Dr. Danush K. Wijekularathna

Troy University
Mathematics and Statistics
Assistant Professor
Email: dwijekularathna@troy.edu

Education

Ph D, Texas Tech University, Date Completed: May 2015.
Emphasis/Major(s): Mathematics

MS, Sam Houston State University, Date Completed: May 2009.
Emphasis/Major(s): Statistics

BS, University of Peradeniya, Date Completed: April 2003.
Emphasis/Major(s): Mathematics

Professional Positions

Academic

Assistant Professor, Troy University. (August 2015 - Present).

Visiting Lecturer, Open University of Sri Lanka. (2005 - 2007).

Probationary Lecturer, Rajarata University. (May 2005 - April 2007).

Lecturer (Temporary), University of Peradeniya. (May 2003 - April 2005).

Licensures and Certifications

New to Online: Essentials Part 1, Getting Started - Section A, Online Learning Consortium.
(March 25, 2018 - Present).

Actuarial Exam 1, Society of Actuaries. (September 30, 2013 - Present).

Canvas Certification Training, TROY Online Center for Excellence in eTeaching. (May 11, 2017).

Professional Memberships

Alexandria, VA, American Statistical Association. (October 1, 2013 - May 30, 2020).

Providence, Rhode Island, American Mathematical Society. (November 18, 2009 - February 27, 2017).

Development Activities Attended

Conference Attendance, "Joint Statistical Meetings (JSM)," American Statistical Association, Denver, CO, United States of America. (July 27, 2019 - August 1, 2019).

Conference Attendance, "Landscape of Undergraduate Research in Alabama Higher Education Institutions Conference," The University of Alabama, Tuscaloosa, Al, United States of America. (May 24, 2019).

Workshop, "NExT-SE workshop," Mathematical Association of America, Cleveland, TN, United States of America. (March 7, 2019 - March 8, 2019).

Workshop, "New to Online: Essentials Part 1, Getting Started - Section A," Online Learning Consortium, online. (March 19, 2018 - March 25, 2018).

Webinar, "5 Critical Tools for Your Lean Deployment," MINITAB. (December 7, 2017).

Workshop, "Professional Grant Development Workshop," The Grant Training Center, Auburn, AL, United States of America. (August 16, 2017 - August 17, 2017).

Conference Attendance, "Joint Statistical Meetings (JSM)," American Statistical Association, Baltimore, Maryland, United States of America. (July 29, 2017 - August 3, 2017).

Conference Attendance, "Is Online Teaching Method better than Face to Face Method?," The International Academy of Business and Public Administration Disciplines, Memphis, TN, United States of America. (July 26, 2017).

Certification training, "Canvas Introductory Training 1 & 11," TROY Online Center for Excellence in eTeaching, Troy, AL, United States of America. (May 11, 2017).

Seminar, "Weekly Seminar," Troy University, Troy, Al, United States of America. (2016).

Online Training, "Jigsaw training for Troy University," Train the Trainer Program, Troy, Alabama, United States of America. (November 28, 2016).

Workshop, "Statistical Analysis System, a software system for data analysis and report writing," SCOB Dothan, Dothan, AL, United States of America. (August 29, 2016).

Conference Attendance, "Joint Statistical Meetings (JSM)," American Statistical Association, Chicago, IL, United States of America. (July 30, 2016 - August 4, 2016).

Workshop, "Student Planning Online Advising and Registration," Troy University, Troy, Al, United States of America. (July 13, 2016).

Conference Attendance, "Spring Southeastern Sectional Meeting," American Mathematical Society, Athens, Georgia, United States of America. (March 2, 2016).

Seminar, "Meet the new Professor," Troy University, Troy, Al, United States of America. (October 7, 2015).

TEACHING

Teaching Experience

Troy University
MTH 1105, Intermediate Algebra, 5 courses.
MTH 1110, Finite Mathematics, 1 course.
MTH 1112, Pre-Calculus Algebra, 2 courses.
MTH 1125, Calculus I, 2 courses.
MTH 1126, Calculus II, 1 course.
MTH 2201, Calculus and Its Applications, 4 courses.
MTH 2210, Introductory Statistics, 19 courses.
MTH 2227, Calculus III, 4 courses.
MTH 3350, Statistical Methods & Computations, 3 courses.

MTH 3364, Vector Calculus, 1 course.
MTH 4436, Number Theory, 1 course.
MTH 4451, Mathematical Statistics I, 3 courses.
MTH 4452, Mathematical Statistics II, 2 courses.
MTH 4459, Regression Analysis, 1 course.
MTH 4493, Guided Independent Study, 3 courses.
MTH 4494, Guided Independent Study, 2 courses.
MTH 5536, Number Theory, 1 course.
MTH 5551, Mathematical Statistics I, 2 courses.
MTH 5552, Mathematical Statistics II, 1 course.
MTH 6616, Mathematical Models, 1 course.
MTH 6625, Specialized Study in Area of Mathematics, 1 course.
STAT 2210, Introductory Statistics, 11 courses.
STAT 3350, Statistical Methods & Computations, 1 course.
STAT 4451, Mathematical Statistics I, 1 course.
STAT 4459, Regression Analysis, 1 course.
STAT 5551, Mathematical Statistics I, 1 course.
STAT 5556, Mathematics of Finance, 1 course.

Directed Student Learning

Directed Individual/Independent Study, "Mathematical Modeling," Mathematics. (May 28, 2019 - July 28, 2019).
   Advised: Tameron Thrope

Directed Individual/Independent Study, "Probability for actuaries," Math Departments. (January 9, 2019 - May 8, 2019).
   Advised: Nischal Subedi

Internship Advisor, "Research Project," Mathematics. (May 29, 2018 - July 29, 2018).
   Advised: Nischal Subedi

Internship Advisor, "Research Project," Mathematics. (May 29, 2018 - July 29, 2018).
   Advised: Saurabh Bhandari

Directed Individual/Independent Study, "Probability for actuaries," Mathematics. (January 10, 2018 - May 9, 2018).
   Advised: Brookelynn Smith

RESEARCH

Published Intellectual Contributions

Refereed Journal Articles

Bhandari, S., Wijekularathna, D. (in press). Lifetime Performance Index of Truncated Extreme Value Distribution Using Progressive Type II Right Censored Samples. *Austrian Journal of Statistics.*

Manage, A., Kafle, R., Wijekularathna, D. (in press). Classification of All-rounders in Limited Over Cricket – A Machine Learning Approach. *Journal of Sports Analytics.*

Wijekularathna, D., Yi, H. (2020). Assessing the lifetime performance index of products with two-parameter Rayleigh Distribution under progressively type II right censored samples. *Electronic Journal of Applied Statistical Analysis, 13*(1), 31-46. 10.1285/i20705948v13n1p31

Wijekularathna, D., Subedi, N. (2019). IMPLEMENTING A LIFETIME PERFORMANCE INDEX OF PRODUCTS WITH A TWO-PARAMETER RAYLEIGH DISTRIBUTION UNDER A PROGRESSIVELY TYPE II RIGHT CENSORED SAMPLE. *The North Carolina Journal of Mathematics and Statistics, 5*, 28-40. http://libjournal.uncg.edu/ncjms/article/view/1843/1335

Gunasekera, S., Wijekularathna, D. (2019). Generalized confidence limits for the performance index of the exponentially distributed lifetime. *Communications in Statistics - Theory and Methods, 48*(3), 755-773. https://doi.org/10.1080/03610926.2018.1435810

Wijekularathna, D., Manage, A. B. W., Scariano, S. M. (2019). Power analysis of several normality tests: A Monte Carlo simulation study. *Communications in Statistics - Simulation and Computation, 0*(0), 1-17. https://doi.org/10.1080/03610918.2019.1658780

Wijekularathna, D., Yi, H., Roka, A. (2019). Tests Based on Kurtosis for Multivariate Normality. *Austrian Journal of Statistics, 48*(5), 1-10. https://www.ajs.or.at/index.php/ajs/article/view/853

Other Articles

Bandara, D., Wijekularathna, D. (2017). COMPARISON OF STUDENT PERFORMANCE UNDER TWO TEACHING METHODS: FACE TO FACE AND ONLINE. *International Journal of Education Research, 12*(1).

Arteta, A., Castellanos, J., Zhao, Y., Wijekularathna, D. (2016). Implementing a linear function to measure the quality in governments. *International Journal "Information Theories and Applications, 23*. http://www.foibg.com/ijita/vol23/ijita23-01-p01.pdf

Arteta, A., Wijekularathna, D., Mingo, L. F., gomez, N. (2016). An Isomorphism Based Algorithm to Solve Complex Problems in Communication Networks. *International Journal of Advancements in Computing Technology, 8*(4), 1-14. http://www.globalcis.org/dl/citation.html?id=IJACT-3589&Search=&op=Title

Presentations Given

Wijekularathna, D. (Presenter & Author), Gunesekera, S. (Author Only), Joint Statistical Meeting - 2019, "On Performing Generalized Inferences for the Burr XII Reliability Function based on Progressively Censored Data," Denver, CO, United States of America. (July 28, 2019).

Wijekularathna, D. K. (Presenter & Author), Sumith, G. (Author Only), Joint Statistical Meetings - 2017, "GENERALIZED CONFIDENCE LIMITS ON LIFETIME PERFORMANCE INDEX FOR THE TWO-PARAMETER EXPONENTIAL LIFETIME MODEL WITH A RIGHT TYPE II CENSORED SAMPLE," Baltimore, MD, United States of America. (August 1, 2017).

Wijekularathna, D. (Author Only), Bandara, D. (Presenter & Author), The International Academy of Business and Public Administration Disciplines, "Is Online Teaching Method better than Face to Face Method?," Memphis, TN, United States of America. (July 26, 2017).

Wijekularathna, D., Manage, A. B., Joint Statistical Meeting, "Classification of All-Rounders in Limited-Over Cricket," American Statistical Associations, Chicago, IL, United States of America. (August 1, 2016).

Wijekularathna, D. K. (Presenter & Author), Ananda, M., Joint Statistical Meetings, "Comparison of several Normality Tests," ASA, Chicago, il, United States of America. (August 1, 2016).

Wijekularathna, D. K. (Presenter & Author), Mansouri, H., AMS Southeastern Sectional Meeting, "Rank Procedures for Testing Sub Hypotheses in Repeated Measures Design," American Mathematical Society, Athens, Georgia, United States of America. (March 6, 2016).

Contracts, Grants and Sponsored Research

Other

Wijekularathna, D., "Paper Presentation Grant," Troy University, $750.00. (February 22, 2019 - August 26, 2019).

Research in Progress

"Multivariate Normality Tests Based on 2nd-Power Skewness and Kurtosis" (Writing Results). Desgagne and Micheaux [3] introduced the 2nd-power skewness and kurtosis, which are interesting alternatives to the classical Pearson's skewness and kurtosis. They proposed two powerful univariate test statistics based on 2nd-power skewness and kurtosis. In this paper, four multivariate normality tests that are based on 2ndpower skewness and kurtosis are proposed. The proposed tests are very convenient to use for checking multivariate normality. Upper 5 percentiles and type I error are investigated through simulations. The empirical power of proposed test statistics are compared with five currently-available test statistics. Alternative distributions are used to calculate the empirical power of the tests studied here. The distributions used here arise from four different categories: symmetric short-tailed, symmetric long-tailed, asymmetric, and mixture distributions.

SERVICE

University Service

Committee Member, Quality Enhancement Plan Committee. (October 7, 2019 - Present).

ASSOCIATE CHAIR, ASSESSMENT COMMITTEE. (August 15, 2018 - Present).

Committee Member, PUBLIC RELATIONS and OUTREACH COMMITTEE. (August 15, 2018 - Present).

Faculty Advisor, Pi Mu Epsilon. (January 15, 2018 - Present).

Faculty Advisor, Indian Student Association. (October 16, 2017 - Present).

Committee Member, Curriculum Committee. (August 31, 2017 - Present).

Faculty Advisor, Math Club. (August 31, 2017 - Present).

Committee Member, Action Plan Committee. (August 13, 2017 - Present).

Committee Member, Educational Technology Committee. (August 2017 - Present).

Committee Member, Faculty Senate. (August 1, 2017 - August 1, 2018).

Committee Member, Troy MathFest. (January 3, 2018 - April 7, 2018).

Committee Member, Trojan Student Appreciation Day. (August 22, 2017 - April 4, 2018).

Committee Member, Search Committee for the Assistant Professor/Associate Professor/Professor (Faculty). (January 3, 2018 - March 10, 2018).

Committee Member, Search Committee for the lecturer/Assistant Professor. (June 25, 2017 - July 15, 2017).

Committee Member, Troy MathFest. (March 20, 2017 - April 8, 2017).

Troy Math Day. (February 10, 2017 - February 25, 2017).

Committee Member, Troy Math Day. (February 10, 2017 - February 25, 2017).

Committee Member, MATH FEST 2016. (2016).

Committee Member, Statistical Minor. (2016).

Committee Member, Alabama High School Math Contest. (April 2016).

Professional Service

Reviewer, Journal Article, Journal of Statistical Computation and Simulation. (March 21, 2020 - June 3, 2020).

Reviewer, Journal Article, Journal of Applied Statistics. (February 24, 2020 - April 4, 2020).

Reviewer, Conference Paper, Postgraduate institute of science research congress 2016, Peradeniya. (2016).