



Assoc. Prof. Ts Dr Suraya Masrom


Education

- **Doctor of Philosophy in Information Technology and Quantitative Sciences**
Universiti Teknologi MARA - 2015
- **Master of Computer Science**
Universiti Putra MALAYSIA – 2001
- **Bachelor of Computer Science (Hons)**
Universiti Teknologi MALAYSIA - 1996
- **Diploma in Computer Science**
Universiti Teknologi MALAYSIA - 1994

Academic Award

- **Academic Award UiTM (AAU 2018)**
- Teaching Award (Technology)
- ✓ RM5000
- ✓ Plaque and certificate
- **Academic Award UiTM Perak (AAUP 2018)**
- Teaching Award
- ✓ RM150 and RM2000 grant
- ✓ Plaque and certificate
- **UiTM Excellent Service Award(1009,2015)**
- ✓ RM1000 and certificate
- **Best Paper Award (2015)**
- ✓ iSMSC2015
- ✓ Plaque and certificate
- **Research Attachment Fund Ministry of Education (2012)**
- ✓ University of Swinburne, Australia
- ✓ RM10,000
- **PhD Scholarship Ministry of Education (2010)**

Professional Development

- **30 Days Cloudera Big Data Analytic**
- ✓ July – Aug 2017
- ✓ FSKM, UiTM Shah Alam
- **Data Camp Certifications (Completed Data Analyst with R Track)**
- ✓ Jan 2018
- ✓ FSKM, UiTM Perak, Tapah Branch
- **MBOT Professional Technologist (PT19010006)**
- ✓ CISCO CyberOps Associate 
- ✓ Certified Trainer since 2021
- **AKEPT Teaching and Learning Cycle – Learning Engagement and Motivation**
- ✓ April 2015
- ✓ AKEPT Bandar Enstek, Selangor

Teaching Experience



1998-2001 : Young Lecturer 2004-2005 Lecturer (part-time) 2005-2011 : Lecturer
2001-2004:Lecturer 2011-2019 : Senior Lecture
2019-Present : Assoc. Prof.

Industrial Experience

- **Ramgate Systems Sdn Bhd, Ampang, Selangor (1997 – 1998)**
- ✓ Analyst Programmer
- ✓ Network management and deployment of application servers

Leadership and Management

- **Head of Faculty/Ketua Pusat Pengajian (2016-2019)**
- ✓ Faculty of Computer and Mathematical Sciences
- ✓ 4 Diploma, 1 Degree
- ✓ 70 lecturers, 1400 students
- **General Chair International Conference RASK2017**
- **Chairman II of INDES2018**
- **Penyelaras PJIA&M, HEP (2015-2016)**
- **Coordinator of Industrial Attachment (2014-2015)**
- **Member of Committees at UiTM Perak, including**
- ✓ Students Representative (JKKP) :2016-2019
- ✓ Jawatankuasa Akademik Negeri (JAN): 2016-2021
- ✓ Jawatankuasa Kurikulum Negeri (JKKN):2016-2022
- ✓ Strategic planning : 2016-2019

Contribution of Expertise

- **Big Data and IR 4.0**
- ✓ *Chairman of Big Data Task Force (2016-2019)*
- ✓ *Trainer for Cloudera, Hadoop, Python and Machine Learning*
- ✓ *Researcher on machine learning algorithm and interactive data visualization - 4 active grants*
- ✓ *Director of Big Data Talent (Data Camp Certifications)*
- ✓ *Qualified facilitator for Data Camp Certification – Data Analyst with R track*
- ✓ *Facilitator of Smart Classroom and Education 4.0 workshop*
- ✓ UiTM Perak
- **Machine Learning and Interactive Visualization Research Group (MaLIV)**
- ✓ *Group leader (2019-Present)*
- **Mathematical Sciences and Informatics Journal (MIJ)**
- ✓ *Chief editor (2019-Present)*
- **Database Design and Development**
- ✓ *Trainer (2014)*
- ✓ Institut Latihan Statistik Malaysia
- **Reference Management System**
- ✓ *Trainer (2014)*
- ✓ UiTM Perak Branch
- **Reviewers, Panel and Jury**
- ✓ FRGS (ICT panel): 2021-2022
- ✓ *Panel – PROPENS (2016-2019)*
- **LaTeX Thesis Template**
- ✓ *Developer (2018)*
- ✓ IPSIS UiTM
- **System of Examination Invigilators Assignment**
- ✓ *Design, Develop and Support*
- ✓ UiTM Perak (2009-2017)
- ✓ UiTM Perak Tapah Campus (2010-Present)
- **System of Examination Layout Generation**
- ✓ *Design, Develop and Support*
- ✓ UiTM Perak (2014-2018)
- **System of Random Sampling in PROPENS**
- ✓ *Design and Develop*
- ✓ UiTM Perak
- **Curriculum Design**
- ✓ *Committee member - Jawatankuasa Kurikulum Negeri(JKN), Jawatankuasa Kualiti Akademik (JKA), Jawatankuasa Akademik Negeri (JAN), UiTM Perak*
- ✓ *Committee member - new program development for Ijazah Sarjana Muda Sains (Halal), UiTM Perak*
- **Research Grant Mentorship Program**
- ✓ 2019,2020,2021
- ✓ *Mentor*
- ✓ *UiTM Perak*



**Supervision**

- **PhD - Ongoing**
- ✓ Image Defogging Algorithm based on Dark Channel Prior, International student (2021746947)
- ✓ Classification of Systemic Lupus Erythematosus(SLE) Based On Automated Machine Learning Pipelines(2019196487)
- ✓ Dynamic Dataset Sizing for Optimal Sample Size in Predicting Performance Level of Students' Ability (2020806588)
- ✓ Design Strategy of Urban Brownfield Environmental Renewal Under The Background of Big Data: A Case Study of Luzhou City, Sichuan Province, China International student (2021306763)
- **Master by research – Graduated**
- ✓ Price prediction model of green building valuation based on machine learning (2019–2020)
- ✓ Valuation of heritage building based on machine learning (2019-2021)
- **Master in Business Administration (Executive)**
- ✓ Mobile e-service users' acceptance based on personal innovativeness Technology Acceptance Model (TAM) – 2019
- **Master by research - Ongoing**
- ✓ Rental Forecasting of Office Building based on Machine Learning Regressor Model (2021927371)
- ✓ Reverse Migration Prediction Models Based on Automated Machine Learning (2020864206)
- ✓ Crime Prediction Criminal Acts Based on Weather Quality of Life(2021633784)
- **Degree of Computer Sciences – Graduated**
- ✓ Perak State Population analysis in aspect of specifying suitable property area using data driven document (D3) visualization technique
- ✓ Games Application for Learning Programming
- ✓ Invigilation Scheduling Management System (ISMS)
- ✓ Mobile Application for Examination Scheduling
- ✓ Room Allocation System For Examination Timetable
- ✓ Spam Image Filtering Algorithm
- ✓ Mobile Class Attendance Application
- ✓ Travel Application with Augmented Reality
- ✓ Brand Identifier Mobile Application
- **Thesis examiner**
- ✓ The Antecedents Of Students Satisfaction to Programme Administration Unit, Faculty Of Medicine Of Universiti Kuala Lumpur Royal College Of Medicine Perak
- ✓ MBA , AAGBS UiTM Perak

**Subject Taught**

- **Executive Master of Business Administration (AA701) - Arshad Ayub Graduate Business School, UiTM Ipoh Branch**
- ✓ *Information Technology Management (MIS750)*
- **Diploma of Computer Science (CS110)**
- ✓ *Fundamentals of Algorithm Development (CSC118)*
- ✓ *Fundamentals of Computer Problem Solving (CSC128, CSC126)*
- ✓ *Fundamentals of Data Structure (CSC248)*
- ✓ *Introduction to Database Management System (ITS232)*
- ✓ *Introduction to Data Communication and Networking (ITT300)*
- **Bachelor of Computer Science (CS230) - FSKM, UiTM Perak, Tapah Campus**
- ✓ *Algorithm Analysis and Design (CSC645)*
- ✓ *Fundamentals of Data Structure (CSC438)*
- ✓ *Programming II (CSC404)*
- ✓ *Object Oriented Programming (CSC435)*
- ✓ *Computer Security (CSC662)*
- ✓ *Special Topic in Computer Science (CSC649)*
- ✓ *Hybrid Programming (CSC585)*
- ✓ *Fundamentals of Computer Problem Solving (CSC404)*
- **Diploma in Accountancy Information System (AC120) – FP, UiTM Perak , Tapah Campus**
- ✓ *Data Management (AIS275)*

**Research Grants in Teaching & Learning**

- **Intelligent Tutoring System**
- ✓ RM10,000.00
- ✓ 600-RMI/DANA 5/3/ARAS (39/2015)
- **Facilitating Statistical Software with E-Guide**
- ✓ RM10,000.00
- ✓ 600-IRMI/DANA 5/3/ARAS (0182/2016)
- **Peer-Reviewed Active Learning Engagement with A Multi-Level Class**
- ✓ RM10,000.00
- ✓ 600-IRMI/DANA 5/3/ARAS (0170/2016)

**Publications in Teaching and Learning**

- **Student acceptance of educational games in higher education**
- ✓ *Journal of Fundamental and Applied Science, WOS indexed*
- ✓ *Vol. 9, no. 3S, pp. 809–829, 2017*
- **E-learning acceptance based on technology acceptance model (TAM)**
- ✓ *Journal of Fundamental and Applied Science, WOS indexed*
- ✓ *Vol. 9, no. 4S, pp. 871–889, 2017*
- **Teaching and learning of pre-calculus: an insights of educators**
- ✓ *Journal of Fundamental and Applied Science, WOS indexed*
- ✓ *Vol. 9, no. 6S, pp. 452–467, 2017*
- **Facilitating Statistical Software using E-Guide**
- ✓ *Presented at The 3rd International Conference on Computing, Mathematics and Statistics 2017 (iCMS2017) , November 2017 at Langkawi Island, Malaysia.*
- ✓ *On publication in a Springer book chapter, SCOPUS indexed.*
- **Peer-reviewed active learning engagement with a multi-level remedial class**
- ✓ *On publication for Journal of Engineering and Technology, SCOPUS indexed*
- **Book on Python Programming – On progress with 2 chapters completed**

**Innovations Award in Teaching and Learning**

- **Gold award**
- ✓ *The 1st International Malaysia-Indonesia-Thailand Symposium on Innovation and Creativity 2017 , Product - SPSS e-Guide*
- **Gold award**
- ✓ *The 5th International Innovation, Invention, and Design (INDES) 2016, Product - E-Guide Mobile*



 Editorial

- **Journal of Fundamental and Applied Sciences (eISSN:1112-9867) - WOS**
- ✓ Guest Editor
- ✓ JFAS vol 10 6S,5S,2S,1S (2018)
- ✓ JFAS vol 9 8S (2017)
- **Multidisciplinary Informatics Journal (eISSN:2735-0703)**
- ✓ Chief Editor

 Research Consultation

- **King Saud University, RS36000, 2020**

 Innovation and Copyright

- **IIDEX2019** – Intelligent Rail Safety Cost Allocation V3,Gold
- **1st International Malaysia-Indonesia-Thailand Symposium on Innovation and Creativity 2017** – SPSS e Guide, Gold
- **INDES2016**– *Reliable Hadith Recommender System*, Silver
- **INDES2016**– *Random Sampling in PROPENS*, Silver
- **INDES2015**– *Easy, Fast and Flexible in Examination Information System*, Silver
- **INDES2018** - *Secure Anonymous E Voting*, Silver, Copyright (IP.5/2/6/3/CP)
- INDES2021 – *Machine Learning Made Easy*, Gold



<https://expert.uitm.edu.my/expert.php?#>

 Research Grants

- Green building valuation – RM80,500,FRGS 2019
- Heritage property price prediction – RM69,000,FRGS 2019
- Financial Reporting Fraud (earning manipulation, tax avoidance) detection – RM66,200,FRGS 2019
- Predictive model of Rail Accident Cost in Malaysia – RM10,000, UiTM 2021
- Predictive model of Reverse Migration in Malaysia - RM50,700,FRGS 2019
- Crime prediction based on machine learning – RM69,300,FRGS 2021
- House ownership prediction - RM 89,200,FRGS 2019
- Rapid software (scripting language) for machine learning predictive model – RM77,000, FRGS 2019
- Forecasting of office building – RM62,730, NAPREC 2021
- Web mining of data analysis activities related to COVID19 pandemic – RM10,000, International from UPJ, Indonesia, 2021
- The impact of intrinsic and extrinsic religiosity and pentagon fraud elements – RM5000, Accounting Research Institute, UiTM 2021
- The perception of trade-based money laundering risk in Malaysia financial services – RM8000, Accounting Research Institute, UiTM 2021
- Adaptive Facility Layout Model in Scripting language Software Framework, RM76,100, FRGS 2015
- Dynamic Parameterization in Recommender System Prediction, RM80,000, RAGS 2021
- Language-based Low-Level Hybridization Software Framework, RM86,100, FRGS 2012
- Evaluation Framework for Vehicle Route Optimization for Logistic Domain by Using Heuristic Algorithms, RM32,000, FRGS 2010
- Automated Vehicle Scheduling by Using Metaheuristics Algorithm, RM76500, MITRANS, UiTM 2010
- Improve Neural Network Backpropagation with Genetic Algorithm Based Parameter Tuning for Classification Problem, RM7000, UiTM 2008
- A quantitative measurement of an agent-oriented modeling technique, RM8000, UiTM 2008

 Publication Profile

 <https://www.scopus.com/authid/detail.uri?authorId=36176242600>

 <https://publons.com/researcher/3539294/suraya-masrom/>

 <https://scholar.google.com/citations?user=TOuIGGoA-AAJ&hl=en>

 <https://orcid.org/0000-0001-7957-8697>

INTERNATIONAL, INDUSTRIAL AND COMMUNITY COLLABORATION (2011-2018)



Research Attachment- International

- University of Swinburne, Melbourne, Australia
- ✓ Sponsored by Ministry of Higher Education
- ✓ Nov 2012-Jan 2013



External Researcher- UTP Grant

- Universiti Teknologi PETRONAS (UTP)
- ✓ A Specification Language for Network Security Evaluation and Optimization
- ✓ STIRF, RM24700



Community Engagement

- **SEKOLAH ANGKAT** – *Chairman*
- ✓ Sekolah Kebangsaan Toh Tandewa Sakti, Tapah, Perak
- ✓ Mentoring program for the schools' students
- ✓ April 2018 – Present
- **CYBER SMART** - *Program Advisor*
- ✓ Security awareness program for selected schools under Perak State
- ✓ Collaboration with JAIP
- ✓ May 2017
- **MASCO FEST** – *Program Advisor*
- ✓ Collaboration with SMEs in local community - Tapah and Batang Padang
- ✓ August 2016
- ✓ Net income RM2,216.99
- **E REZEKI** – *Program Advisor*
- ✓ Collaboration with MDEC and Dotme
- **MINISTRY OF EDUCATION**
- ✓ *ICT Textbook Evaluator*
- **SEK.MEN.KEB.SERI ISKANDAR** – *Career Talk*



Industrial Engagement

- **PROMMCS17** - *Program Advisor*
- ✓ National Programming and Multimedia Competition
- ✓ Collaboration with industries as panel of juries
- ✓ Nov 2017
- ✓ Net income RM3,185.95



Paper Publication – International Collaboration

- **Hybridization of Particle Swarm Optimization with adaptive Genetic Algorithm operators, SCOPUS index, 2013**
- ✓ Established a research collaboration with two researchers from two different universities in Australia:
 - Dr Irene Moser, Faculty of ICT, Swinburne University, Australia
 - Dr James Montgomery, Research School of Computer Science, Australian National University, Australia
- ✓ *Main author*



Memorandum of Understanding - International

- **Between Universiti Teknologi MARA and University of Essex, UK**
- ✓ On Friendship and Cooperation for the Purpose of Promoting Mutual Understanding and Academic, Cultural, Scientific and Personnel Exchange
- ✓ Role : *MoU Manager*
- ✓ Years in effect : 2018-2021



Speaking Engagement - International

- **iSMSC2018**
- ✓ Plenary Speaker – Computing track
- **RATS session, University of Swinburne, Australia**
- ✓ November 2012
- **International Summer Program**
- ✓ Organized by University of Essex, UK and UiTM Perak
- ✓ August 2018



Hosting of Events – International

- **Research in Applied Sciences and Knowledge Engineering International Conference 2017 (RASK2017) - General Chair**
- ✓ Established linkage with International Scientific Committees from four international universities:
 - University of Vienna, Austria
 - University of Calcutta, India
 - Suranaree University of Technology, Thailand
 - Swinburne University of Technology, Australia
- ✓ Selected papers were published in WOS journal
- ✓ Net income RM29,152.54
- **International Innovation & Design Competition (Aug 2018) – Program Chair**
- **International Symposium (iSMSC2018) – Advisor, SCOPUS journal Publication**
- **International FSKM Colloquium (March 2018) - Advisor**
- **International Summer Program (Aug 2018) – Co-Organizer**
- ✓ Organized by University of Essex, UK and UiTM Perak
- **International Symposium (iSMSC2013) – Committee**
- ✓ Net income RM45,430.95, IEEE, SCOPUS
- **Perak International ICT Innovation & Design Expo 2017 – Committee, Organized by K-Perak, Politeknik Ungku Omar**



Industrial Engagement – International Collaboration for Student Placement

- Established linkage with Yayasan Pundi Amal Bakti (PABU), Jawa Barat, Jakarta, Indonesia for students' industrial attachment
- 16 July – 9 September, 3 Computer Science students have been successfully placed at the organization