DILLI RAJ BHATTA

Division of Mathematics and Computer Science
University of South Carolina Upstate
800 University Way
Spartanburg, SC 29303 USA
Phone: (864) 503-5156
Email: dbhatta@uscupstate.edu

EDUCATION

2013	Ph.D. in Mathematical Sciences, Worcester Polytechnic Institute *Concentration:* Statistics
2012	M.S. in Applied Statistics, Worcester Polytechnic Institute
2007	M.S. in Mathematics, Western Illinois University
1999	M.Sc. in Statistics, Tribhuvan University, Nepal
1997	B.Sc. in Mathematics, Tribhuvan University, Nepal

RESEARCH INTERESTS

Applied Statistics, Bayesian Statistical Modeling, Data Science

EMPLOYMENT HISTORY

08/2021-present	Associate Professor of Mathematics, University of South Carolina Upstate
08/2015-07/2021	Assistant Professor of Mathematics, University of South Carolina Upstate
08/2014-08/2015	Visiting Assistant Professor, Truman State University
08/2013-05/2014	Adjunct Teaching Professor, Worcester Polytechnic Institute
08/2007-12/2012	Teaching Assistant, Worcester Polytechnic Institute

COURSES TAUGHT

08/2015-present

Lower Division
MATH U102: Elementary Statistics
MATH U120: College Mathematics
MATH U121: College Algebra
MATH U141: Calculus I

Upper Division
STAT U301: Statistical Computing
MATH U315: Statistical Methods I
STAT U410: Introduction to Probability Theory
STAT 413: Introduction to Stochastic Processes
STAT U512: Mathematical Statistics
STAT U516: Statistical Methods II
STAT U598: Statistical Learning/Data Science
STAT U599: Senior Seminar

HONORS AND AWARDS

2024-2025	Excellence in Teaching Award - nominated, USC Upstate
2023-2024	Excellence in Teaching Award – nominated, USC Upstate
2022-2023	Excellence in Teaching Award - nominated, USC Upstate
2021-2022	Excellence in Teaching Award - nominated, USC Upstate
2018-2019	Excellence in Teaching Award - nominated, USC Upstate
2016-2017	Honored Faculty Member - selected by a member of USC Upstate tennis team (Morgan Dodd) and invited to the Faculty Appreciation Luncheon
2011	Graduate Research Accomplishment Award, WPI

PROFESSION ENHANCEMENT ACTIVITIES

2025	Data Science and Machine Learning: Making Data-Driven Decisions by MIT IDSS
2025	Attended Blackboard Day Workshop on January 09, 2025.
2022-present	Attended ANMA Mathematics/Statistics talk series and seminars in various topics.
2024	Completed HarvardX Certificate PH125.2x - Data Science: Data Visualization
2024	Completed HarvardX Certificate PH125.8x - Data Science: Machine Learning
2024	Attended Degree Works training for advising offered by the USC Upstate Registrar Office on March 20, 2024.
2024	Attended the Fall Faculty Day event Embracing Neurodiversity @ USC Upstate on August 17th 2024.
2023	Attended Webinar of New England Journal of Statistics in Data Science (NEJSDS).
2023	Attended Webinar of The Chronicle of Higher Education's event, "Data Science Unbound."
2020	Participated in Teaching Engaging Synchronous Online Courses workshop organized by Center for Academic Innovation and Faculty Support Professional Development (CAIFS), USC Upstate
2020	Completed HarvardX Certificate PH125.1x - Data Science: R Basics
2019	Participated in the SAS Global Academic Program workshop, USC Upstate
2017	Completed the Upstate Online Certification and Qualification Course
2015-2017	Participated in teaching-related workshops organized by Center for Excellence in Teaching and Learning (CETL), USC Upstate

PUBLICATIONS

2025	Binod Manandhar, Kristen Young, Walter James, Pralhada Baidar, Bijay Dongol, **Dilli Bhatta**, Sungsu Kim. Internal Migration: Determining Factors and Socio-Economic Status of Non-Family Reason Migrants. *Open Journal of Social Sciences*, 13(3).

2022   Evan Donald, **Dilli Bhatta**. Predicting myocardial infarction incidence using binary logistic model. International Journal of Contemporary Medical Research 2022; 9(9):11-I7.

2019   Ojha, S., Naka, K., Dimov, L., and **Bhatta, D**., Rarity of shortleaf, slash, and longleaf pine seedlings in oak-pine forest types: An assessment of associated environmental, stand, site, and disturbance factors. *Forest Ecology and Management*, 438, 151-162.

2018   **Bhatta, D**., Nandram, B. and Sedransk, J., Bayesian testing for independence of two categorical variables under two-stage cluster sampling with covariates. *Journal of Applied Statistics*, 45(13), 2365-2393.

2015   Nandram, B., **Bhatta, D.** and Bhadra, D., A likelihood ratio test of quasi-independence for sparse two-way contingency tables. *Journal of Statistical Computation and Simulation*, 85(2), 284-304.

2013   Nandram, B., **Bhatta, D.**, Sedransk, J. and Bhadra, D., A Bayesian test of independence in a two-way contingency table using surrogate sampling. *Journal of Statistical Planning and Inference*, 143, 1392-1408.

2013   Nandram, B., **Bhatta, D.**, Bhadra, D. and Shen, G., Bayesian predictive inference of a finite population proportion under selection bias. *Statistical Methodology*, 11, 1-21.

2013   **Bhatta, D.** and Nandram, B., A Bayesian adjustment of the HP law via a switching nonlinear regression model. *Journal of Data Science*, 11, 85-108.

2013   Wei, R., Nandram, B. and **Bhatta, D.**, A Bayesian Analysis of US Mortality Curves for Race-Sex Domains by Small Area. *Advances and Applications of Statistics*, 34 (2), 137-165.

RESEARCH PRESENTATIONS

2022   Prediction Model for Myocardial Infarction Incidence, 18th Annual SC Upstate Research Symposium (poster presentation).

2020   Penalized Likelihood Logistic Regression with Rare Events-An Application to the Regeneration Dynamics of Pine Species in Oak-Pine Forest Types, ENAR 2020 Spring Meeting, Nashville, TN (virtual presentation through ZOOM).

2018   Bayesian Inference for the Relationship Between Two Categorical Variables with Covariates for Clustered Data, Joint Statistical Meetings (JSM), Vancouver, Canada.

2018   Bayesian Inference for the Relationship Between Two Categorical Variables with Covariates for Clustered Data (invited talk), International Indian Statistical Association (IISA) Conference, Gainesville, FL.

2018   Bayesian Testing for Independence of Two Categorical Variables with Covariates under Cluster Sampling, ENAR 2018 Spring Meeting, Atlanta, GA.

2016   A Bayesian Test of Independence in a Two-Way Contingency Table with Covariates Under Cluster Sampling, ENAR 2016 Spring Meeting, Austin, TX.

2016   A Bayesian Test of Independence in a Two-Way Contingency Table with Covariates Under Cluster Sampling, Joint Mathematics Meetings (JMM), Seattle, WA.

2013   A Bayesian Test of Independence in a Two-Way Contingency Table Under Cluster Sampling (poster), The 27th New England Statistics Symposium, CT.

2012   A Bayesian Test of Independence in Two-Way Tables Under Cluster Sampling, Joint Statistical Meetings (JSM), San Diego, CA.

2011   A Bayesian Adjustment of the Heligman-Pollard Mortality Law, Joint Statistical Meetings (JSM), Miami, FL.

2011   Bayesian Fitting of HP Mortality Law: An Application to US Mortality Data, The 25th New England Statistics Symposium, CT.

2011   A Bayesian Fit of HP Mortality Law Using a Nonlinear Switching Regression Model, Poster Symposium, WPI, Worcester, MA.

TALKS, SEMINARS AND CONFERENCES ATTENDED

2025   Joint Statistical Meeting.

2025   SC Upstate Research Symposium.

2024   The 9th Workshop on Biostatistics and Bioinformatics organized by Georgia State University.

2023   Summer 2023 SAS Educator Conference, Cary, NC.

2022   Pearson Virtual Learning Series Webinar on "Incorporating Pre-Made Projects into Your Statistics Courses".

2021   Sub-Saharan African Network (SUSAN) of the International Biometric Society Conference, Kenya, Africa.

2021   NextGen Data Science Day (DSD) Virtual Conference of New England Statistical Society (NESS).

2021   The WPI Student Chapter of the American Statistical Association (ASA) Seminar.

2021   The Power of Analytics Virtual Conference, USC Upstate.

MANUSCRIPTS REVIEWED

2023   Journal of Development Innovations (1 article)

2023   Open Journal of Social Sciences (JSS) (1 article)

2021   Journal of Development Innovations (1 article)

2017   International Journal of Statistics in Medical Research (1 article)

2016   Statistical Methodology (1 article)

WORKSHOPS

2023   Fostering Diversity in Biostatistics Workshop organized by the ENAR 2023 Spring Meeting, Nashville, TN.

2021   The Data Scientist Learning Journey: Exploring a Bayesian Pathway, SAS Webinar.

2018   Fostering Diversity in Biostatistics Workshop hosted by the ENAR 2018 Spring Meeting, Atlanta, GA.

2016   Fostering Diversity in Biostatistics Workshop hosted by the ENAR 2016 Spring Meeting, Austin, TX.

SERVICE TO THE PROFESSION

2025   Advanced Placement Statistics Reader for Educational Testing Service

2023   Advanced Placement Statistics Reader for Educational Testing Service

2021	Advanced Placement Statistics Reader for Educational Testing Service
2019	Advanced Placement Statistics Reader for Educational Testing Service
2018	Session Chair: Bayesian Latent Variable Methods for Life Sciences (Section on Bayesian Statistical Science), Joint Statistical Meetings, Vancouver, Canada
2018	Session Chair: Recent Advances in Classification and Visualization Methods with Biomedical Applications, International Indian Statistical Association (IISA) Conference, Gainesville, FL
2018	Reviewed a grant proposal for USC's SPARC Graduate Research Grant Program
2017	Session Chair: Small-Area Estimation and Use of Unit-Level Models, Joint Statistical Meetings, Baltimore, MD
2017	Reviewed four grant proposals for USC's SPARC Graduate Research Grant Program
2016	Session Chair: Statistical Methods for Complex Survey Data, Joint Statistical Meetings, Chicago, IL
2016	Judge, MAA Undergraduate Student Poster Session, Joint Mathematics Meetings, Seattle, WA

SERVICE TO COLLEGE AND UNIVERSITY

2025-present	Member, Faculty Senate, Faculty Advisory Committee
2024-present	General Education Committee
2023-2024	Member, Faculty Advisory Committee
2020-2024	Member, Faculty Senate
2018-2020	Member, Graduate Committee
2018-2021	Member, Student Services
2019	Volunteer, World Language Proficiency Assessment
2018	Chair, Grievance Panel
2016-2018	Member, General Education Committee
2016	Q&A Panel member, Final Exam: Test Preparation Measures for Faculty and Students sponsored by the Center for Excellence in Teaching and Learning (CETL)

SERVICE TO THE DIVISION

2024	Member, Data Science Committee.
2024-2025	Chair, Peer Review Committee (PRC)
2021-present	Member, Peer Review Committee (PRC).
2022	Drafted a **Faculty Teaching** section of External Review of math program.
2022	Volunteered in meeting with prospective math major student during Campus Tour Info Session organized by Enrollment Services.
2022	Invited Heather Kirby, Director of Office of Research and Data Analysis, South Carolina Department of Health and Human Services (SCDHHS) to give a presentation to STAT U516 and STAT senior seminar students.
2021	Assisted with Freshman Orientation and Registrations (OAR)
2020	Worked with Dr. Elham Sohrabi and Dr. AKM Jahangir Majumdar in writing a proposal for a new Data Science concentration in Mathematics.
2020	Worked with SAS institute to establish a Tier 1 SAS Academic Specialization program in Data Analytics for MCS. The MOU has been signed by both by both SAS Education and USC Upstate
2019	MCS volunteer for the Open House
2019	Search Committees member to hire two tenure track faculty in Mathematics
2017-present	Assisted with Freshman Orientation and Registrations (OAR)
2016	Search Committee member to hire a Math Instructor/Director of Tutoring Services
2015-2016	Volunteered on the Graduate School Q&A Panel for the Math Club
2015	Volunteered at the USC Upstate College and Career Readiness Showcase

SERVICE TO COMMUNITY

2025	Judge, Piedmont Region III Science Fair, Senior High Mathematics/Computer Science Captain
2024	Judge, Piedmont Region III Science Fair, USC Upstate –Elementary School Mathematics/Computer Science Captain
2023	Judge, Piedmont Region III Science Fair, USC Upstate – Middle School Mathematics/Computer Science.
2022	Judge, Piedmont Region III Science Fair, USC Upstate – Middle School Mathematics/Computer Science
2021	Volunteer, Habitat for Humanity, Spartanburg, SC
2021	Judge, Piedmont Region III Science Fair, USC Upstate –Senior High Mathematics/Computer Science Captain
2020	Judge, Piedmont Region III Science Fair, USC Upstate - Senior High Mathematics/Computer Science
2018	Judge, Piedmont Region III Science Fair, USC Upstate - Captain of Middle School Mathematics Judges
2016	Provided data analysis service to SC Test Prep, a Spartanburg based non-profit organization, through USC Upstate Service-Learning Program

PROFESSIONAL MEMBERSHIP

2024-present   International Indian Statistical Association (IISA)

2021-Present   The New England Statistical Society

2015-present   Association of Nepalese Mathematicians in America (life member)

GRANTS

2023   ENAR and various sponsors funded grant to participate in 2023 ENAR Fostering Diversity in Biostatistics Workshop, Nashville, TN ($800).

2020   Teaching and Productive Scholarship (TAPS) grant from USC Upstate to attend ENAR 2020 Spring Meeting, Nashville, TN ($1,482) – meeting held virtually

2018   TAPS grant from USC Upstate to attend Joint Statistical Meetings, Vancouver, Canada ($1,886)

2018   TAPS grant from USC Upstate to attend ENAR 2018 Meeting, Atlanta, GA ($1,056)

2018   NIH/NIGMS-funded travel award to attend a workshop entitled "Fostering Diversity in Biostatistics" hosted by the ENAR 2018 Spring Meeting, Atlanta, GA ($800)

2017   TAPS grant from USC Upstate to attend Joint Statistical Meetings, Baltimore, MD ($1,276)

2016   The Scholarly Course Reallocation Program award, USC Upstate ($2,500)

2016   TAPS grant from USC Upstate to attend 2016 Joint Statistical Meetings, Chicago, IL ($1,663)

2016   NIH -funded travel award to attend a workshop entitled "Fostering Diversity in Biostatistics," hosted by the ENAR 2016 Spring Meeting, Austin, TX ($750)

2016   The Scholarly Start up Package ($5000) - not funded

2015   TAPS grant from USC Upstate to attend 2016 Joint Mathematics Meeting, Seattle, WA ($1,614)