

## **Dr. S. B. Munoli**

*Academic Qualifications:* M. Sc. , M. Phil., Ph. D. in Statistics.

*Present Position:* Professor of Statistics (since 11-03-2011).

*Date of Joining Services:* 11-03-1996 as Lecturer in Statistics, KUD.

*Research Areas of Interest:* Reliability Theory-modelling, assessment; Stochastic Processes and their applications; Optimal Control Analysis; Survival Models

*Research Publications:* 41

*Chapter in the book:* 01

*Popular Articles:* 07

(one article written in Kannada on **Reliability Theory** bagged Mastivenkatesh Iyyengar memorial prize awarded by National Aerospace Laboratories in 2009)

*Study Material Prepared:* 01 (On **Reliability Theory** for Statistics teachers in colleges)

Citations 81, h-index 5, i10-index 5

*Ph. D. guided:* 05

*Ph. D. presently guiding:* 02

*Conference/Seminars attended and presented papers:* 38

*Invited speaker at Conference/Seminars:* 18

*Resource Person at workshops/Spl Lectures delivered at other Universities:* 15

*Research Projects:* 01(UGC-1.05 lakhs-2010-2011).

*Service to Karnatak University:*

Worked as Chairperson of Department, BOS, BOE; Co-ordinator of UGC-SAP-BSR project; Co-ordinator of International Diploma in Reproductive Health Management; Committees of NAAC, IQAC, Convocation, Gymkhana, Youth Festivals; Warden of Ladies Hostel, etc..

*Service to other Universities/Boards:*

Worked as member/examiner on BOS and BOE for various universities.

### **Details of Papers Published in Peer Reviewed Journals:**

1. 2022- Estimation of Change Points in Hazard Rates, Advances and Applications in Statistics. 75, 79-90
2. 2022- Burden of COVID-19 DALY and Productivity Loss for Karnataka, India. Indian Journal of Public Health.
3. 2021-A control theory based analysis of repairable system. Int. J. Agricult. Stat. Sci. Vol 17, Suppl 1, 957-965.

4. 2021- Deterministic and Stochastic Models for Unemployment. Journal of Applied Probability and Statistics. Vol. 16, No. 1. 31-46.
5. 2020-Mortality among the early cases of COVID-19 and its association with key comorbidities in a large state in south India. International Journal of Community Medicine and Public Health. Oct, 7(10):3882-3886.
6. 2020-Effectiveness of lockdown on spread of COVID-19 in India – A statistical analysis. International Journal of Research and Analytical Reviews(IJRAR), vol 7, Issue 2. 901-904.
7. 2020-Survival Analysis of SARS-COV-2 in Infected Population of Karnataka State of India. American Journal Pharmtech Research , 10 (4).
8. 2020- Optimal Control Analysis of Unemployment Models- A Stochastic Approach, International Journal of Mathematics and Statistics, Vol 21, Issue 3 , 38-49.
9. 2019 - Optimal Control Analysis for Stochastic Unemployment Model, International Journal of Mathematics and Statistics, Vol 20, Issue 2 , 61-75.
10. 2019 – Modelling and Assessment of Survival Probability of Shock Model with Two Kinds of Shocks, Open Journal of Statistics, 9, 484-493.
11. 2017- A mathematical approach to employment policies: An optimal control analysis. International Journal of Statistics and Systems (IJSS). ISSN 0973-2675, Vol 12, Num 3. 549-565.
12. 2016- Estimation of reliability in an accumulating damage shock model for a two-out-of-three component system: damages follow geometric distribution : KU Science Journal. Vol 50. ISSN: 0075-5168. 95-99
13. 2016-time series analysis of casual relationship between inflation and unemployment in the SAARC countries. International Journal of Current research. ISSN: 0975-833X, 36917-36920.
14. 2016- Estimation of Reliability for Stress-Strength Cascade Model; Open Journal of Statistics. Scientific Research Publishing. ISSN: 2161-7198, 873-881.
15. 2015-Optimal control analysis of a mathematical model for unemployment. Optimal Control Applications and Methods; Wiley Online Library .
16. 2015- Reliability estimation of a system of  $(2+1)$  components with single repair facility and reboot delay, Karnatak University Journal of Science. Vol 50. ISSN: 0075-5168. 40-47.
17. 2013- Reliability estimation for lightly loaded standby system of  $(k+1)$  components and an imperfect switch with single repair facility. Opinion- International Journal of Business Management ISSN:2231-5470. 67-78.

18. 2012 – Estimation of reliability in an accumulating damage shock model for a two-out of-three component system. *Journal of Statistics Science* Vol. 4 no. 2. ISSN: 0975-1661.
19. 2011- Estimation of reliability for a two Component Survival Stress-Strength Model. *International Journal of Quality, Statistics and Reliability*. (Foreign: Hindawi Publishing Corporation, UK) Volume 2011, 1-8.
20. 2011- Reliability Estimation in Bivariate Stress Passing Model with Single Repair Facility. *Global Journal of Engineering and Applied Sciences*. Vol1(3), 129-132. ISSN:2249-2631
21. 2011- Reliability Estimation in Shock Model when Successive Shocks Cause Greater Damage (Non-accumulating Damages) *Research Journal of Mathematics and Statistics*. 3(1):61-66. (Foreign: Maxwell Scientific Organisation, UK) ISSN:2040-7505
22. 2011-Reliability Estimation of Two Components and an Imperfect Switch Lightly Loaded Standby System with Single repair Facility. *Proceedings of International Congress on Productivity, Quality, Reliability, Optimization and Modelling*, 7-8 February,2011 ISI SQC & OR Division, New Delhi.
23. 2011-Estimation of Reliability in a Non-accumulating Damage Shock Model for a Two-out-of-Three Component System. *Proceedings of International Congress on Productivity, Quality, Reliability, Optimization and Modelling*, 7-8 February,2011 ISI SQC & OR Division, New Delhi.
24. 2010-Estimation of Reliability in Non-accumulating Damage Shock Model. *Arya Bhatta Journal of Mathematics & Informatics*, ISSN: 0975-7139. Vol 2, 175-181
25. 2010 – Reliability Prediction in Fatal and Non-fatal Shock Model. *Arya Bhatta Journal of Mathematics and Informatics*. Vol 2, No. 2, 255-260. ISSN 0975-7139
26. 2009 – Estimation of reliability in non-accumulating damage shock model for two-component (non iid) parallel system. *Research Journal of Mathematics and Statistics*. 1 (1):23-26. (Foreign: Maxwell Scientific Organisation, UK) ISSN:2040-7505
27. 2008 – A note on two simple efficient tests for testing exponentiality against increasing failure rate alternatives. *International Journal of Agricultural Statistical Science*. ISSN: 0973-1903. Vol. 4, 163-168.

28. 2008 – Estimation of Reliability in non-accumulating damage shock model with random threshold. *International Journal of Agricultural Statistical Science*. ISSN: 0973-1903. Vol. 4, 181-185.
29. 2007 – Estimation of Reliability in  $(k+1)$  component lightly loaded standby system with single repair. *Commun. Statist. – Theory Meth.* 36(1),193-202.
30. 2007 – Estimation of system survival function with specified number of shocks. *J. Prob. and Stat. Science*. Vol. 5 No. 1., 49-58.
31. 2007 – Estimation of system reliability in fatal and non-fatal shock model. *Assam Statistical Review*. Vol. 21, 184-193.
32. 2007 – Estimation of survival probability with specified number of shocks. *JP Journal of Biostatistics*. Vol. 1, 197-204.
33. 2006 – Estimation of reliability in non-accumulating damage shock model. *Far East J. Theor. Stats.* 19(2), 273-279.
34. 2005-06 – Estimation of reliability for three component lightly loaded standby system with single repair. *Karnatak University Journal of Science*. Vol. 45/46, 90-96.
35. 2005-06 – Estimation of reliability in fatal and non-fatal shock model. *Karnatak University Journal of Science*. Vol 45/46, 97-102.
36. 2005 – Estimation of reliability in fatal and non-fatal shock model for two-component parallel system. *Refereed Proceedings of Volume of National Seminar on Recent Developments in Statistical Science*. 93-97.
37. 2004 – Estimation of reliability in three component lightly loaded standby system. *Karnatak University Journal of Science* Vol. 44. 12-17.
38. 1997 – Estimation of a two-unit lightly loaded standby system. *Refereed Proceedings of the National Conference on Quality and Reliability (NCQR- 97)* 67-73.
39. 1994 – Estimation of reliability in Freund model for two-component system. *Commun. Statist.- Theory Meth.* 23(11), 3273-3283.
40. 1993 – Estimation of reliability in a shock model for a two component system. *Statistics and Probability Letters*. 17, 35-38.
41. 1993 – Estimation of reliability for a multicomponent survival stress strength model based on exponential distributions. *Commun. Statist., Theory Meth.*, 22(3), 769-779.

42. **Chapter in the book:** 2012-Testing of Hypotheses in the Book “STATISTICAL METHODS FOR COMMUNICATION SCIENCE” ISBN: 978-81-923859-0-7
43. **Study Material Prepared:** On **Reliability Theory** for Statistics teachers in colleges

**Popular articles: (Kannada/English)**

1. 2006- Anantateya parikalpane hahoo sankhyashastradalli adar pariganane. Suvarna Karnatak volume of ‘KANAD’ ( a Kannada Science magazine).
2. 2006- Sankhyashastradallin halavu notagal melin kshanik darshan. Proceedings of Second Vijnan Sammelana. 25.
3. 2006- Vividh shastragala adhyayanadalli sankhyashastrada patra Proceedings of Second Vijnan Sammelana. 25.
4. 2006- The idea of infinity in Statistics. Proceedings of Triadic Conference. 77-78.
5. 2005- Statistics is inevitable for higher studies in social sciences. Proceedings of the National Seminar on Higher Education in India Emerging Challenges. 155-160.
6. 2005- Sthirarashirahit sankhik anuman- Suvrna Karnataka Volume of Books by Bangalore University.
7. 2009- Nambalarhata vadatatva hahoo sankhyashastriya asaphalata madarigalu- ‘KANAD’ ( a Kannada Science magazine) – Dr. Mastivenkatesh Iyengar Meorial Prize Winning Article.