

# CURRICULUM VITAE

## **Dr. Nurain Ibrahim**

Faculty of Computer and Mathematical Sciences

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## **Education**

PhD in Biostatistics, University of Liverpool, United Kingdom, 2020

MSc of Science (Applied Statistics), CGPA: 3.70, Universiti Teknologi MARA, 2014

BSc of Science (Hons.) Statistics, CGPA: 3.72, Universiti Teknologi MARA, 2013

## **Teaching Experience**

Senior Lecturer: Since October 2020, Universiti Teknologi MARA

Lecturer: 2013 – 2014, INTEC Education College

## **Area of Interest**

Data Mining

Multivariate Data Analysis

Biostatistics

Applied Statistics

## **Courses Taught**

- Statistical Computing and Data Mining, MSc (Data Science)
- Statistical Data Mining, MSc (Statistics)
- Statistical Data Mining, MSc (Data Science)
- Applied Multivariate Data Analysis, BSc (Statistics)
- Statistics for Science and Engineering for BSc (Applied Sciences, Engineering, and Architecture, Planning & Surveying)
- A-level Statistics I (A-level students – UK, US, Germany bound, INTEC Education College)
- A-level Statistics II (A-level students – UK, US, Germany bound, INTEC Education College)

### **Project Supervision-Master by research**

1. Rabi'atul 'Adawiyah Binti Shabli – Interpretable Labour Skill Classification: Tree – based Algorithms with Feature Selection and SHAP analysis. (co – supervisor). (2024 – ongoing).
2. Noorfelda Bin Abd Jutup – Exploring the Role of ApoB levels in Cardiovascular Risk among Diabetics Individuals. (co – supervisor). (2024 – ongoing).
3. Siti Khadijah Binti Arafin - Hybridization of Radial Basis Function Neural Network and Adjusted Correlation Sharing T – test Model for Air Quality Prediction. (main supervisor). (2023 – ongoing).

### **Project Supervision-Master by coursework**

1. Ahmad Fiqri Rusli – Loan Decision Prediction Using Supervised Learning: A Data Mining Perspective (main – supervisor). (2025 – ongoing).
2. Nur Ashikin Haridan – Forecasting Retail Green Loan Demand Using Machine Learning Models: A Sustainable Finance Approach (main – supervisor). (2025 – ongoing).
3. Khairunnisa Binti Ze' Azmi – Unlocking Mental Health insight: Predicting Depression, Axiety, and Stress Levels using Supervised Machine Learning Algorithms (main – supervisor). (2024 – ongoing).
4. Nur Izzati Binti Ahmad Nasharuddin – Data Splitting Variant Discovery in High Dimensional Microarray Data Analysis (main supervisor). (2024 – 2025).
5. Azra Fadhilah Binti Mazlan. Forecasting Malaysia's High – Demand Job Sectors Through Data Driven Insights (main supervisor). (2023 – 2025)
6. Nurul Athirah Binti Noorzaidi. Unveiling Customer Lifetime Value using Predictive Modelling: A Deep Dive into customer Purchase Behaviour (main supervisor). (2023 – 2025).
7. Noris Zayyani Binti Ismail. Influence of Data Splitting on Performance of Filter and Embedded Feature Selection Method in Classifying High Dimensional Prostate Cancer. (main supervisor). (2023 – 2024).
8. Noor Armalisa Binti Zuraimi. Prediction of Love Scam Victims in Malaysia using Machine Learning Approach. (main supervisor). (2023 – 2024).
9. Ain Yasmina Binti Roslin. Rental Price Prediction in Malaysia using Machine Learning Approach. (main supervisor). (2023 –2024).
10. Zainul Azhar bin Zakaria. A Comparative Study between Filter Feature Selection Methods for Improving Logistic Regression Classification Accuracy. (main supervisor). (2022 – 2023).
11. Siti Sarah Md Noh. A Comparative Study between Filter and Embedded Feature Selection Methods for Improving Logistic Regression Classification Accuracy. (main supervisor). (2022 – 2023).
12. Khairul Najwaa Binti Kamarazman. Effects of Duration of Motorcycle Riding and Body Mass Index on Arm Muscles Fatigueness. (main supervisor). (2021 – Dismiss on 2023).
13. Nur Fatin Nadhirah Binti Zakaria. Predicting and Analysing COVID-19 Cases in Malaysia. (main supervisor). (2021 – 2022).

### **Project Supervision - BSc**

1. Dian Fitriya Binti Achmad Murdijat – Enhancing Early Detection of Diabetes using Filter – Based Feature Selection Methods (main supervisor). (2024 – ongoing).
2. Salis Sa'adah Binti Shamsul Bahrin – Association between Life Behavior and Student Depression (main supervisor). (2024 – ongoing).
3. Sharifah Murfiqah Binti Syed Munawir – Unveiling the Prognostic Factors of Heart Attack Risk using Multivariate Logistic Regression Model. (main supervisor). (2024 – 2025).
4. Nur Aina Binti Sazali – Utilizing the Multivariate Logistic Regression Model in Revealing the Foremost Factors Relevant to Brain Stroke Classification. (main supervisor). (2024 – 2025).
5. Nurul Athirah Binti Norzaidi  
Nurizzah Atiqah Binti Mohamed Neezar  
Farah Nabilah Binti Zabidi  
Salsabilla Binti Kamaludin  
Determination of Factors of Internet Adverstising Affecting Internet Users; Behaviour Using Canonical Correlation Analysis (main supervisor). (2020 - 2021)
6. Alia Najwa Binti Abdul Mizan  
Farah Aliah Nur Binti Mansor  
Perception on Open and distance Learning (ODL) during COVID19 Pandemic based on Impeding Factors among CSD241 students using Binary LogisticRegression (main supervisor). (2021 – 2022).

### **Professional Membership**

- Executive Committee IEEE Computer Science Malaysia Chapter (IEEE CS MY).
- Institute of Statistics Malaysia (ISM) (Member).
- IEEE (Member).
- IEEE Computer Society (Member).

### **Professional Activities / Contributions**

- Panel for Defence Research Proposal (PhD), since 2022.
- Panel for Defence of Proposal (MSc), since 2020.
- Panel for Final Year Project (BSc Statistics), since 2020.
- Malaysian Journal of Computing (MJoC), since 2020.
- Reviewer for a number of conferences and journals, since 2020.
- Student Advisor, since 2020.
- Industrial Training Academic Advisor, since 2020.

### **Service and Administrative Responsibility**

- Associate Fellow for Institute for Big Data Analytics and Artificial Intelligence (IBDAAI), 2022 – 2023.
- Editor for Malaysian Journal of Computing (MJoC), 2022 – 2023.
- Liaison Officer for UiTM – University of Sheffield, United Kingdom, 2025 – 2027.

- Liaison Officer for UiTM - Iverson Associates Sdn.Bhd., 2021 – 2023.
- Penasihat Kelab Statistic & Decision Science Postgraduate Pusat Pengajian Sains Matematik KPPIM, 2025 – 2027.
- Pengerusi II Program Akreditasi Royal Statistical Society (RSS), 2024 – 2026.
- Secretary for International Statistical Conference VI 2021 (ISM – VI 2021).
- Advisor for Students' Entrepreneur Club, 2021 – 2022.
- Committee for Quality Unit (Faculty of Computer & Mathematical Sciences,UiTM), 2020-2023.
- Committee for Premier Digital Tech Institute (PDTI), since 2022.
- Secretary for Soft Computing for Data Science Conference (SCDS 2025).
- Secretary for Soft Computing for Data Science Conference (SCDS 2023).
- Secretary for Soft Computing for Data Science Conference (SCDS 2021).
- Secretary for 'Global Webinar Series PPSSP', 2021
- Committee for Research and Publication PPSSP, 2020-2022.
- Committee for 'Program Pengurusan Cadangan Penyelidikan dan Laporan Penyelidikan Pelajar CS702 dan CS771 FSKM', 2021.
- Facilitator for Finishing School (BSc), 2021.
- Invited lecturer at Faculty of Veterinary Medicine, Universiti Malaysia Kelantan,2020.
- Survey committee for Parents – Lecturers Meeting (A-level) INTEC Education College, 2014.
- Secretary for Parents – Lecturers Meeting (A-level) INTEC Education College, 2013.
- Committee for A-level students' Corporate Social Responsibility (CSR), INTEC Education College, 2013.

## **Publications**

1. AdjcorT-RBFNN for Air Quality Classification: Mitigating Multicollinearity with Real and Simulated Data. Environment and Natural Resources Journal. 2025. (corresponding author).
2. Two-Stage Feature Selection for PM2. 5 Prediction: adjcor-TRBFNN Approach to Address Multicollinearity in Air Quality Data in Urban Area. International Conference on Computing (ICOCO). 2025. (corresponding author).
3. The Comparison of Survival Right Censored Log-Logistic Models for Breast Cancer Bootstrap Data. International Conference on Computing (ICOCO). 2025. (co – author).
4. Discrepancy and Thematic Bibliometric Analyses of the Remaining Limitations in Artificial Intelligence. International Conference on Computing (ICOCO). 2025. (co – author).
5. Improving Air Quality Prediction Models for Banting: A Performance Evaluation of Lasso, mRMR, and ReliefF. International Journal of Advanced Computer Science and Applications. 2025. (corresponding author).
6. Climate change detection in four locations in peninsular Malaysia for green sustainability awareness. Malaysian Journal of Computing. 2025. (co – author).
7. Feature Selection Methods using RBFNN-Based to Enhance Air Quality Prediction: Insights from Shah Alam. International Journal of Advanced Computer Science and Applications. 2024. (corresponding author).

8. Applying directionality trading rules into a systematic equity trading strategy for beating the rate of inflation in Malaysia. International Conference on Mathematical Sciences (ICMS5). 2024. (co – author).
9. A Two Stages Feature Selection Method to Enhance Prediction of Daily PM2.5 Concentration Air Pollution. Environment and Natural Resources Journal. 2024. (corresponding author).
10. Annual workers' income prediction using data mining techniques. ISM International Statistical Conference (ISM-VI). 2024. (corresponding author).
11. Analysis of airline customer satisfaction using data mining techniques. ISM International Statistical Conference (ISM-VI). 2024. (co – author).
12. Machine Learning-based Approaches for Credit Card Debt Prediction. Malaysian Journal of Computing. 2024. (corresponding author).
13. Determination of Risk Factors Influencing Binge Eating Behaviour among University Students. 3rd International Conference on Applied & Industrial Mathematics and Statistics 2022 (ICoAIMS2022). 2024. (corresponding author).
14. Students' Performance on Statistics Course Through Online Learning. 3rd International Conference on Applied & Industrial Mathematics and Statistics 2022 (ICoAIMS2022). 2024. (co – author).
15. Determination Factors of Internet Advertising Affecting Internet Users' Behaviour Using Canonical Correlation Analysis. 3rd International Conference on Applied & Industrial Mathematics and Statistics 2022 (ICoAIMS2022). 2024. (corresponding – author).
16. Hybrid Embedded and Filter Feature Selection Methods in Big – Dimension Mammary Cancer and Prostatic Cancer Data. IAES International Journal of Artificial Intelligence. 2024. (corresponding – author).
17. Enhancing Ecosystem Biodiversity Through Air Pollution Concentrations Prediction Using Support Vector Regression Approaches. International Journal of Conservation Science. 2023. (co – author)
18. Correlation Network Analysis of ASEAN Foreign Direct Investment. IEEE International Conference on Computing (ICOCO). 2023. (co – author).
19. Bootstrapping Simulation in Determining the Prognostic Factors of Lung Cancer Disease by Parametric Survival Analysis. IEEE International Conference on Computing (ICOCO). 2023. (co – author).
20. Type 2 Diabetes Mellitus Prediction Using Data Mining Approach. IEEE International Conference on Computing (ICOCO). 2023. (corresponding – author).
21. Hybrid Filtering Methods for Feature Selection in High-Dimensional Cancer Data. International Journal of Electrical and Computer Engineering. 2023. (corresponding author)
22. Prediction of Water Quality for the Selangor Rivers using Data Mining Approach. Journal of Sustainability Science and Management. 2023. (corresponding author)
23. Visualising the Optimistic, Realistic, and Pessimistic Financial Distress Outlooks for Airport Operations in Malaysia Regression Analysis. Journal of Cases of Information Technology. 2023. (co – author).
24. Determining the Prognostic Factors of Lung Cancer Data using Multiple Linear. Journal of Mathematics and Computing Science. 2023. (co – author).
25. Assessing time – dependent performance of a feature selection method using correlation sharing T – statistics (corT) for heart failure data classification.

- International Statistical Conference V 2021 (ISM – V 2021). (Corresponding author).
26. Measuring evidence affecting the financial stability of airport operations in Malaysia. IEEE International Conference on Computing (ICOCO). 2022. (co – author).
  27. Logistic Regression Model for Measuring Perception on Open and Distance Learning (ODL) during COVID – 19 Pandemic based on Impeding Factors among Students. IEEE International Conference on Computing (ICOCO). 2022. (corresponding – author).
  28. Association between Sleep Patterns and Academic Performance. IEEE International Conference on Computing (ICOCO). 2021. (corresponding author).
  29. Feature Selection Methods: Case of Filter and Wrapper Approaches for Maximising Classification Accuracy. Pertanika Journal Science & Technology. 2018. (co – author).

### **Achievements / Awards**

1. FRGS 2024 - Integrated Time-Dependent Features of Log-Logistic Survival Regression (LLSRTD) And Survival Gradient Boosting (SGBTD) For Survival Cancer-Associated Thrombosis (Cat) Prediction. (Member).
2. FRGS 2023 - Hybridization Of Radial Basis Function Neural Network And Adjusted Correlation Sharing T-Test Model for Air Quality Prediction (Principal Investigator)
3. PETRONAS Grant 2024 – Adsorption Capacity Prediction and Forecasting Analytics for CO2 Dehydration Units Remaining Life Monitoring (Member).
4. Geran Dana Dalaman Jabatan (DDJ) 2024 – Kajian Sistem Agihan Zakat: Pendekatan Kmprehensif Menggunakan Pemprofilan Data B40, Indeks Keperluan Asas Dan Papan Pemuka Interaksi. (Member).
5. Geran Bestari 2023 – Projek Penerbitan Buku Menakluk Puncak Dunia: Sentuhan Srikandi (Member).
6. MyRA 2022 – Parametric Survival Models With Partly-Interval Censored Data In Determining Prognostic Factors Of Patients Of Chronic Myeloid Leukemia Treated With First-Line Imatinib. (Member)
7. MyRA Lepas PhD 2021 - Adjusted Correlation Sharing T Test Adj cort As A Variable Selection Method for Colorectal Cancer Disease Classification In Metabolomics Area (Principal Investigator).
8. Geran Pembayaran Terus (PBT) 2023 – Perception Analytics On Sustainable Green Infrastructure In Malaysia/Indonesi. (Principal Investigator).
9. Invention, Innovation & Design Exposition 2021(Gold Award – Inventor Category)
10. Invention, Innovation & Design Exposition 2023 (Silver Award – Inventor Category)
11. FSKM Innovation Festival FIF2022 (Gold Award)
12. Young Lecturers' Scheme UiTM, PhD, 2015
13. Dean' Award holder, 2009 – 2014
14. Vice Chancellor's Award, BSc, 2013

15. Jabatan Perkhidmatan Awam (JPA) scholar, 2009

### **Conferences / Presentations**

1. Paper presenter. 3<sup>rd</sup> International Conference on Applied & Industrial Mathematics and Statistics 2022 (ICoAIMS2022).
2. Paper presenter. IEEE International Conference on Computing (ICOCO2024), Malaysia.
3. Paper presenter. IEEE International Conference on Computing (ICOCO2023), Malaysia.
4. Paper presenter. IEEE International Conference on Computing (ICOCO2022), Malaysia.
5. Paper presenter. IEEE International Conference on Computing (ICOCO2021), Malaysia.
6. Paper presenter. International Statistical Conference V 2021 (ISM-V 2021), Malaysia.
7. Poster presenter. 9<sup>th</sup> Malaysia Statistics Conference 2022. Malaysia.
8. Faculty Poster Day, Faculty of Health & Life Sciences, University of Liverpool, UK, 2016.
9. Faculty PGR Poster Day, Faculty of Health & Life Sciences, University of Liverpool, UK, 2019.
10. Statistical Analysis of Multi-Outcome Data (SAM) Conference, University of Liverpool, UK, 2017.
11. Poster Presentation, Royal Statistics Society Conference, University of Manchester, UK, 2016.