APPLICATION FOR POSITION

AZMIRUL BIN ASHAARI

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Permanent Address: **Gender:** Male

184, Lorong 7, Taman Desa Aman,   **Marital Status:** Single

Sungai Lalang,   **Nationality:** Malaysia (Malay)

08100 Bedong, Kedah.   **Age:** 30

QUALIFICATION

Sept 2012- April 2018	**UNIVERSITI TEKNOLOGI MALAYSIA (UTM)** Doctor of Philosophy (Mathematics), PHD Applied Mathematics, Fuzzy Modelling, Graph Theory
Sept 2009- July 2012	**UNIVERSITI TEKNOLOGI MALAYSIA (UTM)** Bachelor's Degree of Science (Mathematics) CGPA: 3.59 (Dean's Award)

Intermediate Mathematics, Statistics I & II, Computer Programming, Calculus I & II, Linear Algebra, Differential Equation, Numerical Analysis I, Set Theory and Logic, Vector Analysis, Complex Variables, Modern Algebra, Real Analysis, Partial Differential Equations, Research Methodology & Information Retrieval, Statistic Quality Control, Applied Numerical Method, Functional Analysis, Mathematical Modelling, Topology, Quantum Mechanics, Calculus and Variations, Optimization Methods.

May 2007- April 2009	**KOLEJ MATRIKULASI KEDAH, (CHANGLUN)** Science Physics CGPA: 3.32

RESEARCH PROJECT

PSM PROJECT (2011-2012)

STATE SPACE MODELING OF NUCLEAR POWER PLANT

Involving in mathematical modelling of Synchronous Generator in a nuclear power plant:

- Thorough review the generator system operations and physical component
- Construct mathematical equation of state space for synchronous generator.
- Develop MATLAB programming and Simulink for synchronous generator.
- Analyze graph result and compared with published data.

PHD THESIS (2012-2017)

MULTIDIMENSIONAL SYSTEM MODELLING USING AUTOCATALYTIC SET ALGORITHM

Involving in mathematical modelling of refining palm oil, EEG signal of Epilepsy and Pressurized water reactor (PWR) of nuclear power plant:

- Thorough review the systems such as system operations, physical component and chemical compounds,
- Develop a lemma, theorem and corollary
- Constructs two algorithms namely Autocatalytic Set (ACSGA) and Fuzzy Autocatalytic Set (FACSGA) algorithm.
- Develop a copyright software called System Dynamic Variable Selection (SDVS©).
- Constructs Graphical modelling of systems and evaluated dynamicity of the systems.

WORK EXPERIENCE

RESEARCH ASSISTANT
(March 2018-May 2018)
- Acquired knowledge on analysis and modelling using MATLAB software.
- Teaching and discuss research project of student.

RESEARCH ASSISTANT (KRI RESEARCH SURVEY)
(Sept 2017-Feb 2018)
- Acquired knowledge on planning, arrangements, and handling survey.
- Performing project discussions and Survey
- Participate and involved in key in data using SPSS software.

KITCHEN CREW PIZZA HUT
(Feb 2017-April 2017)
- Acquired knowledge and skill for food preparation.

TUITION TEACHER (Jun 2014 – Aug 2014)

OPERATOR AT YPC (MALAYSIA) Sdn. Bhd., Kedah (2011)

CASHER at KTR Mart at UTM (2010)

EXTRA CURRICULUM INVOLVEMENT

2016 - Participate in Industrial Art and Technology Exhibition (INATEX 2016) (**Bronze Medal**)

2015 - Participate on Kolokium Pascasiswazah dan Lawatan Akademik ke Universitas Gadjah Mada, Indonesia

2015 - Committee Member of International Conference on Computational and Social Sciences (ICCSS-2015)

2011 - Participate in Program Helping Hand at Pertubuhan Kebajikan

2011 – EXCO Tugas-Tugas Khas Kelab Usahawan Kolej Tun Razak UTM

2009 - AJK EXCO Sukan dan Rekreasi in Kedah Matriculation

2009 – ATLET Tarik Tali Pasir Kejohanan Sukan Antara Kolej Mahasiswa Kali Ke -17

2008 – FASILITATOR Program Kecemerlangan Kimia PDT

2016 – Penolong Biro Ibadah Dan Kerohanian SMK Sungai Layar

LANGUAGE PROFIECNY

Bahasa Melayu	●●●●●
English	●●●●○

COMPUTER SKILLS

• MATLAB	●●●●○
• MAPLE	●●●○○
• Latex	●●●○○
• SPSS	●●●○○
• MS Office	●●●●●

AREA OF INTERESTS

- Graph Theory,
- Topology,
- Calculus,
- Dynamic System,
- Statistics
- Numerical Analysis,
- Applied Mathematics
- Fuzzy Modelling,

ACHIEVEMENT

2017 – Best abstracts award in 2nd International Seminar on Mathematics in Industry (ISMI 2017)

2015 – Best paper award in International Conference on Statistics in Science, Business and Engineering 2015 (ICSSBE 2015)

2012 – Best presentation in Simposium Projek Sarjana Muda Fakulti Sains.

COPYRIGHT SOFTWARE

2015 - *SYSTEM DYNAMIC VARIABLE SELECTION* **(SDVS©)** has received copyright © *2015 Universiti Teknologi Malaysia- All Right Reserved*. SDVS© is a developed software with purpose to evaluate and analyse the dynamicity of a given system.

2018 - *DYNAMICS EVOLUTION SYSTEM* **(DES©)** copyright form was submitted in august 2018 to *Universiti Teknologi Malaysia- All Right Reserved*. DES© is a developed software with purposed to evaluate the dynamicity of a system. DES© is similar SDVS© but different approach and mathematical processes of calculations.

2018 - *MULTIVARIABLE SYSTEMS MAPPING* **(MVSM©)** copyright form was submitted in august 2018 to *Universiti Teknologi Malaysia- All Right Reserved*. MVSM© is a developed software with purposed to evaluate and transform any variables of a given system into two-dimensional cartesian plane.

PUBLICATIONS

BOOK CHAPTER

Ashaari, A., Ahmad, T., Zenian, S., and Shukor, N. A. (2016). Selection Probe of EEG Using Dynamic Graph of Autocatalytic Set (ACS). In *International Conference on Soft Computing in Data Science.* Singapore: Springer. p. 25-36.

Ashaari, A., Ahmad, T., Shamsuddin, M., and Mohammad, W. M. W. (2015). An Autocatalytic Model of a Pressurized Water Reactor in a Nuclear Power Generation. In *International Conference on Soft Computing in Data Science*. Singapore: Springer. p. 106-115.

Mohamad, W. M. W., Ahmad, T., & Ashaari, A. (2016). Modeling Steam Generator System of Pressurized Water Reactor Using Fuzzy Arithmetic. In *International Conference on Soft Computing in Data Science.* Singapore: Springer. p. 237-246.

Wan Munirah, W. M, Tahir A., Nikki Anis Ab. K. and Azmirul A.. (2017). Fuzzy Arithmetical Modeling of Pressurizer in a Nuclear Power Plant In *International Conference on Soft Computing in Data Science.* Singapore: Springer. p. 221-229

JOURNAL

Ashaari, A., Ahmad, T., and Mohammad, W. M. W (2018). Transformation Pressurized Water Reactor AP1000 to Fuzzy Graph. *Malaysian Journal Of Industrial And Applied Mathematics*. 34(2): 235–244

Ashaari, A., & Ahmad, T. (2016). On Fuzzy Autocatalytic Set. *International Journal of Pure and Applied Mathematics*. *107*(1): 59-68

Ashaari, A., Ahmad, T., Shamsuddin, M., Mohammad, W. M. W., and Omar, N. (2015). Graph Representation for Secondary System of Pressurized Water Reactor with Autocatalytic Set Approach. *Journal of Mathematics and Statistics*. 11(4): 107-112.

Ashaari, A., Ahmad, T., Shamsuddin, M., and Omar, N. (2015). Modelling steam generator system of pressurized water reactor using fuzzy state space. *International Journal of Pure and Applied Mathematics*. 103(1): 123-132.

Ashaari, A., Ahmad, T., Shamsuddin, M., & Zenian, S. (2015). Fuzzy State Space Model for a Pressurizer In a Nuclear Power Plant. *Malaysian Journal of Fundamental and Applied Sciences*, 11(2): 57-61.

Ashaari, A., Ahmad, T., Shamsuddin, M., & Abdullah, M. A. (2014). State space modeling of reactor core in a pressurized water reactor. *In Proceedings of the 21st National Symposium on Mathematical Sciences (SKSM21): Germination of Mathematical Sciences Education and Research towards Global Sustainability*. July. AIP Publishing. 1605 (1): 494-499.

Wan Munirah, W. M, Tahir A., Nikki Anis Ab. K. and Azmirul A.. (2018). Fuzzy Arithmetical Modeling of a Steam Turbine and a Boiler System. *Mathematical Modelling and* AnaIysis, 23(1): 101-116. **(Impact Factor 0.521, Q3***)*.

Wan Munirah, W. M, Ahmad, T., Ahmad, S. & Ashaari, A. (2017). Identification of the Uncertain Model Parameter of a Steam Turbine System. *Pertanika Journal of Science & Technology*. p. 545-560.

Munirah, W. W., Ahmad, T., Ahmad, S., & Ashaari, A. (2015). Simulation of Furnace System with Uncertain Parameter. *Malaysian Journal of Fundamental and Applied Sciences*, 11(1): 5-9

Munirah, W. W., Ahmad, T., Ashaari, A., & Abdullah, M. A. (2014). Modeling fuzzy state space of reheater system for simulation and analysis. *In Proceedings Of The 21st National Symposium On Mathematical Sciences (SKSM21): Germination Of Mathematical Sciences Education And Research towards Global Sustainability*. July. AIP Publishing. 1605(1): 488-493

REFERENCES

Academic Supervisor:

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