


## Curriculum Vitae for XMUM Official Website

|   |                  |                                |
|---|------------------|--------------------------------|
|  | Name             | Dr. Shamini Raja Kumaran       |
|   | Current Position | Lecturer                       |
|   | Room No.         | -                              |
|   | Programme        | Artificial Intelligence        |
|   | Telephone        | -                              |
|   | Email            | shamini.rajakumaran@xmu.edu.my |

### BIOGRAPHY

SHAMINI RAJA KUMARAN received the B.I.T degree in information technology with a major in software engineering from the Universiti Utara Malaysia (UUM), Malaysia, in 2015, and M.Phil. degree in computer science and Ph.D. degree (Computer Science) specializing in artificial intelligence, machine learning and data mining from Universiti Teknologi Malaysia (UTM), Malaysia. She is currently a Lecturer with School of Electrical and Computer Engineering, Xiamen University Malaysia (XMUM). Her research interests include machine learning, optimization, big data, business intelligence, artificial intelligence and data mining.

### RESEARCH INTERESTS

Machine learning, optimization, big data, business intelligence, artificial intelligence and data mining.

### EDUCATIONAL BACKGROUND

- DOCTOR OF PHILOSOPHY, COMPUTER SCIENCE (PhD)  
Universiti Teknologi Malaysia (2021)
- MASTER OF PHILOSOPHY, COMPUTER SCIENCE (MPhil.)  
Universiti Teknologi Malaysia (2017)
- BACHELOR OF INFORMATION TECHNOLOGY (MAJOR: SOFTWARE ENGINEERING) (BIT Hons.)  
Universiti Utara Malaysia (2015)

### WORKING EXPERIENCE

- Teaching Assistant, School of Computing, Faculty of Engineering, UTM (Nov, 2021-Oct, 2022)
- Graduate Assistant, Faculty of Computing, UTM (Jul 2015-Oct 2015)
- Research Assistant, Faculty of Computing, UTM (Apr 2015- Sept 2015)
- Editor, Special Issue (Jurnal Teknologi), UTM (Jan 2016-Aug 2016)
- Programmer (Practical Trainee), School of Graduate Studies, UTM (Jun 2014-Dec 2014)

## RESEARCH EXPERIENCE/ GRANTS/ COPYRIGHTS

- Business Intelligence Framework for Higher Education Incorporating Ant Colony Optimization Based Feature Selection (UTM.J.14.01/27.13/1JLD120(31)) – Copyright
- Feature Selection using Particle Swarm Optimization for Business Intelligence in Higher Education Framework (IP/CR/2016/1141) – Copyright
- Business Intelligence Dashboards for Graduate on Time Analysis (IP/CR/2016/2069) – Copyright
- Gender Classification Framework for Forensic Anthropology (IP/CR/2017/0560) - Copyright
- Massive Open Online Courses (MOOCs) Usability Model for Student Learning Performance (IP/CR/2017/0796) – Copyright
- Sistem Pengurusan Kelab Rekreasi Mahasiswa UTM (IP/CR/2017/0589) – Copyright
- Sistem Pendaftaran Kokurikulum SMK Pekan Kuala Penyu (IP/CR/2017/0564)- Copyright
- Sistem Pengurusan Mesyuarat UTM Dalam Talian (IP/CR/2017/0588)-Copyright
- Sistem Penganjuran Aktiviti Kolej Tun Dr Ismail (IP/CR/2018/0356)- Copyright

## REPRESENTATIVE PUBLICATIONS

- \*Mohd Shahizan Othman, **Shamini Raja Kumaran**, and Lizawati Mi Yusuf. (2021). A three-stage classification framework for cancer microarray data . *PLOS ONE*, 1-23. - Submitted [Q1, IF: 3.240]
- \*Mohd Shahizan Othman, **Shamini Raja Kumaran**, and Lizawati Mi Yusuf. (2020). Gene selection using hybrid multi-objective cuckoo search algorithm with evolutionary operators for cancer microarray data. *IEEE Access*, 8, 186348.-Published [Q1, IF: 3.745]
- \***Shamini Raja Kumaran**, Mohd Shahizan Othman, and Lizawati Mi Yusuf. (2020) “Estimation of Missing Values using Optimized Hybrid Fuzzy C-means and majority vote”, *Journal of Information Computer Technology (JICT)*, , 19(4), 459-482– Published (Scopus, Q2)
- \***Shamini Raja Kumaran**, Mohd Shahizan Othman, and Lizawati Mi Yusuf, (2020) Hybrid of hierarchical and partitional clustering algorithm for gene expression data. *IOP Conference Series: Materials Science and Engineering*, 864, 1-6. (Scopus).
- \***Shamini Raja Kumaran**, Mohd Shahizan Othman, Lizawati Mi Yusuf, and Arda Yuniarta. ‘Estimation of Missing Values Using Hybrid Fuzzy Clustering Mean and Majority Vote for Microarray Data’, *Procedia Computer Science*, 2019. – Published (Scopus)
- \*Ernie Mazuin, Mohd Yusof, Mohd Shahizan Othman, Lizawati Mi Yusuf, **Shamini Raja Kumaran** and Ahmad Rizal Mohd Yusof, “A model of acceptance factors for business intelligence in manufacturing using theoretical models”, *Indonesian Journal of Electrical Engineering and Computer Science*, 14(3), 2019. –Published (Scopus, Q3)

- **\*Shamini Raja Kumaran**, Mohd Shahizan Othman, Lizawati Mi Yusuf, and Arda Yunianta, "Visualizing Significant Features Using Metaheuristic Algorithm", Proceedings of 2019 International Conference on Advances in the Emerging Computing Technologies (AECT), IEEE. – Proceeding.
- **\*Shamini Raja Kumaran**, Mohd Shahizan Othman, and Lizawati Mi Yusuf, "Biomedical Data Classification using Wrapper based Swarm Intelligence Algorithms for Feature Selection", 7<sup>th</sup> International Graduate Conference on Engineering, Science and Humanities (IGCESH) 2018. - Proceeding
- Mohd Shahizan Othman, **\*Shamini Raja Kumaran**, and Lizawati Mi Yusuf. "An Implementation of Metaheuristic Algorithms in Business Intelligence Focusing on Higher Education Case Study." International Conference of Reliable Information and Communication Technology. Springer, Cham, 2017. – Published (Scopus)
- **\*Shamini Raja Kumaran**, Mohd Shahizan Othman, and Lizawati Mi Yusuf. "Data Mining Approaches in Business Intelligence: Postgraduate Data Analytic." *Jurnal Teknologi* 78.8-2 (2016): 75-79. – Published (Scopus, Q2)
- **\*Shamini Raja Kumaran**, Mohd Shahizan Othman, and Lizawati Mi Yusuf. "Applying Theory of Constraints (TOC) in business intelligence of higher education: A case study of postgraduates by research program." *Science in Information Technology (ICSITech)*, 2015 International Conference on. IEEE, 2015.-Published (Scopus, Q1)
- Mohd Shahizan Othman, **\*Shamini Raja Kumaran**, Lizawati Mi Yusuf, and Nur Alia Hamizah Mohammad Rodzi. "Implementing Business Intelligence (BI) Approaches in Higher Education." *4th International Conference on Computer Science and Computational Mathematics (ICCSCM 2015)*, 2015. –Proceeding
- Lizawati Mi Yusuf, **\*Nur Alia Hamizah Mohammad Rodzi**, Mohd Shahizan Othman and **Shamini RajaKumaran**, "Business Intelligence Framework Componenets", *4th International Conference on Computer Science and Computational Mathematics (ICCSCM 2015)*, 2015. –Proceeding

## HONORS/AWARDS

- Technical Committee Member, International Academy of Science and Engineering for Development (IASED) (2021-2024)
- Intelligent Diagnosis System for Apple Diseases, (Instructor) First Prize in Social Enterprise Group (2nd China-Malaysia Youth Innovation and Entrepreneurship Competition), 2021
- Best Postgraduate Award, Universiti Teknologi Malaysia, 2021 (PhD)
- Best Presentation Award (16<sup>th</sup> Learning & Technology Conference- Effat University), 2019
- Pro-Chancellor Award, Universiti Teknologi Malaysia, 2017
- Best Postgraduate Award, Universiti Teknologi Malaysia, 2017 (MPhil.)
- Innovative Practices In Education And Industry Exhibition - Silver Award 2016
- International University Carnival On e-Learning - Silver Award 2016
- Deputy Vice Chancellor Award, Universiti Utara Malaysia, 2014