NURULAQILLA BINTI KHAMIS

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PROFESSIONAL SUMMARY

Creative. Dependable. Energetic. Hardworking. Research work & interest focused on Artificial Intelligence, Machine Learning and Computational Intelligence.

EMPLOYMENT HISTORY

Aug. 2021 – PRESENT
Pengkalan Chepa, Kelantan

Senior Lecturer, Universiti Malaysia Kelantan (Department of Data Science)

Research Members, Institute for Artificial Intelligence and Big Data, Universiti Malaysia Kelantan

Sept. 2020 – July. 2021
Bangsar, Kuala Lumpur

Deep Learning Engineer, Skymind Holdings Berhad

- Develop solutions for real-world problems using Artificial Intelligence technology
- Handling live project in financial sector using Deep Learning framework for Computer Vision (image classification, object detection, anomaly) and Natural Language Processing (text classification) problems
- Data cleaning for structured and unstructured problem
- Preparing model development for Computer Vision and Natural Language Processing problem
- Tuning model hyperparameters

- Product development cycle, Minimum Viable Product (MVP) for productizing in marketplace
- Preparing AI solutions pipeline end to end to the client

Mar. 2020 – Sept. 2020
Sungai Besi, Kuala Lumpur

Data Scientist (Analytics), Invoke Solutions Sdn Bhd

- Perform structured data cleaning
- Develop an inferential, descriptive and predictive modelling for Adnexio (internal project)
- Report writing on data analysis
- External project (Clients) related on data service

Mar. 2019 – May. 2019
Kluang, Johor

Tutor (Additional Mathematics) Pusat Tuisyen Prodigi

- Prepare class materials
- Monitor student progress from time to time
- Teach additional mathematics for Form 4 and Form 5 students

Mar. 2019 – Apr. 2019
Kluang, Johor

Tutor (Additional Mathematics) Pusat Tuisyen Sri Amal

- Prepare class materials
- Monitor student progress from time to time
- Teach additional mathematics for Form 4 and Form 5 students

Jul. 2012 – Oct. 2012
Putrajaya

Research Assistant, Universiti Tenaga Nasional

- Involved in “Tenaga Nasional Berhad Distribution (TNBD) Construction Manual for Substations” Project
- Editing and compiling the information for the manual
- Regular meeting with engineers from TNBD for proof reading information for the manual

Apr. 2011 – Jun. 2011
Bangi, Selangor

Internship Student, TNB Research Sdn Bhd

- Learn relay configuration using IEC standard new communication protocol
- Designing substation using toolset “Helinks STS”
- Write guideline on how to use “Helinks STS” for Power
- System Lab, Transmission Unit, TNB Research Sdn Bhd

EDUCATION

Nov. 2020 Doctor of Philosophy (PhD)
- Universiti Teknologi Malaysia

Nov. 2015 Master of Philosophy (M.Phil)
- Universiti Teknologi Malaysia

Apr. 2014 Master of Philosophy (Research Attachment 3 Months)
- Shibaura Institute of Technology, Toyosu Campus, Tokyo Japan

Nov. 2012 Bachelor of Engineering (B.Eng – Electrical & Electronic)
- Universiti Tenaga Nasional – Putrajaya Campus
- 1st Class Honour

LANGUAGES

Malay	**English**	**Japanese**
Native Speaker	Fluent	Basic

SKILLS

Microsoft Office	- Experienced	Adobe Photoshop	- Experienced
Matlab	- Experienced	C#	- Experienced
LaTeX	- Experienced	Deep Learning Framework	- Experienced
Python	- Experienced		

AWARDS

1. 3rd runner up Women in AI Datathon (WAIDatathon 2021) – International competition
2. Top 10 Finalist Women in AI Datathon (WAIDatathon) 2021
3. Certificate of Excellence for VIVA 2020 – For Excellence (Grade B1) Achievement in the PhD Thesis

4. 2019 The Great Lab Grand Design Challenge – Silver Award
5. 2019 The Great Lab Design Challenge – Semi Finalist
6. International Automation & Control Enhancing Innovation Competition 2019 – Silver Award
7. First Place Winner of Innovation Challenge 2019 Data Analytics Boot Camp
8. Industrial Art and Technology Exhibition 2017 – Silver Award
9. Recipient PRGS – ICC UTM Commercialization Grant Pitching – RM 20,000
10. Dean's List – Semester 2, Semester 4, Semester 5, Semester 7, Semester 8

PUBLICATIONS (h-index: 3)

1. Improved Optimization Parameters Prediction using the Modified Mega Trend Diffusion Function for a Small Dataset Problem, Engineering Applications of Artificial Intelligence **(Q1 Journal Under Review, I.F = 4.201)**
2. **Khamis, N.**, Selamat, H., Ismail, F. S., Lutfy, O, F., Haniff, M. F., & Nordin, I. N. A. M. (2020). Optimized exit door locations for a safer emergency evacuation using crowd evacuation model and artificial bee colony optimization. Chaos, Solitons & Fractals, 109505 **(Q1 Journal, I.F = 3.764)**
3. Selamat, H., **Khamis, N.**, & Mohd Ghani, N. (2020). Crowd Modeling and Simulation for Safer Building Design. International Journal of Electrical and Computer Engineering systems, 11(2), 77-88 **(Scopus-Indexed Journal)**
4. **Khamis, N.**, Selamat, H., Ismail, F. S., & Lutfy, O. F. (2019). Optimial Exit Configuration of Factory Layout for a Safer Emergency Evacuation Using Crowd Simulation Model and Multi-Objective Artificial Bee Colony Optimization. International Journal of Integrated Engineering, 11(4) **(Scopus-Indexed Journal)**
5. **Khamis, N.**, Selamat, H., Yusof, R., & Ismail, F. S. (2017). Magnetic Force Model Approach with Path Finding Feature for an Improved Crowd Movement Simulation. In Asian Simulation Conference (pp. 157-168). Springer, Singapore **(Scopus-Indexed Journal)**
6. **Khamis, N.**, Selamat, H., Yusof, R., Lutfy, O.F., Haniff, M.F. (2016). Self-Organized Behaviour in a Modified Multi-Agent Simulation Model Based on Physical Force Approach. Journal of Telecommunication Electronic and Computer Engineering 8(11), pp. 57-62 **(Scopus-Indexed Journal)**
7. **Khamis, N.**, Selamat, H., Yusof, R. (2015). Modification of Physical Force Approach for Simulating Agent Movement with Collective Behaviour. Jurnal Teknologi 72(2), pp. 7-11 **(Scopus-Indexed Journal)**
8. **Khamis, N.**, Haniff, M. F., Selamat, H., & Lutfy, O. F. (2015, May). Agent motivational and repulsion forces optimization in agent basic movement model. In 2015 10th Asian Control Conference (ASCC) (pp. 1-5). IEEE **(Scopus-Indexed Journal)**
9. **Khamis, N.**, Selamat, H., & Yusof, R. (2014). Simulation of agent movement with a path

finding feature based on modification of physical force approach. Applied Computational Science, 38-43 **(Non-Indexed Journal)**

10. Haniff, M. F., Selamat, H., **Khamis, N.**, & Alimin, A.J. (2019). Optimized scheduling for an air-conditioning system based on indoor thermal comfort using the multi-objective improved global particle swarm optimization. Energy Efficiency, 12(5), 1183-1201 **(Q3 Journal, IF = 1.810)**
11. Nazari, N. A., Nordin, I. N. A. M., Razif, M. R.M., Zulkarnain, N., & **Khamis, N.** (2019). Detection of Active Mobile Phone in Exam Hall. ELEKTRIKA- Journal of Electrical Engineering, 18(3-2), 25-31 **(Non-Indexed Journal)**
12. Ab Rahman, A. F., Selamat, H.,Alimin, A.j., Muslim, M. T., Msduki, M. m., & **Khamis, N.** (2019). Automotive Real-Time Data Acquisition Using Wi-Fi Connected Embedded System. ELEKTRIKA-Journal of Electrical Engineering, 18(3-2), 7-12 **(Non-Indexed Journal)**
13. Mahalleh, V.B.S., Selamat, H., Sandhu, F., **Khamis, N.** (2016). Improved Crowd Psychological Model and Control. Jurnal Teknologi 78(6-13), pp.121-128 **(Scopus-Indexed Journal)**
14. Rahman, A.F.A., Selamat, H., Ismail, F.S., **Khamis, N.** (2015). Power Consumption Optimization of a Building using Multi-Objective Particle Swarm Optimization. Jurnal Teknologi 72(2), pp.39-44 **(Scopus-Indexed Journal)**

PROFESSIONAL BODIES

Malaysia Board of Technologists (MBOT)	:	Graduate Technologist (GT20111111)
Board of Engineer Malaysia (BEM)	:	Graduate Engineer (GE101674A)

INTELLECTUAL PROPERTY

1. **SESAK – A Crowd Simulation Software with Space Optimization Engine**
   (Under Reviewed, Date Submitted: 25-January-2021)
2. **Crowd Modelling with Optimization Algorithm for Building Design © <2019> Universiti Teknologi Malaysia - All Rights Reserved**
   Issued Nov 26, 2019 IP number my LY2019007372 (Copyright)
3. **Crowd Modelling and Simulation Tools for Crowd Analysis © <2016> Universiti Teknologi Malaysia - All Rights Reserved**
   Issued Apr 25, 2016 IP number my CR 2016 0718 (Copyright)

REFEREE

Associate Professor Ir. Dr. Hazlina Selamat
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Centre for Artificial Intelligence & Robotics (CAIRO)
Universiti Teknologi Malaysia (UTM)
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