship Between Results of Partial Discharge Pulse Height Analysis and Subsequent Voltage Endurance of Stator Bars and Coils," by W. McDermid and J. C. Bromley, *IEEE Transactions on Energy Conversion*, Vol. 7, No. 4, 728-729.
2. Hahn, G. J., N. Doganaksoy (1995). Discussion of "Shewhart-type Charts in Non-standard Situations," by Kit C. B. Roes and J. M. M. Does, *Technometrics*, Vol. 37, No. 1, 29-31.
3. Hoerl, R., G. Hahn, N. Doganaksoy (1997). Discussion of "New Pedagogy and New Content: The Case of Statistics," by D. S. Moore, *International Statistical Review*, Vol. 65, No. 2, 147-153.
4. Doganaksoy, N., G. J. Hahn (1999). Discussion of "Statistics as a Catalyst to Learning by Scientific Method," by G. Box and P. Liu and "Response Surface Methodology – Current Status and Future Directions," by R. H. Myers, *Journal of Quality Technology*, Vol. 99, No. 1, 47-53.
5. Doganaksoy, N., J. Schmee (2000). "Practical Aspects of Corrected Likelihood Ratio Confidence Intervals: A Discussion of Jeng-Meeker and Wong-Wu," *Technometrics*, Vol. 42, No. 2, 156-159.
6. Hahn, G. J., N. Doganaksoy (2008). "The Future of Industrial Statistics: A Panel Discussion," edited by D. M. Steinberg, *Technometrics*, Vol. 50, No. 2, 103-127.
7. Hahn, G. J., N. Doganaksoy (2009). Discussion of "Quality Management and Quality Practice: Perspectives on their History and their Future," by N. I. Fisher and V. N. Nair, *Applied Stochastic Models in Business and Industry*, Vol. 25, No. 1, 29-32.

COMMENTARIES AND INTERVIEWS

1. Hahn, G. J., N. Doganaksoy, R. Lewis, J. E. Oppenlander, J. Schmee (2009). "Numbers in Everyday Life: A Short Course for Adults," *Amstat News*, February issue, 16-19.
2. Doganaksoy, N. (2009). "A Conversation with Gerry Hahn," *Quality Engineering* (in print).

BOOK REVIEWS

1. Doganaksoy, N. (1993). Review of "Process Improvement in the Electronics Industry," by Y. Fasser and D. Brettner, *Technometrics*, Vol. 35, No. 3, 334-335.
2. Doganaksoy, N. (1995). Review of "Handbook of Reliability Engineering," by I. A. Ushakov and R. A. Harrison, *Journal of the American Statistical Association*, Vol. 90, No. 430, 804.
3. Doganaksoy, N. (1995). Review of "How to Perform Skip-Lot and Chain Sampling," by K. S. Stephens, *Journal of Quality Technology*, Vol. 27, No. 4, 394-395.
4. Doganaksoy, N. (1998). Review of "Quality and Reliability of Technical Systems: Theory, Practice, Management," by A. Birolini, *Technometrics*, Vol. 41, No. 2, 171-172.
5. Doganaksoy, N. (2001). Review of "HALT, HASS and HASA Explained: Accelerated Reliability Techniques," by H. McLean, *Technometrics*, Vol. 43, No. 4, 489-90.
6. Doganaksoy, N. (2003). Review of "Recurrent Events Analysis for Product Repairs, Disease Recurrences, and Other Applications," by Wayne B. Nelson, *Journal of Quality Technology*, Vol. 35, No. 2, 231-232.

7. Doganaksoy, N. (2004). Review of “Weibull Models,” by D. N. Prabhakar Murthy, Min Xie, Renhan Jiang, *Technometrics*, Volume 46, No. 1, 485-486.
8. Doganaksoy, N. (2005). Review of “Practical Reliability Engineering,” by Partick D. T. O’Connor, *Quality and Reliability Engineering International*, Volume 21 No. 8, 841.
9. Doganaksoy, N. (2006). Review of “Process Quality Control: Troubleshooting and Interpretation of Data, Fourth edition, by Ellis R. Ott, E. G. Schilling, and D. V. Neubauer, *Journal of Quality Technology*, Volume 38, No. 1, 76-78.

PATENTS

1. Gur Ali, O., F. Faltin, N. Doganaksoy (1998). “System and Method for Estimating a Change Point Time in a Manufacturing Process,” U.S. Patent 5,841,676.
2. Stein, J. W., N. Doganaksoy (2002). “Processor and method for Determining the Statistical Equivalence of the Respective Mean Values of Two Processes,” U.S. Patent 6,434,511.
3. Early, T. A., N. Doganaksoy, J. A. DeLuca (2002). “Method and Apparatus for Calculating Confidence Intervals,” U.S. Patent 6,840, 808.
4. Loman, J.M., N. Doganaksoy, G.J. Hahn, T.A. Hauver, O.A. Hasan (2003). “Method for Applying Design for Reliability into Design for Six Sigma,” U.S. Patent 6,571,202.