

RAZALI YAAKOB, Ph.D.



PERSONAL DETAILS

Department: Computer Science
Faculty: Computer Science and Information Technology
Field of Specialization: Artificial Intelligence, Evolutionary Computation, Neural Network, Pattern Recognition, Machine Learning.
Gender: Male
Birth date: May 6, 1972
Citizenship: Malaysian
Languages: Malay and English (excellent in speaking and writing for both languages)

ACADEMIC QUALIFICATIONS

Institution: University of Nottingham, UNITED KINGDOM
Year: 2008
Degree: PhD, *Computer Science*
Dissertation: Integration of Best Population Pool and Social Learning: An Investigation in Game Playing

Institution: Universiti Putra Malaysia, MALAYSIA
Year: 1999
Degree: Master of Computer Science

Institution: Universiti Putra Malaysia, MALAYSIA
Year: 1996
Degree: Bachelor of Computer Science

Institution: Universiti Pertanian Malaysia, MALAYSIA
Year: 1993
Degree: Diploma in Computer Science

ACADEMIC APPOINTMENT

- 1 December 2013-Present: *Associate Professor, FSKTM, UPM.*
- 1 September 2008 – November 2013: *Senior Lecturer, FSKTM, UPM.*
- 26 March 2002 – October 2008: *Lecturer, FSKTM, UPM.*
- 3 January 2000 – 26 March 2002: *Tutor, FSKTM, UPM.*

ADMINISTRATION APPOINTMENT

- 1 September 2021 - Present: *Dean, FSKTM, UPM.*
- 18 March 2020 – 30 August 2021: *Deputy Dean, FSKTM, UPM.*
- December 2016 – November 2019: *Head, Dept. Computer Science, FSKTM, UPM.*

COURSES TAUGHT

I. UNDERGRADUATE

No.	Code and Name of Courses	Credit Hour	Number of Student	Teaching Assessment (5.0)	Semester/Academic Year
1.	SSK3101 COMPUTER PROGRAMMING II		17		SECOND 2021/2022
2.	SSK3118 DATA STRUCTURE AND ALGORITHMS		2		FIRST 2021/2022
3.	SSK3118 DATA STRUCTURE AND ALGORITHMS				SECOND 2020/2021
4.	SSK3101 COMPUTER PROGRAMMING II	4	24	4.96	FIRST 2020/2021
5.	SSK3100 COMPUTER PROGRAMMING I	4	25	4.79	SECOND 2019/2020
6.	SSK3118 DATA STRUCTURE AND ALGORITHMS	3	24	4.84	FIRST 2019/2020
7.	SSK3100 COMPUTER PROGRAMMING I	4	23		SECOND 2018/2019
8.	SSK3100 COMPUTER PROGRAMMING I	4	18		FIRST 2018/2019
9.	SSK4618 (k1)	3			SECOND 2017/2018

	ROBOTIC SYSTEM DEVELOPMENT				
10.	SSK3117 DATA STRUCTURE	3	30		FIRST 2017/2018
11.	SSK4618 (k1) ROBOTIC SYSTEM DEVELOPMENT	3	11	4.85	SECOND 2016/2017
12.	SSK3117 (K1) DATA STRUCTURE	3	47	4.75	FIRST 2016/2017
13.	SSK4618 (K1) ROBOTIC SYSTEM DEVELOPMENT	3	20	4.59	SECOND 2015/2016
14.	SSK3100(K8) COMPUTER PROGRAMMING I	4	50	4.35	FIRST 2015/2016
15.	SSK4602(K1) INTELLIGENT COMPUTING	3	5		THIRD 2014/2015
16.	SSK4618 (K1) ROBOTIC SYSTEM DEVELOPMENT	3	17	4.79	SECOND 2014/2015
17.	SSK4602 (K1) INTELLIGENT COMPUTING	3	30	4.68	FIRST 2014/2015
18.	SSK 3100 (K1) COMPUTER PROGRAMMING I	4	48	4.49	SECOND 2012/2013
19.	SSK3117 (K6) DATA STRUCTURE	3	28	4.53	FIRST 2012/2013
20.	SSK 3101 (K5) COMPUTER PROGRAMMING II	4	44	4.51	SECOND 2011/2012
21.	SSK 3100 (K5) COMPUTER PROGRAMMING I	4	46	4.32	FIRST 2011/2012
22.	SSK 3100 (K1) COMPUTER PROGRAMMING I	4	23	4.73	SECOND 2010/11
23.	SSK 3100 (K2) COMPUTER PROGRAMMING I	4	25	4.47	SECOND 2010/11
24.	SSK 3100 (K8) COMPUTER PROGRAMMING I	4	39	4.44	FIRST 2010/11
25.	SSK 3100 (K9) COMPUTER PROGRAMMING I	4	46	4.37	FIRST 2010/11
26.	SAK 3100 (K1) COMPUTER PROGRAMMING I	4	22	4.24	SECOND 2009/10
27.	SAK 3101 (K4) COMPUTER PROGRAMMING II	4	42	4.64	SECOND 2009/10
28.	SSK 3100 (K4) COMPUTER PROGRAMMING I	4	41	4.36	FIRST 2009/10
29.	SAK 3100 (K1) COMPUTER PROGRAMMING I	4	16	4.40	SECOND 2008/09
30.	SAK 3101 (K4) COMPUTER PROGRAMMING II	4	39	4.67	SECOND 2008/09
31.	SAK 3100 (K4)	4	41	4.60	FIRST 2008/09

	COMPUTER PROGRAMMING I				
32.	SAK 3100 (K5) COMPUTER PROGRAMMING I	4	33	4.47	FIRST 2008/09
33.	SAK 3100 (K1) COMPUTER PROGRAMMING I	4	43	4.37	SECOND 2007/08
34.	SAK 3101 (K4) COMPUTER PROGRAMMING II	4	38	4.42	SECOND 2007/08
35.	SAK 3100 (K4) COMPUTER PROGRAMMING I	4	33	4.20	FIRST 2007/08
36.	SAK 3100 (K5) COMPUTER PROGRAMMING I	4	74	3.92	FIRST 2007/08
37.	SAK 3100 (K1) COMPUTER PROGRAMMING I	4	72	4.16	SECOND 2006/07
38.	SAK 3101 (K4) COMPUTER PROGRAMMING II	4	33	4.30	SECOND 2006/07
39.	SAK5102 ADVANCED OBJECT-ORIENTED PROGRAMMING	3			MEI 2001/2002
40.	SAK 3309 OPERATING SYSTEM	3			NOV 2001/2002
41.	SAK3101 INTRODUCTION TO COMPUTER PROGRAMMING II	4			MEI 2001/2002
42.	SAK 3101 INTRODUCTION TO COMPUTER PROGRAMMING II	4			NOV 2001/2002
43.	SAK 3101 INTRODUCTION TO COMPUTER PROGRAMMING II	4			MEI 2000/2001
44.	SAK 3107 DATA STRUCTURES	3			NOV 1999/2000
45.	SAK 1107 INTRODUCTION TO DATA STRUCTURES	3			NOV 1999/2000
46.	SAK 2206 INTERNET PROGRAMMING	3			MEI 1999/2000
47.	SAK 1107 INTRODUCTION TO DATA STRUCTURES	3			MEI 1999/2000

II. POSTGRADUATE

No.	Code of Courses	Credit Hour	Number of Students	Teaching Assessment / 5.00	Semester/Academic Year
1.	SSK5117 ADVANCED DATA STRUCTURE	3			SECOND 2019/2020
2.	SSK5117 ADVANCED DATA STRUCTURE	3			SECOND 2018/2019
3.	SSK5117 (K1) ADVANCED DATA STRUCTURE	3	26	4.65	SECOND 2015/2016
4.	SSK5117 (K1) ADVANCED DATA STRUCTURE	3	17		FIRST 2015/2016
5.	SSK5117 (K2) ADVANCED DATA STRUCTURE	3	17		SECOND 2014/2015
6.	SSK5117 (K2) ADVANCED DATA STRUCTURE	3	17		FIRST 2014/2015
7.	SSK5117 (K2) ADVANCED DATA STRUCTURE	3	33		SECOND 2012/2013

ADMINISTRATIVE RESPONSIBILITIES

No.	Position	Department/Faculty/Other Institution	Year
1.	Dean	Faculty	2021-Present
2.	Deputy Dean (Development, Industry and Community Relations)	Faculty	2020 - 2021
3.	Head of Department	Faculty	2017 - 2019
4.	Coordinator of Student Mobility Unit	University	2015, 2016
5.	Head of Student Mobility Unit	Faculty	2015
6.	Final Year Project Coordinator SSK4999	Faculty	2013, 2012, 2009,

			2008
7.	Coordinator for SSK1101 (UPM-IPTS Academic Collaboration Program)	University	2012, 2013
8.	Coordinator SSK3117	Faculty	2012
9.	Coordinator for SSK3101 (UPM-IPTS Academic Collaboration Program)	University	2012, 2009, 2007
10.	Coordinator for SAK1111 (UPM-IPTS Academic Collaboration Program)	University	2011, 2010, 2009, 2008, 2007
11.	Coordinator for SSK3100 (Computer Programming I)	Faculty	2011, 2010, 2007
7	Coordinator for SSK3100 (UPM-IPTS Academic Collaboration Program)	University	2011, 2008
8	Coordinator for SSK3101 (Computer Programming II)	Faculty	2006
9	Promotion and Visiting Committee	Department	2007
10	Training Coordinator for student organised by MDeC	Faculty	2013, 2012, 2010, 2011, 2009, 2008
11	Auditor for Student Election	University	2012, 2009
12	Single Point of Contact Program Infosys	University	2011, 2009
13	Committee of E-Content Expert Team CaDE, UPM	University	2010

RESEARCH ACTIVITIES

A) As Project Leader

No	Project No.	Project Title	Year	Source of fund	Status	Amount (RM)
1.	FRGS/1/2020/I CT02/UPM/02/S	An improved Feature Extraction and Multi-Label Multi-Class Classification in	2020-2023	FRGS	Ongoing	109,707

		Deep Learning for Pleural Tuberculosis Diagnosis				
2.	GP-IPS/2018/9644700	Enhanced Fall Detection Framework For Smart Home Environment	2018-2020	GP	Ongoing	25,000
3.	GP/2018/9596100	Multi-Attribute Decision Making Using Fuzzy System and Z-Numbers	2018-2020	GP	Completed	43,000
4.	08-02-13-1367FR	An Ensemble of Classifiers for Improving Multi-View Human Action Recognition	2013-2016	FRGS	Completed	72,500
5.	02-01-04-SF1361	Evolutionary Reinforcement Learning For Flexible Protein Docking	2012-2014	Science Fund	Completed	79,000
6.	05-04-10-1008RU	An Integration of Best Population and Social Learning in Tic-Tac-Toe	2010-2012	RUGS	Completed	25,000
7.	02-10-07-316FR	An Investigation on Learning to Play the Game of Go Without Any Knowledge	2007-2009	FRGS	Completed	42,000
8.		The used of Fuzzy Logic and Its Integration with Neural Network for Colour	1999-2000	Short Term Grant	Completed	

B) As Project Member

No	Project No.	Project Title	Year	Source of fund	Status	Amount (RM)
1.	6380101	Interactive Machine Learning based on Deep Reinforcement Learning and Generative Adversarial Network Hybrid for Digital Twin	2021-2024	AFOSR	Ongoing	245,000
2.	5540532	Effective Federated Learning for In-hospital Mortality Prediction in Multi-center ICU under Non-IID and Unbalanced EHRs Datasets	2021-2024	FRGS	Ongoing	95,000
3.	6233248	THE DEVELOPMENT OF AN EVIDENCE-BASED PROJECT REPORTING	2021-2023		Ongoing	55,000

		SOLUTION USING IMAGING PROCESSING AND ARTIFICIAL INTELLIGENCE				
4.	5524829	Establishing Theory for Cloud Platform Efficiency Measure Based on SLA (Service Level Agreement) Management and Enforcement	2015-2018	FRGS	Ongoing	81,400
5.	5540447	Multimodal Hierarchical Fusion Feature Model In Incorporating Attention Mechanism With World Level Alignment	2020-2023	FRGS	Ongoing	115,500
6.	9682000	Multimodal Fusion Model to Predict Mental Illness from Social Media Platform	2019-2023	GP-IPS	Ongoing	20,000
7.	9653000	Semantic Interoperability Framework For Heterogeneous Internet of Things (IoT) Objects	2018-2021	GP-IPS	Ongoing	25,000
8.	6380016	Deep Recurrent Q-Network Approach for Multi Objective Markov Decision Process in Partially Observable Environment	2018-2020	AOARD	Ongoing	240,000
9.	9595800	Social Media Influencer Detection using Social Network Analysis (SNA)	2018-2020	GP-Putra	Ongoing	31,500
10.	9621700	Pragmatics-based Usability Model (PUM) for E-learning in Educating Farmers on Adopting Agricultural Innovation and Technology	2018-2019	GP-Putra	Ongoing	50,000
11.	9323701	Development and Implementation of e-Gaming fo Veterinary Oncology	2016-2018	GIPP	On-going	10,000
12.	9569000	Feature Representation Technique to Recognize	2017-2021	GP-Putra	Ongoing	45,000

		Multi-Class Food Categories				
13.	9549700	Enhanced spatio-temporal event model for Internet of Things (IoT) service provisioning	2017-2020	GP-IMPAK	Ongoing	122,000
14.	5524960	Threshold-based Probabilistic Interval Skyline Queries for Efficient Skyline Computation on Big Data	2016-2018	FRGS	Ongoing	61,200
15.	GP-IBT/2013/9410000	Efficient Computation of Skyline Queries in Uncertain and Incomplete Autonomous Web Databases	2013-2015	GP	Completed	88,620
16.	GP-IPM/2013/9424800	Extending and Improving Autotuning through Domain-Specific Parameters and User Feedback	2014-2015	GP	Completed	50,000
17.	GP-IBT/2013/9420200	Middleware Ontology Structure and Validation Technique for Polymerase Chain Reaction (PCR) Analyzer Data Collection Activities	2014-2015	GP	Completed	66,800
18.	01-04-11-1472RU	Diagnosing Severity Levels Of Basal Stem Rot (BSR) Disease At Oil Palm Plantation Using Hyperspectral Remote Sensing	2012-2013	RUGS	Completed	
19.	03-02-12-2068RU	Development Of Expert System For Urban Tree Management: UPM-Mutis Ver. 2.0	2012-2014	RUGS	Ongoing	
20.	05-01-11-1260RU	A Hybrid Model for Predicting Dengue Outbreak	2011-2013	RUGS	Completed	
21.	05-01-11-1253RU	Skyline Preference Evaluation Models for Uncertain and Incomplete Multidimensional	2011-2013	RUGS	Completed	13,500

		Database				
22.	05-02-07-0361RU	Object-oriented Program Understanding and Debugging System Based on the Plan Base Approach	2008-2010	RUGS	Completed	

INTELLECTUAL PROPERTY

I. COPYRIGHT

No.	Title of Copyright	Role (Main/Co-Inventor)	Year	Category
1.	InGNeoSA (TM2018018274)	Co-Inventor	2020	Software
2.	Recycle Bingo	Main Inventor	2012	Software
3.	Hooray Hubby (Software Game)	Co-Inventor	2012	Software
4.	Be Mum	Co-Inventor	2012	Software

SUPERVISION OF STUDENTS

Program Level	Name of Students and Title of Thesis/Project	Main Supervisor/ Co-supervisor	Status (Completed/ Ongoing)	Year Graduated
PhD	Al Shahad Huda Fawzi Abd Alwahab	Main Supervisor	Ongoing	
	Sina Abdipoor "A Hybrid Evolutionary Method To Solve The University Course Timetabling Problem"		Ongoing	
	Syeda Syaizadi Miraj "Artificial Intelligence In Diagnosing Tuberculosis"		Ongoing	

Rawia Tahrir Salih "Unifying And Weighting Methodology For The Evaluation Criteria Of Many-Objective Optimization Competitive Algorithms Based On Fuzzy Delphi And Fuzzy-Weighted Zero-Inconsistency Methods"		Completed	2021
Saeed Bahrami "Performance Assessment Decisions Using Educational Data Classification"		Completed	2021
Rajina Bt. M A Raj Mohamed "Intelligent Classification of Food Aroma in Electronic Nose Using Fuzzy Logic"		Ongoing	
Imas Sukaesih Sitanggang "Modeling Peatland Fires Risk using Spatial Decision Tree"		Completed	2013
Erzam Marlisah "Evolutionary Neural Network with Reinforcement Learning Framework Using Q-Learning Algorithm for Flexible Protein Docking"		Completed	2017
Sarmad Makki Mohammed Garib "Multi-Objective Document Clustering Based on Evolutionary Computation"		Completed	2019
Alihossein Aryanfar "Multi-Variant Human Action Recognition"		Completed	2016
Agbolade Olalekan Opeoluwa "The Novel Convoluted Dna-Landmark Morphometrics Framework For 3d Face Recognition"		Ongoing	
Majid Torabi "Hybrid Evolutionary Class-based Feature Subset Selection and Ensemble technique for Intrusion Detection System"	Co-Supervisor	Completed	2020
Lawal Mohammed Ma'aruf "An Efficient Framework For Processing Constrained Skyline Query Over Uncertain Data"		Completed	2021
Alwatben Batoul Rashed A "Modified Archive Update Mechanism Of Particle Swarm"		Ongoing	

	Optimization (Pso) For Multi-Objective Optimization In-Fuzzy Classification And Clustering”			
	Mohammed Ali Mohammed Alkhawlan “Improving The Memory Of Deep Learning Based Question Answering (QA)”		Ongoing	
	Salimeh Malekpourheydari “A Hybrid Flood Forecasting Model”		Ongoing	
	Mahsa Aramesh “Big Data Unsupervised Feature Selection”		Ongoing	
	Zuhaira Muhammad Zain “Weight Elicitation for Multi-Criteria Decision Making In Blog Quality Evaluation”		Completed	2012
	Ghada Hassan Obaid Elshaygi “Mobile Agent Based Framework For Data Integration”		Ongoing	-
	Mubina Pathan “Mapping, Monitoring and Quantifying Oil Palm Trees Through Hyperspectral Airborne Remote Sensing”		Completed	2012
	Nor Azura Husin “A Hybrid Model using Evolutionary Computation and Neural Network for Predicting Dengue Outbreak”		Completed	
	Jonathan Teng Yi Chuon “Development of UPM-MUTIS for Urban Tree Management Using Expert System”		Ongoing	
	Nor Mas Aina Md Bohari “Recognition and Classification of Herbs Plant Diseases Via Hierarchical Dynamic Neural Network After Image Noise Removal using Kernel Regression Framework”		Ongoing	
	Nurul Husna Mohd Saad “Skyline Query Processing on Uncertain Data”		Completed	

Master	Athimahendran A/L Paneerselvam "Enhanced Fall Detection Framework For Smart Home Environment"	Main Supervisor	Ongoing	
	Kwan Wei Peng "Enhancing Indoor Positioning Service For Location Based Internet Of Things (IoT)"		Ongoing	
	Sitti Syarah Maharani "Selection of Students for University Entry Using Neural Network"		Completed	2015
	Mohammad Nasrollah Bin Rozami "Adaptation Human Factor for Enhance Enforcement Efficiency Based on Service Level Agreement (SLA)"	Co-Supervisor	Completed	
	Tan Lai Yee "Activity Recognition for Activities of Daily Living (ADL) of Elderly in Smart Home"		Ongoing	
	Kavitha Jaganathan "Detecting Action From Motion Capture Data using Hidden Markov Model"		Completed	2016
	Rageed Husain Hasan Al-Hashme "Integrating Heterogenous Database by Ontology Mapping"		Ongoing	
	Yaser Mohammad Ali Karasneh "Schema Matching and Database Integration for Biomedical Schema"		Completed	2010
	Ahmad Izzuddin Abu Bakar "A Middleware Framework for the Integration of Heterogeneous Hardware and Software"		Ongoing	
	Lee Chiw Yi "Reconciling Semantic Conflicts in Integrating Biomedical Databases"		Ongoing	
	Fahrul Hakim Ayob "Sistem Penjadualan Waktu Kuliah Fakulti Di Universiti Menggunakan Teknik Algoritma Genetik"		Completed	2000
	Norhayati Abdullah "Personal Identification by Keystroke Pattern for Login Security"		Completed	2001

	Abdul Aziz Al-Naqeeb "Colour Recognition Using Back-propagation Neural Network and RGB Values"		Completed	2002
Bachelor	Chan Meng Yee "E-menu Restaurant System"	Main Supervisor	Completed	2007
	Yap Yee Ping "Web Based Vegetable Growing Expert System"	Main Supervisor	Completed	2007
	Hon Sook Yee "Hotel Online Reservation In Malaysia"	Main Supervisor	Completed	2007
	Hon Chee Siong "Management System"	Main Supervisor	Completed	2007
	Fauziyatul Sheila Yusof "Sistem Sokongan Keputusan Bagi Tanaman Buah-Buahan"	Main Supervisor	Completed	2007
	Noor Azimah Dahlan "Sistem Maklumat Pengurusan Bagi Sayuran Menggunakan Kaedah Hidroponik"	Main Supervisor	Completed	2007
	Kevin Charles Jonathan "Penempahan Pakej Pelancongan"	Main Supervisor	Completed	2007
	Raja Feninferina Raja Azman "Car Workshop System"	Main Supervisor	Completed	2007
	Leong Jun Wen "The Trael Butler"	Main Supervisor	Completed	2008
	Lee Jean Hwa "Starzone Boutique Salon"	Main Supervisor	Completed	2008
	Calvin Chiew Wei Chiang "The Inventory System"	Main Supervisor	Completed	2008
	Leonard Herbert Munang "Vehicle Fuel Usage Monitoring System"	Main Supervisor	Completed	2008
	Tan Pei Shan "Banking Decision System"	Main Supervisor	Completed	2008
	Imran Md Jelas "Cattle Management System"	Main Supervisor	Completed	2008
	Mhd Azmi Bin Zulfikar "Sudoku Solving System"	Main Supervisor	Completed	2008
	Yap Chek Wei "Personal Resume Builder"	Main Supervisor	Completed	2009
	Ng Suan Leng "Online Fashion Store"	Main Supervisor	Completed	2009

	Lim Beng Teong "e-Counselling"	Main Supervisor	Completed	2009
	Ng Pei Ling "Research Grant Online System: Monitoring, Evaluation and Implementation of Research Grant"	Main Supervisor	Completed	2010
	Yap Wei Leng "Research Grant Online System: Generation of Research Grant"	Main Supervisor	Completed	2010
	Loh Kian Leong "Soccer Robotic: Ruled Based"	Main Supervisor	Completed	2011
	Ang Yip Keong "Ball Recognition of AMiR Robot by Using Artificial Neural Network"	Main Supervisor	Completed	2011
	Tan Kean Nian "Calorie Counter and Social Dieting: APEPIC Diet (Social Networking Module)"	Main Supervisor	Completed	2013
	Chai Kit Soon "Calorie Counter and Social Dieting: APEPIC Diet (Calorie Counter Module)"	Main Supervisor	Completed	2013
	H'ng Sheng Yang "Calorie Counter and Social Dieting: APEPIC Diet (Meal Plan Module)"	Main Supervisor	Completed	2013

NUMBER OF STUDENTS GRADUATED

No.	Level	Total
1.	PhD	6
2.	Master	1

H-Index: 10 (Scopus)

PUBLICATIONS

I. JOURNALS

1. Lawal Babangida, Thinagaran Perumal, Norwati Mustapha, **Razali Yaakob** (2022), Internet of Things (IoT) Based Activity Recognition Strategies in Smart Homes: A Review, IEEE Sensors Journal, vol. 22 (9), pp. 8327 – 8336.

2. Ee Yeo Keat, Nurfadhlina Mohd Sharef, **Razali Yaakob**, Khairul Azhar Kasmiran, Erzam Marlisah, Norwati Mustapha, Maslina Zolkepli (2022), Multiobjective Deep Reinforcement Learning for Recommendation Systems, IEEE Access, vol.10, Pages 65011 – 65027.
3. Rawia Tahrir Salih, Aws Alaa Zaidan, **Razali Yaakob**, Rusli Abdullah, Nurfadhlina Mohd Sharef, Bilal Bahaa Zaidan, Albahri O.S, Abulkarem K.H. (2022), Determining Importance of Many-Objective Optimisation Competitive Algorithms Evaluation Criteria Based on a Novel Fuzzy-Weighted Zero-Inconsistency Method, International Journal of Information Technology and Decision Making, 21(1), pp. 195-241.
4. Rawia Tahrir Salih, **Razali Yaakob**, Rusli Abdullah, Nurfadhlina Mohd Sharef (2021), Unifying The Evaluation Criteria Of Many Objectives Optimization Using Fuzzy Delphi Method, Baghdad Science Journal, vol. 18 (4), pp. 1423 – 14302.
5. Salimeh Malekpour Heydari, The Noranis Mohd Aris, **Razali Yaakob**, Hazlina Hamdan (2021). Data-driven forecasting and modeling of runoff flow to reduce flood risk using a novel hybrid wavelet-neural network based on feature extraction, Sustainability, 13, 11357, pp. 1-16 (Open Access).
6. Olalekan Agbolade, Azree Nazril, **Razali Yaakob**, Abdul Azim Ghani, Yoke Kqueen Cheah (2021), Investigation Of Age-Related Facial Variation Among Angelman Syndrome Patients, Scientific Reports, 11(20767), Open Access.
7. Suman Sukhavasi, Thinagaran Perumal, Norwati Mustapha, **Razali Yaakob**, Bin Ahmadon M.A., Yamaguchi S. (2021) CoAP-based lightweight interoperability semantic sensor and actuator ontology for IoT ecosystem, Volume 12, Issue 2, Pages 92 – 110.
8. Eman Thabet, Fatimah Khalid, Puteri Suhaiza Sulaiman and **Razali Yaakob** (2021), Algorithm of local features fusion and modified covariance-matrix technique for hand motion position estimation and hand gesture trajectory tracking approach, Multimedia Tools and Applications, volume 80, Issue 4, Pages 5287 – 5318.
9. Nurul Husna Mohd Saad, Hamidah Ibrahim, Fatimah Sidi, **Razali Yaakob**, Alwan A.A. (2021), Efficient Skyline Computation on Uncertain Dimensions, IEEE Access, Volume 9, Pages 96975 – 96994.
10. Majid Torabi, Nur Izura Udzir, Mohd Taufik Abdullah, **Razali Yaakob** (2021), A Review on Feature Selection and Ensemble Techniques for Intrusion Detection System, International Journal of Advanced Computer Science and Applications, vol. 12, Issue 5, Pages 538 – 553.
11. Mohd Norhisham Razali, Noridayu Manshor, Alfian Abdul Halin, Norwati Mustapha, **Razali Yaakob** (2021), Extremal Region Selection for MSER Detection in Food Recognition, ASM Science Journal, vol. 15, pages 1 – 11.
12. Mohd Norhisham Razali, Noridayu Manshor, Alfian Abdul Halin, Norwati Mustapha, **Razali Yaakob** (2021), Fuzzy encoding with hybrid pooling for visual dictionary in food recognition, Indonesian Journal of Electrical Engineering and Computer Science, 21(1), pp. 179-195.

13. Lawal Ma'aruf Mohammed, Hamidah Ibrahim, Nor Fazlida Mohd Sani, **Razali Yaakob** (2021), An indexed non-probability skyline query processing framework for uncertain data, *Advances in Intelligent Systems and Computing*, vol. 1141, Pages 289 - 301
14. Rawia Tahrir Salih, **Razali Yaakob**, Aws Alaa Zaidan, Rusli Abdullah, Nurfadhlin Mohd Sharef (2020), Review Of The Research Landscape Of Multi-Criteria Evaluation And Bench- Marking Processes For Many-Objective Optimisation Methods: Coherent Taxonomy, Challenges And Recommended Solution, *International Journal Of Information Technology & Decision Making*, 19(6), Pp. 1619-1693.
15. Olalekan Agbolade, Azree Nazril, **Razali Yaakob**, Abdul Azim Ghani, Yoke Kqueen Cheah (2020), Morphometric approach to 3D soft-tissue craniofacial analysis and classification of ethnicity, sex, and age, *PLoS ONE*, 15(4), pp. 1-24.
16. Alwatben Batoul Rashed, Hazlina Hamdan, Nurfadhlin Mohd Sharef, Md Nasir Sulaiman, **Razali Yaakob**, Mansir Abubakar (2020), Multi-objective clustering algorithm using particle swarm optimization with crowding distance (MCP SO-CD), *International Journal of Advances in Intelligent Informatics*, 6(1), pp. 72-81.
17. Deng Ting, Hazlina Hamdan, Khairul Azhar Kasmiran, **Razali Yaakob** (2020), Federated Learning Optimization Techniques For Non-IID Data: A Review, *International Journal of Advanced Research in Engineering and Technology(IJARET)*, 11(12), pp.1315-1329.
18. Olalekan Agbolade, Azree Nazri, **Razali Yaakob**, Abdul Azim Ghani, Yoke Kqueen Cheah (2020), Down Syndrome Face Recognition: A Review, 12(1182), pp: 1-17.
19. Azree Nazri, Olalekan Agbolade, **Razali Yaakob**, Abdul Azim Ghani, Yoke Kqueen Cheah (2020), A novel investigation of the effect of iterations in sliding semi-landmarks for 3D human facial images, *BMC Bioinformatics*, 21(208), pp: 1–10.
20. Ma'aruf Mohammed Lawal, Hamidah Ibrahim, Nor Fazlida Mohd Sani, **Razali Yaakob** (2020), Analyses of Indexing Techniques on Uncertain Data With High Dimensionality, *IEEE Access*, vol. 8, pp: 74101-74117.
21. Olalekan Agbolade, Azree Shahrel Ahmad Nazri, **Razali Yaakob**, Abdul Azim Abd Ghani, Yoke Kqueen Cheah (2020), Morphometric Analysis of 3D Soft-Tissue for Sexual Dimorphism in Human Face, *International Journal of Morphology*, 38(2) pp: 367-373.
22. Azreen Azman, Mostafa Ahmed Alksher, Shyamala Doraisamy, **Razali Yaakob**, Eissa M. Alshari (2020), A Framework for Automatic Analysis of Essays Based on Idea Mining, *Lecture Notes in Electrical Engineering*, vol. 603, pp: 639-648.
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Master of Information Technology theses:

1. Md. Akizur Rahman, Enhance Cancer Classification Accuracy Using 15-Hidden Neuron Artificial Neural Network With Two-Step Feature Selection Method Universiti Kebangsaan Malaysia, 2019.
2. Chy. Mohammed Tawsif Khan, Application of Complex Event Processing for Broadband Network Fault Prediction Using Random Forest, Multimedia University, Melaka, 2019.
3. Muhammad Abdul Ghani Rizqi, Universiti Kebangsaan Malaysia, Selangor, 2018.
4. Suriyati Abdul Mokhtar, Reservoir Water Release Dynamic Decision Model Based on Spatial Temporal Pattern, Universiti Utara Malaysia, Kedah, 2015.
5. Aghil Firouzi, Multi-Objective Multi-State Approach of Reallocation Problem for Parallel Series Systems, Universiti Kebangsaan Malaysia (UKM), Selangor, 2012.
6. Najmeh Alkar, Breast Cancer Diagnosis Using Particle Swarm Optimization and Fuzzy Rule-Based System, Universiti Kebangsaan Malaysia (UKM), Selangor, 2012.
7. Mazin Abed Mohammed, Using Genetic Algorithm in Solving Vehicle Routing Problem for Optimal Solution, Universiti Tenaga Nasional (UNITEN), Selangor, 2011.
8. Mouna Saied M. Jamon, A Tabu Search Approach To Nurse Rostering Problem at (UKMMC), Universiti Kebangsaan Malaysia (UKM), Selangor, 2011.

B. Internal Examiner

PhD Theses:

1. Mohammed Ibrahim, Contact Tracing Strategy For The Isolation Of Object Of Forensic Interest In Mitigating Botnet Propagation, 2020.
2. Ghazaleh Babanejaddehaki, Efficient Computation Of Skyline Queries Over A Dynamic And Incomplete Database, 2020.
3. Abdul Rafiez Bin Abdul Raziff, Improved Binarize Classification With Data Oversampling in Gait Recognition, Faculty of Computer Science and Information Technology, UPM, 2019.
4. Raihani Mohamed, Sensor-Based Complex Activity Recognition for Multi Resident in Smart Home, Faculty of Computer Science and Information Technology, UPM, 2018.
5. Muhammad Noorazlan Shah Zainudin, A Framework to Improve the Recognition of High Interclass Similarities Activities, Faculty of Computer Science and Information Technology, UPM, 2018.
6. Sepideh Foroozan Yazdani, Sentiment Analysis on Financial News, Faculty of Computer Science and Information Technology, UPM, 2017.
7. Jagede Abayomi Joshua, A Hybrid Scheme for Biometric Authentication and Template Protection, Faculty of Computer Science and Information Technology, UPM, 2016.
8. Salisu Muhammad Sani, Fuzzy Model for Student's Knowledge Performance Prediction, Faculty of Computer Science and Information Technology, UPM, 2016.

9. Abdul Sahli Fakharrudin, Machine Learning Approach in Modelling Biogas Production from Banana Stem Waste for Optimal Solution, Faculty of Computer Science and Information Technology, UPM, 2016.
10. Muhammad Syafiq Mohd Pozi, A New Classifier Based on Combination of Genetic Programming and Support Vector Machine in Solving Imbalanced Classification Problem, Faculty of Computer Science and Information Technology, UPM, 2016.
11. Amir Rajabi Behjat, Ensemble Learning Technique to Improve Feature Subset Selection in Email Spam Detection System Based on Metaheuristic Algorithm, Faculty of Computer Science and Information Technology, UPM, 2015.
12. Alireza Jahani, A New Model of Recommendation and Supplier Selection in an Agent Based Supply Chain System, Faculty of Computer Science and Information Technology, UPM, 2014.
13. Ismadi Md Badarudin, Optimizing Tree Planting Areas Through Integer Programming and Improved Genetic Algorithm, Faculty of Computer Science and Information Technology, UPM, 2012.

MSc Theses:

1. Hong Siaw Theng, Multiple Cased-Based Reasoning Approach for Time Tabling Problem, Faculty of Computer Science and Information Technology, UPM, 2016.
2. Babakura Abba, Hidden Markov Model for Decision Making Among Heterogeneous Systems in Smart Home Environment, Faculty of Computer Science and Information Technology, UPM, 2014.
3. Hamedreza Khataee Gavvani, Modeling of Static and Dynamic Component of Bio-Robotic Systems, Faculty of Computer Science and Information Technology, UPM, 2012.
4. Maryam Golchin, Shadow Detection using Color and Edge Information for Colorless and Edgeless Images, Faculty of Computer Science and Information Technology, UPM, 2012.
5. Ummu Sulaim Sazaly, An Algorithm to Produce Incompact Structure of MCCTree in Answering XML Keyword Query, Faculty of Computer Science and Information Technology, UPM, 2012.
6. Ziti Fariha Mohd Apandi, Integrated Weight Linear Analysis for Event Detection in Video Mining Framework, Faculty of Computer Science and Information Technology, UPM, 2012.

II. EDITORIAL BOARD/TECHNICAL EDITOR/REVIEWER

Journal

1. Reviewer, Journal of Science and Technology, for paper entitled "Applying Genetic Algorithms to Optimization Second-Order Bandpass MGMFB filter", 2020.
2. Reviewer, Journal of Science and Technology, for paper entitled "Applying Genetic Algorithms to Optimization Second-Order Bandpass MGMFB filter", 2020.
3. Reviewer, Informatics in Medicine Unlocked, for paper entitled "Disease Detection from Lung X-ray Images based on Hybrid Deep Learning", 2020.
4. Reviewer, Journal of Science and Technology, for paper entitled "Hybrid Discrete Hopfield Neural Network Based Modified Clonal Selection Algorithm For VLSI Verification", 2019.

5. Reviewer, Journal of Science and Technology, for paper entitled "An Intelligent Reliability Assessment Technique for Bipolar Junction Transistor using Artificial Techniques", 2018.
6. Reviewer, Jordanian Journal of Computers and Information Technology, "B-Hill Climbing Technique For Improving The Text document Clustering", 2017.
7. Reviewer, Journal of Science and Technology, for paper entitled "E-Mail Classification By Using artificial Neural Network And Genetic Algorithm", 2017.
8. Reviewer, IEEE Transactions on Evolutionary Computation, for paper entitled " Optimization of Cluster-based Evolutionary Undersampling for the Artificial Neural Networks in Corporate Bankruptcy Prediction", 2015.
9. Reviewer, IEEE Transactions on Evolutionary Computation, for paper entitled "Emergent Task Decomposition for Neuroevolution in Supervised Learning", 2014.
10. Reviewer, International Journal of Advancements in Computing Technology, for paper entitled "Scatter Search Metaheuristic for Post-Enrolment Course Timetabling Problems: A Review", 2013.
11. Reviewer, Pertanika Journals, for paper entitled "New Semi-Blind Channel Estimation in MIMO Based on Second Order Statistics", 2010.
12. Reviewer, Journal of Neural Computing and Applications, 2013.

Proceedings

1. Reviewer for The 3rd International Conference on Software Engineering and Information Management (ICSIM 2020), 2020.
2. Reviewer for the 5th International Conference on Information, Communication & Computing Technology (ICICCT-2020), 2020.
3. Reviewer for The 8th International Conference on Information Technology and Multimedia, 2020.
4. Reviewer for International Conference on Interdisciplinary Computer Science and Engineering (ICICSE2020), 2020.
5. Reviewer for International Conference on Innovation of Computer Science and Engineering (ICICSE2018), 2018.
6. Reviewer for The 3rd National Postgraduate Conference 2009 (NPC2009), Universiti Teknologi Petronas, 2009.
7. Reviewer for The 3rd National Postgraduate Conference 2011 (NPC2011), Universiti Teknologi Petronas, 2011.
8. Reviewer for the 3rd Conference on Data Mining and Optimization 2011 (DMO'11), Universiti Kebangsaan Malaysia, 2011.
9. Reviewer for International Conference on Information Retrieval and Knowledge Management (CAMP'12), Universiti Putra Malaysia, 2012.
10. Reviewer for The 2nd International Visual Informatics Conference (IVIC'11), Universiti Kebangsaan Malaysia, 2011.
11. Reviewer for The 5th International Conference on IT and Multimedia, UNITEN, 2011.
12. Reviewer for The 7th International Conference on Robotic, Vision, Signal Processing, and Power Applications (RoViSP2009), 2009.

Research Projects

1. Progress and Final Report Review Committee, for projects:

- “A Linear-Temporal Formal Language Context-Sensitive Usage Control Policies”
- “Classifier Fusion for Improving Classification of Object Class Recognition”
- “A Linear-Temporal Formal Language Context-Sensitive Security Policies in Cloud Computing”
- “A New Approach for Better Data Encryption based on Synchronous Stream Cipher”

III. PROFESSIONAL MEMBERSHIPS

1. ALUMNI Universiti Putra Malaysia, since 1999.
2. ALUMNI University of Nottingham, since 2008.
3. IEEE Malaysia Section, since 2021.
4. Association for Computing Machinery (ACM), since 2021

IV. PROFESSIONAL SERVICES

1. Universiti Evaluator Panel, Universiti Putra Malaysia, 2018-2020.
2. UMCCed Studies Committee Members (Curriculum Review), Universiti Malaya, 2017.
3. Evaluator Panel for Program Studies Audit and Evaluation, Universiti Kebangsaan Malaysia, 2018.
4. Book Manuscript Evaluator, Universiti Kebangsaan Malaysia, 2020.

CONTACT DETAILS

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