BIO-DATA

Name : Professor Dr. Somesh Kumar

Address : Department of Mathematics
Indian Institute of Technology Kharagpur
Kharagpur - 721 302, India
e.mail : smsh@maths.iitkgp.ac.in ; smsh@iitkgp.ac.in ;
someshkumar1965@gmail.com
Phones : 91-3222-283662(O), 91-3222-283663 (R)
91-9434051947 (Mobile), 91-9476432908 (Mobile)

Date of Birth : 01-11-1965

Research Specialization : Statistical Decision Theory and Inference – Estimation of ordered parameters, estimation of a common mean, estimation after selection, quantile estimation, estimating measures of reliability and entropy, estimation and testing for parameters of directional distributions, combinatorial designs, quantum information and computation, classification procedures, stochastic ordering, limit theorems for sums of dependent random variables, parametric and nonparametric bootstrap tests for ANOVA under heteroscedasticity, robotics and automation.

Total Teaching Experience : 34+ years , **Total Research Experience** : 38+ years

No. of Publications : 227 (In refereed journals -106, book chapters and conference proceedings - 18, In arXiv: quant-ph - 4**,** Presented in conferences -99)

Books and Monographs : 1 (Edited)

Video Course Development: Four courses developed under NPTEL project of MHRD. These have millions of views on youtube/NPTEL and other websites.
(i) (Probability and Statistics) Available at youtube
(ii) (Statistical Inference) Available at youtube
(iii) (Statistical Methods for Scientists and Engineers) Available at youtube
(iv) (Advanced Engineering Mathematics) (Module on Probability and Statistics Available at youtube

Web Course Development : Modules in **Engineering Mathematics - I and II** (for National Agricultural Innovation Project under World Bank funded scheme of Indian Council of Agricultural Research)

Research Guidance : Ph.D.: 11 (completed), 6 (in progress),
M.Tech.: 69 (completed)
M.Sc./B.Tech.: 185 (completed)

Educational Qualifications:

Degree/ Examination	Subjects	Class/ Division	% Marks obtained	Year of Passing	University/ Institution
High School (Class 10)	Mathematics, English, Sanskrit, Geography, Hindi	First Division	74.8	1978	UP Board Allahabad India
Intermediate (Class 12)	Mathematics, English, Sanskrit, Geography, Hindi	First Division	73.6	1980	UP Board Allahabad India
B.A. (Bachelor of Arts)	Mathematics, Statistics, Economics, English Language	First Division	76.5	1982	Kanpur University India
M.Sc. (Master of Science)	Statistics	First Rank in the class	C.P.I.- 8.7/10	1984	IIT Kanpur India
Ph.D.	Statistics		C.P.I. 9.63/10 (in course work)	1990	IIT Kanpur India
Ph.D. Thesis	**Some Problems of Estimation in Restricted Parameter Spaces**				

Professional Experience:

Period	Place of Employment	Designation
Oct 1988 to June 1994	Department of Statistics University of Jammu	Lecturer
June 1994 to August 1995	Department of Mathematics IIT Kharagpur, India	Visiting Lecturer
Sept 1995 to August 2000	Department of Mathematics IIT Kharagpur, India	Assistant Professor
August 2000 to April 2007	Department of Mathematics IIT Kharagpur, India	Associate Professor
April 2007 onwards	Department of Mathematics IIT Kharagpur, India	Professor, (in higher academic grade since 2018)

PUBLICATIONS

(A) Papers in Refereed Journals

1. P. Vellaisamy, Somesh Kumar & D. Sharma (1988) Estimating the mean of the selected uniform population. Commun. Statist.- Theo. Meth. V. 17, No. 10, pp. 3447-3475.
2. Somesh Kumar & D. Sharma (1988) Simultaneous estimation of ordered parameters. Commun. Statist.- Theo. Meth. V. 17, No. 12, pp. 4315-4336.
3. Somesh Kumar & D. Sharma (1989) On the Pitman estimator of ordered normal means. Commun. Statist.- Theo. Meth. V. 18, No. 11, pp. 4163-4175.
4. Somesh Kumar & D. Sharma (1992) An inadmissibility result for affine equivariant estimators. Statistics and Decisions, V. 10, pp. 87-97.
5. Somesh Kumar & D. Sharma (1992) Estimating the common mean of a bivariate normal population. Australian J. of Statistics, V. 34, No.1, pp. 39-46.
6. Somesh Kumar & A. Chaturvedi (1993) A class of two stage point estimation procedures. Statistics and Decisions, V. 11, pp. 103-114.
7. Somesh Kumar & D. Sharma (1993) Unbiased inestimability of the larger of two parameters. Statistics, V. 24, pp. 137-142.
8. Somesh Kumar & D. Sharma (1993) Minimaxity of the Pitman estimator of ordered normal means when variances are unequal. J. Ind. Soc. Agr. Statistics. V. 45, No. 2, pp. 230-234.
9. R.K. Singh, A. Chaturvedi & Somesh Kumar (1994) Two stage and sequential procedures for estimating linear functions of K multinormal means. J. Ind. Statist. Assoc. V. 32, pp. 1-8.
10. D. Sharma & Somesh Kumar (1994) Estimation of quantile in exponential populations. Statistics and Decisions, V. 12, pp. 343-352.
11. Somesh Kumar & D. Sharma (1995) Estimating the common location. Statistics, V. 21, pp. 231-240.
12. Somesh Kumar & D. Sharma (1996) A note on estimating quantiles of exponential populations. Statistics and Probability Letters, V. 26, pp. 115-118.
13. Somesh Kumar & A. Kar (2000) Quantile estimation for a selected normal population. Commun. Statist.- Theo. Meth. V. 29, No. 2 pp.437-444
14. Somesh Kumar & A. Kar (2001) Estimating quantiles of a selected exponential population. Statistics and Probability Letters, V. 52, pp. 9-19.
15. Somesh Kumar & A. Kar (2001) Minimum variance unbiased estimation of quantile of a selected exponential population. American J. Mathematical & Management Sciences, V. 21, No. 1-2, pp. 183-192.
16. Somesh Kumar & Y.M. Tripathi (2003) A note on estimating moments of a selected uniform population. J. Ind. Statist. Assoc. V. 41, No. 1, pp. 129-140.
17. Somesh Kumar, Y.M. Tripathi & N. Misra (2005) James- Stein type estimators for ordered normal means. J. Statistical Computation and Simulation, V. 75, No. 7, pp. 501-511.
18. N. Misra, Somesh Kumar, E.C. van der Meulen & Y.M. Tripathi (2005) A subset selection procedure for selecting the exponential population having the longest mean

lifetime when the guarantee times are the same. Commun. Statist.- Theo. Meth. V. 34, No. 7, pp. 1555-1569.
19. Somesh Kumar & A. K. Gangopadhyay (2005) Estimating parameters of a selected Pareto population. Statistical Methodology, V. 2, Issue 2, pp. 121-130.
20. Somesh Kumar, A. Kumar & Y.M. Tripathi (2005) A note on the Pitman estimator of ordered normal means when the variances are unequal. Commun. Statist.- Theo. Meth. V. 34, No.11, pp. 2115-2122.
21. A. K. Gangopadhyay & Somesh Kumar (2005) Estimating average worth of the selected subset from two-parameter exponential populations. Commun. Statist.- Theo. Meth. V.34, No. 12, pp. 2257-2267.
22. Somesh Kumar & Y. M. Tripathi (2005) Estimating components of a normal mean vector under order restrictions. International J. of Appl. Math. and Statistics, V. 3, No. J05, pp. 82-96.
23. Somesh Kumar & Y. M. Tripathi (2005) On estimating the middle of three ordered normal means with applications to ecology. International J. of Ecological Economics & Statistics, V. 3, No. S05, pp.62-71.
24. S.K. Singh, S.P. Pal, Somesh Kumar & R. Srikanth (2005) A combinatorial approach for studying LOCC transformations of multipartite states. J. of Mathematical Physics, V. 46, 122105 (1-22). doi.org/10.1063/1.2142840
25. S.P. Pal, Somesh Kumar & R. Srikanth (2006) Multipartite entanglement configurations: Combinatorial offshoots into (hyper)graph theory and their ramifications. AIP CP 864, Quantum Computing: Backaction 2006, Refereed Volume, Ed D. Goswami, pp. 156-170. doi.org/10.1063/1.2400887
26. Y. M. Tripathi, Somesh Kumar & T. Srivastava (2007) Simultaneous estimation of lognormal means under order restrictions. International Journal of Statistics & Economics, V. 1, No. S07, pp. 73-86.
27. Y. M. Tripathi & Somesh Kumar (2007) Estimating a positive normal mean. Statistical Papers, V. 48, pp. 609-629.
28. N. Pal, J. Lin, C. Chang & Somesh Kumar (2007) A revisit to the common mean problem: comparing the maximum likelihood estimator with the Graybill-Deal estimator. Comput. Statist. & Data Analysis, V. 51, pp. 5673-5681.
29. Y. M. Tripathi & Somesh Kumar (2007) Estimation of a truncated inverse Gaussian mean. J. Ind. Statist. Assoc. V. 45, No. 2, pp. 205-223.
30. Somesh Kumar & Y. M. Tripathi (2008) Estimating a restricted normal mean. Metrika, V. 68, pp. 271-288.
31. T. Srivastava & Somesh Kumar (2008) Statistical model for attainment in schooling: a HCI analysis. International Journal of Statistics & Economics, V. 2, No. S08, pp. 101-107.
32. Somesh Kumar, A. Kumar & T. Srivastava (2008) Admissibility of the Pitman estimator of ordered location parameters. International J. of Appl. Math. and Statistics, V. 13, No. M08, pp. 78-85.
33. T. Srivastava & Somesh Kumar (2009) OLS Regression model for CE: A case study. International Journal of Statistics & Economics, V. 3, No. S09, pp. 84-88.
34. K. Sinha, Somesh Kumar & A. Sengupta (2009) Construction of ternary orthogonal arrays by Kronecker sum. Journal of Statistics and Applications, V.4, No.2-3, pp. 475-478.

35. Somesh Kumar, A.K. Mahapatra and P. Vellaisamy (2009) Reliability estimation of the selected exponential populations. Statistics and Probability Letters, V. 79, pp. 1372-1377.
36. Y. M. Tripathi, Somesh Kumar and T. Srivastava (2009). Estimating the mean of a lognormal population under restrictions. International J. of Appl. Math. and Statistics, V. 15, No. D09, pp. 16-31.
37. Somesh Kumar and P. Vellaisamy (2009) Estimation after selection: A review. J. Indian Soc. Probability and Statistics, V. 11, pp. 35-49.
38. M. R. Tripathy and Somesh Kumar (2010) Estimating a common mean of two normal populations. Journal of Statistical Theory and Applications, V. 9, No. 2, pp. 197-215.
39. Somesh Kumar and M. R. Tripathy (2011) Estimating quantiles of normal populations with a common mean. Commun. Statist.- Theo. Meth. V. 40, No. 15, pp. 2719-2736.
40. S. Kayal and Somesh Kumar (2011) Estimating entropy of an exponential population under linex loss function. J. Ind. Statist. Assoc. V. 49, No. 1, pp. 91-112.
41. M. R. Tripathy and Somesh Kumar (2011) Simultaneous estimation of quantiles of normal populations with ordered means. Professor Edward J. Dudewicz Honor Volume, Journal of Combinatorics, Information and System Sciences, V. 36, No. 1-4, pp. 75-102.
42. A. K. Gangopadhyay & Somesh Kumar (2011) Estimating parameters of the selected inverse Gaussian distribution – A simulation study. Professor Edward J. Dudewicz Honor Volume, Journal of Combinatorics, Information and System Sciences, V. 36, No. 1-4, pp. 1-23.
43. S. Kayal and Somesh Kumar (2011) On estimating the Shannon entropy of several exponential populations. International Journal of Statistics and Economics, V. 7, Issue 11, pp. 42-52.
44. M. R. Tripathy and Somesh Kumar (2011) Estimating common mean of a bivariate normal population with order restricted variances. Calcutta Statistical Association Bulletin, V. 63, No. 249-252, pp. 157-180.
45. A. K. Gangopadhyay & Somesh Kumar (2011) A simulation study on estimating parameters of the selected Pareto population. Professor Edward J. Dudewicz Honor Volume, American J. Mathematical & Management Sciences, V. 31, pp. 243-253.
46. A. K. Mahapatra, Somesh Kumar and P. Vellaisamy (2012) Simultaneous estimation of hazard rates of several exponential populations. Statistica Neerlandica V. 66, No. 2, pp. 121-132. DOI:10.1111/j.1467-9574.2011.00499.x
47. M. R. Tripathy, Somesh Kumar & N. Pal (2013) Estimating common standard deviation of two normal populations with ordered means. Statistical Methods & Applications, DOI: 10.1007/s10260-012-0224-1, V. 22, pp. 305-318.
48. K. Sinha, Somesh Kumar & A. Ghosh (2013) Construction of ternary orthogonal arrays from sum-invariant balanced arrays. International Journal of Mathematics and Computation, V. 19, No. 2, pp. 27-33.
49. S. Kayal and Somesh Kumar (2013) Estimation of the Shannon's entropy of several shifted exponential populations. Statistics and Probability Letters, V. 83, pp.1127-1135.

50. A.K. Mahapatra, Somesh Kumar and P. Vellaisamy (2013) Improved estimators for the reliability of a series system. International Journal of Reliability, Quality and Safety Engineering, V. 20, No. 6, 1350021: pp. 1-23. DOI: 10.1142/S0218539313500216.
51. Y. M. Tripathi, Somesh Kumar & C. Petropoulos (2014) Improved estimators for parameters of a Pareto distribution with a restricted scale. Statistical Methodology, V. 18, pp. 1-13. DOI: 10.1016/j.stamet.2013.09.004.
52. M.R. Tripathy, Somesh Kumar & N. Misra (2014) Estimation of common location of two exponential populations under order restricted failure rates. American J. of Mathematical and Management Sciences, V. 33, No.2, pp. 125-146. DOI:101080/ 01966324. 2014. 908331.
53. Y.M. Tripathi, Somesh Kumar & C. Petropoulos (2014) Estimation for the parameters of an exponential distribution under constrained location. Mathematical Methods of Statistics, Vol. 23, No. 1, pp. 66–79.
54. N. Gupta and Somesh Kumar (2014) Stochastic comparisons of component and system redundancies with dependent components. Operations Research Letters, V. 42, pp. 284-289.
55. N. Gupta, N. Misra and Somesh Kumar (2015) Stochastic comparisons of residual life times and inactivity times of coherent systems with dependent identically distributed components. European Journal of Operational Research, V. 240, Issue 2, pp. 425–430.
56. S. Kayal, Somesh Kumar and P. Vellaisamy (2015) Estimating the Renyi entropy of several exponential populations. Brazilian Journal of Probability and Statistics, V. 29, No. 1, pp. 94–111, DOI: 10.1214/13-BJPS230.
57. Kanika, Somesh Kumar and A. SenGupta (2015) A Unified approach to decision-theoretic properties of the MLEs for the mean directions of several Langevin distributions. Journal of Multivariate Analysis, V. 133, pp. 160-172, DOI:10.1016/j.jmva.2014.09.002.
58. M.R. Tripathy and Somesh Kumar (2015) Equivariant estimation of common mean of several normal populations. J. Statistical Computation and Simulation, V. 85, No. 18, pp. 3679-3699, DOI: 10.1080/00949655.2014.995658.
59. N. Jana, and Somesh Kumar (2015) Estimation of ordered scale parameters of two exponential distributions with a common guarantee time. Mathematical Methods of Statistics, V. 24, No. 2, pp. 122–134.
60. N. Gupta, L.K. Patra, and Somesh Kumar (2015) Stochastic comparisons in systems with Frechet distributed components. Operations Research Letters, V. 43, pp. 612-615.
61. P. Kundu, Somesh Kumar and K. Chatterjee (2015) Estimating the reliability function. Calcutta Statistical Association Bulletin, V. 67, No. 267-268, pp. 143-161.
62. Y.M. Tripathi, Somesh Kumar & C. Petropoulos (2016) Estimating the shape parameter of a Pareto distribution under restrictions. Metrika, V. 79, pp. 91–111. DOI: 10.1007/s00184-015-0545-9.
63. N. Jana, Somesh Kumar and N. Misra (2016) Classification rules for two parameter exponential populations under order restrictions on parameters. Journal of Statistical Computation and Simulation, V. 86, No. 8, pp. 1559–1581. DOI: 10.1080/00949655.2015.1075540.

64. Kanika and Somesh Kumar (2016) Methods for improving estimators of truncated circular parameters. Bernoulli, V. 22 (4), 2521-2547, DOI: 10.3150/15-BEJ736.
65. N. Jana and Somesh Kumar (2016) Classification into two parameter exponential populations with a common guarantee time. American J. of Mathematical and Management Sciences, V. 35, No. 1, pp. 36-54.
66. N. Jana, Somesh Kumar and Chatterjee, K. (2016) Bayes estimation for exponential distributions with common location parameter and applications to multi-state reliability models. Journal of Applied Statistics, V. 43, No.15, pp. 2697-2712. DOI: 10.1080/02664763.2016.1142950.
67. M.R. Tripathy, Somesh Kumar and A.K. Jena (2017) Estimating quantiles of several normal populations with a common mean. Commun. Statist.- Theo. Meth. V. 46, No. 11, pp. 5656-5671, DOI: 10.1080/03610926.2015.1109663.
68. Y.M. Tripathi, Somesh Kumar & C. Petropoulos (2017) Minimax estimators for the lower-bounded scale parameter of a location-scale family of distributions. Commun. Statist.-Theo. Meth., V. 46, No. 18, pp. 9185-9193. DOI: 10.1080/03610926.2016.1205611.
69. S. Kayal and Somesh Kumar (2017) Estimating Renyi entropy of several exponential distributions under an asymmetric loss function. Revstat, V. 15, No. 4, pp. 501-522.
70. Qin, H., N. Jana, Somesh Kumar and Chatterjee, K. (2017) Stress-strength models with more than two states under exponential distribution. Commun. Statist.- Theo. Meth., V. 46, No.1, pp. 120-132, DOI: 10.1080/03610926.2014.988257
71. Kanika and Somesh Kumar (2017) Bayes Estimation of a Langevin Mean Direction. Commun. Statist.- Sim. Comp., V. 46, No. 4, pp. 2769-2783, DOI: 10.1080/03610918.2015.10620
72. N. Jana and Somesh Kumar (2017) Classification into two normal populations with a common mean and unequal variances. Commun. Statist.- Sim. Comp., V. 46, No.1, pp. 546-558, DOI: 10.1080/03610918.2014.970697.
73. L.K. Patra and Somesh Kumar (2017) Estimating ordered means of a bivariate normal distribution. American J. of Mathematical and Management Sciences, V. 36, No. 2, pp. 118-136, DOI:10.1080/01966324.2017.1296797.
74. M.R. Tripathy and Somesh Kumar (2017) Some inadmissibility results for estimating quantile vector of two exponential populations with a common location parameter. Revstat, V. 15, No. 3, pp. 395-423.
75. L.K. Patra and Somesh Kumar (2017) Classes of Improved Estimators for Parameters of a Pareto Distribution. Mathematical Methods of Statistics, V. 26, No. 3, pp. 226–235.
76. L.K. Patra and Somesh Kumar (2018) Estimating the common hazard rate of two exponential distributions with ordered location parameters. Statistics, V. 52, No. 5, pp. 1040–1059. DOI: 10.1080/02331888.2018.1495210.
77. L.K. Patra and Somesh Kumar (2019) Estimating the common hazard rate of several exponential distributions. Commun. Statist.- Theo. Meth. V.. 48, No. 19, pp. 4861–4873. DOI: 10.1080/03610926.2018.1500599.
78. M.R. Tripathy, A.K. Jena and Somesh Kumar (2019) Equivariant estimation of quantile vector of two normal populations with a common mean. Hacettepe Journal of Mathematics and Statistics. V. 48, N0. 1, pp. 255 – 273. DOI: 10.15672/HJMS.2018.606.

79. N. Jana, Somesh Kumar and K. Chatterjee (2019) Inference on Stress-strength reliability for exponential distributions with a common scale parameter. Journal of Applied Statistics. V. 46, No. 16, pp. 3008–3031. DOI: 10.1080/02664763.2019.1625878.
80. N. Jana and Somesh Kumar (2019) Ordered classification rules for inverse Gaussian populations with unknown parameters. Journal of Statistical Computation and Simulation. V. 89, No. 14, pp. 2597-2620. DOI: 10.1080/00949655.2019.1628233.
81. Kanika and Somesh Kumar (2019) On efficiency and robustness of estimators for a spherical location. Statistics. V. 53, No. 3, pp. 601-629. DOI:10.1080/02331888.2019.1585853.
82. P. Kundu, N. Jana, Somesh Kumar and K. Chatterjee (2020) Stress-strength reliability estimation for exponentially distributed system with common minimum guarantee time. Commun. Statist.- Theo. Meth., V. 49, No. 14, 3375–3396. DOI: 10.1080/03610926.2019.1586948.
83. Deepak Singh and Somesh Kumar (2020) A bivariate mixture of negative binomial distributions and its applications. Commun. Statist.- Theo. Meth., V. 49, No. 17, pp. 4162–4177. DOI: 10.1080/03610926.2019.1595651.
84. C. Petropoulos, L. K. Patra and Somesh Kumar (2020) Improved estimators of the entropy in scale mixture of exponential distributions. Brazilian Journal of Probability and Statistics, V. 34, No. 3, 580–593. DOI: 10.1214/19-BJPS450
85. Deepak Singh and Somesh Kumar (2020) Limit theorems for sums of dependent and non-identical Bernoulli random variables. American J. of Mathematical and Management Sciences, V. 39, No. 2, 150–165. DOI: 10.1080/01966324.2019.1673266.
86. L.K. Patra, S. Kayal and Somesh Kumar (2020) Measuring uncertainty under prior information. IEEE Transactions on Information Theory, Vol. 66, No. 4, pp. 2570-2580. DOI: 10.1109/TIT.2020.2970408.
87. Deepak Singh, Somesh Kumar and P. Vellaisamy (2020) The limit theorems for a previous k-sum dependent model. Journal of Mathematical Analysis and Applications, V. 487, Issue 2, 124004. DOI: 10.1016/j.jmaa.2020.124004.
88. Heechul Bae, Eoin Brophy, Rosa H.M. Chan, Baoquan Chen, Fan Feng, Gabriele Graffieti, Vidit Goel, Xinyue Hao, Hyonyoung Han, Sathursan Kanagarajah, Somesh Kumar, Siew-Kei Lam, Tin Lun Lam, Chuanlin Lan, Qi Liu, Vincenzo Lomonaco, Liang Ma, Davide Maltoni, German I. Parisi, Lorenzo Pellegrini, Duvindu Piyasena, Shiliang Pu, Qi She, Debdoot Sheet, Soonyong Song, Youngsung Son, Zhengwei Wang, Tomas E. Ward, Jianwen Wu, Meiqing Wu, Di Xie, Yangsheng Xu, Lin Yang, Qihan Yang, Qiaoyong Zhong, and Liguang Zhou (2020) IROS 2019 Lifelong Robotic Vision: Object Recognition Challenge. IEEE Robotics and Automation Magazine, V. 27, Issue 2, pp. 11-16, June 2020. DOI: 10.1109/MRA.2020.2987186.
89. L.K. Patra, S. Kayal and Somesh Kumar (2020) Estimating a function of scale parameter of an exponential population with unknown location under general loss function. Statistical Papers, V. 61, pp. 2511–2527. DOI: 10.1007/s00362-018-1052-7.

90. L.K. Patra, Somesh Kumar and B.M. Golam Kibria (2020) Improved estimation of a function of scale parameter of a doubly censored exponential distribution. Commun. Statist.- Theo. Meth. V. 49, No. 9, pp. 2049–2064. DOI: 10.1080/03610926.2019.1568482.
91. L.K. Patra, S. Kayal and Somesh Kumar (2021) Minimax estimation of the common variance and precision of two normal populations with ordered restricted means. Statistical Papers. V. 62, pp. 209 – 233. DOI: 10.1007/s00362-019-01090-2.
92. N. Nagamani, M. R. Tripathy and Somesh Kumar (2021) Estimating common scale parameter of two logistic populations: a Bayesian study. American J. of Mathematical and Management Sciences. V. 40, No. 1, pp. 44–67. DOI: 10.1080/01966324.2020.1833794.
93. L. K. Patra, Somesh Kumar and C. Petropoulos (2021) Improved estimators for functions of scale parameters in mixture models. Journal of Korean Statistical Society, V. 50, pp. 918-954. DOI: 10.1007/s42952-020-00099-w.
94. L. K. Patra, Somesh Kumar and C. Petropoulos (2021) Componentwise estimation of ordered scale parameters of two exponential distributions under a general class of loss function. Statistics, V. 55, No. 3, 595–617. DOI: 10.1080/02331888.2021.1943395.
95. N. Jana, Somesh Kumar and K. Chatterjee, P. Kundu (2021) Estimating stress-strength reliability for exponential distributions with different location and scale parameters. International Journal of Advances in Engineering Sciences and Applied Mathematics, V. 13 (No. 2-3), pp. 177–190. DOI:10.1007/s12572-021-00308-7.
96. Deepak Singh and Somesh Kumar (2022) Limit theorems for a correlated moving window model. Bulletin of the Iranian Mathematical Society, V. 48, pp. 2883–2898. DOI:10.1007/s41980-021-00675-8.
97. P. Kumar*;* M. R. Tripathy and Somesh Kumar (2022) Bayesian estimation and classification for two logistic populations with a common location. Computational Statistics, DOI:10.1007/s00180-022-01247-y.
98. Anjana Mondal and Somesh Kumar (2022) Heuristic tests for testing against ordered alternatives in heteroscedastic ANOVA. Gujarat Journal of Statistics and Data Science - Special Volume to honour Late Prof. C.G. Khatri, V. 38, No. 1, pp. 54-71.
99. P. Kumar*;* M. R. Tripathy and Somesh Kumar (2022) Alternative classification rules for two normal populations with a common mean and ordered variances. Commun. Statist.- Sim. Comp., V. 51, No. 11, pp. 6881-6901. DOI:10.1080/03610918.2021.1931324.
100. P. Jena, M. R. Tripathy and Somesh Kumar (2022) Point and interval estimation of powers of scale parameters for two normal populations with a common mean. Statistical Papers. DOI:10.1007/s00362-022-01361-5.
101. P. Kumar, M. R. Tripathy and Somesh Kumar (2022) Alternative classification rules for two inverse Gaussian populations with a common mean and order restricted scale-like parameters. Journal of Applied Statistics. DOI:10.1080/02664763.2022.2129044.
102. Anjana Mondal, Markus Pauly and Somesh Kumar (2022) Testing for ordered alternatives in heteroscedastic ANOVA under normality. Statistical Papers. DOI:10.1007/s00362-022-01366-0

103. Shreyashi Basak, Markus Pauly and Somesh Kumar (2022) Adaptive tests for ANOVA in Fisher-von Mises-Langevin populations under heteroscedasticity. Computational Statistics. DOI: 10.1007/s00180-022-01298-1
104. Tulika Rudra Gupta, Markus Pauly and Somesh Kumar (2023) Estimation of a new stress strength index for one parameter exponential family. IEEE Transactions on Reliability. DOI: 10.1109/TR.2022.3233897.
105. Tulika Rudra Gupta and Somesh Kumar (2023) Bootstrap confidence intervals of the stress-strength index for exponential populations. Asian Journal of Statistical Sciences (to appear).
106. Anjana Mondal, Paavo Sattler and Somesh Kumar (2023) Testing against ordered alternatives in a two-way model without interaction under heteroscedasticity. Journal of Multivariate Analysis (to appear)

(B) Book Chapters and Conferences Proceedings

1. Somesh Kumar & A. Kumar (1993) Estimating ordered means of two negative exponential populations. Proc. First Ann. Conf. Ind. Soc. Indust. & Appl. Math., Univ. of Roorkee, pp. 358-362.
2. Somesh Kumar & A. Kumar (1995) Estimation of ordered locations of two exponential populations under the linex loss functions. Proc. III International Symposium on Optimization & Statistics, Aligarh Univ. pp.130-135.
3. Somesh Kumar (1997) Estimation of common parameters. Math. & Its Appls. in Engg. & Industry, Eds. B. Singh et al., Univ. of Roorkee, pp. 538-548.
4. Somesh Kumar (2001) A differential inequality for improving the Graybill-Deal estimator. Proc. International Conf. on Mathematical Modelling. Eds. B. Singh et al. Univ. of Roorkee, pp. 367-370.
5. A. Ojha, Somesh Kumar & S. Chakrabarti (2004) Keeping track of heart patients using ECG-Biotelemetry. Proc. International Conference on Computers and Devices for Communication, CODEC-2004, Jan 1-3, 2004, Kolkata, p. 26.
6. G.K. Dey, S.N. Panda & Somesh Kumar (2006) Development of interactive software for flood frequency analysis: application in the Mahanadi river basin. Proc. Symposium on Prediction in Ungauged Basins for Sustainable Water Resources Planning and Management, Oct 30, 2004, BITS, Pilani, Ed. Dr. K. Srinivasa Raju, M/S Jain Brothers, New Delhi, pp. 155-174.
7. S.N. Panda, G.K. Dey & Somesh Kumar (2005) Flood frequency analysis in the Mahanadi river basin (Eastern India) - Developing an interactive software FLOOD. Proc. ICID 21st European Regional Conference 2005, 15-19th May, 2005, Frankfurt (Oder) and Slubice – Germany and Poland.
8. N. Pal, J. Lin, C. Chang & Somesh Kumar (2008) A revisit to the common mean problem: comparing the maximum likelihood estimator with the Graybill-Deal estimator. Proc. IMSCI 2008- 2nd International Multi-Conference on Society, Cybernetics and Informatics, 3, pp. 192-199. Scopus
9. Somesh Kumar (2008) Estimation of ordered parameters. In Multivariate Statistical Methods Theory and Applications, Ed. Ashis SenGupta, pp. 91-105. Macmillan
10. N. Jana, Somesh Kumar and N. Misra (2014) Classification Rules for Exponential Populations under Order Restrictions on Parameters. In Mathematics and Computing

2013, (Eds. Mohapatra et al.), Springer Proceedings in Mathematics and Statistics, V. 91, Chapter 16, pp. 243-250.

11. S. Basu, N. Jana, A. Bag, M. Mahadevappa, J. Mukherjee, Somesh Kumar, R. Guha (2015) Emotion recognition based on physiological signals using valence-arousal model. Proceedings of Third International Conference on Image Information Processing (ICIIP-2015), pp. 50-55.
12. L.K. Patra, Somesh Kumar and N Gupta (2018) Estimation of the location parameter of a general half-normal distribution. In Mathematics and Computing, ICMC 2018: (Eds. Ghosh et al.), Springer Proceedings in Mathematics & Statistics, V. 253. Chapter 22, pp. 281-293. DOI: 10.1007/978-981-13-2095-8_22.
13. *Debjoy Saha, Ganesh Shiridi Balaji Udayagiri, Parakh Agarwal, Biswajit Ghosh and Somesh Kumar (2019) Warehouse management using real-time QR-code and text detection. 11th International Micro Air Vehicle Competition and Conference. (IMAV-2019-29, Madrid, Spain) pp. 214-221.
14. **Vidit Goel, Debdoot Sheet and Somesh Kumar (2019) Intelligent replay sampling for lifelong object recognition. 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems, (IROS-2019, Macau, China).
15. ***Shubhika Garg, Vidit Goel and Somesh Kumar (2020) Unsupervised Video Object Segmentation using Online Mask Selection and Space-time Memory Networks 2020.
    DAVIS Challenge on Video Object Segmentation –CVPR 2020 Workshops.
16. S. Basu, N. Jana, V. Krishna, M. Mahadevappa, J. Mukherjee, R. Guha and Somesh Kumar (2021) Statistical Analysis of Emotional Response through Physiological Signals. Proceedings of the International Conference on Computing and Communication Systems, Lecture Notes in Networks and Systems 170, Springer Nature. https://doi.org/10.1007/978-981-33-4084-8_18.
17. Richa Chopra, Jayashree A Gajjam, Dipesh Katira, Shashank Shekhar Tripathi, Somesh Kumar, Joy Sen (2022) Universal ideas from Patañjali's Yoga Sūtras on mind & mental health: Philosophy and Practice. Yoga Path, (Eds. Sharma et al.), Indira Gandhi National Tribal University, Amarkantak, pp. 142-154.
18. Somesh Kumar (2022) Evolution of the modern number system: India's gift to the world. Siksha O' Anusandhan Fortnightly Academic Lectures 2021-22, (Ed. N. Sharma), pp. 166-175.

***First Position to the Team**
****Among 8 finalists in the competitions**
*****First Place to the Team**

(C) Papers Presented in Conferences

1. Somesh Kumar (1986) Minimaxity of the Pitman estimator of three ordered normal means. Ann. Conf. Bharat Ganit Parishad, Univ. of Lucknow.
2. Somesh Kumar & D. Sharma (1988) Inadmissibility of the affine equivariant estimators in restricted parameter spaces. Ann. Conf. Bharat Ganit Parishad, IIT Kanpur.

3. Somesh Kumar (1996) Estimation of a common location. Workshop on Statistical Inference under Non-Standard Conditions, Panjab Univ., Chandigarh, January 9-12, 1996.
4. Somesh Kumar & A. Kumar (1996) Estimating the parameters of stochastically ordered uniform populations. 62nd Ann. Conf. Indian Math. Soc., IIT Kanpur, December 22-25, 1996.
5. Somesh Kumar & A. Kar (1997) Unbiased estimation of quantile of a selected exponential population. Int. Conf. on Statistical Inference, Combinatorics and Related Areas, Banaras Hindu Univ., December 18-21, 1997.
6. Somesh Kumar (1998) On estimating moments of the selected uniform population. XVIII Ann. Conf. Indian Society for Probability and Statistics, Sambalpur Univ., January 27-30, 1998.
7. Somesh Kumar & A. Kar (1998) Quantile estimation for a selected normal population. Int. Conf. on Combinatorics, Statistics, Pattern Recognition and Related Areas, Univ. of Mysore, December 28-30, 1998.
8. Somesh Kumar & A. Kar (2001) Estimating parameters of a selected Pareto Population. Int. Conf. on Statistics, Combinatorics and Related Areas, Univ. of Wollongong, Australia, December 19-21, 2001.
9. Somesh Kumar, A. Kumar & Y.M. Tripathi (2002) Nonminimaxity of the Pitman estimator of ordered normal means when the variances are unequal. XXII Ann. Conf. Indian Society for Probability and Statistics, Univ. of Pune, August 11-14, 2002.
10. Y. M. Tripathi & Somesh Kumar (2003) Estimation of a positive normal mean. XXVII Indian Social Science Congress, IIT Kharagpur, December 3-7, 2003.
11. Somesh Kumar (2003) Isotonic regression: estimation of ordered parameters. XXVII Indian Social Science Congress, IIT Kharagpur, December 3-7, 2003.
12. S. K. Singh, Somesh Kumar & S.P. Pal (2003) Combinatorics of distributed EPR pairs for multi-partite Entanglement. XXVII Indian Social Science Congress, IIT Kharagpur, December 3-7, 2003.
13. Ojha & Somesh Kumar (2003) Security Issues in Wireless Mobile Ad hoc Networks. XXVII Indian Social Science Congress, IIT Kharagpur, December 3-7, 2003.
14. Y. M. Tripathi & Somesh Kumar (2003) Estimating parameters of an exponential distribution under inequality restrictions. International Conference on Productivity, Quality and Reliability, December 12-14, 2003, Kolkata.
15. A. K. Gangopadhyay & Somesh Kumar (2004) Estimating parameters of the selected inverse Gaussian population. International Conference on Interdisciplinary Mathematical and Statistical Techniques, Dec 27-29, 2004, Lucknow.
16. A. K. Gangopadhyay & Somesh Kumar (2004) Estimating parameters of the selected Pareto population: a simulation study. International Conference on Interdisciplinary Mathematical and Statistical Techniques, Dec 27-29, 2004, Lucknow.
17. Somesh Kumar & Y. M. Tripathi (2005) Estimation of a normal mean restricted to a symmetric interval. International Conference on Recent Advances in Statistics, Jan 4-6, 2005, IIT Kanpur.
18. R. Srikanth, S.P. Pal & Somesh Kumar (2006) The partial ordering of certain multipartite entanglement configurations under LOCC transformations. International Symposium on Quantum Optics-2006, 24-27th July, 2006, PRL Ahmedabad.

19. Somesh Kumar & A.K. Mahapatra (2006) On estimation of reliability following selection from Pareto populations. International Conference on Multivariate Statistical Methods in the 21st Century, The Legacy of Prof. S.N. Roy, Dec 28-29, 2006, Indian Statistical Institute, Kolkata.
20. Somesh Kumar & M.R. Tripathy (2007) On estimating quantiles of a normal population. Symposium on Recent Advances in Mathematical Sciences, Feb 16-17, 2007, IIT Kanpur.
21. *M.R. Tripathy & Somesh Kumar (2007) On estimating qunatiles in a bivariate normal population with common mean. 34th Ann. Conf. of Orissa Mathematical Society, 28-29 Jan, 2007.
22. Somesh Kumar & A.K. Mahapatra (2007) Reliability estimation. Workshop on Statistical Applications in Defence Research, IIT Kharagpur, Feb 24, 2007.
23. M.R. Tripathy & Somesh Kumar (2007) Estimating the common scale parameter of k ($\geq$ 2) Pareto populations. International Conference on Statistics, Univ. of Mumbai, May 31-June 2, 2007.
24. S. Kayal & Somesh Kumar (2007) Estimating entropy of a Pareto population. International Conference on Statistics, Univ. of Mumbai, May 31-June 2, 2007.
25. Somesh Kumar & A.K. Mahapatra (2008) Estimation of reliability after selection from exponential populations. International Conference on Statistical Paradigms: Recent Advances and Reconciliations, Jan 1-4, 2008, Indian Statistical Institute, Kolkata.
26. M.R. Tripathy & Somesh Kumar (2008) Simultaneous estimation of quantiles of several exponential populations. International Conference on Statistical Paradigms: Recent advances and reconciliations, Jan 1-4, 2008, Indian Statistical Institute, Kolkata.
27. S. Kayal & Somesh Kumar (2008) Estimating entropy of an exponential population with unknown location and scale. International Conference on Statistical Paradigms: Recent advances and reconciliations, Jan 1-4, 2008, Indian Statistical Institute, Kolkata.
28. A.K. Mahapatra & Somesh Kumar (2008) Reliability estimation in an exponential series model. International Conference on Statistical Paradigms: Recent advances and reconciliations, Jan 1-4, 2008, Indian Statistical Institute, Kolkata.
29. M.R. Tripathy & Somesh Kumar (2008) Simultaneous estimation of quantiles of several exponential populations with a common scale. 35th Ann. Conf. of Orissa Mathematical Society, 2-3 Feb, 2008.
30. M.R. Tripathy & Somesh Kumar (2009) Estimating common mean of a bivariate normal population with order restricted variances. 7th International Triennial Calcutta Symposium. Dec 28-31, 2009.
31. Somesh Kumar & S. Kayal (2010) Estimating entropy of an exponential population. XII Ann. Conf. of Soc. for Statist. Computer and Appl., Visva-Bharati, 24-26 Feb, 2010.
32. S. Kayal & Somesh Kumar (2010) Estimating entropy of an exponential population under linex loss function. Advances in Mathematics and Statistics, IIT Kanpur, 29-31 October, 2010.
33. S. Kayal & Somesh Kumar (2010) Estimating measures of information. International Conference on Development and Applications of Statistics in Emerging Areas of

Science and Technology and XXX Annual Convention of Indian Society for Probability and Statistics, University of Jammu, 8-10 Dec, 2010.

34. Somesh Kumar & S. Kayal (2011) Estimation of Shannon Entropy in Exponential Populations. New Developments in Theory and Applications of Statistics: An International Conference in Memory of Professor Moti Lal Tiku", Middle East Technical University, Ankara, Turkey, 2-4 May, 2011.
35. **Kanika & Somesh Kumar (2011) Equivariant estimation of mean direction, National Meet of Research Scholars in Mathematical Sciences, IIT Kharagpur, 12-15 October, 2011.
36. R. Srikanth, Dipankar Home & Somesh Kumar (2011) The Born rule, frequency operator and the infinite limit. International Symposium on Quantum Information, ISCQI 2011, Dec 19-21, IOP, Bhubaneswar.
37. ***S. Kayal & Somesh Kumar (2012) Estimating entropy of several exponential populations with common location and unknown scales. Young Scientists Section, 99th Indian Science Congress Association, KIET University, Bhubaneswar, 3-7th Jan, 2012.
38. Somesh Kumar (2012) Estimation of restricted parameters in normal and exponential distributions. Mathematical Sciences Section, 99th Indian Science Congress Association, KIET University, Bhubaneswar, 3-7th Jan, 2012.
39. Y. M. Tripathi, Somesh Kumar & C. Petropoulos (2012) Estimation of a restricted location parameter of an exponential distribution. Mathematical Sciences Section, 99th Indian Science Congress Association, KIET University, Bhubaneswar, 3-7th Jan, 2012.
40. M.R. Tripathy & Somesh Kumar (2012) Estimating the common mean and quantiles of two normal populations. Mathematical Sciences Section, 99th Indian Science Congress Association, KIET University, Bhubaneswar, 3-7th Jan, 2012.
41. A.K. Mahapatra, Somesh Kumar & P. Vellaisamy (2012) Estimation of the hazard rates from exponential populations, Mathematical Sciences Section, 99th Indian Science Congress Association, KIET University, Bhubaneswar, 3-7th Jan, 2012.
42. Somesh Kumar (2012) Some recent results on estimation of restricted parameters. National Conference on Advances and Applications in Statistics, Panjab University, Chandigarh, 20-21 February, 2012.
43. Kanika & Somesh Kumar (2012) Some decision theoretic aspects on the estimation for the mean direction of a Langevin model. International Conference on Optimization Modeling and Applications, University of Delhi, 29th Oct – 2nd Nov, 2012.
44. N. Jana & Somesh Kumar (2012) Classification into two normal populations with a common mean and unequal variances. International Conference on Optimization Modeling and Applications, University of Delhi, Delhi, 29th Oct 29 – 2nd Nov, 2012.
45. M.R. Tripathy & Somesh Kumar (2012) Estimating quantiles of normal populations under order restrictions. International Conference on Frontiers of Statistics and its Applications, Pondicherry University, Puducherry, 21-23rd Dec, 2012.
46. Y. M. Tripathi, Somesh Kumar & C. Petropoulos (2013) Improved estimators for parameters of a Pareto distribution with a restricted scale. Statistics, Science, and Society: New Challenges and Opportunities: 2013 IISA Conference, Chennai, 2nd-5th January, 2013.

47. Kanika & Somesh Kumar (2013) Approximate Bayesian inference for the concentration parameter of a Langevin distribution. 4th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, 18-19th February, 2013.
48. N. Jana, Somesh Kumar & Misra, N. (2013) Classification rules for exponential populations under order restrictions on parameters. International Conference on Mathematics and Computing, HIT, 26-29th December, 2013.
49. Somesh Kumar (2014) Inference in directional distributions. 41st Annual Conference of OMS & International Conference on Industrial Mathematics and Scientific Computing, KIIT University, Bhubaneswar, 4-5th January, 2014.
50. Kanika & Somesh Kumar (2014) Estimation of truncated circular parameter. 5th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, 21-22nd February, 2014.
51. N. Jana & Somesh Kumar (2014) Ordered classification rules for two parameter exponential populations. 5th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, 21-22nd February, 2014.
52. #L. K. Patra & Somesh Kumar (2014) Estimating location parameter of half-normal distribution. 5th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, 21-22nd February, 2014.
53. ^N. Jana & Somesh Kumar (2014) Estimation of ordered scale parameters of two exponential distributions with a common location parameter. 23rd International Conference of Forum for Interdisciplinary Mathematics (FIM) on Interdisciplinary Mathematical, Statistical and Computational Techniques, NIT Karnataka, Surathkal, 18-20th December, 2014.
54. M.R. Tripathy and Somesh Kumar (2014). Equivariant estimation of common mean of several normal populations. International Conference on Statistics and Information Technology for a Growing Nation In Conjunction with XXXIV Annual Convention of Indian Society for Probability and Statistics (ISPS). Department of Statistics (UGC-SAP-DRS-I & DST-FIST SPONSORED) Sri Venkateswar University, Tirupati & Indian Statistical Institute, Kokata. 30th November to 2nd December, 2014.
55. Somesh Kumar & Kanika (2014) Inference on parameters of directional distributions. International Statistics Conference 2014: Statistics and Society in the New Information Age: Challenges and Opportunities, Institute of Applied Statistics Sri Lanka, 28-30th December, 2014.
56. Y. M. Tripathi, Somesh Kumar & C. Petropoulos (2014) Estimation of the lower bounded shape parameter of a Pareto distribution. International Statistics Conference 2014: Statistics and Society in the New Information Age: Challenges and Opportunities, Institute of Applied Statistics Sri Lanka, 28-30th December, 2014.
57. N. Jana & Somesh Kumar (2015) Classification into two parameter exponential populations with a common guarantee time. XVII Annual Conference of the Society of Statistics, Computer and Applications, BIMTECH Bhubaneswar, 23-25th February, 2015.
58. N. Jana, Somesh Kumar, N. Misra & P. Vellaisamy (2015) Estimating linear functions of scale parameters and reciprocals of scale parameters of two gamma populations under ordering. 6th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, IIT Kharagpur, 13-14th February, 2015.

59. ##L. K. Patra and Somesh Kumar (2015) Estimation of ordered means for a bivariate normal distribution. XVII Annual Conference of the Society of Statistics, Computer and Applications, BIMTECH Bhubaneswar, 23-25th February, 2015.
60. N. Jana, Somesh Kumar (2015) Order constrained classification into inverse Gaussian populations. IMS China International Conference on Statistics and Probability, Kunming, 1-4th July, 2015.
61. Y. M. Tripathi, Somesh Kumar & C. Petropoulos (2015) Minimax estimation for the lower-bounded scale parameter of an exponential distribution. 2015 International Indian Statistical Association Conference, Pune, 20-24th Dec, 2015.
62. S. Basu, N. Jana, A. Bag, M. Mahadevappa, J. Mukherjee, Somesh Kumar, R. Guha (2015) Emotion recognition based on physiological signals using valence-arousal model. Third International Conference on Image Information Processing (ICIIP-2015) Jaypee University of Information Technology, Waknaghat, 21-24th December, 2015.
63. Deepak Singh and Somesh Kumar (2016). A Unified approach to generalized dependent trials. (XVIII Annual Conference of the Society of Statistics, Computer and Applications, University of Jammu, 18-20th Feb, 2016.
64. Somesh Kumar and L.K. Patra (2016) Improved estimation of location and scale parameters in scale mixture distributions. International Conference on Recent Advances in Statistics (ICS-2016), University of Mumbai, 27-29th June, 2016.
65. &Deepak Singh and Somesh Kumar (2017) A mixture of bivariate negative binomial distributions and its applications. 8th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, IIT Kharagpur, 4th March, 2017.
66. Deepak Singh and Somesh Kumar (2017) A bivariate mixture of negative binomial distribution and its applications. 19th INFORMS Applied Probability Conference at Northwestern University, USA, 10th - 12th July, 2017.
67. Deepak Singh and Somesh Kumar (2017) Convergence theorems for previous k-sum stochastic model. TOPAS, A National Conference on Engineering Mathematics, IIT Kharagpur 16-17th December, 2017.
68. Somesh Kumar and Kanika (2017) On efficiency and robustness of estimators for parameters in Langevin and Mixture Langevin models. Third International Conference on Statistics for Twenty First Century, Kerala University, Trivandrum, 14-16th December 2017.
69. Deepak Singh and Somesh Kumar (2018). Convergence theorems for sums of dependent moving windows. SIAM Annual Meeting 2018 (AN18), Oregon Convention Center Portland, Oregon, USA, 09-13th July 2018.
70. Anjana Mondal, Somesh Kumar and Markus Pauly (2018) Analyzing one-way classification model under heteroscedasticity. 9th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, IIT Kharagpur, 1st September, 2018.
71. Tulika Rudra Gupta, Somesh Kumar and Markus Pauly (2018) Point estimation procedure for a new stress strength index. 9th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, IIT Kharagpur, 1st September, 2018.
72. Shreyashi Basak and Somesh Kumar (2018) On the Pitman estimator of wrapped Cauchy distribution. 9th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, IIT Kharagpur, 1st September, 2018.

73. Tulika Rudra Gupta, Somesh Kumar and Markus Pauly (2019) Estimation of a stress-strength index for exponential populations. Joint Mathematics Meetings, American Mathematical Society and Mathematical Association of America, Baltimore, USA, 16 – 19th January 16, 2019.
74. Shreyashi Basak and Somesh Kumar (2019) Estimating the mean direction in a wrapped Cauchy distribution. Joint Mathematics Meetings, American Mathematical Society and Mathematical Association of America, Baltimore, USA, 16 – 19th January 16, 2019.
75. Anjana Mondal and Somesh Kumar (2019) One-way ANOVA under exponential error distribution. 10th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, IIT Kharagpur, 31st August, 2019.
76. Tulika Rudra Gupta, Somesh Kumar and Markus Pauly (2019) Inference on a new stress strength index. 10th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, IIT Kharagpur, 31st August, 2019.
77. Shreyashi Basak and Somesh Kumar (2019) Testing homogeneity of mean directions of several Langevin populations. 10th Research Scholar Day, Dept of Mathematics, IIT Kharagpur, IIT Kharagpur, 31st August, 2019.
78. Shreyashi Basak and Somesh Kumar (2019) On nearly-unbiased estimators of a Langevin concentration parameter. 2019 IISA International Conference on Statistics, IIT Bombay, Mumbai, India, 26-30th December, 2019.
79. Anjana Mondal, Somesh Kumar and Markus Pauly (2020) Likelihood ratio and parametric bootstrap tests for analysis of variance under heteroscedascticity. Two Day National e-Conference on Essence of Mathematics in Engineering Applications (EMEA-2020), KL University, Andhra Pradesh, 2-3rd December, 2020.
80. Shreyashi Basak, Kanika and Somesh Kumar (2020) On the problem of estimating parameters of directional distributions. 14th Chandigarh Science Congress (CHASCON 2020), Panjab University, Chandigarh, 17-19 December, 2020.
81. Tulika Rudra Gupta, Somesh Kumar and Markus Pauly (2021) Inference on a new stress-strength index. International Conference (Virtual Mode) on Emerging trends in Statistics and Data Science in conjunction with 40th Annual Convention of ISPS, 7th – 10th September, 2021.
82. Tulika Rudra Gupta and Somesh Kumar (2021) Estimating stress-strength index for exponential populations with a common scale. International Conference (Virtual Mode) on Emerging trends in Statistics and Data Science in conjunction with 40th Annual Convention of ISPS, 7th – 10th September, 2021.
83. Anjana Mondal, Somesh Kumar and Markus Pauly (2021) Testing against ordered alternatives in one way ANOVA model with exponential errors. International Conference (Virtual Mode) on Emerging trends in Statistics and Data Science in conjunction with 40th Annual Convention of ISPS, 7th – 10th September, 2021.
84. Shreyshi Basak, Kanika and Somesh Kumar (2021) Estimating the mean direction of a wrapped Cauchy distribution. International Conference (Virtual Mode) on Emerging trends in Statistics and Data Science in conjunction with 40th Annual Convention of ISPS, 7th – 10th September, 2021.
85. Tulika Rudra Gupta, Somesh Kumar and Markus Pauly (2021) Estimation of new stress-strength index for exponential populations with a common location.

International Conference (Online) on Recent Applications of Statistical Techniques and Analysis (RASTA-2021), Banaras Hindu University, 15-17th December, 2021.

86. L. K. Patra, Somesh Kumar and C. Petropoulos (2022) Estimating Parameters in Scale Mixtures of Location-Scale Distributions. 8th International Conference on Mathematics and Computing (ICMC 2022), VIT, 6-8th January, 2022.
87. Shreyshi Basak and Somesh Kumar (2022) Inference on the common mean direction of several Langevin populations. Annual Conference on Recent advances in Statistical Theory and Applications (RASTA 2022) organized by ICAR-National Academy of Agricultural Research Management in conjunction with 24th Annual Conference of the Society of Statistics, Computer and Applications during 23rd-27th February, 2022.
88. Tulika Rudra Gupta, Somesh Kumar and Markus Pauly (2022) Tests for homogeneity of stress-strength indices in exponential models. Annual Conference on Recent advances in Statistical Theory and Applications (RASTA 2022) organized by ICAR-National Academy of Agricultural Research Management in conjunction with 24th Annual Conference of the Society of Statistics, Computer and Applications during 23rd-27th February, 2022.
89. Anjana Mondal, Somesh Kumar and Markus Pauly (2022) Testing against ordered alternatives in a two-way ANOVA without interaction. Annual Conference on Recent advances in Statistical Theory and Applications (RASTA 2022) organized by ICAR-National Academy of Agricultural Research Management in conjunction with 24th Annual Conference of the Society of Statistics, Computer and Applications during 23rd-27th February, 2022.
90. Tulika Rudra Gupta, Somesh Kumar and Markus Pauly (2022) Inference procedures for exponential models with a common minimum guarantee time. International Conference on Statistics and Data Science: Theory and Practice for Progress and Prosperity in Conjunction with 41st Annual Convention of Indian Society for Probability and Statistics during 11th-13th March, 2022.
91. Anjana Mondal and Somesh Kumar (2022) A parametric bootstrap likelihood ratio test for two-way ANOVA under heteroscedasticity. Sixth International Webinar on Recent trends in Statistical theory and applications-2022 (WSTA_2022) in Conjunction with Fifth Annual Convention of Statistics Fraternity Kerala during 29th June – 2nd July, 2022.
92. N. Jana and Somesh Kumar (2022) Estimation of ordered scale parameters of two exponential distributions with common location parameter. Sixth International Webinar on Recent trends in Statistical theory and applications-2022 (WSTA_2022) in Conjunction with Fifth Annual Convention of Statistics Fraternity Kerala during 29th June – 2nd July, 2022.
93. L.K. Patra, S. Kayal and Somesh Kumar (2022) estimating entropy of an exponential populations with unknown location. Sixth International Webinar on Recent trends in Statistical theory and applications-2022 (WSTA_2022) in Conjunction with Fifth Annual Convention of Statistics Fraternity Kerala during 29th June – 2nd July, 2022.
94. Tulika Rudra Gupta, Markus Pauly and Somesh Kumar (2022) Estimating a new stress-strength index for several exponential populations. International Workshop on Integrated Approaches of Stochastic Modeling and Data Science for Sustainable Development in conjunction with Diamond Jubilee Celebrations of Department of Statistics, SV University, Tirupati 7th -11th September, 2022.

95. Anjana Mondal, Paavo Sattler and Somesh Kumar (2022) Bootstrap likelihood ratio test for two-way crossed ANOVA. Eighth International Conference on Statistics for Twenty-first Century-2022 (ICSTC 2022), Kerala University, Trivendrum. 16th – 19th December, 2022.
96. Anjana Mondal and Somesh Kumar (2022) Testing for homogeneity of several inverse Gaussian means against ordered alternatives. Eighth International Conference on Statistics for Twenty-first Century-2022 (ICSTC 2022), Kerala University, Trivendrum. 16th – 19th December, 2022.
97. ##Tulika Rudra Gupta and Somesh Kumar (2022) Confidence intervals for a stress-strength index for exponential populations. Eighth International Conference on Statistics for Twenty-first Century-2022 (ICSTC 2022), Kerala University, Trivendrum. 16th – 19th December, 2022.
98. Shreyashi Basak, Paavo Sattler and Somesh Kumar (2022) On the common mean direction of several FvML populations. Eighth International Conference on Statistics for Twenty-first Century-2022 (ICSTC 2022), Kerala University, Trivendrum. 16th – 19th December, 2022.
99. Raju Dey and Somesh Kumar (2022) Estimation of overlap and containment indices of distribution functions. Eighth International Conference on Statistics for Twenty-first Century-2022 (ICSTC 2022), Kerala University, Trivendrum. 16th – 19th December, 2022.

*** Best Paper Award to M.R. Tripathy**
****Best Poster Award to Kanika**
*****Young Scientist Award to S. Kayal**
 # Best Poster Award to L.K. Patra
^R.S. Varma Best Paper Award to N. Jana
##Second Best paper Award to L.K. Patra
& Best Paper Award to Deepak Singh
Prof. U.S. Nair Best Paper Presentation Award to Tulika Rudra Gupta

(D) Books and Monographs/Lecture Notes

1. S.P. Pal, Somesh Kumar (Editors) (2006) Quantum Information, Computation and Communication. Allied Publishers Pvt. Ltd., New Delhi.

(E) Eprints (www.arxiv.org/quant-ph)

1. S.P. Pal, S.K. Singh & Somesh Kumar (2003) Multi-partite quantum entanglement versus randomization: fair and unbiased leader election in networks. eprint quant-ph/0306195 v1, 29 June 2003.
2. S.K. Singh, Somesh Kumar & S.P. Pal (2004) Characterizing the combinatorics of distributed EPR pairs for multi-partite entanglement. eprint quant-ph/0306049 v2, 1 Jan 2004. (Earlier version quant-ph/0306049 v1, 6 June 2003).
3. S.K. Singh, S.P. Pal, Somesh Kumar & R. Srikanth (2005) A combinatorial approach for studying LOCC transformations of multipartite states. eprint quant-ph/0406135

v3, 10 Nov 2005. (Earlier versions quant-ph/0406135 v1, 18 June 2004 and quant-ph/0406135 v2, 12 Jan 2005).

4. S.P. Pal, S. Das & Somesh Kumar (2005) Constant communication complexity protocols for multiparty accumulative Boolean functions. eprint quant-ph/0510050 v2, 13 June 2006 (Earlier version quant-ph/0510050 v1, 7 Oct 2005).
5. Archit Rungta, Yash Soni, Parakh Agarwal, Biswajit Ghosh and Somesh Kumar (2020) Real-time and Autonomous Detection of Helipad for Landing Quad-Rotors by Visual Servoing. eprint arXiv preprint arXiv:2008.02236, 5th August 2020.

(F) Development of Video Courses

1. Developed a forty hours Video Course "Probability and Statistics" under National Program of Technology Enhanced Learning (NPTEL) of Ministry of Human Resources and Development, Government of India during 2009-10. Available at http://nptel.iitm.ac.in/courses and You Tube
2. Developed a forty hours Video Course "Statistical Inference" under National Program of Technology Enhanced Learning (NPTEL) of Ministry of Human Resources and Development, Government of India during 2011-12. Available at http://nptel.iitm.ac.in/courses/ and You Tube
3. Developed a eleven hours Module on "Probability and Statistics" for the Video Course "Advanced Engineering Mathematics" under National Program of Technology Enhanced Learning (NPTEL) of Ministry of Human Resources and Development, Government of India during 2011-12. Available at http://nptel.iitm.ac.in/courses/ and You Tube
4. Developed a forty hours Video Course "Statistical Methods for Scientists and Engineers" under National Program of Technology Enhanced Learning (NPTEL) of Ministry of Human Resources and Development, Government of India during 2013-14. Available at http://nptel.iitm.ac.in/courses/ and You Tube
5. Developed a fifteen lecture module on "Vector Calculus" for the Vidoe Course "Advanced Calculus for Engineers under National Program of Technology Enhanced Learning (NPTEL) of Ministry of Human Resources and Development, Government of India during 2021-22. Available at http://nptel.iitm.ac.in/courses and You Tube

(G) Web Course Development

Developed modules in Engineering Mathematics - I and II for National Agricultural Innovation Project under World Bank funded scheme of Indian Council of Agricultural Research.

(H) Online Teaching: Teaching Mathematics –I to students of nearly 130 engineering colleges across the country under "Quality Enhancement in Engineering Education" (QEEE) project of the Department of Higher Education, MHRD during Autumn, 2014-15 in ONLINE mode.

(I) Online Certification Course

1. Offered course "Probability and Statistics" under NPTEL Certification Courses Program of ME during January-April 2016.
2. Offered course "Probability and Statistics" under NPTEL Certification Courses Program of ME during January-April 2017.
3. Offered course "Probability and Statistics" under NPTEL Certification Courses Program of ME during January-April 2019.
4. Offered course "Statistical Inference" under NPTEL Certification Courses Program of ME during January-April 2019.
5. Offered course "Probability and Statistics" under NPTEL Certification Courses Program of ME during July-November 2021.
6. Offered course "Statistical Inference" under NPTEL Certification Courses Program of ME during January-April 2022.
7. Offered course "Advanced Calculus for Engineers" under NPTEL Certification Courses Program of ME during July-November 2022.
8. Offering course "Probability and Statistics" under NPTEL Certification Courses Program of ME during January-April 2023.
9. Offering course "Statistical Inference" under NPTEL Certification Courses Program of ME during January-April 2023.

- **Visits Abroad (Research)**

1. Visited Institute for Mathematical Statistics and Applications in Industry, Technical University Dortmund, Germany during 14th May-22nd June, 2019 as a guest professor for collaborative research with Prof. Markus Pauly.
2. Visited Institute of Statistics, University of Ulm, Germany during 7th June-13th July, 2018 as a guest professor for collaborative research with Prof. Markus Pauly.
3. Visited Institute of Statistics, University of Ulm, Germany during 1st-28th July, 2017 as a guest professor for collaborative research with Prof. Markus Pauly.
4. Gave invited lectures in Wollongong University – Australia, METU – Ankara, Colombo – Sri Lanka, Salzburg – Austria etc.

ACADEMIC OR PROFESSIONAL AWARDS (HONOURS)

- **Awards and Honours**

1. **Elected member of the Executive Committee** of Indian Society for Probability and Statistics for 2023-2024.
2. **Judge** for selecting the Young Statistician Award Winner during 42nd Annual Convention of Indian Society for Probability and Statistics held in 3th-6th January, 2023.
3. **Elected member** of International Statistical Institute, The Netherlands in June 2022.

4. Received **Prof. K.S. Rao Best Researcher Award** from Indian Society for Probability and Statistics during 41st Annual Convention of the Society during 11th-13th March, 2022.
5. Selected for **Prof. D. D. Hanagal Endowment Lecture Award** during 41st Annual Convention of Indian Society for Probability and Statistics during 11th-13th March, 2022.
6. **Jury member** for the Mathematical Sciences Section of 16th Chhattisgarh Young Scientist Congress-2018, held at Durg during 27-28th February, 2018.
7. Received **Platinum Jubilee Lecture Award** in the Section of Mathematical Sciences (including Statistics) at the **103rd Indian Science Congress** held at University of Mysore, Mysuru during 3rd-7th January, 2016.
8. **Jury member** for the selecting Best Young Scientist in the Mathematical Sciences Section at the **103rd Indian Science Congress** held at University of Mysore, Mysuru during 3rd-7th January, 2016.
9. Received **"Bharat Jyoti Award"** in 2011 by India International Friendship Society.
10. **Chief Guest, Guest of Honour, Keynote Speaker, Distinguished Speaker** for various conferences and workshops.
11. **Expert, Visitor's Nominee, Chancellor's Nominee** for Faculty Selection Committees for at various academic and professional organizations., e.g., IITs, NITs and universities.
12. **Member** of boards of studies, examination boards and thesis examiner for large number of academic institutions.
13. **Member** of doctoral scrutiny committees of more than 100 research scholars of various departments of IIT Kharagpur.
14. **General Proficiency Prize** for the best outgoing student in M.Sc. (Statistics) programme at IIT Kanpur.

• Editorial Duties

1. **Associate Editor of American Journal of Mathematical and Management Sciences** (Taylor and Francis) since February 2020.
2. **Associate Editor** of **Journal of Indian Society for Probability and Statistics** during 2006-2008.
3. **Executive Editor** of the **International Journal of Mathematics and Computation** October 2008-Feb 2011 and **Editor** March 2011 onwards.
4. **Executive Editor** of **Bulletin of Statistics and Economics during** Feb 2007 to October 2007 and **Editor-in-Chief** from November 2007 to March 2008, **Editor** from April 2008 to Feb 2011. Now known as **International Journal of Statistics and Economics.**
5. **Editor** of the **International Journal of Applied Mathematics and Statistics** since June 2005**.**
6. **Editor** of the **International Journal of Mathematics and Statistics** since 2013.
7. **Executive Editor** of the **International Journal of Ecological Economics and Statistics** June 2005-June 2006**.**
8. **Guest editor** of the **International Journal of Ecology and Development (Vol. 4, No. W06 and Vol. 4, No. S06).**

9. **Member** of the Editorial Board for the journal **INFORMATION** an International interdisciplinary journal published from **JAPAN** during 1999-2002**.**
10. **Member** of the Editorial Board for the journal **Interstat**, an online Journal from Virginia Tech. **USA** during 1999-2002.
11. **Referee** for most of the important national and international journals such as Statistical Papers, Statistics, J. Applied Statistics, Entropy, J. of Statistical Computation and Simulation, Journal of Applied Mathematics and Computing, J. of Multivariate Analysis, J. Statistical Planning and Inference, Statistics and Risk Modeling, Naval Research Logistics, Communications in Statistics-Theory and Methods, Communications in Statistics-Simulation and Computation, Statistics and Probability Letters, Physica A, Probability and Mathematical Statistics, Indian J. Mathematics, J. Indian Statistical Association, Environmental and Ecological Statistics, IEEE Transactions on Information Theory, Defense Science Journal, Journal of Statistical Theory and Practice, Hacettepe Journal of Mathematics and Statistics, Sankhya, Journal of Statistics and Applications, Annals of Data Science, National Academy Science Letters, Proc. National Academy Sciences, International Journal of System Assurance Engineering and Management, Journal of Inequalities and Applications, Discrete Dynamics in Nature and Society, Springer Plus, International Journal of Statistics and Reliability Engineering, Statistics and Applications etc.
12. **Reviewer** for **Mathematical Reviews** published by American Mathematical Society.
13. **Member** of Doctoral Scrutiny committees of very large number (more than 100) of students in the institute.

- ## Citations and Reviews

1. Research Work **cited** in some **books**, **dissertations** and various **international** journals such as Journal of Biomedical Informatics, Bernoulli, Annals of the Institute of Statistical Mathematics, Statistics & Probability Letters, Statistical Methodolgy, Statistics & Decisions, Statistica Neerlandica, Communications in Statsitics- Theo. & Meth., J. Statistical Planning & Inference, Statistical Papers, Sankhya, J. Statistical Research, Statistics, Metrika, Applied Mathematical Sciences, Revstat, J. Indian Statistical Association, International J. of Applied Mathematics and Statistics, Statistical Methodology, Computational Statistics & Data Analysis, Metron, J. Statistical Theory and Practice, Nonlinear Analysis, Theory and Methods and Applications, Quantum Information and Computation, Algorithmica, Lecture Notes in Computer Science, Lecture Notes in Artificial Intelligence, Physica Scripta, ACM Trans. Comput. Theory, Environment International, J. of Applied Statistics, The Journal of Mathematics and Computer Science, J. Iran. Statist. Soc., Revstat, Far East Journal of Theoretical Statistics, Methodol. Comput. Appl. Probab., Applied Stochastic Models in Business and Industry, IEEE Transactions on Information Theory, IEEE Transactions on Reliability, Brazilian J. of Prob. and Statistics, Applied Mathematical Sciences, International J. of Mathematics and Computer Research etc.
2. Published work has been **reviewed/abstracted** in **Mathematical Reviews/ Statistical Theory and Methods Abstracts, Scopus, WoS**.

3. My paper (with co-authors A.K. Mahapatra and P. Vellaisamy) Reliability estimation of the selected exponential populations. **Statistics and Probability Letters**, (2009) V. 79, pp. 1372-1377 was among the 25 most downloaded papers at Elsevier Sciences website.
4. My paper (with co-authors Y. M. Tripathi and C. Petropoulos) Improved estimators for parameters of a Pareto distribution with a restricted scale. **Statistical Methodology**, (2014) V. 18, pp. 1-13 was among the 25 most downloaded papers at Elsevier Sciences website.

• Membership of Professional Societies

1. Elected **Member of the Executive Committee** of Indian Society for Probability and Statistics for 2004-2006.
2. Elected **General Council Member** of the Forum for Interdisciplinary Mathematics for 2001-2004.
3. Elected **Member** of National Academy of Sciences (NASI), Allahabad, India since 2007.
4. **Life member** of Indian Society for Probability and Statistics since 1994.
5. **Life member** of Indian Statistical Association since 1994.
6. **Life member** of Society for Statistics and Computer Applications since 2021.
7. **Life member** of Forum for Interdisciplinary Mathematics since 2001.

- **Collaborative research** with Univ. of Louisiana, IIT Kanpur, IIT Bombay, Raman Research Institute etc.
- **General Proficiency Prize** for the best outgoing student in M.Sc. (Statistics) programme at IIT Kanpur.

• Major Research Contributions are in the area

1. Decision Theoretic Estimation
   i. Estimation problems in restricted parameter spaces
   ii. Estimation of ordered parameters
   iii. Two-stage & sequential estimation
   iv. Estimating parameters of selected populations
   v. Estimation of bounded parameters
   vi. Estimation of a common mean and common location
   vii. Estimating parameters under equality constraints
   viii. Reliability and hazard rate estimation
   ix. Estimating measures of entropy
   x. Estimation of parameters in directional distributions
2. Construction of combinatorial designs
3. Quantum computation and information
4. Classification of observations
5. Reliability and Stochastic ordering of random variables
6. Limit Theorems for Dependent Random Variables
7. Robotics and Automation
8. ANOVA under heteroscedasticity and/or non-normality

9. Inference on a New Stress-Strength Index
10. Inference on Fisher von Mises Langevin Distribution
11. Inference on a New Overlap Index
12. Parametric and nonparametric bootstrap methods in testing and confidence intervals
13. Testing against ordered alternatives
14. Inference on Wrapped Cauchy distribution

Organizing Workshops/Conferences/Invited Sessions

Name of the Workshop/Conference	Duty	Dates	No. of Participants
Sixth International Webinar on Recent Trendsin Statistical Theory and Applications (WSTA-2022)	**Organized an invited** session on "Estimating parametric functions for exponential populations"	29th June-2nd July, 2022	300
Bhāratīya Jñāna Paramparā: A UGC-HRDC Sponsored Faculty Development Program 2021 in India's Knowledge Systems (IKS): Sources, theories, Concepts and Practices	**Advisor**	16th November-7th December, 2021	40 (FDP) + 200 (speakers and other distinguished persons)
"Bharat-Tirtha: An International Webinar on Indology" IIT Kharagpur	**Chairman**	6th -8th November, 2020	250
TEQIP sponsored Short Term Course "Statistical Methods in Data Analysis"	**Principal Coordinator**	Feb 25-1st March, 2017	40
International Indian Statistical Association Conference 2015, Pune	**Organized an invited** session on "Simultaneous Inference"	Dec 20-24, 2015	300
International Statistics Conference 2014: Statistics and Society in the New Information Age: Challenges and Opportunities, Colombo	**Organized an invited** session on "Advances in Statistical Inference"	Dec 28-30, 2014	300
DST Sponsored Internship Program for Children Science Congress at IIT Kharagpur	**Co-Coordinator**	Dec 9-24, 2013	60
99th Indian Science Congress	**Organized an**	Jan 3-7, 2012	50

Association, KIET University, Bhubaneswar	**invited** session on "Decision Theory"		
DST Sponsored National Meet of Research Scholars in Mathematical Sciences	**Convenor**	October 12-15, 2011	70
Lectures for College Students	**Coordinator**	Jan 19,2011	70
Workshop on Statistical Applications in Defense Research, IIT Kharagpur	**Convener**	Feb 24, 2007	150
International Conference on Multivariate Statistical Methods in the 21st Century, The Legacy of Prof. S.N. Roy, Indian Statistical Institute, Kolkata	**Organized an invited** session on "Ranking and Selection Procedures"	Dec 28-29,2006	150
Workshop on Quantum Information, Computation and Communication, IIT Kharagpur	**Secretary**	Feb 15-18, 2005	100
XXVII Indian Social Science Congress, IIT Kharagpur.	**Convener** Statistics and Mathematics Section	Dec 3-7, 2003	50
International Conference on Interdisciplinary Mathematical & Statistical Techniques, Lucknow	**Organized an invited** session on "Ranking and Selection Procedures"	Dec 27-29, 2004	200
International Conference on Statistics, Combinatorics and Related Areas, Allahabad	**Organized an invited** session on "Decision Theory"	Dec 21-23, 2002	250
MATHWORX-2002 (Mathematics Workshop, IIT Kharagpur)	**Convener**	July 13-14, 2002	200
POLYGON (Mathematics Workshop, IIT Kharagpur)	**Coordinator**	Oct 13-14, 2001	40
MATHWORX-2K+1 (Mathematics Workshop, IIT Kharagpur)	**Coordinator**	July 14-15, 2001	300
MATHWORX-2K (Mathematics Workshop, IIT Kharagpur)	**Coordinator**	July 15-16, 2000	250

• Invited Lectures & Session Chair

1. Delivered an invited lecture on "Glimpses into the Wonderful World of Numbers" in "Nurturance Programme for NTS awardees" held at IIT Kharagpur during 19 -23th December, 2022.

2. Delivered a plenary lecture on "Bootstrap likelihood ratio test for two-way crossed ANOVA" in the Eight International Conference on Statistics for Twenty-First Century-2022 (ICSTC-2022) held at Kerala University Trivendrum during 16th-19th December, 2022.
3. Delivered an invited lecture on "Origin of the Number System: India's Gift to Mankind" during Lecture Series on Indology for international students organized by International Relations Cell, IIT Kharagpur during 13-15th September, 2022.
4. Delivered an invited lecture on "Estimating a new stress-strength index for several exponential populations" in International Workshop on Integrated Approaches of Stochastic Modeling and Data Science for Sustainable Development in conjunction with Diamond Jubilee Celebrations of Department of Statistics, SV University, Tirupati 7th -11th September, 2022.
5. Delivered a Plenary lecture in honour of Late Prof. S.N. Roy on "A parametric bootstrap likelihood ratio test for two-way ANOVA under heteroscedasticity" in the Sixth International Webinar on Recent trends in Statistical theory and applications-2022 (WSTA_2022) in Conjunction with Fifth Annual Convention of Statistics Fraternity Kerala during 29th June – 2nd July, 2022.
6. Delivered invited lectures on "Bootstrap Tests for ANOVA in Normal and Langevin Populations Under Heteroscedasticity" in Short Term Training Program "Emerging Applications of Mathematics and Statistics in Engineering Science and Technology" (EAMSEST-2022) organized by Department of Mathematics, National Institute of Technology, Rourkela during 9th – 15th May, 2022.
7. Delivered invited lecture on "Bootstrap Tests for One Way ANOVA under Heteroscedasticity and Unbalanced Data" in the Department of Mathematics, IIT Madras on 25th April, 2022.
8. Delivered invited lecture on "Developments in Data Science and Statistics" in the Department of Mathematics and Actuarial Science, CRESCENT Institute of Science & Technology, Chennai on 25th April, 2022.
9. Delivered distinguished invited lectures on "History and Current Research in Data Science" and "Origin of Modern Numerals: India's Gift to Civilization" in the "8th Guru Dakshta", a faculty induction program organized by UGC-HRDC University of Allahabad during 23rd March- 22nd April, 2022.
10. Delivered invited lecture on "Inference on the common mean direction of several Langevin populations" 3rd International Conference on Mathematical Techniques and Applications" organized by Department of Mathematics, SRM Institute of Science and Technology, Chennai during 23rd-25th March, 2022.
11. Delivered D. D. Hanagal Endowment Lecture on "Inference Procedures for Exponential Models with a Common Minimum Guarantee Time" and chaired a session on "Design & Analysis of Experiments" during International Conference on Statistics and Data Science: Theory and Practice for Progress and Prosperity in Conjunction with 41st Annual Convention of Indian Society for Probability and Statistics during 11th-13th March, 2022.
12. Chaired Prof. P.V. Sukhatme Endowment Lecture by Prof. P.G. Sankaran on "Proportional Cause-specific Hazards Model for Recurrent Events" during International Conference on Statistics and Data Science: Theory and Practice for

Progress and Prosperity in Conjunction with 41st Annual Convention of Indian Society for Probability and Statistics during 11th-13th March, 2022.

13. Delivered Expert Talk on "Heuristic Tests for Homogeneity of Effects Against Ordered Alternatives in Completely Randomized Designs with Heterogeneous Variances" in pre-Convention International Workshop on Innovations on Data & Statistical Sciences jointly organized by Department of Statistics, Osmania University, Hyderabad and Indian Society for Probability and Statistics on 10th March, 2022.
14. Delivered a lecture "History and Recent works in Statistics and Data Science" as a Chief Guest in the Annual Inter College Festival "Simulation-22" of Department of Statistics, Sri Venkateswara College, University of Delhi on 9th March, 2022.
15. Delivered Expert Talk "Science behind Indian Mathematical, Geometrical and Computational Systems" in International Workshop on Indian Knowledge Systems jointly organized by CoE-IKS, IIT Kharagpur and Department of Yogic Art & Science, Visva-Bharati during 7th-8th March, 2022.
16. Delivered a Distinguished Speaker Talk on "Developments in Statistics and Data Science" on the occasion of National Science Day Celebrations 2022 in National Institute of Technology Andhra Pradesh on 28th February, 2022.
17. Delivered invited lecture on "Tests for Homogeneity of Stress-strength Indices in Exponential Models" in Annual Conference on Recent Advances in Statistical Theory and Applications (RASTA 2022) organized by ICAR – National Academy of Agricultural Research Management in conjunction with 24th Annual Conference of the Society of Statistics, Computer and Applications during February 23-27, 2022.
18. Delivered invited lectures on "Estimating of Direction Parameters" for celebration of Vigyanutsav organized by Department of Statistics, Central University of Haryana under the aegis of Azadi Ka Amrit Mahotsava on 14th February, 2022.
19. Delivered invited lectures on "Estimating Ordered Parameters" and "Estimating Mean Under Restrictions in Normal and Exponential Populations" for celebration of Vigyanutsav organized by Department of Statistics, Central University of Haryana under the aegis of Azadi Ka Amrit Mahotsava on 9th February, 2022.
20. Delivered lectures on "Use of Optimization in Statistical Inference" in one-week faculty development programme on "Optimization: The Omnipresent" organized by Motilal Nehru College in collaboration with Hansraj College during 4th-9th February, 2022.
21. Delivered Keynote lecture "Estimating Parameters in Scale Mixtures of Location-Scale Distributions in the 8th International Conference on Mathematics and Computing (ICMC 2022), VIT, 6-8th January, 2022.
22. Delivered Expert Talk "Origin of Modern Number System" in National Symposium on Mathematical Sciences and Applications (NSMSA-2021) on the occasion of National Mathematics Day (On Srinivasa Ramanujan's 134th birth anniversary) organized by Department of Mathematics, PDPM IIITDM Jabalpur on 22nd December, 2021
23. Delivered invited lecture "Estimation of new stress-strength index for exponential populations with a common location" in the International Conference (Online) on Recent Applications of Statistical Techniques and Analysis (RASTA-2021), Banaras Hindu University, 15-17th December, 2021.

24. Delivered invited lecture on "Indian Mathematics" in Bhāratīya Jñāna Paramparā: A UGC-HRDC Sponsored Faculty Development Program 2021 in India's Knowledge Systems (IKS): Sources, theories, Concepts and Practices organized by Rashtram School of Public Leadership and Rishihood University, Sonipat during 16th November – 7th December, 2021.
25. Delivered 18th Siksha O Anusandhan Fortnightly Academic Lecture (SOAFAL) on 23rd October, 2021 in Siksha O' Anusandhan University, Bhubaneswar.
26. Delivered invited lecture "Indian Contribution to Modern Number System" in Orientation Program on Vedic Mathematics organized by State Council for Educational Research and Training, U.P., Lucknow during 21st – 22nd September, 2021.
27. Delivered invited lecture "Inference on a new stress-strength index" and chaired a session in International Conference (Virtual Mode) on Emerging trends in Statistics and Data Science in conjunction with 40th Annual Convention of ISPS, 7th – 10th September, 2021.
28. Delivered an invited Expert Talk "Current Trends in Statistics and Data Science" in the Department of Statistics, CHRIST University, Bengaluru on 28th August, 2021.
29. Delivered an invited Expert Talk "Recent Trends in Statistical Research" in National Webinar on Recent Trends in Statistical research in Janki Devi Memorial College, University of Delhi on 27th August, 2021.
30. Delivered Expert Talk as Guest of Honour "Indian Origin of Modern Numerals and Decimal Place Value System" in International Conference on Ancient Indian Wisdom: Panacea for Sustainable Well-Being (ICON) organized by School of Management Sciences, Varanasi during 26-27th June, 2021.
31. Delivered invited Expert Talk "On the Problem of Estimating Parameters of Directional Distributions" in 14th Chandigarh Science Congress (CHASCON 2020), organized by Panjab University, Chandigarh during 17-19 December, 2020.
32. Delivered invited lecture "Likelihood ratio and parametric bootstrap tests for analysis of variance under heteroscedascticity" in Two Day National e-Conference on Essence of Mathematics in Engineering Applications (EMEA-2020), KL University, Andhra Pradesh during 2-3rd December, 2020.
33. Delivered lecture on "Introduction to Data Science and Data Analytics for Mine Management" in the short term course "Advances in Technology and Tools in Surface Mining Practices" organized by IIT Kharagpur during August 27 to 31, 2020.
34. Delivered invited lecture "Improved equivariant estimation in location-scale models" in the Statistica Colloquim, Faculty of Statistics, TU, Dortmund on 28th May, 2019.
35. Delivered lectures on "Applications of Fourier Transform in Statistics" in the short term course "Series, Transform Techniques and Their Applications" organized by IIT Kharagpur during February 25 to March 1, 2019.
36. Delivered invited lectures on "Analysis of Variance" in Workshop on Application of Statistical Methods using Statistical Software in the Department of Statistics, Visva-Bharati University, Santiniketan during 27th -31st August, 2018.
37. Delivered invited lecture "Estimation of Parameters in Directional Distributions" in the University of Salzburg, Austria on 7th July, 2018.

38. Delivered lectures on "Univariate Statistics, Parameter Estimation, Tests of Hypotheses and Regression" in the short term course "Fundamental Concepts of Image Processing for Interpretation of Remote Sensing Data" organized by IIT Kharagpur during 16-27th April, 2018.
39. Delivered invited lecture "On efficiency and robustness of estimators for parameters in Langevin and Mixture Langevin models" and chaired a session in Third International Conference on Statistics for Twenty First Century held in the Kerala University Trivandrum during 14-16th December 2017.
40. Delivered invited lecture "Classification Rules for Exponential Distributions under Restrictions on Parameters" at Institute of Statistics, University of Ulm, Germany on 7th July, 2017.
41. Delivered lectures on "Distributions and Statistical Inference" in the Short term course on "Autonomous Rescue Robots and Intelligent Sensing of Environment" organized by IIT Kharagpur during June 20-July 2, 2017.
42. Delivered invited lectures on "Data Analytics" in the Department of Computer Science and Engineering at National Institute of Science and Technology (NIST), Berhampur during 17-19th March, 2017.
43. Delivered a series of lectures on "Probability, Statistical Inference and Regression Analysis" in the Short term course "Statistical Methods in Data Analysis" organized by the Department of Mathematics, IIT Kharagpur during Feb 25-1st March, 2017.
44. Delivered lectures on "Statistics, Probability and Error Modeling" in short term course on "Advanced Surveying and Geo-information for mining and geo-spatial industries" organized by the Department of Mining Engineering, IIT Kharagpur during January 18- 20, 2017.
45. Delivered an invited lecture "Estimating parameters of directional distributions" in Department of Mathematics, IIT Bombay, 2nd January, 2017.
46. Delivered an invited lecture "New classification procedures under restrictions on parameters" in Department of Statistics, University of Mumbai, 3rd January, 2017.
47. Delivered invited lectures on "Methods of Regression Analysis" in the Short Term Course "Role of Mathematical Science in Engineering and Technology" during October 19-23, 2016 at Motilal Nehru National Institute of Technology, Allahabad.
48. Delivered plenary lecture in DST Sponsored Inspire Internship Camp for school children on "Glimpses into the Wonderful World of Numbers" at Government V.Y.T. Post Graduate Autonomous College, Durg during 22-26th October, 2016.
49. Delivered lectures on "Distributions, Estimation, Testing and Regression" in UGC sponsored refresher course at Lakshmibai National Institute of Physical Education, Gwalior on 16-17th September, 2016.
50. Delivered lectures on "Regression Analysis" in the Short Term Training Program on "Probability and Statistics with Applications in Science and Engineering" organized by the Department of Mathematics, National Institute of Technology, Raipur during August 17-21, 2016.
51. Delivered an invited lecture "Improved Estimation of Location and Scale Parameters in Scale Mixture Distributions" in International Conference on Recent Advances in Statistics, University of Mumbai, 27-29th June, 2016 and chaired a session.
52. Delivered series of lectures on "Linear Algebra, Probability, Distributions and Statistical Inference" in the Short Term Course "On 3D Reconstruction using

Geospatial Data and Image Analysis for Situational Awareness in Hazardous Environment" organized by the Department of Mining Engineering, IIT Kharagpur during May 16- 21, 2016.

53. Delivered Platinum Jubilee Award Lecture "On the problem of estimating parameters of directional distributions" in 103rd Indian Science Congress, University of Mysore, 3-7th January, 2016 and chaired a session.
54. Delivered lectures on "Probability and Statistical Inference" in UGC sponsored refresher course at Lakshmibai National Institute of Physical Education, Gwalior on 17th September, 2015.
55. Delivered a series of lectures on Probability during 2-3rd January, 2015 for students of National Institute of Technology, Agartala under project "Ishan Vikas" sponsored by MHRD, New Delhi.
56. Delivered an invited lecture "Inference on parameters of directional distributions" and organized an invited session "Advances in Statistical Inference" in International Statistics Conference 2014: Statistics and Society in the New Information Age: Challenges and Opportunities, Institute of Applied Statistics Sri Lanka, 28-30th December, 2014.
57. Delivered a series of lectures on Computational Methods in Statistics in "Workshop on Advanced Computational Mathematics" at Department of Mathematics, National Institute of Technology, Jamshedpur during 23-27th June, 2014.
58. Delivered an invited lecture "Optimal properties of the MLE of the mean direction" in the Department of Statistics, Allahabad University on 20th May, 2014.
59. Delivered a series of lectures on distribution theory and number theory in "A Short Term Course on Cryptography" organized by the Department of Mathematics, IIT Kharagpur during 18-24 May, 2014.
60. Delivered an invited lecture "On efficiency and robustness of estimators for a spherical location" in Department of Mathematics and Statistics, IIT Kanpur on 16th May, 2014.
61. Delivered an invited lecture "On the Properties of Maximum Likelihood Estimator for Directional Parameter" in Department of Mathematics, ITER, Bhubaneswar, 25th March, 2014.
62. Delivered a series of lectures on Distribution Theory and Statistical Inference in Refresher Program on "Basic Theoretical Topics of Remote Sensing and GeoSpatial Analysis Techniques" for ISRO Scientists/Engineers, organized by Kalpana Chawla Space Technology Cell, IIT Kharagpur, 10-15th Feb, 2014.
63. Delivered an invited lecture and chaired a session in 41st Annual Conference of OMS & International Conference on Industrial Mathematics and Scientific Computing, KIIT University, Bhubaneswar, 4-5th January, 2014.
64. Delivered a lecture in Internship Camp for Children Science Congress at IIT Kharagpur in Dec 2013.
65. Delivered a series of lectures on Statistical Decision Theory in summer internship camp at Indian Statistical Institute, Chennai during May-June 2013.
66. Delivered an invited lecture in Indian Statistical Institute, Chennai in October, 2012.
67. Delivered an invited lecture in INSPIRE Science Camp in NIT Durgapur during 26-30 June 2012.

68. Delivered an invited lecture and chaired a session in the National Conference on Advances and Applications in Statistics, Panjab University, Chandigarh, 20-21 February, 2012.
69. Delivered an invited lecture and chaired a session in the Mathematical Sciences Section, 99th Indian Science Congress Association, KIET University, Bhubaneswar, 3-7th Jan, 2012.
70. Invited to deliver a talk on "Ramanujan's Mathematics: Yesterday, Today and Tomorrow" in National Academy of Sciences India organized workshop in Allahabad, 22-23 Dec, 2011.
71. Visited Department of Mathematics, IIT Bombay on a collaborative research scheme during 9-16th July, 2011 and delivered lecture on 'Reliability estimation in exponential populations'.
72. Delivered an invited lecture and chaired a session in the "New Developments in Theory and Applications of Statistics: An International Conference in Memory of Professor Moti Lal Tiku" held in Middle East Technical University, Ankara, Turkey, 2-4 May, 2011.
73. Delivered a series of lectures in QIP short term course on Business Research Methods organized by the Dept of Humanities and Social Sciences, IIT Kharagpur during 11-23rd July, 2011.
74. Delivered a series of lectures in Refresher course for Railways School teachers, South Eastern Railways on 23rd June, 2011.
75. Delivered a lecture on the educational excursion visit of students of Netaji Mahavidyalaya on 19th January, 2011 in the Department of Mathematics, IIT Kharagpur.
76. Delivered an invited lecture and chaired a session in the International Conference on Development and Applications of Statistics in Emerging Areas of Science and Technology and XXX Annual Convention of Indian Society for Probability and Statistics, University of Jammu, 8-10 Dec, 2010.
77. Delivered an invited lecture in a One Day Conference 'Advances in Mathematics and Statistics', IIT Kanpur, 29-31 October, 2010.
78. Delivered an invited lecture in the XII Ann. Conf. of Soc. for Statistics Computer and Applications, Visva-Bharati, 24-26 Feb, 2010, Santiniketan.
79. Delivered an invited lecture in the 7th International Triennial Calcutta Symposium. Dec 28-31, 2009, Calcutta University, Kolkata.
80. Delivered a series of lectures in National Workshop on Multivariate Analysis and Statistical Inference at National Institute of Technology, Jamshedpur during 22-23rd December, 2008.
81. Delivered an invited lecture in the International Conference on Statistical Paradigms: Recent advances and reconciliations, Jan 1-4, 2008, Indian Statistical Institute, Kolkata.
82. Chaired a session on Optical and Quantum Computing in the "Workshop on Physics & Technology of All-Optical Communication Components and Devices at IIT Kharagpur, October 11-16, 2007.
83. Invited to present a paper in the International Conference "Interdisciplinary Mathematical and Statistical Techniques" at Shanghai Institute for Advanced

Studies, University of Science and Technology of China, Shanghai, China, May 20-23, 2007.

84. Delivered an invited lecture in International Conference on Multivariate Statistical Methods in the 21st Century, The Legacy of Prof. S.N. Roy, Dec 28-29, 2006, Indian Statistical Institute, Kolkata.
85. Delivered invited lectures in the "Workshop on Multivariate Statistical Methods" organized by Indian Statistical Institute, Kolkata, 23-27 December, 2006.
86. Delivered a series of lectures in QIP short term course on "Decision Making Tools in Engineering" organized by the Dept. of Mathematics, IIT Kharagpur from 11th to 24th December, 2006 for Engineering College teachers.
87. Delivered a series of lectures in QIP short term course on "Environmental Impact Assessment and Management Plan" organized by the Dept. of Civil Engg. IIT Kharagpur from 14-19th November 2005.
88. Delivered invited lectures in the "Workshop on Statistical Reliability in Defence Applications" organized by DRDO at Chandipur, September 28-30, 2005.
89. Delivered an invited lecture in the National Seminar on Mathematics at St. Xavier's College Ranchi, April 22-24, 2005.
90. Delivered an invited lecture and chaired a session in the International Conference on Recent Advances in Statistics, IIT Kanpur, Jan 4-6, 2005.
91. Delivered a series of lectures in refresher course for Kendriya Vidyalaya teachers of the South Zone during May 2003 on Probability and Statistics.
92. Visited Department of Mathematics, IIT Bombay on a collaborative research scheme during 21-28th February, 2003 and delivered lectures on 'Quantile Estimation' and 'Estimation of Quantile after Selection'.
93. Delivered a series of lectures in a UGC sponsored refresher course on Recent Advances in Applied Mathematics at Department of Applied Mathematics with Oceanology and Computer Programming, Vidyasagar University, November 2002.
94. Delivered a series of lectures in AICTE sponsored short term course "Modern Mathematical Techniques for Computer Science, Communication and IT" organized by the Dept. of Mathematics, IIT Kharagpur from 20th to 31st May, 2002 for Engineering College teachers.
95. Presented an invited talk at International Conference on Statistics, Combinatorics & Related areas, Univ. of Wollongong, Australia, 2001.
96. Delivered a series of lectures in the UNESCO sponsored short-term course organized by the Department of Mathematics in Jan 2000.
97. Delivered a series of lectures in a UGC sponsored refresher course at Department of Mathematics, Sambalpur University, Dec 1998.
98. Delivered a series of lectures in the Summer Workshop on Multi-Criteria Decision Making organized by the Dept. of Mathematics, IIT Kharagpur, June 1995.
99. Gave an invited talk "Two probabilistic proofs of Stirling's Approximation" in the Annual Conf. of Jammu Mathematical Soc., Jan 1991.
100. Gave an invited talk on "The Pitman estimator of ordered location parameters" in Dept. of Mathematics, Univ. of Roorkee, Feb. 1990.

- **Mathematics Olympiad Activities**

1. Invited to be a Guest Faculty for the Training Camp for Indian students for International Mathematics Olympiad 2002 at Homi Bhabha Centre for Science Education, T.I.F.R. Bombay.
2. Invited to be a Guest Faculty for the Training Camp for Indian students for International Mathematics Olympiad 2001 at Homi Bhabha Centre for Science Education, T.I.F.R. Bombay.
3. Invited Guest Faculty for the Training Camp for Indian students for International Mathematics Olympiad 1996 at Homi Bhabha Centre for Science Education, T.I.F.R. Bombay.
4. Participated in the National Board of Higher Mathematics sponsored "International Mathematical Olympiad Problem Coordinators' Camp" at IIT Kharagpur, Nov 1995.
5. Coordinator for conducting Regional Mathematics Olympiad at IIT Kharagpur (2000-2003).
6. Organizer of Mathematics Olympiad Section of Technology General Championship at IIT Kharagpur (2005-06, 2006-07, 2007-08, 2008-09, 2009-10, 2010-11, 2012-13).

- **Scholarships :**

  - Integrated Scholarship of UP Govt. 1976-78.
  - National Scholarship of Merit 1978-80.
  - Merit Scholarship of UP Govt. 1980-82.
  - Merit-cum –means Scholarship of IIT Kanpur 1982-83.
  - Ph.D. fellowship of IIT Kanpur July1984-Oct'88.

Ph.D. THESIS SUPERVISION

S. No.	Name	Year of Completion	Title of Thesis	Co-Guides (if any)
1.	Ajay Kumar	1995	Estimation of Ordered Parameters When the Ordering is Known	No
2.	Aditi Kar	2000	Estimating Parameters of Selected Populations	No
3.	Y.M. Tripathi	2007	Estimation in Restricted Parameter Spaces	No
4.	M.R. Tripathy	2009	Estimation of Parameters Under Equality Restrictions	No
5.	Ajaya Kumar Mohapatra	2010	Reliability and Hazard Rate Estimation for Exponential Populations	No
6.	Suchandan Kayal	2011	Estimating the Entropy in Exponential and Pareto Populations	No
7.	Kanika	2015	Decision Theoretic Estimation of	No

			Parameters of Directional Distributions	
8.	Nabakumar Jana	2016	Classification Procedures under Restrictions on Parameters	No
9.	Lakshmi Kanta Patra	2017	Improved Estimation of Parameters in Location and Scale Families	No
10.	Piyali Kundu	2018	Estimation of Lifetime Data	Yes
11.	Deepak Singh	2020	Limit Theorems for Some Dependent Models and New Bivariate Mixtures of Discrete Distributions	No
12.	Tulika Rudra Gupta	In progress	Inference on Stress-strength Index	No
13.	Anjana Mondal	In progress	ANOVA under Ordered Alternatives When Variances are Unknown and Unequal	No
14.	Shreyashi Basak	In progress	Statistical Inference for Directional Distributions	No
15.	Raju Dey	In progress	Inference on Overlap Index	No
16.	Priyanka Sehrawat	In progress	Population Balance Equations	Yes
17.	Subha Halder	In progress	ANOVA in General Factorial Designs	No

M. Tech. THESIS SUPERVISION

S. No.	Name	Year of Completion	Title of Thesis	Co-Guides (if any)
1.	G. Jagannathan	1996	Mathmedia – A Multimedia Information System	Yes
2.	G.Uma Devi	1997	DMPS: A Package for Determination of Mechanical Parameters	No
3.	Tania Bannerjee	1997	Determination of Mechanical Parameters Using Image Processing techniques	Yes
4.	Mohini	1998	An Online Office Information Service: Implementation under a Visual Basic Platform	Yes
5.	Pulak Mandal	1999	An Interactive Statistical Support for Configuring Virtual Supermarkets	Yes

6.	C. J. Sahoo	1999	A Network Traffic Analyzer	No
7.	G. Venkata Laxmi	1999	An Online Library Information Service with A user Interface: Implementation under Visual C++ Platform	No
8.	K.S. Sreekumar	2000	A Performance Analysis of Wireless Mobile Ad-hoc Routing Protocols	No
9.	K.T. Gopi	2000	Design and Development of an Application Gateway for HTTP	Yes
10.	Sarika Gupta	2001	Extended Ad hoc on Demand Distance Vector Routing Protocol	Yes
11.	K.K. Sarma	2001	Performance of Equation Based End-to-end Congestion Control in Computer Networks using RED	No
12.	K. Senthil Kumar	2002	An Efficient Algorithm to Construct Deterministic Finite Automata and Its Applications	No
13.	V. Masilamani	2002	Processing in Distributed System Using Product Automata	Yes
14.	Ashish Kumar	2002	Performance Study of Ad Hoc On Demand Distance Vector (AODV) Routing Protocol for Mobile Ad hoc Networks	Yes
15.	Gautam Dhar	2004	Design of an Application Frame Work for Location Based Mobile Query Services – Implementation in JAVA	Yes
16.	Yugandhar Reddy	2004	Public Key Cryptosystems	Yes
17.	Goutam Kumar Dey (AGFE)	2004	Development of Interactive Software for Flood Frequency Analysis and its Application in the Mahanadi River Basin	Yes
18.	Gunda Mahesh	2005	Power Aware Routing in Mobile Ad-hoc Networks	Yes
19.	Kavindra Kumar	2006	Maximum Lifetime Data Aggregation Problem in Wireless Sensor Networks	No
20.	Kapil Kumar	2007	A Quality of Service Architecture for the MAC Protocol of IEEE 802.16 BWA Systems	No
21.	Umesh Kumar Tiwari	2007	Study of Burst Segmentation Technique in OBS Networks	No
22.	Y. Rajasekhar Reddy	2008	Quality of Service Routing	No

23.	Ramakant Prasad	2008	Speeding up the Computations of Elliptic Curve Cryptosystems	No
24.	Devendra Singh	2009	Path Protection with Bandwidth Guarantee & Minimization of Number of ADMs in SONET	No
25.	Hukam Singh Rana	2009	Security in Mobile Ad-hoc Networks Using Trust Based Multipath Routing	No
26.	Upendra Kumar	2009	A Simple Min Cut Algorithm	No
27.	Nikhil Pal	2009	An Algorithm for Discovering Time-interval Sequential Patterns in a Sequence Database	Yes
28.	Ramkrishna	2009	OFDM Implementation of LTE & WIMAX	No
29.	Sharada Sampangi	2010	Design and Implementation of a Communication System Prototype using OFDM on a GNU Radio	Yes
30.	Nikhil Pal	2010	A Compact Scheme for the Biharmonic Formulation of Navier-Stokes Equations	Yes
31.	Upendra Kumar	2010	An Alternative Efficient Algorithm for Finding Minimum Cut of an Undirected Weighted Graph	No
32.	Ramkrishna	2010	OFDM Implementation of LTE & WIMAX – II	No
33.	Odelu Vanga	2011	Implementation Issues of Elliptic Curve Cryptosystem	No
34.	Kuldeep	2011	Secure Path Key Establishment for Key-predistribution in Wireless Sensor Network	No
35.	Manish Raghav	2011	Secure Ad-hoc Network	No
36.	Kunwar Pavanesh Singh	2011	Geographic Routing Algorithm for Wireless Sensor Network	No
37.	Sheetal Waghmare	2012	Cooperative Geographic Routing in Wireless Sensor Networks and Its Optimization	No
38.	Gopal Krishna Trivedi	2013	Deterministic Precise Positioning in Wireless Sensor Network	No
39.	M. Naresh	2013	Affine Pairings on Advanced RISC Machines	No
40.	Y. Rajendra Babu	2013	Hamiltonian Index is NP-complete	No
41.	Avinash Kumar Mittal	2014	Full Steiner Tree Problem for Minimal Steiner Points	No
42.	Pramod Kumar	2014	RFID Authentication Protocol for	No

	Maurya		Low-Cast Tags	
43.	Yogesh Kumar Singh	2014	Diagnosis Tool Using Bayesian Network	No
44.	Vinayak Anand (FE)	2014	Forecasting Price and Analyzing Factors Influencing Price of Gold in International Commodity Market	No
45.	Tirtha Pratim Das	2015	Simulation of Quantum Systems	No
46.	Kumud Ranjan Dhibar	2015	Bio-sensing with Whispering Gallery Modes in Dielectric Microspheres	Yes
47.	Aseem Vats (FE)	2015	Modeling of Commodity Prices	No
48.	Salwa Ali Khan	2016	Web Usage Mining of IIT Kharagpur Server Logs	No
49.	Sayantan Saha	2016	Content Analysis of News articles	No
50.	Arpit Gupta (FE)	2016	Modelling and Forecasting of Exchange Rate (Indian Rs. to USD)	No
51.	Amit Kumar (FE)	2017	Probability of Information-based Trading as a Pricing Factor in Indian Stock Market	No
52.	Anisha Sharma	2018	Hand Gesture Recognition Using Open CV in Python	No
53.	S. Bibek Sankar	2018	Voice Recognition Using Deep Learning	No
54.	Sujay Sen	2018	Handwriting Recognition Using Neural Network	No
55.	Soumy Ladha (FE)	2018	Stock Market State Classification and Prediction Using Markov Chain	No
60.	Susmit Roy (FE)	2019	Mean Reversion in Indian stock Market/Effect of Crude Oil on Indian Bond Market	No
61.	Subhankar Nath	2019	Investment Predication in Stock Market	No
62.	Subhankar Nath	2020	Implementation of Data Structure and Algorithms	No
63.	Uday Pradhan	2020	Object Detection on Low-resolution Images	No
64.	Adarsh Anand	2021	Human Safety	No
65.	Anadi Anant Jain	2021	Advanced Scientific Calculator Using Web Development	No
66.	Devender Singh	2021	Facial Expression Recognition Using Convolutional Neural	No

			Networks	
67.	Mansi Bajaj	2022	Speed Reading App (Using Web Development)	No
68.	Yogendra Verma	2022	Top-N Hybrid Recommender Systems	No
69.	Nihal Jhadi	2022	Drowsiness Detection During Driving	No

M. Sc. THESIS SUPERVISION

S. No.	Name	Year of Completion	Title of Thesis	Co-Guides (if any)
1.	Ajanta Dey	1996	Basic Concepts of Statistical Decision Theory	No
2.	Asimav Bera	1997	A Comparison of Different Criteria for Estimators	No
3.	Mohar Guha	1998	The Principle of Equivariance in the Theory of Estimation	No
4.	Diptish Dey	1997	Some Paradoxes in the Theory of Probability	No
5.	Nandini Chakravorti	1998	Some Algorithms for Generation of Random Variables	No
6.	Kunal Singh	1998	Algorithms for Solving Certain Problems in Combinatorics	No
7.	K.V. Prasanth	1999	Extended Functional Programming	Yes
8.	Ruma Sinha	1999	Development of a Software Package for Solving Problems in Numerical Analysis	No
9.	Aparajita Choudhury	1999	Bootstrapping – Concepts and Methods	No
10.	Nandini Chakravorti	1999	A User Interactive Statistical Software Package	No
11.	Silpa Suthram	2000	Cryptography : A Study of Data Encryption Standard	No
12.	Priyanka	2000	An Internet Tool for Numerical Analysis	No
13.	Animesh Jana	2000	3-D Graphics Tutorial Using OpenGL	No
14.	Shripal Meghani	2001	Network Management: Performance Monitoring of Computer Networks Using Simple Network Management Protocol (SNMP)	No
15.	Rinku Dewri	2001	Web Publishing: An Insight	Yes
16.	Chiradeep	2001	Web Design, Publishing and	Yes

	Mukherjee		Development: An Overview	
17.	Rajarshi Chakraborty	2001	Study of Denial of Service Attacks and Their Prevention	Yes
18.	Alok Ojha	2001	Design and Implementation of Frame Formatting and Service Selection Unit for ECG Bio-Telemetry System Using VHDL.	Yes
19.	Roudra Chakraborty	2001	Decision Theoretic Framework for Statistical Inference	No
20.	Roudra Chakraborty	2002	Order Restricted Inference	No
21.	Saptorshi Kar	2002	Performance of TCP over Different Routing Protocals in Mobile Adhoc Networks	Yes
22.	Geetika Garg	2002	Analysis and Implementation of a New Digital Signature Scheme	No
23.	Geetika Garg	2003	Analysis and Implementation of Some New Digital Signature Schemes.	No
24.	Arunava Chakravartty	2002	Optimal Redundancy Allocation in Reliability Design Problems	Yes
25.	Arunava Chakravartty	2003	(DDSTAP): A Package for Directional Data Analysis	Yes
26.	Saurav Pandit	2003	Model Based Detection of Generic Shapes in Images	Yes
27.	Sandipan Kumar	2002	Model Based Detection of Generic Shapes in Images Using Second Order Edge Maps	Yes
28.	Sandipan Kumar	2003	Error Concealment in JPEG 2000	Yes
29.	Suchitra Sivasankaran	2003	A Survey on Brand Management and Loyalty: Analysis for Hair Care Products.	No
30.	Mansi Kalra	2003	Development of a Tool to Generate Orthogonal Latin Squares	No
31.	Sachdev Pisharodi	2003	Analysis and Control of Chaos in Robotic Manipulators	No
32.	Sudhir Kumar Singh	2003	Multi-Party Quantum Computation and Communication	Yes
33.	Sudhir Kumar Singh	2004	Combinatorial Approaches in Quantum Information Theory	Yes
34.	Rajarshi Chakraborty	2003	Design and Implementation of Mobility Using Session Initiation Protocol	Yes

35.	Rajarshi Chakraborty	2004	Supporting Call Services in VoIP Network	Yes
36.	Alok Ojha	2003	Security Issues in Wireless Mobile Ad hoc Networks –I	No
37.	Alok Ojha	2004	Security Issues in Wireless Mobile Ad hoc Networks –II	No
38.	Shiraj Sen	2003	A Text-To-Speech Synthesis System for Indian Languages –I	Yes
39.	Shiraj Sen	2004	A Text-To-Speech Synthesis System for Indian Languages –II	Yes
40.	Vivek Ramani	2003	Some Important Topics in Probability and Statistics as a Requisite for Estimation Theory	No
41.	Vivek Ramani	2004	Some Topics in Point Estimation	No
42.	Riti Malhotra	2004	Construction of Orthogonal Arrays	No
43.	Kanupriya Sinha	2004	An Interactive Statistical Package for Data Analysis Using JAVA	No
44.	Aparupa Dasgupta	2004	An Interactive Statistical Package for Regression Analysis	No
45.	Mansi Kalra	2005	Implementation of a Deterministic Polynomial Time Primality Testing Algorithm	No
46.	Saket Kumar	2005	Development of a Software Package for seven-Letter Grade Computation	No
47.	Smitalee Prusty	2005	Statistical Quality Control using Control Charts	No
48.	Ranjini Nair	2005	Computation of Tables for Bivariate Normal Distributions	No
49.	Ashish Kumar	2006	Forecasting of Foreign Exchange Using Arima Model and Neural Network	No
50.	Kanupriya Sinha	2006	Interactive Knowledge Search System Using JAVA	No
51.	Saumya Agrawal	2006	Various Techniques for Simulation of Random Variables	No
52.	Pamela Sutradhar	2006	Designing a Webtool to Create Webpages Using HTML and ASP	No
53.	Anindya Roy	2006	Exploring Parallelism Using Quantum Algorithms and developing a Partly Functional C-Implementation of the Shor's Algorithm	No
54.	Ujjwal Raj	2006	Computer Mobile Communication: A New Approach to Access Computers Through	No

			Mobile Phone	
55.	Shivendra K. Singh	2006	Computer Mobile Communication: A New Approach to Access Computers Through Mobile Phone	No
56.	Rumi Ghosh	2007	Statistical Analysis of Internet Traffic via a Proxy Server	No
57.	Priyanka	2007	Portfolio Building Using Forecasting Techniques	No
58.	Anindita Sen Gupta	2007	Construction of Orthogonal Arrays	No
59.	Komal Srivastava	2007	An Interactive Software Package for Regression Analysis	No
60.	Buddhanada Banerjee	2007	Estimating Ordered Parameters of Uniform Populations	No
61.	Rohan Agarwal	2007	Test for Prime Numbers	No
62.	Nikhil Kumar Mittal	2007	The Study and Implementation of Various Cryptosystems	No
63.	Sagoreeka Dey	2007	Statistical Modeling of the Process Conditions for Biomass Production and Sporulation of a Probiotic Culture	Yes
64.	Nishant Gupta	2007	Development of Hindi Text Search Tool with the Help of Lucene	Yes
65.	Sumit Kumar Sinha	2007	Optimization of Return from a Portfolio of Stocks Using genetic Algorithms	Yes
66.	Sourav Dutta	2008	Security of RSA	No
67.	Jyotiska Bhattacharjee	2008	A Study of AIDS in India	No
68.	Aditya Kumar Mishra	2008	Analysis of Employee Salary Data Using Descriptive Statistics and Stratified Sampling	No
69.	Vishesh Totla	2008	Analyzing Factors Affecting Maximum Lifespan of Animals	No
70.	Saurabh Khurana	2008	Analysis of Fertilizer and Pesticide Consumption in India	No
71.	Abhishek Chandan	2008	Categorical Data Analysis of Budget of Government of India	No
72.	Ishapathik Das	2008	Estimating Ordered Parameters of Two Uniform Populations	No
73.	Vikramjeet Bhattacharya	2008	Construction of Orthogonal Arrays, Balanced Arrays and Difference Schemes	No
74.	Chandranghu Chakrabarti	2008	Analysis of Educational Data with the help of Linear Model	No

75.	Surabhi Arora	2008	The Black-Sholes Option Pricing Model	No
76.	Anshumali Srivastava	2008	Behavioral Analysis of Email Traffic and Spam at IIT Kharagpur	No
77.	Pamela Sutradhar	2008	Designing Online Question Bank Using HTML, JSP and MS Access	No
78.	Shilpi Jain	2008	Identifying Production Function for Wheat Output	No
79.	Kumar Rishi Raj	2008	Categorical Data Analysis Using Multinomial Logistic Regression	No
80.	Gaurav Taneja	2008	Visualization and Modeling of Bid Arrivals in Online Auctions	No
81.	Nishant Gupta	2008	Improvements to a Fast High-order Finite Difference Algorithm for Pricing American Options	No
82.	Nishant Gupta	2009	Pricing of CO_2 Emission Certificates	No
83.	Sagoreeka Dey	2009	Statistical Modeling and Optimization of Inoculation Conditions in Fermentation: A Case Study	Yes
84.	Arjun Poddar	2009	Invariant Decision Rules for the Location Parameter of the Location-Scale Uniform Distribution	No
85.	B. Bharagava Rama Sarma	2009	Logistic Regression	No
86.	B. Bharagava Rama Sarma	2009	Outlier Detection Using Different Techniques	No
87.	Kumar Rishi Raj	2009	Survival Data Analysis Using SAS: Estimating the Factors Affecting the Breastfeeding Duration of Mothers	No
88.	Shilpi Jain	2009	Categorical Data Analysis Using Logistic Regression and Three-Way ANOVA	No
89.	Ravi Thanvi	2009	Effective Implementation of AKS Primality Testing Algorithm	No
90.	Debashis Sarangi	2009	Analysis of XML Parsing	No
91.	Jyotiska Bhattacharjee	2009	Construction of Orthogonal Arrays by Kronecker Sum	No
92.	Biswajit Padhy	2009	Analysis of Predictive Power of Yield Curve in Forecasting Recession-Part I	No
93.	Saurabh	2009	Analysis of Predictive Power of	No

	Khurana		Yield Curve in Forecasting Recession-Part II	
94.	Arnav	2009	Workload Characterization and Statistical Analysis of Internet Traffic via a Proxy Server	No
95.	Neelatpala Goshal	2009	Population Projection for the Districts of West Bengal and Fitting of Models	No
96.	Rajasi Das	2009	Analysis of Socio Economic Data	No
97.	Mansi Parekh	2009	Comparative Study of Consumption Expenditure on Fuel by Various Industries of India	No
98.	Dooti Roy	2009	Student Experience with Health Care System in IIT Kharagpur : A Survey and Analysis	No
99.	Biswadip Nandi	2009	Change in the Price of FMCG Commodities in Last Three Months due to Inflation	No
100.	Atrijit Ghosh	2009	Construction of Balanced Arrays and Orthogonal Arrays for More than Ternary Cases	No
101.	Neelatpala Goshal	2010	Population Projection for the Districts of West Bengal and Fitting of Models-II	No
102.	Rajasi Das	2010	Study of Infrastructure of Rural India	No
103.	Mansi Parekh	2010	Inferences Based on Data on Indian Industries in 2005-06	No
104.	Dooti Roy	2010	Student Experience with Health Care System in IIT Kharagpur : A Survey and Analysis –II	No
105.	Biswadip Nandi	2010	Change in the Consumption Pattern of Common Men due to Change in the Price of FMCG Commodities	No
106.	Atrijit Ghosh	2010	Construction of Balanced Arrays and Orthogonal Arrays	No
107.	Ravi Thanvi	2010	Study , Implementation and Improvisation of AKS Primality Testing Algorithm	No
108.	Debashis Sarangi	2010	Analysis of XML Parsing-II	No
109.	Jyotiska Bhattacharjee	2010	Bounds of an Orthogonal Array Using Linear Programming Method	No
110.	Biswajit Padhy	2010	Recession Forecasting : The Probit	No

			Approach	
111.	Saurabh Khurana	2010	Forecasting of US GDP Using Vector Auto Regressive Model	No
112.	Arnav	2010	A Study of Internet Usage Pattern & Statistical Analysis of Internet Traffic via a Proxy Server	No
113.	Shashank Sharma	2010	On the Study and Analysis of Expenditure on NREGA Scheme	No
114.	Prabhdeep Singh	2010	Optimizing decision policy to maximize revenue from TV programs	No
115.	Rahul Bevinahal	2010	Use of Foreign Currency Derivatives and Firm Market Value: Evidence from India	No
116.	Rajeev Verma	2010	Study of Consumer Behavior on Casual/Sports Attire	No
117.	Ashish Kumar	2010	Quantum Search Algorithm for Travelling and Multiple Marked Locations	No
118.	Vibhav Viswanathan	2010	Impact of Options Introduction on the Volatility of the Underlying Stocks	No
119.	Angadhjot Hundal	2010	Prediction of Tipping Points in the Financial Markets	No
120.	Rajeev Verma	2011	Quality Online Banking Services	No
121.	Shashank Sharma	2011	On the Study and Analysis of Expenditure on MNREGA	No
122.	Prabhdeep Singh	2011	Optimizing decision policy to maximize revenue from TV programs-(Cont. from 114)	No
123.	Rahul Bevinahal	2011	Behrens-Fisher Problem: Comparison of Five Test Methods	No
124.	Ashish Kumar	2011	Discrete Time Quantum Random Walk – Position of Moving Marked Location	No
125.	Vibhav Viswanathan	2011	Determination of the Effects of Options Introduction on the Volatility of Underlying NSE NIFTY Stocks	No
126.	Angadhjot Hundal	2011	Prediction of Financial Market Crashes Using the Log Periodic Power Law	No
127.	Akhil Bandhu Hens	2012	Application of Clustering in Portfolio Management and in Classification of Indian States	No
128.	Subhadeep Paul	2012	Classification under Order	No

			Restriction: Two Parameter Exponential, Gamma and Weibull Populations	
129.	Nikita Mishra	2012	Clustering and Classification Techniques for Directional and Mixture Datasets	No
130.	Arpit Gupta	2012	Construction of Binary and Ternary Orthogonal Arrays Using Kronecker Product	No
131.	Ankit Pat	2012	On Construction of a Class of Orthogonal Arrays	No
132.	Pranav Raina (ECE) (BTP)	2013	Estimation of the Impact of Oil Price Fluctuations on Exchange Rate	Yes
133.	B. Saketa Lakshmi	2013	Multiclass Classification of MALDI Imaging Mass Spectrometry Data Using Support Vector Machines	No
134.	Vibhor Dongaonkar	2013	Principal Component and Multiple Regression Analysis in Modeling of Price of Automobiles	No
135.	Seemant Ujjain	2013	Factors Affecting Hedge Fund Performance	No
136.	Nayan Gupta	2013	Analysis of Health Indicators of Indian States Using Factor Analysis	No
137.	Reetesh Chandra	2013	Resource Allocation Optimization Using Genetic Algorithm Based on Fuzzy Fitness Function	No
138.	Abhishek Gupta	2013	Techniques to Avoid Over fitting When There are Nearly as Many Variables as Training Cases	No
139.	Pulkit Jain	2014	Public Transport Network Design	No
140.	Kunal Gupta	2014	Data Mining Using Recommender Systems	No
141.	Vishal Raj	2014	Genetic Algorithm Approach for Construction of Orthogonal Arrays	No
142.	Tarun Tyagi	2014	Construction of Metricized Array Using Genetic Algorithm and Dynamic Programming	No
143.	Meghanath Macha	2014	Unsupervised Classification: Clustering of Click Sequences	No
144.	Sujay Sen	2015	Probability Inequalities for the Sum of Independent Random Variables	No
145.	Poorva Prashant	2015	Stochastic Linear Quadratic	No

	Shevgaonkar		Control of Systems with Fractional Brownian Motion	
146.	Harsh Vardhan Tiwari	2015	Pairs Trading Using Kalman Filter Based Approach	No
147.	Mohit Khetpal	2015	Estimating a Scaling Law Between Risk and Return Relationship in Fixed Income Markets	No
148.	Arpita Mondal	2016	One Way Analysis of Variance Model under Non-normality Assumption	No
149.	Tanushree Murmu	2016	A New Approach of One Way Analysis of Variance under Non-normality Assumption	No
150.	Sanjeev Kumar Tiwari	2016	Sentiment Analysis of Tweets Using Naïve Bayes Classifier	No
151.	Harshita Dudhe	2016	Language Modelling and Named Entity Recognition	Yes
152.	Shefali Yadav	2016	Forecasting Cement Prices	No
153.	Muga Hari Babu (ME, BTP)	2017	Univariate Time Series	Yes
154.	Vengala Harini	2017	Hand Written Digit Recognition	No
155.	Shubhayan Ghosh	2017	Selection of Sports Squads Using Linear and Logistic Statistical Models	No
156.	Anuj Menta	2017	Forecasting of Airfare Prices Using Artificial Neural Networks	No
157.	Kumar Krishna Agrawal	2017	Multimodal Representation Learning	Yes
158.	Sumeet Kumar Singh (AGFE, BTP)	2018	Insolvency Prediction Model Using Multivariate Statistics & Artificial Neural Network	Yes
159.	Aradhya Kasat	2018	Impact on Financial News and Social Media on Stock Prices	No
160.	Arpan Agrawal	2018	Predicting Progression of Parkinson's Disease Using Quantile Regression Forests	No
161.	Ayush Bhargava	2018	Index Fund Optimization Using Genetic Algorithm and Heuristic Local Search Algorithm on Scatter Diagrams	No
162.	Neeraj Bukania	2018	Author Prediction from Text Using Conditional Probabilities of Characters	No
163.	Shivam Adarsh	2018	Prediction on Option Prices	No
164.	Utkarsh	2018	Similarity between Question Pairs	No

	Agrawal			
165.	Harsh Khetan	2018	Integrated Circuit (IC) Detection on PCBs	No
166.	Mayank Bhargava	2018	Non Linear Time Series Analysis	No
167.	Deepak Meena	2018	Limit Theorems and Law of Large Numbers	No
168.	R. Jaiprakash	2018	Penalized Likelihood Estimation for Skew-normal Distributions and Its applications in Insurance Risk Modeling	No
169.	Sourish Ghosh	2019	Learning Task-Relevant Representations for Autonomous Control	No
170.	Shivang Agrawal (CH, BTP)	2019	Optimal Coverage by Swarm of Robots	No
171.	Amit Kumar Pathak (CE, BTP)	2019	Design and Simulation of Quad Tilt Rotor Micro Aerial Vehicle	No
172.	Akshay Jain (ME, BTP)	2020	Hardware Solutions to Increasing Degrees of Freedom in a Drone	No
173.	Aryan Jaiswal (EE, BTP)	2020	Learning Based Environment Aware Model Predictive Controller	No
174.	Anvee Naik	2021	Behaviour Based Swarm Coordination of Aerial Robots for Persistent Target Search	No
175.	Vishwajeet Kumar	2021	Dimensionality Reduction of Delhi Pollution Data	No
176.	Gaurav Suryawanshi	2021	Agent-based Disease Modelling Emulator for SIR Models	No
177.	Abhinav Sanjiv Ukey (ME, BTP)	2021	An Alternative to Swash Plate Mechanism for Attitude Control in Aerial Vehicles	No
178.	Shubham Mondal	2021	Trends in Infectious Disease Modelling	No
179.	Yash Sharma	2021	A survey on various aspects of Brain Computer Interface:Data Classification, Intent Detection	No

180.	Biswajit Ghosh	2021	Intent Detection and Data Classification on brainwaves forno-contact agent control	No
181.	Param Nimesh Goswami	2021	Trajectory Detection using Neural ODE Model as Generators	No
182.	Shubham Mondal	2022	Hinglish Text Classification using ML methods	No
183.	Yash Sharma	2022	Developing an agent controller using 16 channel EEGheadband	No
184.	Biswajit Ghosh	2022	Brain invoked controller for tello drone using 16 channelEEG headband	No
185.	Param Nimesh Goswami	2022	Forecasting Virus Outbreaks with Social Media Data using Neural ODE	No

COURSES TAUGHT at IIT Kharagpur (1994 onwards)	
Course Title	Level
1. Probability & Statistics	B.Tech-II
2. Mathematics –I	B.Tech-I
3. Mathematics-II	B.Tech-I
4. Mathematics-III	B.Tech-II
5. Probability & Statistics	M.Sc.-III
6. Probability & Statistics	M.Sc.-I (2-year)
7. Probability Theory	M.Sc.- II
8. Probability Theory (advanced)	M.Sc.-IV
9. Statistical Inference	M.Sc.-IV& M.Sc.-I (2-year)
10. Measure Theory & Integration	M.Sc.-IV & M.Sc.-I (2-year)
11. Statistical Methods	M.Tech. & Ph.D.
12. Tech. of Analysis & Computer Prog	M.Tech. & Ph.D.
13. Computer Software	M.Tech. & Ph.D.
14. Prog. Languages: Theory & Practice	M.Tech. & Ph.D.
15. Probability & Stochastic Processes	B.Tech-II & III
16. Stochastic Processes & Simulation	M.Sc.-IV & M.Sc.-I (2-year)
17. Sampling Theory	M.Sc. –IV & M.Sc.-I (2-year)
18. Multivariate Analysis	M.Sc. –IV & M.Sc.-II (2-year) & Ph.D.

19. Advanced Multivariate Analysis	M.Sc.-V & M.Sc.-II (2-year)
20. Decision Theory	M.Sc.-V & M.Sc.-II (2-year) & Ph.D.
21. Experimental Designs	M.Sc. –IV & M.Sc.-II (2-year)
22. Mathematical Logic & Logic Prog.	M.Sc.-III
23. Various Statistics Labs	M.Sc.-III, IV, V, M.Sc. –I and II (2-year)
24. Various Computer Labs	M.Sc.-II, III & M.Sc. –I (2-year)/ M.Tech.
25. Real Analysis	M.Sc. -II
26. Math. Logic & Logic Prog. Lab	M.Sc. –III
27. Preparatory Mathematics	Preparatory
28. Computer Programming	M.Tech.
29. Regression and Time Series Models	B.Tech.-III & M.Sc. –III, IV
30. Computational Statistics	M.Sc. and B.Tech. (various senior years)
COURSES TAUGHT at University of Jammu (1988-1994)	
Course Title	Level
1. Probability Theory	M.Sc.
2. Theory of Estimation	M.Sc.
3. Testing of Hypotheses	M.Sc.
4. Regression Analysis	M.Sc.
5. Nonparametric Inference	M.Sc.
6. Statistical Decision Theory	M.Sc.
7. Real Analysis	M.Sc.
8. Measure & Integration	M.Sc.
9. Numerical Analysis	M.Sc.
10. Computer Programming	M.Sc.
11. Topics in Decision Theoretic Estimation	Ph.D.
12. Probability & Statistical Methods	Ph.D.

SPONSORED PROJECTS

Period	Sponsoring Organization	Title of Project	Amount of Grant (in Rs.)	Role
1996-1999	All India Council for Technical Education	Cost Effective Determination of Mechanical Parameters through Mathematical Modeling and Image Processing	5,00, 000.00	Co-P.I.
2003-2005	MHRD, Govt. of	Modernization of the Computer Laboratory and	7,00,000.00	Co-P.I.

	India	Library of the Department of Mathematics		
2006-2011	Department of Science and Technology, Govt. of India	FIST Program Department of Mathematics	21,00,000.00	Co-P.I.
2014-2016	Indian Statistical Institute	Decision Theoretic Inference in Probability Models for Directional Data	5,00,000.00	Co-P.I.
2015-2018	IIT Kharagpur	Autonomous Aerial Navigation	12,03,120.00 +27,54,000.00	P.I.
2015-2018	IIT Kharagpur	Decentralized Terrain Exploration with Robot Swarms	2,50,000.00 +16,55,000.00	P.I.
2014-2015	MHRD	Ishan Vikas	5,00,000.00	Co-P.I.
2017	MHRD	Ishan Vikas	65,000.00	P.I.
2016-2019	MHRD	IIT-PAL	61,50,000.00	P.I.
2018-2020	Indian Council of Medical Research, New Delhi	Task Force Project Proposal: Drone for Vaccine Delivery	67,54,800.00	P.I.
2019-2022	Indian Council of Medical Research, New Delhi	Randomized Controlled Crossover Study on Mindfulness Training to Improve Resilience in Indian College Students (RTR)	24,94,900.00	Co-P.I.

CONSULTANCY

Period	Organization	Nature of Work	Amount of Grant (in Rs.)	Co-investigators (if any)
May-July 2001	Calcutta Port Trust	Investigative Study on the Discrepancy in Determining the Quantity Dredged in the Hooghly Estuary	3,00,000.00	Yes

OTHER RELEVANT INFORMATION

- **Institute Responsibilities**

1. **Dean of Students' Affairs** (31st July, 2017-1st July, 2021). (handling all activities including sports, social, cultural, technical, medical, mental health, disciplinary issues of 13000 + students throughout the year).
2. **President** of Technology Students Gymkhana (September 2014-August 2017). (handling sports, social-cultural and technology related activities of 12000 + students throughout the year).
3. **Warden** of Radhakrishnan Hall of Residence (August 2002-June 2004), Bidhan Chandra Roy Hall of Residence (July 2005-Sept 2007) and (October 2011 - October 2013), Madan Mohan Malviya Hall of Residence (October 2007 – October 2008).
4. **Assistant Warden** of Nehru Hall of Residence (July1998-July1999) and of JCB/HJB Hall of Residence (Aug 1999-June 2002).
5. **Treasurer** of Technology Students Gymkhana (September 2005 - September 2008) and September 2011-August 2014.
6. **Member** of Senate committee on MCM Scholarship and Committee on High Valued Ph.D. Fellowship/Kalpana Chawla Fellowship. 2006-2008.
7. **Member** of Senate Library Advisory Committee January, 2012-December 2013.
8. **Chairman** of the Tender Committee of the Hall Management Center, IIT Kharagpur during 1999 – 2002.
9. **Secretary** of the Technology Club (Faculty Club) during 1996-97.
10. **Member** of Local Organizing Committees of some conferences in the institute.
11. **Vice Chairman,** Joint Admissions to M.Sc. (an all India examination conducted by IITs) 2008 from August 2007-June 2008.
12. **Organizing Chairman**, Joint Admissions to M.Sc. (an all India examination conducted by IITs) 2009 from July 2008 to August 2009.
13. **Member** of the committee to prepare a new course on Financial Engineering.
14. **Member** of the committee to prepare a new course on Business Analytics.
15. **Member** of Official Language Implementation Committee of Rajbhasha Vibhag, IIT Kharagpur since 2007.
16. **Member** PTA, Kendriya Vidyalaya, IIT Kharagpur 2007-08.
17. **Election Officer,** Technology Students Gymkhana 2011-12.

- **Department Responsibilities**

1. Played a major role in **developing** the **curricula** and **syllabi** of **new** Two Year and Five Year Integrated M.Sc. courses in Statistics and Informatics (during 2004-06).
2. **Member** of various committees of the Department of Mathematics such as Post Graduate & Research Committee, Administrative Committee, Course Modernization Committee, Computer Committee, Purchase Committee, UG Committee etc.
3. **Training and Placement In-charge** for Mathematics department from 2002 to 2007 and from April 2013 onwards.
4. **Research Scholar Coordinator** from April 2013 onwards.

5. **Faculty advisor** for Mathematics Colloquium of the Department of Mathematics from July 1999 to June 2002 and July 2005 to June 2007.
6. **Chairman**, Department Purchase Committee July 2007-June 2008, April 2011-March 2013 and October 2013 onwards.
7. **Chairman**, Department Academic Committee October 2010 onwards.
8. **In-charge** of department time-table during 1999-2004 and April 2009-March 2010.
9. **In-charge** of the Computer Lab of the department during Jan 1995 - Sep 1996.
10. **ERP representative during** August 2009-March 2012.
11. **Library Representative** of the department for the Central Library during 2002-2004.
12. **Course co-ordinator**, **faculty advisor** and **faculty councilor.**
13. As a student at IIT Kanpur (1982-1988), actively involved with the activities of **STAMATICS**, a society of faculty and students of department of mathematics and held positions of **Convener** (1983-84) and **President** (1985-86) of the society. Also **Editor** (1987-88) of the magazine **STAMATICA** published by the society.