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Qualifications

- Ph. D. Indian Statistical Institute, Kolkata
- PG Diploma, M. Stat., B. Stat. (Honours)
Indian Statistical Institute, Kolkata
- Specialist Development Fellowship in Statistical
Quality Control and Operations Research,
Indian Statistical Institute.

Positions

- Senior Technical Officer, Indian Statistical Institute
- Head, SQC & OR Unit, Hyderabad (1999 – 2000)
- Adjunct Professor, CR Rao Advanced Institute of Mathematics,
Statistics and Computer Science (2009-10)
- Member, Evaluation Committee, Rajiv Gandhi National Quality Award
- Member, Academic Council, Indian Statistical Institute
- Member, JRF Committee (QR & OR), Indian Statistical Institute
- Member, Board of Studies in Statistics, Osmania University (2007-2010)
- OR Subject Matter Expert to M/s Sankhya Infotech Limited (2001)
- Member, Data Safety Monitoring Board Charter, Bharat Biotech International Limited.

Areas of Interest

- Promoting applications of OR and Statistics in industry by modeling industrial problems; training industrial personnel; undertaking focused improvement projects,
- Theoretical research in Mathematical Programming (linear and semidefinite linear complementarity problem),
- Teaching Statistics and OR topics at post graduate level.

[Detailed CV](#)

Curriculum Vitae

G S R Murthy (Gudimella Sree Ramachandra Murthy)

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Indian Statistical Institute

Contact

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Academic Qualifications

- Ph. D. Indian Statistical Institute, Kolkata (1992-1995)
- PG Diploma (1983), M. Stat. (1981-83), B. Stat. (Honours) (1978-81), Indian Statistical Institute, Kolkata
- Specialist Development Fellowship in Statistical Quality Control and Operations Research (1984-1986), Indian Statistical Institute.

Positions

- Senior Technical Officer (current, from 1997)
- Head, SQC & OR Unit, Hyderabad (1999 – 2000)
- Technical Officer, Gr.I (1993 – 1997)
- Technical Officer, Gr.II (1986 – 1993)
- Adjunct Professor, CR Rao Advanced Institute of Mathematics, Statistics and Computer Science (2009-2010)
- Guest Faculty at Central University of Hyderabad
- Member, Evaluation Committee, Rajiv Gandhi National Quality Award
- Member, Academic Council, Indian Statistical Institute
- Member, JRF Committee (QR & OR), Indian Statistical Institute
- Member, Board of Studies in Statistics, Osmania University (2007-2010)
- OR Subject Matter Expert to M/s Sankhya Infotech Limited (2001)
- Member, Data Safety Monitoring Board Charter, Bharat Biotech International Limited.

Areas of Interest

- Promoting applications of OR and Statistics in industry by modeling industrial problems; training industrial personnel;
- Undertaking focused improvement projects using OR techniques and Statistics (Probability, Reliability, Inference, Multivariate Statistics),
- Development of software tools for decision support systems in industrial applications,
- Theoretical research in Mathematical Programming (linear and semidefinite linear complementarity problem),
- Teaching Statistics and OR topics at post graduate level.

Consultancy

- Have been providing consultancy for the last 30 years for a wide variety of industrial organizations covering electronics, textiles, automobiles, process industries, apparel industry, foundry, software etc. **Past clients:** BHEL, HMT, Simpsons, TAFE, TANFAC Industries Ltd., Elcot Power Controls Ltd., ICF, KCP, FAL Industries Ltd., Sri Lakshmisaraswathi Textiles, ICL, Satyam etc.
- Worked as OR Subject Matter Expert for M/s Sankhya Infotech Limited on OR application projects.
- **Present Clients:** ITC Ltd., Bharat Biotech International Ltd., Birla Tyres Ltd.
- **Government Projects:** Undertook two important Government projects: (i) project on determination of sample size and samples of retail outlets across India for the study of estimating the extent of spurious drugs prevailing in India (2009) and (ii) project relating to estimation and development of methodology for estimating agricultural power consumption by farmers in Andhra Pradesh (AP), India (2002-2007). In the case of project (i), based on the recommendations made by us, the Central Drugs Standard Control Organization of India conducted a survey and reported the results to the Parliament of India. In case of project (ii), Government of AP directed the distribution companies, following our recommendations, to implement the methodology developed by us.

Course Material

Prepared the following course material, most of them at the request of Indira Gandhi National Open University (IGNOU) as text material for their undergraduate courses.

- Statistical Quality Control (for IGNOU)
- Regression Analysis (for IGNOU)
- Forecasting and Time Series Analysis (for IGNOU)
- Analysis Of Variance - One-Way Classification (for IGNOU)
- Dynamic Programming (for IGNOU)
- Integer Linear Programming (for IGNOU)
- Matrix Classes in Linear Complementarity Problem (for ISI workshop)
- Linear Programming, Lecture Notes
- Nonlinear Programming, Lecture Notes

Foreign Visits for Collaborative Research/Consultancy

- **1994:** University of Michigan, Ann Arbor; Georgia Institute of Technology, Atlanta, Worcester Polytechnic Institute, Worcester,
- **1997:** University of Maastricht, Maastricht; Ecole Polytechnique University, Laussane, Switzerland,
- **2000:** University of Illinois, Chicago, University of Maryland, Baltimore ,
- **2002:** Emirates Airlines, Dubai (consultancy work),
- **2013:** University of Michigan, Ann Arbor, Georgia Institute of Technology, Atlanta

Publications

1. "On Fully-semimonotone Matrices," G S R Murthy, T Parthasarathy and R Sridhar, *International Game Theory Review Vol. 15, No. 4 (2013) pp.15-28*, World Scientific Publishing Company.
2. "Complementarity Problems And Positive Definite Matrices," P Bhimasankaram, A L N Murthy, G S R Murthy and T Parthasarathy, *Algorithmic Operations Research Vol.7 (2013) 94–102*
3. "Designing Earth Dams Optimally," G S R Murthy, K G Murthy and G Raghupathy, *40th Anniversary Volume of IAPQR Transactions (2013) pp.91-126*.
4. "A network Flow Model for Irrigation Water Management" A L N Murthy and G S R Murthy, *Algorithmic Operations Research Vol.0 (2013) 1–11*.
5. "Optimization in $2^m 3^n$ Factorial Experiments" G S R Murthy and D K Manna, *Algorithmic Operations Research Vol.0 (2013) 1–12*.
6. "OR Applications – Some Case Studies," G S R Murthy, to appear in the proceedings of Advanced Workshop and Tutorial on Operations Research (AWTOR), 2012.
7. "Power in Statistics," G S R Murthy, *Proceedings of International Conference on Frontiers of Interface Between Statistics & Sciences, Hyderabad, December 30, 2009 – January 2, 2010*, Vol.1: 399-406.
8. "A Statistical Procedure for Minimizing In Vivo Tests," V Krishna Mohan and G S R Murthy, *December 2009, Technical Report, Indian Statistical Institute, Hyderabad*.
9. "Decision Support Systems for Industry," G S R Murthy, *News Letter, Indian Statistical Institute, SQC & OR Division, No.2, Vol. 14, August 2008*.
10. "A Phase III Study to Evaluate the Safety and Efficacy of Recombinant Human Epidermal Growth Factor (REGEN-DTM 150) in Healing Diabetic Foot Ulcers," Vijay Viswanathan, Sharad Pendsey, N Sekar, G S R Murthy, *WOUNDS 2006; 18(7): 186-196*.
11. "An Application of Gumbel's Bivariate Exponential Distribution in Estimation of Warranty Cost of Motor Cycles," Surajit Pal and G S R Murthy, *International Journal of Quality and Reliability Management, Vol. 20 No.4 (2003) 488-502*.
12. "On the connectedness of solution sets of parametrized equations and of solution sets in linear complementarity problems," M Seetharama Gowda, G S R Murthy and T Parthasarathy, *Complementarity: Applications, Algorithms and Extensions* edited by M. C. Ferris et al. (eds.), Chapter~8, 165-177, © 2001 Kluwer Academic Publishers.
13. "On the solution sets of linear complementarity problems" G S R Murthy, T Parthasarathy and B Sriparna, *SIAM J. MATRIX ANAL. APPL.*, Vol.21, No.4 (2000) 1229-1235.
14. "Principal Pivoting Method for Solving Column Sufficient Complementarity Problems" by A L N Murthy and G S R Murthy, *SIAM J. MATRIX ANAL. APPL.*, Vol.22, No.2 (2000) 527-532.
15. "A note on Lipschitzian and P_1 -matrices" G S R Murthy, S K Neogy and Frank Thuijsman, *SIAM J. MATRIX ANAL. APPL.*, Vol.21, No.2 (1999) 636-641.
16. "Some recent results on the linear complementarity problem" G S R Murthy, T Parthasarathy and B Sriparna, *SIAM J. MATRIX ANAL. APPL.*, Vol.19, No.4 (1998) 898-905.

17. "Fully Copositive Matrices," G S R Murthy and T Parthasarathy, *Mathematical Programming* 82 (1998) 401-411.
18. "Constructive characterization of Lipschitzian \mathbf{Q}_0 -matrices," G S R Murthy, T Parthasarathy and B Sriparna, *Linear Algebra and its Applications* 252:323-337 (1997).
19. "A chain condition for \mathbf{Q}_0 -matrices," A K Biswas and G S R Murthy, T Parthasarathy et al.(eds.). *Game Theoretical Applications to Economics and Operations Research*, © Kluwer Academic Publishers (1997) 153-156.
20. "Linear complementarity problems in static and dynamic games," G S R Murthy, T Parthasarathy and B Sriparna, in *Advances in dynamic games and applications* (Kanagawa, 1996), 289--301, Birkhauser Boston, Boston, MA, 2000; CNO 1770179.
21. "Lipschitzian \mathbf{Q} -Matrices Are \mathbf{P} -Matrices," G S R Murthy, T Parthasarathy and M Sabatini, *Mathematical Programming* 74 (1996) 55-58.
22. "Optimization in PCB manufacturing," G S R Murthy and K G Murty, *ISI Technical Report, October, 1996*.
23. "Some Properties of Fully Semimonotone, \mathbf{Q}_0 -Matrices," G S R Murthy and T Parthasarathy, *SIAM J. MATRIX ANAL. APPL.*, Vol.16, No.4 (October 1995) 1268-1286.
24. "Copositive, Semimonotone \mathbf{Q} -Matrices," G S R Murthy, T Parthasarathy and G Ravindran, *Mathematical Programming* 68 (1995) 187-203, North-Holland.
25. "A Note on Negative Lipschitzian Matrix," G S R Murthy, T Parthasarathy and M Sabatini, *Opsearch* Vol.31, No.3 (1994) 237-239.
26. "Some Contributions to the Linear Complementarity Problem," *Ph. D. Thesis*, 1994 (thesis supervisor Professor T Parthasarathy, ISI, Delhi).
27. "A Note on Sufficient conditions for \mathbf{Q}_0 and $\mathbf{Q}_0 \cap \mathbf{P}_0$ -Matrices," G S R Murthy, *Mathematical Programming* 61 (1993) 345-349, North-Holland.
28. "A Copositive \mathbf{Q} -Matrix which is not \mathbf{R}_0 ," G S R Murthy, T Parthasarathy and G Ravindran, *Mathematical Programming* 61 (1993) 131-135, North-Holland.
29. "Analysis of Orthogonal Array Data with Unequal Replicates," G S R Murthy, *ISI Technical Report*, November, 1990,
30. "SN Ratios - A Simulation Study," G S R Murthy, *Studies in Quality & Optimization, ISI*, No.3, 1990.
31. "Critical Values for Process Capability Ratio," D K Manna and G S R Murthy, *Studies in Quality & Optimization, ISI*, No.8, 1990.