

CURRICULUM VITAE



1. Personal Record:

Name	:	SHARIFAH BINTI OSMAN
Gender	:	Female
Citizenship	:	Malaysian
Marital Status	:	Married
Ethnic Group	:	Malay
Spoken Languages	:	Malay, English
Written Languages	:	Malay, English
Religion	:	Islam
Permanent Address	:	21, Jalan TBC 19, Taman Bukit Cheng, 75250 Melaka.
Postal Address	:	School of Education, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, Skudai, 81310, Johor, Malaysia
Office Room No.	:	C13 318
Mobile	:	013-6926600
Email	:	sharifah.o@utm.my
Present Position	:	Senior Lecturer (DS51)
Institution	:	Universiti Teknologi Malaysia
Fields of Specialisation	:	Qualitative Research, Grounded Theory, Critical Thinking, Mathematical Thinking, Engineering Education, Mathematics Education

2. Education Record:

Level		University / Institution	Awarded
Sijil Pelajaran Malaysia	Science Stream	Maktab Rendah Sains Mara (MRSM) Seremban, Negeri Sembilan	Dec 1987 (First Grade)
Certificate of Matriculation	Science	Maktab Rendah Sains Mara (MRSM) Kulim, Kedah	Jun 1989 Passed
Bachelor of Science (Hons)	Chemistry	Universiti Kebangsaan Malaysia (UKM), Bangi, Selangor	Aug 1993 (Second Class - Upper Division)
Diploma of Education	Chemistry Education	Maktab Perguruan Batu Pahat (MPBP), Johor	Dec 2005 (CGPA: 3.75)
Doctor of Philosophy	Engineering Education	Universiti Teknologi Malaysia (UTM), Skudai, Johor	May 2016 (Passed with minor corrections)

3. Working Experience:

Position	University / Institution	Year
Research Officer (Chemist)	Rubber Research Institute Of Malaysia (RRIM), Kuala Lumpur	1993 - 1995
Chemist/ Researcher/ Assistant Manager (Quality Control)	Kotra Pharma (M) Sdn. Bhd. Cheng, Melaka	1996 – 2004
Lecturer	Politeknik Merlimau, Melaka	2006 – 2014
Lecturer	Politeknik Pagoh, Johor	2016 – 2017
Senior Lecturer	School of Education, FSSH, UTM Johor	12 February 2017 – present

4. List of Publications:

Journal
Osman, S. , Abu, M. S., Mohammad, S., & Mokhtar, M. (2015). Integrating Pertinent Elements of Critical Thinking and Mathematical Thinking used by Practicing Civil Engineers in Grounded Theory Analysis. <i>Journal of Social Sciences Research</i> , 8(3), 1641–1650
Osman, S. , Abu, M. S., Mohammad, S., & Mokhtar, M. (2015). Interrelation among Pertinent Elements of Critical Thinking and Mathematical Thinking in the Real-World Practice of Civil Engineering. <i>Malaysian Journal of Civil Engineering</i> , 27(2), 290–304
Osman, S. , Mokhtar, M., Abu, M. S., & Mohammad, S. (2015). Pertinent Elements of Critical Thinking and Mathematical Thinking used by Practicing Civil Engineers. <i>International Journal of Sciences: Basic and Applied Research</i> , 23(2), 381–395
Osman, S. , Mohammad, S., & Abu, M. S. (2015). A preliminary study on the integral relationship between critical thinking and mathematical thinking among practicing civil engineers. In <i>AIP Conference Proceedings</i> (Vol. 1660)
Osman, S. , Abu, M. S., Mohammad, S., & Mokhtar, M. (2016). Identifying pertinent elements of critical thinking and mathematical thinking used in civil engineering practice in relation to engineering education. <i>Qualitative Report</i> , 21(2)
Entika, C.L., Mohammad, S., Jabor M.K., & Osman, S. (2017). Preliminary Study On The Prominent Entrepreneurial Skills Set In The Context Of Civil Engineering Practice. <i>Journal of Technical Education and Training</i> , 9(2)
Ahmad, J., Osman, S. et.al. (2017). Leadership Practices Of High Performing Schools Principals In Malaysia. <i>Man in India</i> , 97(17)

Ismail, N., Osman, S. et.al. (2017). Proses Penyelesaian Masalah Pelajar Tahun 5 Dalam Kemahiran Berfikir Aras Tinggi (Kbat) Topik Isipadu Cecair Melalui Interaksi Malaysian Journal of Higher Order Thinking Skills, Vol. 3
Osman, S. , Che Yang, C. N. A., Abu, M. S., Ismail, N., Jambari, H., & Kumar, J. A. (2018). Enhancing Students' Mathematical Problem-Solving Skills through Bar Model Visualisation Technique. <i>International Electronic Journal of Mathematics Education</i> , 13(3), 273-279
Osman, S. , Mohammad, S., Abu, M. S., Mokhtar, M., Ahmad, J., Ismail, N., & Jambari, H., (2018). Inductive, Deductive and Abductive Approaches in Generating New Ideas: A Modified Grounded Theory Study. <i>Advanced Science Letters</i> , 24(4), 2378-2381
Shida, N., Osman, S. , & Abdullah, A. H. (2018). Students' perceptions of the use of asynchronous discussion forums, quizzes, and uploaded resources. <i>International Journal of Engineering and Technology(UAE)</i> , 7(3), 201-204.
Shida, N., Osman, S. , Abdullah, A. H., & Ismail, N. (2018). Critical thinking dispositions among polytechnic students: Why does it matter? <i>International Journal of Engineering and Technology(UAE)</i> , 7(3), 357-361.
Jambari, H., Osman, S. , et al., (2018) Effectiveness of Educational Trainer Kits to Enhance the Technical Skills for Students. <i>Advanced Science Letters</i> , 24(4), 2195-2198
Ismail, N., Osman, S. , et.al. (2018) Malaysian Teachers' Selection of Heuristics in Teaching Mathematics. <i>Advanced Science Letters</i> , 24(4), 2218-2220
Kumar J. A., Osman, S & Pranchis R. K. M. (2018) A Preliminary Study on Pre-Service TESOL Teachers' Attitudes Towards the Use of ICT for Teaching in Malaysia. <i>Journal of Fundamental and Applied Science</i> , 10 (1S), 1268-1278
Jambari, H., Osman, S. , et al., (2018) Consciousness of Engineering Lecturers in Polytechnics Malaysia for Developing Educational Research Training Centre. <i>Journal of Advanced Research and Dynamical and Control Systems</i> , SI(9), 1330-1336
Jambari, H., Osman, S. , et al., (2018) Perancangan dan Komunikasi Berkesan Pengajaran Pendidikan Vokasional bagi Pelajar-pelajar Autism. <i>Journal Pendidikan Universiti Teknologi Malaysia</i> , SE, 73-79
Entika, C.L., Osman, S. et al., (2018). Defining the Meaning of Entrepreneurship Education for Future Engineering Graduates. <i>IEEE Explore</i> , DOI: 10.1109/WEFF.2017.8467166
Osman, S. , Mohammad, S., Abu, M.S. et al., (2019). Math-Related Critical Thinking Theory in Civil Engineering Design. <i>Pertanika Journal of Social Sciences and Humanities</i> , 27(2), pp. 899-91
Jambari, H., Razali, Osman, S. et al., (2019). Impacts of Conceive-Design-Implement-Operate Knowledge and Skills for Innovative Capstone Project. <i>International Journal of Online and Biomedical Engineering</i> , 15(10), pp. 146- 154
Mohammad, S., Siang, T.C., Osman, S. , et al., (2019). A Proposed Heutagogy Framework for Structural Steel Design in Civil Engineering Curriculum. <i>International Journal of Emerging Technologies in Learning</i> , 14(24), pp. 96-105
Shida, N., Sharifah , et al., (2019). The Influence of E-Learning Towards Metacognitive Enhancement in Mathematical Problem Solving. <i>International Journal of Emerging Technologies in Learning</i> , 14(20), pp. 165-173
Zailan, N.A., Bunyamin, M.A.H., Osman, S. et al., (2019). Assessment and Evaluation of Non-Formal Stem Education Programs. <i>International Journal of Recent Technology and Engineering</i> , 7(6), pp. 762-768
Shida, N., Ismail, N., Osman, S. , et al., (2019). Investigating Newman's Error in Integral Calculus. <i>International Journal of Innovative Technology and Exploring Engineering</i> , 8(6), pp. 1114-1117
Ling, C.Y., Osman, S. , et al., (2019). Application of Vee Diagram as a Problem-Solving Strategy in Developing Students' Conceptual and Procedural Knowledge. <i>International Journal of Innovative Technology and Exploring Engineering</i> , 8(10), pp. 2796-2800
Shida, N., Osman, S. , Abdullah, A.H., (2019). Students' Perceptions of the use of Asynchronous Discussion Forums, Quizzes, and Uploaded Resources. <i>International Journal of Recent Technology and Engineering</i> , 8(2 Special Issue 9), pp. 704-708
Misrom, N.S., Abdurrahman, M.S., Osman, S. , et al., (2020). Enhancing Students' Higher-Order Thinking Skills (Hots) through an Inductive Reasoning Strategy Using Geogebra. <i>International Journal of Emerging Technologies in Learning</i> , 15(3), pp. 156-179
Garba, A., Ismail, N., Osman, S. , (2020). Exploring Peer Effect on Mathematics Anxiety among Secondary School Students of Sokoto State, Nigeria Through Photovoice Approach. <i>Eurasia Journal of Mathematics, Science and Technology Education</i> , 16(2),112622

Nawawi, A., Samah, N.A., Osman, S. , (2020). The Practice of Entrepreneurship Education In a Malaysian Higher Education Institution: A Single Case Study. <i>International Journal of Psychosocial Rehabilitation</i> , 24(5), pp. 188-195
Abdurrahman, M.S., Abdullah, A.H., Osman, S. (2020). Effect of Peer Tutoring Strategy on Students Academic Performance in a Polytechnic Linear Algebra Classroom. <i>Journal of Advanced Research in Dynamical and Control Systems</i> . 12(3), pp. 415-422
Abdurrahman, M.S., Abdullah, A.H., Osman, S. (2020). Developing Mathematical Thinking among Polytechnic Students in Linear Algebra Through Peer Tutoring Strategy. <i>Journal of Advanced Research in Dynamical and Control Systems</i> , 12(3), pp. 423-434
Kumar, J.A., Bervell, B., Osman, S. (2020). Google Classroom: Insights From Malaysian Higher Education Students' and Instructors' Experiences. <i>Education and Information Technologies</i> , (article in press)
Shawan, M., Abu, M.S., Osman, S. (2020). Difficulties in Solving Non-Routine Problems in Mathematics Learning. <i>International Journal of Psychosocial Rehabilitation</i> , 24(6), pp. 3358-3372
Osman, S. , Mohammad, S., Abu, M.S., Mokhtar, M. (2020). A Grounded-Theory Study of Civil Engineering Design Practice in Malaysia. <i>Journal of Civil Engineering Education</i> 146(2),04019004

5. List of papers presented for Conferences:

Conferences
Osman, S. , et al. (2015). <i>A Preliminary Study On The Integral Relationship Between Critical Thinking And Mathematical Thinking Among Practicing Civil Engineers</i> on 1 st March 2016 at Penang, Malaysia.
Osman, S. , et al. (2016). <i>Critical Thinking and Mathematical Thinking Used in Civil Engineering Practice in Relation to Engineering Education</i> on 1 st March 2016 at Kuala Lumpur.
Osman, S. , et al. (2017). <i>Inductive, Deductive and Abductive Approaches in Generating New Ideas: A Modified Grounded Theory Study</i> on 16 th August 2017 at Langkawi, Kedah.
Jamبارi, H, Osman, S. , et al. (2017). <i>Effectiveness of Educational Trainer Kits to Enhance the Technical Skills for Students</i> on 15 th August 2017 at Langkawi, Kedah.
Ismail, N., Osman, S. , et al. (2017). <i>Malaysian Teachers' Selection of Heuristics in Teaching Mathematics</i> on 16 th August 2017 at Langkawi, Kedah.
Bunyamin, M.A.H, Osman, S. , et al. (2017). <i>Moving Towards STEM Integration: Understanding Current Teaching Practices of Physics' Teachers</i> on 14 th November 2017 at Penang, Malaysia.
Entika, C.L., Mohammad, S., Jabor M.K., & Osman, S. (2017). <i>Defining The Meaning Of Entrepreneurship Education For Future Engineering Graduates</i> on 14 th Nov 2017 at Kuala Lumpur, Malaysia
Nawawi, A., Samah, A.S. & Osman, S. (2017). <i>Exploring Entrepreneurial Mindset In Teaching And Learning Innovations</i> on 10 th Dec 2017 at Johor Bahru, Johor, Malaysia

6. List of Research Grants (as Project Leader) awarded:

Projects	Duration
Math-Related Critical Thinking in Complex Problem Solving for Engineering Education (Granted by RMC UTM: Q.J130000.2731.03K06 – RM10,000.00)	Oct 2017 – Oct 2018
Penguasaan Kemahiran Berfikir Aras Tinggi Dalam Matematik Menerusi Strategi Pembelajaran Kooperatif Think-Talk-Write (Granted by RMC UTM: Q.J130000.2653.16J38 – RM15,000.00)	Aug 2019 – Jan 2022
Framework of Critical and Creative Thinking in Complex Engineering Problem-Solving (Granted by RMC UTM: Q.J130000.2553.20H86 – RM84922.25)	Jan 2020 – Jun 2023

7. List of Research Grants (as Project Members) awarded:

Projects	Duration
Current Scenario of the Teaching of Complex Problem Solving among Engineering Lecturers in UTM (Granted by RUG UTM – RM40,000.00)	Oct 2014 – Mar 2017
Educational Trainer Kits for Electric Circuit Course as a Catalyst to Boost the Technical Skills for Students (Granted by RMC UTM – RM20,000.00)	Apr 2016 – Sept 2017
Development of a Substantive Theory on the Interrelation and Interaction among Pertinent Elements of Critical Thinking and Mathematical Thinking in Real-World Engineering Practice for Engineering Education (Granted by MOE under the Fundamental Research Grant Scheme (FRGS) – RM60,200.00)	Aug 2016 – July 2018
Tingkah laku Metakognitif Pelajar Semasa Menyelesaikan Masalah Matematik Pentaksiran Tingkatan Tiga (PT3) (Granted by RUG UTM – RM40,000.00)	July 2017 – Jun 2018
Kerangka Kemahiran Generik Anak-Anak Autisme dalam Pendidikan Teknik Dan Vokasional (Granted by MOE under the Fundamental Research Grant Scheme (FRGS) – RM42,400.00)	Aug 2017 – Aug 2019
Heutagogy Framework for Structural Steel Design in Civil Engineering Curriculum (Granted by RUG UTM – RM40,000.00)	July 2017 – Jun 2019
Analisis Keperluan Program Pembangunan Profesional Pedagogi Stem Secara Dalam Talian (Granted by RUG UTM – RM10,000.00)	Feb 2018 – Jan 2019
Hubungan Antara Kecerdasan Emosi dan Motivasi Pelajar dalam Menyelesaikan Masalah Matematik Bukan Rutin (Granted by RUG UTM – RM10,000.00)	Feb 2018 – Jan 2019
Development of an Assessment Instrument On Scientific Reasoning in Preparing for the Fourth Industrial Revolution (Granted by RUG UTM – RM10,000.00)	Feb 2018 – Jan 2019
Data Driven Curriculum Innovation in Stem (Granted by RUG UTM – RM36,000.00)	Apr 2018 – Mar 2021
Pattern Of Epistemological Belief On Design Among Engineering Students (Granted by Contract Research DTD – RM10,000.00)	Nov 2018 – Oct 2020
Kerangka Hubungan Pemikiran Komputasional dan Penyelesaian Masalah Matematik Bukan Rutin dalam Pembelajaran Abad ke-21 (Granted by RUG UTM – RM15,000.00)	Aug 2019 – Jan 2022
Exploring Teachers, Peers and Parents Behaviour and Speech which Intensify And Minimize Mathematics Anxiety Among Malaysian Students Through Photovoice Approach (Granted by RUG UTM – RM15,000.00)	Aug 2019 – Jan 2022
Mathematics Teachers' Competencies in Inculcating Higher-Order Thinking Skills in Secondary School (Granted by RUG UTM – RM15,000.00)	Aug 2019 – Jan 2022
Kerangka Kemahiran Kebolehpasaran 4.0 Graduan Teknikal dan Vokasional dalam bidang Kejuruteraan Mekanikal seiring dengan Era Revolusi Industri 4.0 (Granted by MOE under the Fundamental Research Grant Scheme (FRGS) – RM69,800.00)	Sept 2019 – Nov 2021
Model Pendekatan Stem Belantara Berteraskan Nilai Murni Bagi Pendidikan Orang Asli (Granted by MOE under the Fundamental Research Grant Scheme (FRGS) – RM60,000.00)	Sept 2019 – Nov 2021
Framework for Supporting Secondary School Students' Metacognition in Mathematics Problem Solving with Augmented Reality (Granted by RUG UTM – RM96,500.00)	Jan 2020 – Jun 2023
Tanggungjawab Sosial Universiti (University Social Responsibility): Model dan Pelaksanaan bagi Menyokong Matlamat Pembangunan Lestari (Sustainable Development Goals) (Granted by RUG UTM – RM70,000.00)	Jan 2020 – Jun 2022

8. Professional Memberships:

Position	Organisation	Level	Year
Member	Alliance of Researchers on Moderation (ARM)	National	Lifetime
Member	Association of Mathematics Teacher Educators (AMTE)	International	2018 – 2022
Graduate Technologist	Malaysia Board of Technologists (MBOT)	National	2019 – present
Member	Persatuan Pendidikan Sains & Matematik Johor	State	Lifetime
Treasurer	Persatuan Pendidikan Sains & Matematik Johor	State	2019 - 2021
Professional Technologist	Malaysia Board of Technologists (MBOT)	National	2020 - 2021