

Curriculum Vitae

Dr. Surobhi Deka

Personal Information

Full Name	Surobhi Deka
Father's Name	Late Lokshya Pati Deka
Husband's Name	Dr. Bhupen Deka
Marital Status	Married
Date of Birth	10 th April, 1980
Citizenship	Indian

Complete Addresses

Permanent Address	Vill .-Madanpur Dist:Kamrup P.O: Deuduar Assam-781101
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Address for Communication:

Dr. Surobhi Deka
Assistant Professor
Department of Statistics
Cotton College, Panbazar
Guwahati- 781001

Telephone (Mobile)	+91-97060-70529
E-Mail	surobhi1965@gmail.com surobhi@tezu.ernet.in

Educational Qualifications in details:

- PhD, 2010, Tezpur University
Thesis Title: Statistical Modeling of Rainfall Character of North-East India.
Supervisor: Prof. M. Borah, Co-Supervisor: Prof. S. C. Kakaty
- MSc, Statistics, February 2004.
Dibrugarh University
MSc Dissertation: Forecasting Using Exponential Smoothing and Regression Based
Forecast Approach for Sales of Trade and Industry Limited, Tezpur.
Supervisor: Dr. J. Hazarika
- PGDCA, March, 2005
Dibrugarh University

Work Experience

(a) Research Experience

Project Assistant – CSIR sponsored project entitled “**Development, Evaluation and Application of Algorithms for Analysis, Estimation and Forecasting of Natural Hazards: Application to North-East India**” from 25th May 2005 to March 2008.

Principal Investigator: Prof. M. Borah, Tezpur University.

Nature of duties: Research

Post PhD Research Experience:

Worked as a **principal investigator** on a project under **Women Scientists Scheme A** of Department of Science and Technology in the department of Mathematical Sciences, Tezpur University on the topic “**Modeling of Flood Hazard with Special Reference to North East India**” up to January 2012 since the completion of PhD at the year 2010.

Nature of duties: Research

(b) Teaching Experience

Currently working as a **Assistant Professor** in the **Department of Statistics, Cotton University, Guwahati** since 1st October, 2015.

Assistant Professor in Department of Business Administration at NERIM, Guwahati - till September, 2015

Assistant Professor in the school of Business, Kaziranga University, Jorhat since 1st of May 2012 to 5th of April 2014

Experience of taking classes in the post graduate level at **Tezpur University**.

Topics Taught: **Remedial Mathematics** (July-December, 2005 & 2006 in the Dept. of Molecular Biology and Bio-Technology) and **Statistics** (July-December, 2006 in the Dept. of Food Processing Technology)

c) Professional Experience

Worked as an **Enumerator** in the **National Sample Survey Organisation** from February 2005 to May 2005.

Nature of duties: Field Data Collection

Achievements

- Recipient of the **Swapnalika Bhattacharyya Memorial Award** for securing Highest Marks in Statistics in PG 1st and 2nd semester of Dibrugarh University, 2003.
- Secured **1st Class 1st Position** in the M.Sc. (Statistics) Examination 2004 conducted by Dibrugarh University, India

Skill Set

- Programming Languages & Miscellaneous Tools:
 - Fortran77, C,
 - MATLAB
 - SPSS
 - Microsoft- Excel
- Operating System Environments:
 - Dos, Windows

Research

Area of Research

- Applied Statistics
- Extreme Value Distributions
- Statistical Modeling of Weather Data
- Cancer Modeling

a. List of Publications:

(In Referred Journal)

1. **S. Deka and S. Barman (2023)** *Statistical Modeling of Tobacco Related Cancer in Kamrup Urban District, Assam Statistical Review*, Vol. 35, 55-80.
2. **S. Deka and S. Bhattacharjee (2022)** *Analysis of Breast Cancer Patients of North-East India during 2016-2019, JP Journal of Biostatistics* ,Volume 19, Pages 1 - 13.
3. **S. Deka and S. Bhattacharjee (2022)** *Modeling the Age Distribution of Breast Cancer Patient of North-East India, J. Math. Comput. Sci.*, 12 (2022), Article ID 106
4. **S. Deka and S. Bhattacharjee (2022)** *Multivariate analysis of the breast cancer patients in North-East India: Using cox regression, J. Math. Comput. Sci.*, 12 (2022), Article ID 144.

5. **S. Deka and S. Bhattacharjee (2021)** *Application of parametric models to a survival analysis of Breast Cancer patients of North-East India*, **JP Journal of Biostatistics**, Volume 18, Issue 2, Pages 295 - 303
6. **S. Deka (2020)** *Statistical analysis of long-term rainfall trends in Cherrapunji, Meghalaya, India*, **Journal of Applied and Natural Sciences**, **13(1)**, 170-177.
7. **S. Deka (2019)**, *Women's Education in North East India: A review*, **Journal of Women's Studies and Development**, VIII, 115-120 (ISSN: 2350-1189).
8. **S. Deka (2018)** *Determination of the Order of a Markov Chain for Daily Rainfall Data of North East India: "Application AIC criterion"*, **Journal of Applied and Natural Science**, **10(1)**, 80-87.
9. **S. Deka (2014)** *Statistical Analysis of Annual Maximum Rainfall Data of North-East India Based on the Methods of TL-Moment*, **Int. J. Stat. Math.**, **9(1)**, 40-47.
10. **S. Deka, S and B. Deka (2013)** *Zeros of Trigonometric Like Functions via Two Point Boundary Value Problems*, **Mathematical Forum**, 25, 1-14.
11. **S. Deka and M. Borah (2012)**, *Statistical Analysis of Flood Peak data of North Brahmaputra Region of India based on the methods of TL-moment*, **Inter Stat.**, Accepted.
12. **S. Deka, S. C. Kakaty and M. Borah (2011)** *Statistical Analysis of Annual Maximum Rainfall in North-East India: An Application of LH-Moments*, **Theoretical and Applied Climatology**, 104(1-2), 111-122.
13. **S. Deka, S. C. Kakaty and M. Borah (2010)** *Distributions of Annual Maximum Rainfall Series of North-East India*, **European Water**, 27/28, 3-14.
14. **S. Deka, S. C. Kakaty and M. Borah (2010)**, *Statistical Modeling of Wet and Dry Spell Frequencies over North-East India*, **Journal of Applied and Natural Science**, 2, 42-47.
15. **S. Deka, S. C. Kakaty and M. Borah (2009)**, *Fitting of Probability Distributions for daily rainfall data of North-East India*, **Contribution to Applied and Mathematical Sciences**, 4, 42-52.
16. **S. Deka, S. C. Kakaty and M. Borah (2008)**, *Use of Probability Distributions for the Analysis of Daily Rainfall Data of North East India*, **Mausam**, 59, 518-527.
17. **S. Deka, S. C. Kakaty and M. Borah (2008)**, *Statistical Modeling of Rainfall Data: Markov Chain Approach*, **Journal of Empirical Research in Social Science**, 3, 77-82.

(Book Chapter)

- **S. Deka**, *A review on statistical procedure to determine climate change with special reference to North East India*, in **AALORAN**, 1st Ed., March, 2018, **Purbayon Publication**, Guwahati, Assam, on behalf of 115th Orientation Programme, **HRDC, Gauhati University, Guwahati, ISBN 978-81-92955-43-8**.

b. Papers presented in National/International conferences

- *Fitting of Probability Distributions for the Analysis of Daily Rainfall data of four distantly located stations of North-East India*, ” presented in the **national seminar** organized by D.R. College Golaghat on 29-30 Oct. 2007
- *Statistical Modeling of Wet and Dry Spell Frequencies over North East India presented in The 54th Annual Technical Session of Assam Science Society* on 4th of February, 2009, Tezpur University.
- *Statistical Analysis of Flood Peak data of North Brahmaputra Region of India based on the methods of TL-momenst* presented a in the **international conference “Recent Advances in Mathematical Statistics and its Applications in Applied Sciences”** during December 31, 2012 – January 2, 2013 held at Department of Statistics, Guwahati University.
- ‘*Markov chain for daily rainfall data of North East India*’ presented in the **National Conference on Pure and Applied Mathematics** during May 9, 2013 to May 10, 2013 at Royal Institute of Engineering, Guwahati.
- ‘*Statistical Analysis of Annual Maximum Rainfall Data of North-East India based on the methods of TL-moment*’ presented in the **UGC Sponsored National Seminar on Mathematics - its Interdisciplinary Approaches in Modern Curriculum** during 30th and 31st, August 2013, at Devicharan Barua Girls’ College, Jorhat.

c. Resource Person

- Delivered an invited talk on “ *Statistical Modeling of Flood Peak Data of North Brahmaputra region of India*” in the **International Workshop on Hydro-Meteorological Modeling for Flood Prediction in Northeast India**, Cotton University, Guwahati on 07/03/2018

Professional Development Programme

a. National/ International Workshops Attended

- i) 2 days Workshop on “Bioinformatics” organized by Dept. of Statistics, Dibrugarh University (30-31 March, 2004)
- ii) 3 days Workshop on “SQC & OR Concept and Methodologies” organized jointly by ISI, Kolkata and Dept. of Statistics, Dibrugarh University, Assam (4-6 Oct., 2004)

- iii) 5 days National Workshop on “Mathematical Modeling and High Performance Computing” organized by Tezpur University, Assam. (Oct.28-Nov.1, 2005).
- iv) ISI workshop on Demography and Dynamics with Emphasis on Survey Sampling Methodologies held at Deptt. of Mathematical Sciences, Tezpur University (26-28 Oct., 2006)
- v) Workshop on Mathematical Programming and Related topics on Optimization-Methods, Application and Practices", November 12-14, 2007, Organized Jointly by Indian Statistical Institute, Kolkata and Department of Statistics, Dibrugarh University, Assam, India
- vi) Workshop *IPRSW*, 23rd of December, 2010 at Tezpur University, Sponsored by TIFAC, DST, New Delhi
- vii) 7 days workshop on “Analysis” organized jointly by ISI, Kolkata and Dept. of Mathematical Sciences, Tezpur University, Assam (3-9 January, 2012)
- viii) Brainstorming event on “Study of Ocean-Land-Atmosphere Coupling and Extreme events (SOLACE)” held at Cotton College State University from 7th March to 9th March, 2013, Sponsored by Department of Science and Technology, Govt. of India.
- ix) Workshop on “Probability” held at Department of Mathematical Sciences, Tezpur University organized jointly by ISI, Kolkata and Dept. of Mathematical Sciences, Tezpur University, Assam (2-10 January, 2014)
- x) 2-Day special training programme for the teachers of Cotton College organized by IQAC, Cotton College during 28-29 December, 2015.
- xi) One day workshop on “Applications of Elementary Probability and Statistical Inference”, organized by the Department of Statistics, Cotton College on 16th of November, 2015.
- xii) Three days "North East Workshop on Design of Experiments" from 3-5 November, 2016, organized by the Department of Statistics, Arya Vidyapeeth College, Guwahati in collaboration with Statistical Quality Control and Operations Research Unit (SQC & OR), ISI Kolkatta.
- xiii) One day International Workshop on "Hydro-meteorological modelling for flood prediction in North East India" organized by ICRC, Cotton University, Guwahati on 7th March, 2018.
- xiv) Attended the North-East India Energy conclave, a joint endeavor of ICRC, Cotton University and CSIR-NISTADS, 6-7 June, 2018.
- xv) Attended “National Conference on Green Sustainable and Evolving Sciences (GSES-2019) & 64th Annual Technical Session of Assam Science Society” organized by Cotton University, Guwahati on 28-29 June 2019.

- xvi) Attended “Workshop-Cum-Training Program on Statistical Data Analysis Using SPSS, R and Julia” Organized by Gauhati University and ISI, Kolkata at Department of Statistics, Gauhati University from December 3-December 7, 2019.
- xvii) Attended FDP on “Imparting Online Teaching-Learning Methodology During Covid-19 Pandemic” Organized by E & ICT Academy IIT Guwahati held from 17-24 August, 2020 in association with IQAC, B.H. College, Howly and support from SkillGym (OPC) Pvt. Ltd., Guwahati
- xviii) Attended one week FDP on “Scientific language” organized by Department of Mathematics, School of Basic Sciences, The assam Kaziranga University, Jorhat, Assam, India from 26th April- 2nd May 2023.

b. Orientation Programme

- i) UGC- Sponsored Orientation Programme at HRD centre Gauhati University during 7th Feb to 6th March, 2018

c. Refresher Course

- i. 2 Weeks Refresher course on “Data Analysis with Statistical Methods” (21st Dec. 2020 to 3rd Jan. 2021), organized by Teaching Learning Centre, Ramanujan College, University of Delhi and Indian Accounting Association, NCR.

Research Project

Completed:

Title: “Modeling of Flood Hazard with Special Reference to North East India”

Donor: Department of Science and Technology, India under Women Scientists Scheme-A

Amount: Rs. 7, 90,517/-

Period: January 2009 to January 2012.

Output: Publications

- *Statistical Analysis of Annual Maximum Rainfall in North-East India: An Application of LH-Moments*, **Theoretical and Applied Climatology**, 104(2011), 111-122, with S. C. Kakaty and M. Borah.
- *Distributions of Annual Maximum Rainfall Series of North-East India*, **European Water**, 27/28 (2010), 3-14 with S. C. Kakaty and M. Borah.
- “*Statistical Analysis of Flood Peak data of North Brahmaputra Region of India based on the methods of TL-moment*” under preparation.

Ongoing:

Title: “Spatial Interpolation Methods for Estimating Monthly Rainfall Distribution in Assam, North East India”

Donor: Cotton University Under IHRP scheme

Amount: Rs. 1,00,00/-

Period: November, 2023 to April, 2025.

Scientific Service:

Reviewer for the international Journal **Theoretical and Applied Climatology** published by **Springer**.

Reviewer for the international Journal **Sri Lankan Journal of Applied Statistics** published by the **Institute of Applied Statistics**, Sri Lanka, IASSL.

Declaration : I hereby declare that all statements made in this Bio-data are true, complete and correct to the best of my knowledge and belief.

Surobhi Deka