1st International Conference on Recent Trends in Statistics Data Analytics with Applications in Natural Sciences

on
May 9, 2024

at
Air University Main Campus
Islamabad, Pakistan

CONFERENCE PROGRAMME

SESSIONS PROGRAM

Thursday, May 9, 2024

0800-0930 Hrs.	**Registration and Caucus**
0930-1100 Hrs.	**1st Inauguration Ceremony**
1100-1130 Hrs.	Refreshment
1130-1300 Hrs.	Room-LTC Hall:
	Room-Main Auditorium:
	Room-IAA G02:
	Room-Training Room BIC:
1300-1400 Hrs.	Lunch and Prayer
1400-1530 Hrs.	Room-AUSOM Auditorium:
	Room-Main Auditorium:
	Room-IAA G02:
	Room-Training Room BIC:
1530-1630 Hrs.	**Business Session (Invited Talks)**
1630-1700 Hrs.	**Closing Ceremony**
1700-1730 Hrs.	Tea

City Tour – Sight Seeing

1730-1930

INAUGURAL SESSION

0800-0930 Hrs.	Registration and Caucus
0930-0935 Hrs.	National Anthem
0935-0940 Hrs.	Recitation from Holy Quran
0940-0950 Hrs.	Welcome Address by **Dr. Ammara Nawaz Cheema** Chair Conference and Patron ICRSTDA
0950-1000 Hrs.	Address by **Air Marshal Abdul Moeed Khan HI(M)** Vice Chancellor Air University
1000-1010 Hrs.	Address by **Dr. Naeem uz Zafar** Chief Statistician Pakistan Bureau of Statistics
1010-1020 Hrs.	Inaugural Address by **Ms. Shaza Fatima Khawaja** Chief Guest
1020-1045 Hrs.	Keynote Talk by **Prof. Dr. Shahjahan Khan** Emeritus Prof. University of Southern Queensland Australia; Vice Chancellor Asian University Bangladesh
1045-10500 Hrs.	Collaboration Address by **Mr. Rashid** GM Sales Ruden Enclave Project by RMRSCO
1050-1100 Hrs.	Vote of Thanks by **Dr. Rashid Mehmood** Dean Faculty of Basic and Applied Sciences
1100-1130 Hrs.	Refreshment

TECHNICAL SESSIONS

09.05.2024 (1130-1300 Hrs) Room- Main Auditorium

Technical Session-1: Machine Learning & Artificial Intelligence	
Chairperson:	Dr. Shams ul Islam, Comsats University
Rapporteur:	Dr. Waqas Sarwer, Air University

Title	Name of Author(s)
002: A comparative study of classical techniques and machine learning algorithms in predicting coronary heart disease based on dietary intake	Rimsha Zahid, Dr. Sehar Saleem
003: Assessing the impact of household fuel choices on household energy expenditures using machine learning and classical approach: Evidence from household integrated economic survey (HIES)	Warda Mukhtar, Dr. Sehar Saleem
005: Artificial neural networks based intelligent analysis of hydromagnetic heat transport with soret & dufour effects under boundary stress in divergent/convergent channels	Muhammad Naeem Aslam, Nadeem Shaukat, Niat Nigar
013: Smart helmet with integrated global system for mobile communication, vitals, and hazardous event detection	Farwa Suman
023: Artificial Intelligence Traffic Control Signal Using Machine Learning Techniques	Hifsa Shahzadi, Sawera Nadeem Ammara Nawaz Cheema
025: Enhanced Human Activity Recognition through a Lightweight Custom CNN Using Sensor data	Muhammad Arslan, Ismat Saira Gillani, Amanullah Yasin, Ehatisham-ul-Haq
026: Skin Cancer Detection and Classification by using Deep Learning. FPS and Accuracy Comparison of Custom Model, RESNET 18 and ALEXNET	Ismat Saira Gillani, Muhammad Arslan, Muhammad Rizwan Munawar, Muhammad Talha
030: Image Processing Techniques for Brain Tumar Detection	Hifza Naeem, Mehwish Asghar
069: A Novel Framework: Evaluating Stack-Based Windows Memory Mitigations	Moiz Abdullah, Khwaja Mansoor Ul Hassan, Syed Shujjah Abu Bakar
073: Applications of Perturbation Method to Slove Nonlinear Differential Equations	Muhammad Izaan Ullah Khan, Khalil Ahmad
080: Detection and Classification of COVID-19 and Lung Diseases from Chest X-Rays based on Transfer Learning with Fine Tuning	Ansar Rahman, Shams-ul-Islam, Safdar Munir, M Saleem, Sajjad Khan
061: Developing Benign File Synthesizer Using GANs	Moiz Abdullah
087: Double General Integral Transform for Solving Hyperbolic Boundary Value Problem	Ayesha Zahid, Ayesha Bibi, Amna Ajaib

09.05.2024 (1130-1300 Hrs) Room- G02

Technical Session-2: Statistics & Probability Theory	
Chairperson:	Dr. Muhammad Kashif; University of Agriculture Faisalabad
Rapporteur:	Mr. Tauseef Ahmed; Air University

Title	Name of Author(s)
014: Bayesian model selection for burr family distribution using censored data	Rabbia Abid, Farzana Akhtar Abbasi
015: Bayesian analysis of length biased exponential distribution with applications	Rida Fatima, Farzana Akhtar Abbasi
016: Estimating drought risk through classical and Bayesian paradigm	Safoorah Sabir, Touqeer Ahmad
017: A new quantile based approach for LASSO estimation	Hina Naz, Ismail Shah
020: Bayesian and E-Bayesian estimation of the inverse Gaussian distribution under different loss function	Amara Javed, Aqsa Mushtaq and Nasir Abbas
040: Bayesian Analysis of Shape Parameter of Top-Leone Distribution	Farkhanda Mubarak, Sobia Iqbal, Wajiha Nasir
066: Intuitionistic Hesitant Fuzzy Partitioned Maclaurin Symmetric Mean Aggregation Operators-Based Algorithm and Its Application in Decision Making	Muhammad Azeem, Dr. Madiha Ghamkhar
067: Vibration frequency analysis of four-layered cylinder-shaped shell with effect of FGM central layers	Dr. Madiha Ghamkhar
076: Empirical illustrations of new exponential exponentiated generalized weibull distribution using different extreme events data sets	Muhammad Safiullah Khan, Dr. Muhammad Kahif Rasheed
088: Behaviour of Hausdroff Operator on Weighted CBMO Herz Space and P-adic Space	Amna Ajaib, Muneeba Naveed, Alina Hussain, Hamail Shaukat
089: Some Weighted Inequalities for Hausdorff Operators and Commutators on Morrey-Herz Spaces	Alina Wasif, Malaika Zahid, Rabail Rahman, Amna Ajaib

09.05.2024 (1130-1300 Hrs) Room- LTC Hall

Technical Session-4: Population Studies & Bio Statistics	
Chairperson:	Prof. Dr. Muhammad Zubair Khan; Director ORIC, Ministry of National Health Services
Rapporteur:	Dr. Atif Hassan Soori; Air University

Title	Name of Author(s)
007: Determinants of infant mortality in Pakistan	Marium
019: Statistical insights into blood flow patterns in the internal jugular vein under varied stenosis and venous conditions	Anas Rashid, Syed Atif Iqrar, Aiman Rashid and Marian Simka

021: Comparison among emotional regulation, stress and self-perceived health of autistic children parents and normal children parents	Anjum Afshan, Aaiza Nadeem
022: Effect of physical activity on sedentary behavior and psychological well-being	Inzar Naeem, Ghazal Javed, Aqsa Hammad, Ujeara Rubab
027: MRI U-Net Based Semantic Segmentation for Enhanced Brain Tumor Diagnosis	Muhammad Arslan
028: Advancement in Sentiment Analysis via Computational Techniques: A Review of Approaches Applied to Social Media Data	Abdul Baqi Malik
029: Efficacy of Betalyte Electrolyte in Reducing Broiler Chicken Morality; A Commercial Study in Sambrial, Pakistan	Kainat Naeem, Mehwish Asghar, Marya Murrawat
031: Enhancing Lung Cancer Diagnosis: Unravelling the Power of Survival Analysis and Multinomial Regression for Precision Healthcare	Tehreem Fatima, Mehwish Asghar
032: Knowledge, Awareness and attitude of graduates and postgraduates' females about premarital screening and genetic counselling	Aneeza Hameed, Aniqa Rafique, Mehwish Asghar
085: The mathematical modelling for COVID-19 transmission dynamics and impact of water pollution on in Pakistan	Amna Ajaib

09.05.2024 (1130-1300 Hrs) Room- Training Room BIC

Technical Session-8: Online	
Chairperson:	Dr. Ayesha Nazuk; NUST
Rapporteur:	Dr. Tanzeela Shaheen and Dr. Saleem Ullah; Air University

Title	Name of Author(s)
001:Synthesis and luminescence properties of terbium doped	Iqtidar Ali
006: Statistics Trends	Moiz Abdullah
009: Steady and pulsatile Newtonian fluid flow in straight porous tubes	Nosheen Zareen Khan, M Bataineh, N. Akram, Aqsa
010: Evaluation of garlic massed yield under different irrigation methods in Sistan region	Behnam Bakhshi, Muhammad Reza Naroui Rad, Ahmad Seraj and Muhammad Keshtgar Khajedad
011: Multivariate statistical analysis and machine learning approaches in melon for suitable selection	Muhammad Reza Naroui Rad, Ahmad Ghasemi, Ammara Nawaz Cheema and Ramin Rafezi
012: An extended generalized Pareto regression model for count data	Touqeer Ahmad
072: Bayesian Machine Learning: Bridging Theory with Real-World Applications	Hassan Bin Abid

077: Studies and integration of multiagent systems and ontologies for the generation of contextualized documents in complex systems	Strasbourg, Dr. Stéphane GALLAND, Dr. Christophe NICOLLE
081: Harmonizing Genotype Selection Strategies: Advancements of Multi Environmental Trails Analysis in Crop Development	Behnam Bakhshi, Mohammad Reza Naroui Rad
090: Anomaly Detection using Machine Learning	Latif Ejaz, Ammara Nawaz Cheema

09.05.2024 (1400-1530 Hrs) Room- AUSOM Auditorium

Technical Session-5: Statistics & Stochastic Process	
Chairperson:	**Prof. Dr. Zawar Hussain; Islamia University Bahawalpur**
Rapporteur:	**Dr. Salman Arif Cheema; National Textile University Faisalabad**

Title	Name of Author(s)
024: Modelling the corruption dynamics: A theoretical approach	M. I. Aslam, K. Ishfaq, Y. N. Anjam, A. N. Cheema
049: A New Exponential Type Estimator of Finite Population Mean Based on the Dual Use of the Auxiliary Information	K. Ullah, G. O. Kadilar, A. N. Cheema, A. Mehmood, Z. Hussain
050: Comparative Analysis of Quantitative Randomized Response Technique for Data Collection in Sensitive Survey	Shoaib Iqbal, Zawar Hussain
071: A theoretical approach to study drinking epidemic	K. Ishfaq, I. Shahid, M. I. Aslam, Y. N. Anjam, M. Arshad
074: Investigating exponential type scrambling variable in quantitative randomized response models	Sayeda Tahira Nazar, Zawar Hussain
082: Empirical illustrations of new exponential exponentiated generalized weibull distribution using different extreme events data sets	Muhammad Safiullah Khan, Dr. Muhammad Kahif Rasheed
083: Investigating exponential type scrambling variable in quantitative randomized response models	Sayeda Tahira Nazar, Zawar Hussain
047: Spatial Evenness and Pandemics: A demonstration of Bio-diversity Conceptualization	S. A. Cheema, A. A. Khan, A Hussain, T. Munir, Z. Hussain
048: Cutting Room Fabric Losses and Their Degree of Prevalence: A Support to Sustainability	S. A. Cheema, A. Rasheed, T. Kifayat, M. Hussain, I. L. Hudson
086: A Novel Modified Dagum G Family of distribution with Simulation and Applications	Muzna Sarwar, Farrukh Jamal, Zawar Hussain

09.05.2024 (1400-1530 Hrs) Room- Main Auditorium

Technical Session-6: Sampling & Quality Control	
Chairperson:	Prof. Dr. Javed Shabbir; Wah University Islamabad
Rapporteur:	Dr. Masroor Anwar; The University of Azad Jammu and Kashmir

Title	Name of Author(s)
018: Estimation of interquartile range using the auxiliary information	A. Ahmed, J. Shabbir
045: Estimation of Non Response and Measurement Errors	Mahwish Akram, Zainab Ashraf
051: An Improved Estimator of the Population Variation Under a Linear Scrambling Model	Muhammad Azeem
052: An Improved Randomized Response Technique for Application in Sample Surveys on Sensitive Variables	Abdul Basit, Muhammad Azeem, Abdul Salam, Habib Ullah Khan
068: Application and Simulation Analysis of Hotelling's T2 Control Chart for Monitoring Drinking Water Quality	Muskan Ahsan, Muhammad Kashif, Muhammad Usman
054: Stratified Dual-rank Ranked Set for Estimating Population Mean	Dr. Zahid Khan
055: A New Maxwell EMWA Control Chart	Syed Masroor Anwar
056: A New Control Chart for Process Dispersion Monitoring with Application of Industrial Sector	Syed Masroor Anwar
057: Studies of Attributes Type Control Charting Schemes	Mohsin Nazir, Wajid Hussain, Sajjad Maqbool
079: A new randomized response scrambling technique for efficient estimation of the mean of a sensitive variable	Asadullah, Muhammad Azeem
084: Enhanced memory control charts using auxilary information	Sajjad Maqbool, Wajid Hussain, Mohsin Nazir

09.05.2024 (1400-1530 Hrs) Room- LTC Hall

Technical Session-7: Population Studies & Medical Statistics	
Chairperson:	
Rapporteur:	Dr. Sameena Bibi; Air University

Title	Name of Author(s)
033: The Popularization of Instagram among other Socializing Apps and its Effects	Laiba Khalid, Mehwish Asghar
034: Online Food Ordering App (A Study Case of KFC)	Zanab Bibi, Mehwish Asghar

Title	Name of Author(s)
035: Unveiling the World of Fungal Infection: Exploring Athlete's Foot, Ringworm, and Nail Fungus	Malaika Shahzadi, Samia Ghulam, Mehwish Asghar
038: Unveiling the Spectrum: Assessing School Teachers' Awareness Regarding Autism in Sialkot, Pakistan	Kanwal Shehzadi, Mehwish Asghar, Ayesha Fatima
046: Self Management Exploring Emotional Stats and Life Style in Type1 and Type2 diabetes patients	Muqadas, Amir Raza
053: Statistical Investigation of the Root Causes of Examination Malpractice in Colleges of Tehsil Charsadda	Dr. Zahid Khan, Irfan Ullah, Fatima
058: Distribution Analysis of Tree Diameter Data in Muzaffarabad Division	Aamir Aurangzeb, Kamran Abbas, Adil Iqbal
063: Investigating the Impact of ChatGPT on University Students' Academic Performance	Shawal Naveed, Areesha Pervaiz, Dr. Muhammad Hamid, Dr. Aamir Raza
064: Smog's Impact on University Students: Assessing Health, Well-being, and Academic Performance	Muzalfa, Dr. Muhammad Farrukh, Dr Amir Raza, Areesha Pervaiz
090: Exploring the Potential and Challenges of e-governance in Pakistan	Ayesha Nazuk, Asad Ullah, Noman Erkin, Misbah Noor, Rija Zahid

09.05.2024 (1400-1530 Hrs) Room- G02

Technical Session-3: Economics & Business Statistics	
Chairperson:	**Prof. Dr. Muhammad Afzal;** Mo Planning, Development & Special Initiative Planning Commission Islamabad
Rapporteur:	**Dr. Rabail Tabasum; Air University**

Title	Name of Author(s)
004: Modeling inflation in Pakistan using Arimax model	Abdul Rehman Malik, Zahid Iqbal
008: A study of money demand function in Pakistan	Sumaira Rasheed
036: Forecasting of Different Crops by Area of Punjab Using Box-Jenkins Method	Maryam Arshad, Nazia Arshad, Mehwish Asghar
037: Forecasted Area of Rabi Crops in Punjab Using the Box-Jenkins Methodology	Nazia Arshad, Maryam Arshad, Mehwish Asghar
039: Analyzing the Impact of Climate Change on Rice Yield: A Case Study of Pakistan	Aleena Yousuf, Ifra Tassadaq, Ayesha Sadeeqa, Wajiha Nasir
041: Forecasting of Bajra Production Using ARIMA and ANN: A case study of Punjab Pakistan	Iqra Yaseen, Rohma Maliha, Samra Shehzadi, Wajiha Nasir
042: Forecasting of Jowar Production Using ARIMA and ANN: A Case Study of Punjab Pakistan	Rohma Maliha, Iqra Yaseen, Samra Shahzadi, Wajiha Nasir

043: Forecasting of Relative Humidity of Pakistan Using Box-Jenkins and ANN	Aleena Bano, Hifza Amjad
044: Use of ARIMA Model for Forecasting of Wheat Production of Two District of Punjab Pakistan	Saba Ashraf, Asma Javed, Sania Imtiaz, Alina Ramzan
065: Modified robust ridge M-estimators for linear regression models: An application to Tobacco data	Danish Wasim, Sajjad Ahmad Khan, Muhammad Suhail
070: Public Financial Management Act 2019 (PFM Act 2019): Implementation Issues PSDP Projects: Prioritization, Management and Utilization of Barrowed Money	Dr. Muhammad Afzal
075: Interaction of Cadmium, Copper and Salicylic Acid on Various Parameters in Pea	Khizar Hayat Bhatti, Abeer Zahra

09.05.2024 (1530-1700 Hrs) Room- Main Auditorium

Technical Session-3: Business Session & Invited Talk	
1530-1550	Prof. Dr. Waqas Sami; Qatar University (Invited Talk)
15:50-16:00	Mr. Amir, CEO Nayab Marketing (Sponsor Talk)
16:00-1620	Prof. Dr. Ibrahim M Almanjahie; King Khalid University Saudi Arabia (Invited Talk)
16:20-1630	Open Discussion (Sponsor Talk)
16:30-17:00	Closing Ceremony & Concluding Remarks
17:00-17:30	Tea

City Tour & Dinner

1730-2030