

Curriculum Vitae

Ts. Dr Azlyna Senawi

PERSONAL INFORMATION



Citizenship : Malaysian
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Office Address : Pusat Sains Matematik,
Universiti Malaysia Pahang,
Lebuhraya Tun Razak,
26300 Gambang, Kuantan,
Pahang Darul Makmur.

EDUCATION BACKGROUND

PhD

University of Sheffield, United Kingdom.
2018

Thesis: *Feature Selection Based on Sequential Orthogonal Search Strategy*

Master of Science (Mathematics)

Universiti Teknologi Malaysia, Skudai, Malaysia.
2005

Bachelor of Science (Industrial Mathematics)

Universiti Teknologi Malaysia, Skudai, Malaysia.
2003

WORKING EXPERIENCE

3rd September 2019 – present

Lecturer

Pusat Sains Matematik
Universiti Malaysia Pahang

1st December 2008 – 2nd September 2019

Lecturer

Faculty of Industrial Sciences & Technology
Universiti Malaysia Pahang

25th May 2005 – 30th November 2008

Lecturer

Faculty of Mechanical Engineering
Universiti Malaysia Pahang

25th October 2004 – 24th December 2004

Research Assistant

Faculty of Science

Universiti Teknologi Malaysia

15th July 2004 – 14th October 2004

Teaching Assistant

Faculty of Science

Universiti Teknologi Malaysia

TEACHING EXPERIENCE

Every semester, a teaching load of 6-12 hours/week is given including tutorial sessions. The number of students taught per semester could reach 200 students, with a lecture session consisting of an average of 60 students and a tutorial session consisting of an average of 30 students. The list of courses that I have taught is given below:

Courses Taught:

Master Level:

Programming & Simulation, Data Mining

Undergraduate Level (Degree):

Applied Statistics, Calculus, Computer Programming (C Programming)

Undergraduate Level (Diploma):

Statistics, Basic Mathematics, Calculus

Preparatory Intensive English for China Students:

Mathematics

SUPERVISING EXPERIENCE

Postgraduate (Master):

No.	Final Year Project Title and Student's Name	Year	Responsibility
1	Development of Feature Selection Method Based on Bayesian Canonical Correlation Analysis Fatimah Zahrah Binti Ahmad	2019 - present	Supervisor

Postgraduate (Master):

No.	Final Year Project Title and Student's Name	Year	Responsibility
1	Formulation of New Feature Selection Method Based on Unsupervised Discriminant Analysis for Classification in Data Mining Denny Tie Kieng Hieng	2019 - present	Supervisor

Undergraduate Level (Degree):

No.	Final Year Project Title and Student's Name	Year	Responsibility
1	Dimensionality Reduction Using Nature-Inspired Algorithm Wong Yu Heng	2017/2018	Co-Supervisor
2	Characterization of Laser Beam Intensity used for Machining Mohd Syimir Haziq Bin Noor Zainal	2009/2010	Co-Supervisor
3	Development of Automated Guided Vehicle for Dispatching Application Syed Mohd Safwan Bin Sayed Md Saifuddin	2009/2010	Co-Supervisor
4	Computer Aided Interactive Pressure Vessel Design Teoh Sun Jie	2008/2009	Co-Supervisor
5	A Plastic Injection Moulding Process Optimization using Design of Experiment Nurhidayah Binti Ismail	2006/2007	Supervisor
6	Evaluation on Combustible Agricultural Residues for Solid Fuel Usage Ho Ka Yi	2006/2007	Supervisor
7	Productivity Improvement Through Line Balancing Technique in a Small Medium Enterprise (SME) Manufacturing Plant Shahfiran Bin Sarifuddin	2006/2007	Supervisor
8	Development of the User Friendly Spreadsheet Based SPC (Statistical Process Control) on SME Company Mohd Yusri Bin Yusof	2006/2007	Supervisor
9	Initial Study of Comfortness of Waja Car Seat for Ergonomics Purpose Siti Nor Alizar Binti Ahmad	2005/2006	Supervisor

CURRENT RESEARCH GRANTS

Development of Feature Selection Method Based on Adaptive Multi Correlation. **Project Leader**. RDU180302. 1/4/2018-31/3/2020, RM20,000.

Assessment of the Open Registration (OR) System at Universiti Malaysia Pahang After Five Years Implementation. **Project Leader**. RDU1803179. 30/12/2018-29/12/2020, RM21,000.

A New Multi Objective Adaptive Bat Sonar Algorithm for Finding Pareto Optimum Solutions With Fast Computation Time. **Co-researcher**. RDU190178. 1/1/2019-31/12/2020, RM52,000.

Formulate a new regional hierarchical Bayesian T-X family distribution to assess the risk of future extreme hydro-meteorological events. **Co-researcher**. RDU190134. 1/1/2019-31/12/2020, RM62,700.

Product Service System Inventory Control: Investigating in Manufacturing Perspectives. **Co-researcher**. RDU180393. 30/4/2018-29/4/2020, RM25,000.

Investigation of Bats Echolocation-Inspired Algorithm to Optimise Metal Cutting Process. **Co-researcher**. RDU180386. 25/4/2018-24/4/2020, RM23,500.

Development of a Multi-Objective Bats Echolocation Inspired Algorithm to Optimise Metal Cutting Process. **Co-researcher**. RDU170373. 5/5/2017-4/5/2019, RM23,000.

PUBLICATIONS

1. Chuan, Z. L., Yusoff, W. N. S. W., Aziz, M. K. B. M., **Senawi, A.**, & Ken, T. L. (2019, November). A comparison study between Doane's and Freedman-Diaconis' binning rule in characterizing potential water resources availability. In *Journal of Physics: Conference Series* (Vol. 1366, No. 1, p. 012103). IOP Publishing.
2. Chuan, Z.L., **Senawi, A.**, Yusoff, W.N.S.W., Ismail, N., Ken, T.L. and Chuan, M.W., 2018. Identifying the Ideal Number Q-Components of the Bayesian Principal Component Analysis Model for Missing Daily Precipitation Data Treatment. *International Journal of Engineering & Technology*, 7(4.30), pp.5-10.
3. Chuan, Z. L., Ismail, N., Shinyie, W. L., Ken, T. L., Fam, S. F., **Senawi, A.**, & Yusoff, W. N. S. W. (2018, April). The efficiency of average linkage hierarchical clustering algorithm associated multi-scale bootstrap resampling in identifying homogeneous precipitation catchments. In *IOP Conference Series: Materials Science and Engineering* (Vol. 342, No. 1, p. 012070). IOP Publishing.
4. **Senawi, A.**, Wei, H.L. and Billings, S.A., 2017. A new maximum relevance-minimum multicollinearity (MRmMC) method for feature selection and ranking. *Pattern Recognition*, 67, pp.47-61.
5. Rahayu, Y., **Senawi, A.** & Ngah, R., 2011. Radiation Pattern Behaviour of Reconfigurable Asymmetry Slotted Ultra Wideband Antenna. Luxembourg. *Proceedings of the 7th International Conference on Wireless and Mobile Communications (ICWMC 2011)*, pp. 81-86
6. Mon, T.T., Nafrizuan, M.Y., & **Senawi, A.**, 2010. Characterization of Laser Beam Intensity used for Machining. Melaka, Malaysia. *Proceedings of the Malaysian Technical Universities Conference on Engineering & Technology (MUCET 2010)*.
7. Sani, M.S.M., Noor, M.M., Kadirgama, K., Rahman, M.M., **Senawi, A.**, Rejab, M.R.M., Taib, M.Y., Ibrahim, A., 2009. Exit Surveys Assessment of Bachelor Mechanical Engineering Programs at Universiti Malaysia Pahang. Ms Garden Hotel, Kuantan, Malaysia. *Proceedings of the Malaysian Technical Universities Conference and Exhibition on Engineering and Technology (MUCEET09)*, Vol.2, pp. 592-600.
8. Sani, M.S.M., **Senawi, A.**, Noor, M.M., Rahman, M.M., Taib, M.Y., Sulaiman, A.S., Kadirgama, K., Tomadi, S.H., Daud, R. Rejab, M.R.M., 2009. Quantitative Assessment of Bachelor Mechanical Engineering Programs by Senior Exit Surveys at Universiti Malaysia Pahang. Madinah, Kingdom of Saudi Arabia. *Proceedings of the International Engineering Education Conference (IEEC09)*, pp. 177-185.
9. Sani, M.S.M., Noor, M.M., **Senawi, A.**, Sulaiman, A.S., Rejab, M.R.M., 2008. Assessment of the Mechanical Engineering Programs by Exit Surveys at University Malaysia Pahang. Concorde Hotel, Shah Alam, Malaysia, *Proceedings of the 4th International Conference on University Learning and Teaching (InCULT08)*, pp. 317-322.
10. Sulaiman, A.S., Ramasamy, D., **Senawi, A.**, Noor, M.M., 2008. Static Recovery Process Modelling of Engineering Metallic Alloys. Universiti Kebangsaan Malaysia, Bangi, Malaysia. *Proceedings of the Malaysian Metallurgical Conference (MMC08)*, pp. 1-8.

ADMINISTRATIVE CONTRIBUTIONS

1. Committee Member, Simposium Kebangsaan Sains Matematik Ke-28 (SKSM 28), (2019-2020).
2. Committee Member (Entrepreneurship & Alumni), Faculty Academic Committee, Fakulti Sains & Teknologi Industri, Universiti Malaysia Pahang (2019).
3. Committee Member, 2nd International Conference on Applied & Industrial Mathematics and Statistics (ICoAIMS), (2018-2019).
4. Committee Member, Preparation for KPT (SAR)/BOS/MPSU – MQA02 Documentation of Master of Science Program (Industrial Mathematics), Fakulti Sains & Teknologi Industri, Universiti Malaysia Pahang (2018-2019).
5. Committee Member, 1st International Conference on Applied & Industrial Mathematics and Statistics (ICoAIMS), (2016-2017).
6. Committee Member, Preparation for KPT (SAR)/BOS/MPSU – MQA01 Documentation of Master of Science Program (Industrial Mathematics), Fakulti Sains & Teknologi Industri, Universiti Malaysia Pahang (2016-2017).
7. Committee Member, Mathematicians Welfare Committee, Fakulti Sains & Teknologi Industri, Universiti Malaysia Pahang (2017-2018).
8. Academic Advising Coordinator, Fakulti Sains & Teknologi Industri, Universiti Malaysia Pahang (2008-2010).
9. Committee Member, Development of Bachelor of Applied Science (Industrial Mathematics) Program Committee, Fakulti Sains & Teknologi Industri, Universiti Malaysia Pahang (2009).
10. Committee Member, Engineering Accreditation Council Task Force, Fakulti Kejuruteraan Mekanikal, Universiti Malaysia Pahang (2008).
11. Committee Member, Space Requirement (Lecture Room, Lecture Hall and Labs) Audit Task Force at Universiti Malaysia Pahang (2008).
12. Committee Member, Development of Mathematics Syllabus for Preparatory Intensive English Program Committee, Universiti Malaysia Pahang (2008).
13. Teaching and Learning Coordinator, Fakulti Kejuruteraan Mekanikal, Universiti Malaysia Pahang (2008).
14. Secretariat, UMP Academic Advising Workshop by Pusat Pembangunan Staf Akademik UMP (2007).
15. Facilitator, Learning Skill Workshop for Diploma Students by Pusat Perkhidmatan Akademik UMP (2007).
16. Academic Advising Coordinator, Fakulti Kejuruteraan Mekanikal, Universiti Malaysia Pahang (2007).
17. Committee Member, Academic and Examination Committee, Fakulti Kejuruteraan Mekanikal, Universiti Malaysia Pahang (2007).
18. Coordinator, Record and Documentation for Engineering Accreditation Council Recognition, Fakulti Kejuruteraan Mekanikal, Universiti Malaysia Pahang (2006).
19. Committee Member, Final Year Project Management, Fakulti Kejuruteraan Mekanikal, Universiti Malaysia Pahang (2006).
20. Academic Advising Coordinator, Fakulti Kejuruteraan Mekanikal, Universiti Malaysia Pahang (2005).

PROFESIONAL AFFILIATIONS

1. Professional Techologist (PT18040127), Technology Field: Information & Computing Technology, Malaysia Board of Technologists (MBOT).
2. Graduate Technologist (GT18030193), Technology Field: Information & Computing Technology, Malaysia Board of Technologists (MBOT).

COMMUNITY SERVICES

1. Committee Member, Persatuan Ibu Bapa dan Guru, Sekolah Rendah Islam Tahfiz Integrasi Indera Sempurna (SRITIS) (2019).
2. Committee Member, Program Menjelang Syawal Bersama Golongan Asnaf Sekitar Kuantan, organized by Faculty of Industrial Sciences, Universiti Malaysia Pahang (2017).
3. Committee Member, Statistics is Awesome Program, organized by Faculty of Industrial Sciences, Universiti Malaysia Pahang (2017).
4. Committee Member for Mathematics Camp for Suburban Secondary School, sponsored by Malaysian Mathematical Sciences Society, organized by UMP, collaboration with Pahang State Education Department, 2012.
5. Committee Member and Invigilator for National Mathematical Olympiad, 2012.
6. Committee Member for Mathematics Camp for Suburban Secondary School (Lepar Hilir Secondary School, Gambang), sponsored by Malaysian Mathematical Sciences Society, organized by UMP, collaboration with Pahang State Education Department, 2011.
7. Chief Invigilator for National Mathematical Olympiad, 2009-2010.

AWARDS

1. **CITREx 2018, Bronze Medal** (Student Category, as Co-Supervisor to Wong Yu Heng), Feature Selection Using Natural-Inspired Algorithm for Data Dimensionality Reduction.
2. SLAI-KPT Scholarship for PhD Study (September 2012 – March 2016).
3. **Best Research Paper**, for the paper: T.T. Mon, M.Y. Nafrizuan and S. Azlyna, "Characterization of Laser Beam Intensity used for Machining", Malaysian Technical Universities Conference and Exhibition on Engineering and Technology (MUCEET 2010), June 28-29, 2010, Melaka, Malaysia.
4. **Research Award, Silver** – A New Machining Mould Algorithm Based on Response Ant Colony (RACA), 20th International Invention, Innovation, Industrial Design & Technology Exhibition (ITEX09), Project Researcher, PWTC Kuala Lumpur, 15-17 May 2009.
5. **Excellent Service Award**, Universiti Malaysia Pahang, 2006-2008.