**A REPORT ON ACADEMIC ACTIVITIES UNDER THE ERUDITE SCHEME**

The Department of Statistics, CUSAT has been actively participating in the KSCTEC “Scholar in Residence” scheme of Kerala State Council since 2009. Thirteen eminent scholars visited the department under this scheme. These scholars delivered research talks in the departments and the neighboring universities and colleges of the state. The department has benefitted tremendously in terms of,

* Research Collaborations leading to publications of Books in specialized areas and research papers in reputed journals.
* Further exposure to latest topics of research and acquire advanced knowledge state of art, thereby elevating the research to a higher level.
* Exposure to students to take up research in reputed institutes and to find mentors for their careers.
* Visibility of the faculties and the department in the International Scenario.
* Bringing in further eminent scholars to visit the Department.

**LIST OF EMINENT SCHOLARS VISITED STATISTICS DEPARTMENT DURING THIS PERIOD**

* **Prof. S. P. Mukherjee (11-19 October, 2009)**

Department of Statistics, Calcutta University 35, Ballygunge Circular Road,

Kolkata – 700019

* **Prof. N. Balakrishnan (15-21 November, 2009)**

Professor of Statistics, Department of Mathematics and Statistics,

McMaster University, Hamilton, Ontario, Canada L8S 4K1

* **Prof. R. C. Nair (14-19 December, 2009)**

Faculty of Medicine, University of Ottawa, 117-85 Peter Morand Dn,

Ottawa, Ontario K1G 5Z3 Canada

* **Prof. Bovas Abraham (12-22 January, 2010)**

Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1

* **Prof. Hira Lal Koul (17-23 December, 2010)**

Department of Statistics and Probability, Michigan State University,

East Lansing, MI, 48824-1027, USA

* **Prof. J. S Rao (10-15 January, 2011)**

Department of Statistics and Applied Probability, University of California, Santa Barbara, CA 93106-3110, USA

* **Prof. Jorge Navarro (31 Jan to 5 Feb, 2011)**

Department of statistics and Operation Research,

Universidad de Murcia, 30100 Espinardo, Murcia, Spain

* **Prof. Debasis Kundu (21-25 February, 2011)**

Department of Mathematics and Statistics, I.I.T. Kanpur

* **Prof. Vijay Nair (21-26 March, 2011)**

Department of Statistics, 453 West Hall, The University of Michigan,

Ann Arbor, MI 48109-1092 (734) 763-8018, USA

* **Prof. Malay Ghosh (2-7 March, 2015)**

Department of Statistics, University of Florida223, Grin Floyd Hall , P.O. Box 8545,Gaineshville, FL 32611-8545, USA

* **Prof. Jose Maria Sarabia (6-12 December, 2015)**

Department of Economics, University of Cantabria, Spain

* **Prof. Jason P. Fine (4-8 December, 2017)**

Professor, University of North California, USA

* **Prof. Felix Belzunce Terregrosa (14-20 January, 2018)**

Professor, Universidad de Murcia, Spain

**Research Publications**

1. **P.G.Sankaran** and Debasis Kundu: On a bivariate Pareto distribution, Statistics, 2013.
2. Jammalamadaka, S. Rao, Sundaresan Nair Prasad, and **Paduthol Godan Sankaran**., A semi-parametric regression model for analysis of middle censored lifetime data, Statistica76.1.
3. Malay Ghosh, Jiyocen Myung and **Paduthol Godan Sankaran**., Non parametric Bayes andn Empirical Bayes estimation of the population median with application in finite population sampling. Polish journal of statistics, 2011.
4. Sarabia,J M, **Raja A V**, and **Asha G** (2017), Bivariate distributions with transmuted conditionals: Models and Application (Communications in statistics, submitted after revision).
5. **Asha G**, Jagathnath Krishna K M and Kundu D (2016), An extension of the Freunds bivariate distribution to model load-sharing systems, American Journal of mathematical and management science.
6. **Rahul, T**., N. Balakrishnan and **N. Balakrishna** (2018). Time Series with Birnbaum-Saunders Marginal Distributions, Accepted for publication in Applied Stochastic Modelling in Business and Industry.
7. **Balakrishna, N.** and Hira L. Koul (2017). Varying Kernel Marginal Density Estimator for a Positive Time Series. Journal of Nonparametric Statistics, Vol. 29 (3), 531-552, 2017.
8. Abraham, B. and **N. Balakrishna** (2012). Product Autoregressive Models for non-negative variables. Statistics and Probability Letters, Vol. 82, 1530 – 1537.
9. Bei Chen, Yulia R. Gel, **N. Balakrishna** and Bovas Abraham (2011). Computationally Efficient Bootstrap Prediction Intervals for Returns and Volatilities in ARCH and GARCH Processes. Journal of Forecasting, 30, 51-71.
10. Navarro, J., **Sunoj, S.M. and Linu, M.N**. (2011): Characterizations of bivariate models using dynamic Kullback-Leibler discrimination measures, *Statistics and Probability Letters*.
11. Navarro, J., **Sunoj, S.M. and Linu, M.N**. (2014): Characterizations of bivariate models using some dynamic conditional information divergence measures, *Communications in Statistics – Theory and Methods*.
12. **Sunoj, S.M., Sreejith, T.B**. and Navarro, J. (2014): Characterizations of some bivariate models using reciprocal coordinate subtangents, *Statistica*.
13. Toomaj, A., **Sunoj, S.M**. and Navarro, J. (2017): Some properties of cumulative residual entropy for coherent systems, *Journal of Applied Probability*.

**Published Books**

* N.Unnikrishnan Nair, P.G.Sankaran and N.Balakrishnan : Quantile based Reliability Analysis, Published by Springer, Birkhauser, New York, 2013.
* N.Unnikrishnan Nair, P. G. Sankaran, and N. Balakrishnan. Reliability Modelling and Analysis in Discrete Time. Academic Press, 2018.

**Ongoing Collaborations**

* Balakrishna, N., H. L. Koul, M. Ossiander and L. Sakhanenko. (2018). Fitting a pth order parametric generalized linear autoregressive multiplicative error model.
* Balakrishna, N., H. L. Koul and Wexing Song (2018). Varying kernel autoregressive function estimator for positive time series.

**Students who have been mentored by the Erudite Scholars for research**

* Kavitha N. by Prof. N Balakrishnan, Pursuing PhD at McMaster University, Canada.
* Chitran by Prof. Bovas Abraham, Pursuing PhD at University of New Foundland, Canada.

**Seminars/ Conferences/ Workshops**

* National seminar on stochastic modelling and analysis, March 24-25, 2011.
* Annual convention of Indian Society for probability and statistics (ISPS) and International conference on statistics, Probability and related areas, December 19-22, 2011.
* Workshop on Statistical Analysis of Time series Data with Applications, January 14-16,2013.
* International workshop on Reliability Theory and Survival Analysis, December 31 2013-January 2 2014.
* International workshop on Reliability and time series Methodology relevant to business and industry, January 5-7, 2015.
* A workshop on Time-to-events and Time series Analysis using R, December 15-18, 2017.