CURRICULUM VITAE

PROF. MOHD SALLEH ABU

SCHOOL OF EDUCATION

UNIVERSITI TEKNOLOGI MALAYSIA

BIODATA

Name	:	Mohd Salleh Abu
Date of Birth	:	21 June 1958
Place of Birth	:	Batu Pahat, Johor
Postal Address	:	School of Education 81300 UTM Skudai Johor D.T. MALAYSIA
Telephone	:	+6019 7523500
E-mail	:	salleh@utm.my
Current Position:		Professor (Contract) at The School of Education Universiti Teknologi Malaysia

CAREER HISTORY:

1983 -1993	Lecturer in Mathematics, Department of Science and Technical Education, Faculty of Science, UTM
1993	Associate Professor at The Faculty of Education, UTM
1994 - 1995	Head, Department of Science, Mathematics & Computer Education, UTM
1996 - 1998	Head, Program of Science Education & Social Sciences, UTM
1998 - 2002	Deputy Dean (Academic), Faculty of Education, UTM
2002 - 2004	Head, Unit for Teaching and Learning, UTM
2002 - 2016	Professor of Mathematics Education, Faculty of Education, UTM
2002 - 2016	Member of Senate, UTM
2004 - 2007	Director, Centre for Teaching & Learning, UTM

2007 - 2010	Dean, Faculty of Education, UTM
2010 - 2011	Sabbatical Leave
2011 - 2012	Dean, Research Associate (K-Economy), UTM
2012 - 2014	Dean, Faculty of Education, UTM
2014 - 2016	Senior Director, UTM Academic Leadership (UTMLead)
2016 – present	Professor (Contract), School of Education, Faculty of Social Sciencies & Humanities, UTM

ACADEMIC QUALIFICATION:

1980	B.Sc. in Mathematics (Universiti Kebangsaan Malaysia)
1980	Dip. Ed. (Universiti Kebangsaan Malaysia)
1983	M.Sc. in Pure Mathematics (Sheffield University, UK)
1990	Ph.D in Mathematics Education (West London University, UK)

AREAS OF RESEARCH INTEREST:

1. T&L in Mathematics (secondary and tertiary levels).
2. T&L with Technology (designing, developing, prototyping and evaluating educational courseware and learning tools in mathematics and mathematics-related subjects).
3. T&L in Higher Education.
4. Engineering Education
5. Academic Leadership in Higher Education.

PUBLICATION: ARTICLES IN CITATION-INDEXED JOURNALS

1. N. Hashemi, M. S. Abu, H. Kashefi, M. Mokhtar and K. Rahimi (2015) Designing Learning Strategy to Improve Undergraduates' Problem Solving in Derivatives and Integrals: A Conceptual Framework. *Eur. J. Math. Sci. Tech. Educ.* 11(2), p227-238. ISSN:1305-8223. Int. Society of Educ. Res.: Turkey
2. R. Abd Wahab, A. H. Abdullah, M. Mokhtar, N. A. Atan and M. S. Abu (2016) A Case Study on Visual Spatial Skills and Level of Geometric Thinking in Learning 3D Geometry. *Man in India* 96, p489-499. ISSN: 0025-1569. Serial Publications: India
3. S. Osman, M. S. Abu, S. Mohamad and M. Mokhtar (2016) Identifying Pertinent Elements of Critical Thinking and Mathematical Thinking used in Civil Engineering in Relation to Engineering Education. *Qualitative Report* 21(2), p212-227. ISSN: 21603715. NSUWorks: Canada
4. N. S. Ahmad Alhasora, M. S. Abu, A. H. Abdullah (2017) Inculcating Higher-Order Thinking Skills in Mathematics: Why is it so Hard? *Man in India, 97*(13), p51-62. ISSN: 0025-1569. Serial Publications: India.
5. J. Johnny, A. H. Abdullah, M. S. Abu, M. Mokhtar and N. A. Atan (2017) Difficulties in Reasoning Among High Achievers When Doing Problem Solving in Mathematics. *Man in India*, *97*(12), p61–70. ISSN: 0025-1569 Serial Publications: India.

6. M. A. Naufal, N. A. Atan, A. H. Abdullah and M. S. Abu (2017) Problem Solving using Metacognitive Learning Activities to Improve Mathematical Reasoning Skills of Students *Man in India, , 97*(12), p213-220. ISSN: 0025-1569. Serial Publications: India.
7. M. N. Arshad, N. A. Attan, M. S. Abu and A. H. Abdullah (2017). Improving Students' Reasoning Skills to Overcome Learning Dificuilties in Additional Mathematics. *Man in India*, 97(17), p41-52. ISSN: 0025-1569 Serial Publications: India.
8. R. Abd Wahab, A. H. Abdullah, M. Mokhtar, N. A. Atan and M. S. Abu (2017) Evaluation by Experts and Designated Users on Learning Strategy using SketchUp Make to Elevate Visual Spatial Skills and Geometry Thinking. *J. Bolema - Boletim de Educação Matemática* 31(8), p819-840. ISSN: 1980-4415 Bolema Departamento de Matematica: Brazil.
9. J. Johnny, M. Mokhtar, N. A. Atan, M. S. Abu and A. H. Abdullah (2017) Extent of Teacher Questioning to Promote Reasoning During Problem Solving in High Achieving Mathematics Classrooms. *Adv. Sci. Letters*, *23*, p7438-7441. ISSN: 19366612. American Scientific Publishers: USA.
10. N. S. Ahmad Alhasora, M. S. Abu, A. H. Abdullah (2017) Hindering Factors in Mastering Higher-Order Thinking Skills: Application of Rasch Measurement Model. *Man in India, 97*(19), p275-280. ISSN: 0025-1569. Serial Publications: India.
11. S. Osman, S. Mohamad, M. S. Abu, M. Mokhtar, J. Ahmad, N. Ismail and H. Jamari (2018) Inductive, Deductive and Abductive Approaches in Geneting Ideas: A Modified Grounded Theory Study. *Adv. Sci. Letters*, 24(4), p2378-2381 ISSN: 19366612. April 2018. American Scientific Publishers: USA
12. S. Osman, M. S. Abu, S. Mohamad, M. S. Abu, M. Mokhtar, M. A. H. Bunyamin, A. H. Abdullah, H. Jambari and J. Ahmad (2019) Math-Related Critical Thinking Theoru in Civil Engineering Design. *Pertanika J. Soc. Sci. Humanities* 27(2), p899-913. ISSN: 22318534. UPM: Malaysia

PUBLICATION: PAPERS IN CITATION-INDEXED PROCEEDINGS

1. S. A. H. Syed Hassan, K. Mohd Yusof, M. S. Abu and S. Mohamad (2011) An Instrument to Assess Students' Engineering Problem Solving Ability in Cooperative Problem-Based Learning. *Proc. ASSE Annual Conf. & Exp.,* p21-21. American Society for Engineering Education: USA.
2. N. Muhamad Radzi, M. S. Abu, S. Mohamad, F. A. Phang (2012) Are Math-Oriented Critical Thinking Elements in Civil Engineering Workplace Problems Significant?: Insights from Preliminary Data and Analysis. *Procedia -Soc. Behav. Sci.,* 56, p96-107. ISSN: 1877-0428. Elsevier, Netherland
3. S. A. H. Syed Hassan, K. Mohd Yusof, M. S. Abu, S. Mohamad and Z. Tasir (2012) Methods to Study Enhancement of Problem Solving in Engineering Students through Cooperative Problem-Based Learning. *Procedia -Soc. Behav. Sci.,* 56, p737-746. ISSN: 1877-0428 Elsevier: Netherland
4. M. S. Abu, M. Bilal Ali and T. Tong Hock (2012) Assisting Primary School Students to Progress through Their van Hiele Levels of Geometry Thinking using Google SketchUp. *Procedia -Soc. Behav. Sci.,* 64, p75-84. ISSN: 1877-0428. Elsevier: Netherland
5. S. A. H. Syed Hassan, K. Mohd Yusof, M. S. Abu and S. Mohamad (2013) Inculcating Team-Based Problem Solving Skills Part 1: Enhanching Problem Solving Elements. *Proc. Eng. Educ. Symp. REES 2013*, p250-257. ISSN: 9781629931364. Res. Eng. Educ. Network: Malaysia
6. N. Hashemi, M. S. Abu, H. Kashefi, H. and K. Rahimi (2014) Undergraduate Students' Difficulties in Conceptual Understanding of Derivation. *Procedia -Soc. Behav. Sci.,* 143, p358-366. ISSN: 1877-0428. Elsevier: Netherland
7. S. Osman, S. Mohamad and M. S. Abu (2015) A Preliminary Study on The Integral Relationship Between Critical Thinking and Mathematical Thinking among Practicing Civil Engineers. *Amer. Inst. of Physics (AIP) Proc.*, 1660, ISBN: 978-0-7354-1304-7. American Institute of Physics: USA
8. N. A. Shukor, M. S. Abu and N. Ahmad (2015) A Preliminary Studay on Socially Shared Regulation

during Online Collaborative Learning. *Proc. IEEE Conference on e-Learning, e-Management and e-Services 2015,* sp. ed. Aug 2015 p1-7. ISBN: 15787730. IEEE Explore: USA

9. R. Abd. Wahab, A. H. Abdullah, M. Mokhtar, N. A. Atan and M. S. Abu (2018) The Effects of Learning Strategy for 3-Dimensional Geometry using Sketchup Make on Students'Geometry Thinking. *Adv. Sci. Letters*, 24(6), p4058-4062. ISSN: 19366612. American Scientific Publishers: USA
10. A. H. Abdullah, M. Mokhtar, M. S. Abu, N. Mohd Zaid, U. H. Abdul Kohar, M. H. Hamzah and E. Zakaria (2019) The Effectiveness of Integrating Geometer's Sketcpad Software in Phase-Based Geometric Learning. *Proc. 2018 IEEE Int. Conf. Teaching, Assessment and Learning for Engineering (TALE 2018)* ed. Aug 2015 p335-341. ISBN: 9781538665220. IEEE Explore: USA

PUBLICATION: ARTICLES IN JOURNALS (OTHER THAN CITATION-INDEXED)

1. N. Muhamad Radzi, M. S. Abu and S. Mohamad (2011) How to Accelerate the Development of Math-Oriented Critical Thinking Skills among Prospective Civil Engineers. *Int. J. Eng. Tech. Educ.,* 1, Dec 2010. UiTM: Malaysia
2. M. S. Abu and Z. Z. Abidin (2012). Keberkesanan Video Pembelajaran Geometri Berasaskan Teori van Hiele Dalam Mempertingkatkan Peringkat Berfikir Geometri Pelajar Sekolah Menengah Pertama di Parepare. *J. Tek. Pend., 2*(3) p5-17, ISSN: 2289-1366. KPM: Malaysia
3. M. S. Abu and Z. Z. Abidin (2013) Improving The Levels of Geometric Thinking of Secondary School Students Using Geometry Learning Video Based on van Hiele's Theory. *Int. J. Eval. Res. Educ.,* 2(1), p16-p22. ISSN: 2252-8822. Inst. of Advanced Engineering and Science
4. F. A. Phang, M. S. Abu, M. Bilal Ali and S. Salleh (2014) Faktor Penyumbang Kepada Kemerosotan Penyertaan Pelajar dalam Aliran Sains: Satu Analisis Sorotan Tesis. *Sains Humanika* 2(4), p63-71. ISSN: 2289-6996: UTM Press: Malaysia
5. S. Osman, M. S. Abu, M. Mokhtar and S. Mohamad (2015) Integrating Pertinent Elements of Critical Thinking and Mathematical Thinking Used by Practicing Civil Engineers in Grounded Theory Analysis. *J. Soc. Sci. Res.* 8(3), p1641-1650. ISSN: 2321-1091. Council of Innovative Research: USA.
6. S. Osman, M. S. Abu, M. Mokhtar and S. Mohamad (2015) Pertinent Elements of Critical Thinking and Mathematical Thinking used by Practicing Civil Engineers . *Int. J. Sci.: Basic & App. Res.,* 23(2), p381-395. ISSN: 2307-4531. Global Society of Scientific Research and Researchers: USA
7. S. Osman, M. S. Abu, S. Mohamad and M. Mokhtar (2015) Interrelation among Pertinent Elements of Critical Thinking and Mathematical Thinking in the Real World Practice of Civil Engineering. *Mal. J. Civil Eng.,* 27(2), p290-p304. ISSN: 1823-7843. UTM: Malaysia
8. N. M. Hanapiah, M. Bilal Ali and M. S. Abu (2016) Defining and Developing Database of Expertise in Universiti Teknologi Malaysia. *J. Pend. Nusantara* sp. ed. Apr 2016 p273-293. ISSN: 2289-9375.UTM & UNM: Indonesia
9. C. Kok Wei and M. S.Abu (2016) Review of Secondary School Students with Learning Difficulties in Geometry. *J. Pend. Nusantara*. sp. ed. Apr 2016 p273-293. ISSN: 2289-9375.UTM & UNM: Indonesia
10. N. D. Admon, N. A. Atan, M. S. Abu, A. H. Abdullah and M. Mokhtar (2016). Higher Order Thinking Skills among High Achievers in Mathematics. *Mal. J. of Higher Order Thinking Skills in Educ.,* 1(13), p82-94. ISSN: 2462-2397. UTM: Malaysia.
11. M. N. Arshad, N. A. Atan, A. H. Abdullah, M. Mokhtar and M. S. Abu (2017). Learning Strategy for Reasoning through Marzano Dimensional Mastery Learning Model in Differentiation among Form Four Students. *Sains Humanika* 9(1), p1-7. ISSN: 2289-6996)UTM Press: Malaysia.
12. R. Abd. Wahab, A. H. Abdulah, M. S. Abu, N. A. Atan and M. Mokhtar (2018) A Learning 3D through Skechup Make to Enhance Visual Spatial Skills and the Progression of Geometric Thinking. *J. Fund. App. Sci.*. 10(6S), p1005-1039. ISSN: 111239867. African Journals Online: Algeria

13. S. Osman, M. S. Abu, N. Ismail and H. Jamari (2018) Enhanching Students' Mathematical Problem Solving Skills through Bar Model Visualization Technique. *Int. Elect. J. Maths. Educ.* 13(3), p273-279. ISSN: 13063030. Moment Reklam: Turkey
14. N. Hashemi, M. S. Abu and H. Kashefi (2019) Generalization Strategies in Problem Solving of Derivatives and Integrals. *Int. J. Emerging Maths. Educ*. p77-92. ISSN: 25485806. UAD: Indonesia.
15. N. Hashemi, M. S. Abu and H. Kashefi (2019) Undergraduate Students' Difficulties in Solving Derivatives and Integrals. *Sains Humanika* p65-74. ISSN: 22896996. UTM Press: Johor Bahru, Malaysia

PUBLICATION : BOOKS/BOOK CHAPTERS/TECHNICAL REPORTS

1. M. S. Abu, F. A. Phang, M. Bilal Ali and S. Salleh (2011) *Kompilasi dan Sorotan Ke Aras Dapatan Kajian Penyelidikan Berkaitan Pendidikan Sains dan Matematik di Malaysia*. Technical Report pp172. Faculty of Education: UTM
2. M. S. Abu, F. A. Phang, M. Bilal Ali and S. Salleh (2013). Science Education Policy in Malaysia. In Lokman Mohd Tahir and Hamdan Said (Eds.) *Educational Issues, Research and Policies*. p113-128. ISBN 978-983-52-0881-2. Penerbit UTM Press: Malaysia.
3. Z. Ujang, R. A. Alias, B. Aris and M. S. Abu (2013) Pengenalan. In Z. Ujang, R. A. Alias and B. Aris (Eds.) *Akademia Baru Inovasi Pembelajaran.* p1-5. ISBN: 978-983-52-0883-6. Penerbit UTM Press: Malaysia.
4. M. N. H. Mohd Said, N. Yahya, M. Bilal Ali and M. S. Abu (2014) Perspectives on Learning Technology: A Review of Theoretical References. In *Advances in Applied Psychology and Education.* p257-277. ISBN: 978-93-5171-0042. Research India Press: New Delhi.
5. N. D. Admon, A. H. Abdullah, M. S. Abu, N. A. Atan and M. Mokhtar (2016). Enhancing Higher Order Thinking Skills in Learning Probability through Outside Classroom Strategy. In M. N. H. Mohd Said and N. Abu Samah (Eds.) *Emerging Technology and Strategy for Learning.* p41-49, ISBN: 978-983-52-1180-5. Johor Bahru: UTM Press.
6. N. D. Admon, A. H. Abdullah, M. S. Abu, N. A. Atan and M. Mokhtar (2016). *Kebarangkalian Menggunakan ProbAct: Strategi Pemikiran Matematik Luar Bilik Darjah*. ISBN: 978-983-42794-8-6. Johor Bahru : Fakulti Pendidikan UTM.
7. M. N. Arshad, N. A. Atan, M.S. Abu, A. H. Abdullah and M. Mokhtar (2016). *Strategi Pembelajaran Penaakulan Berfokuskan Metakognitif bagi Tajuk Pembezaan.* pp140, ISBN: 978-983-4279-46-2. Faculty of Education, UTM: Johor Bahru
8. R. Abd Wahab, N. A. Atan, M. S. Abu, A. H. Abdullah and M. Mokhtar (2016). *Strategi Pembelajaran 3D Menggunakan Perisian Dinamik Sketchup Make: Pelan dan Dongakan.* pp138. ISBN: 978-967-0194-53-0. Faculty of Education, UTM: Johor Bahru
9. J. Johnny, N. A. Atan, M. S. Abu, A. H. Abdullah and M. Mokhtar (2016). *Questioning for Reasoning: A Teacher's Guide to Building and Executing Non-Routine Mathematics Tasks*. pp26. ISBN: 978-967-0194-90-5. Faculty of Education, UTM: Johor Bahru
10. N. Hashemi, M. S. Abu, H. Kashefi, M. Mokhtar and K. Rahimi (2016) The Importance of Generalization in Teaching Integral Concepts. In Z. Ismail and M. Mohamed (Eds.) *Contemporary Approaches in Teaching and Learning Mathematics*. ISBN: 978-983-52-1204-8. (pp 1-12) UTM Press: Johor Bahru
11. M. K. Jabor and M. S. Abu (2017) *Kesan Penggunaan Laman Rangkaian Sosial Dalam Gaya Hidup Pelajar di Universiti.* pp63, ISBN: 978-983-52-1180-5. UTM Press: Johor Bahru

PUBLICATION: PAPERS IN PROCEEDINGS (OTHER THAN CITATION-INDEXED)

1. R. Abd. Wahab, M. S. Abu, N. A. Atan, A. H. Abdul and M. Mokhtar (2014). Improving Cognitive Visual Spatial Using Google SketchUp in Overcoming Learning Difficulties in Geometry. *Proc. 1st IEPS 2014* 2(1), p275-285. ISSN: 978-967-12174-6-7**.** Faculty of Education, UTM: Johor Bahru.
2. N. D. Admon, M. S. Abu, N. A. Atan, , A. H. Abdulah and M. Mokhtar (2014). Promoting Higher Order Thinking Skills through Outside Classroom Strategy in Learning Mathematics. *Proc. 1st IEPS 2014*. 2(1), p873-882. ISSN**:** 978-967-12174-6-7. Faculty of Education, UTM: Johor Bahru.
3. M. N. Arshad, M. S. Abu, N. A. Atan, A. H. Abdullah and M. Mokhtar (2014). Strategi Metakognitif Dalam Penyelesaian Masalah Matematik Tambahan. *Proc. 1st IEPS 2014*. 1(1), 44-55. ISSN: 978-967-12174-6-7**.** Faculty of Education, UTM: Johor Bahru
4. N. D. Admon, M. S. Abu, N. A. Atan, A. H. Abdulah and M. Mokhtar (2015). Enhancing Higher Order Thinking Skills through Mathematical Thinking in an Outside Classroom Learning Environment: A Theoretical Framework. *Proc. 2nd IEPS 2015.* Vol. 1(1), p170-177. ISBN: 978-967-1217-48-1. Faculty of Education, UTM: Johor Bahru.
5. M. N. Arshad, M. S. Abu, N. A. Atan, A. H. Abdullah and M. Mokhtar (2015). Kemahiran Penaakulan Bagi Matapelajaran Matematik Tambahan Dalam Kalangan Pelajar Tingkatan Empat. *Proc. 2nd IEPS 2015.* 2(1), 46-58. ISBN: 978-967-1217-48-1. Faculty of Education, UTM: Johor Bahru.
6. M. N. Arshad, M. S. Abu, N. A. Atan, A. H. Abdullah and M. Mokhtar (2015). Improving the Reasoning Skills of Students to Overcome Learning Difficulties in Additional Mathematics - A Meta-Analysis. *Proc. 2nd IEPS 2015.* 1(1), 72-84. ISBN: 978-983-2084-08-2. Faculty of Science and Mathematics, UPSI: Malaysia.
7. N. D. Admon, M. S. Abu, N. A. Atan, A. H. Abdulah and M. Mokhtar (2015). Enhancing Higher Order Thinking Skills through Mathematical Thinking in an Outside Classroom Learning Environment: A Theoretical Framework. *Proc. 2nd IEPS 2015.* Vol. 1(1), p170-177. ISBN: 978-967-1217-48-1. Faculty of Education, UTM: Johor Bahru.
8. R. Abd. Wahab, N. A. Atan, M. S. Abu, A. H. Abdul and M. Mokhtar (2016) The Effects of Learning Geometry through Sketcup Make to Enhance Visual Spatial Skills among Students. *Proc. IGCESH 2016*. p665-667. ISBN: 978-967-1217-48-715-16. Johor Bahru: Malaysia
9. N. D. Admon, N. A. Atan, M. S. Abu, A. H. Abdulah and M. Mokhtar (2016) Students' Perception on the Levels of Higher Order Thinking Skills in Probability Based on Outside Classroom Environment. *Proc. IGCESH 2016*. p671-673. ISBN: 978-967-1217-48-7. Johor Bahru: Malaysia
10. M. N. Arshad, N. A. Atan, M. S. Abu, A. H. Abdullah and M. Mokhtar (2016) Reasoning Strategy through Marzono's Dimensional Mastery Learning Model among Form Four Students onnthe Topic of Differentiation. *Proc. IGCESH 2016*. p629-631. ISBN: 978-967-1217-48-7. Johor Bahru: Malaysia
11. M. N. Arshad, M. S. Abu, N. A. Atan, A. H. Abdullah and M. Mokhtar (2016). Learning The Strategy of Reasoning Through Marzono Dimensional Mastery Learning Model Among Form Four Students in the Topic of Differentiation. *Proc. IGCESH 2016.* 1(1), p629-631. ISBN: 978-967-1217-48-7. Johor Bahru: Malaysia
12. C. L. Entika, S. Mohamad, M. K. Jabor and M. S. Abu (2016) Exploring Issues Faced by Civil Engineering Students When Taking Entrepreneurship Course as Pre-Requisite Subject in Civil Engineering Course. *Proc. of World Eng. Educ. Forum & Global Eng. Deans Council 2016*. p116-129, Jeju: Korea
13. R. Abd. Wahab, A. H. Abdul, M. S. Abu, M. Mokhtar and N. A. Atan (2017) Enhanching Students' Visual Spatial Skills and Geometry Thinking Using 3D Geometry Teaching Strategy through

Sketchup Make (2017). *Proc. 40th Conf. Int. Group of Psy. Math. Educ 2017*. p665-667. ISBN: 978-981-11-3742-6. NIE: Singapore

14. N. S. Ahmad Alhasora, A. H. Abdullah, M. R. Mohd Rameli and M. S. Abu (2018) Challanges in Mastering Higher-Order Thinking Skills: A Case Study from Students' Perpercive. *Proc. Educ. Res. Colloqium*. p146-153, UTM & UNM: Johor Bahru

PUBLICATION: CONFERENCE PAPERS

1. Shahrin, M., Khairiyah, M.Y., Mohd Salleh, A. and S. A. H. Syed Hassan (2011) *Engineering Education in Malaysia – An Overview.* Korean Soc. Eng. Educ. Annual Conf. . Nov 25 2011. Jeju: Korea
2. S. A. H. Syed Hassan K. Mohd Yusof, M. S. Abu and S. Mohamad (2012) Enhanching Problem-based Problem Soving Skills among Engineering Students through Cooperative Problem-based Learning. *Int. Conf. on Teach. & Learning in Higher Educ.* 10 – 12 April 2012. Seremban, Malaysia.
3. N. D. Admon, N. A. Atan, A. H. Abdullah, M. Mokhtar and M. S. Abu (2014). *Promoting Higher Order Thinking Skills through Outside Classroom Strategy in Learning Mathematics.* 1st IEPS 2014. 23-24 Dec 2014. Johor Bahru: Malaysia
4. S. Osman, S. Mohamad and M. S. Abu (2014) A Preliminary Study on the Integral Relationship between Critical Thinking and Mathematical Thinking among Practicing Civil Engineers. *Int. Conf. on Maths., Eng. and Ind. App. 2014*. 27 – 29 May 2014. Unimap Malaysia: Malaysia
5. N. A. Shukor, M. S. Abu and N. Ahmad (2015) A Preliminary Studay on Socially Shared Regulation during Online Collaborative Learning. *IEEE Conference on e-Learning, e-Management and e-Services 2015. 24-26* Aug 2015. IEEE: Malaysia
6. J. Johnny, N. A. Atan, M. Mokhtar, A. H. Abdullah and M. S. Abu (2015). *Reasoning Skills among Students: A Meta-analysis.* 2nd IEPS 2015. 20-21 Dec 2015. Johor Bahru: Malaysia
7. R. Abd Wahab, A. H. Abdullah, M. Mokhytar and M. S. Abu (2015). *Pembangunan Strategi Pembelajaran Geometri 3-Dimensi: Pelangan dan Dongakan Melaui Sketchup Make.* 2nd IEPS 2015. 20-21 Dec 2015. Johor Bahru: Malaysia
8. M. N. Arshad, N. A Atan, M. Mokhtar, M. S. Abu and A. H. Abdullah (2015) *Meningkatkan Kemahiran Penaakulan Matematik Berfokuskan Metakognitif Dalam Kalangan Pelajar.* 2nd IEPS 2015. 20-21 Dec 2015. Johor Bahru: Malaysia
9. N. D. Admon, N. A. Atan, A. H. Abdullah, M. Mokhtar and M. S. Abu (2015). *Enhanching Higher Order Thinking Skills through Mathematical Thinking in an Outside Classroom Learning Environment: A Theoretical Framework*. 2nd IEPS 2015. 20-21 Dec 2015. Johor Bahru: Malaysia
10. R. A. Wahab, N. A. Atan, A. H. Abdullah, M. Mokhtar and M. S Abu (2016). Relationship between Visual Spatial Skills and the Levels of van Hiele Geometry Thinking among Secondary School High Achievers. *Int. Virt. Conf. in Multidisciplinary Method and Model 2016.* 25-27 August 2016. Ibnu Sina Inst. for Sci. Ind. Res. UTM: Johor Bahru.
11. R. A. Wahab, N. A. Atan, A. H. Abdullah, M. Mokhtar and M. S Abu (2016). Enhancing Visual Spatial Skills using Learning Strategy for 3-Dimensional Plan and Elevation. *Int. Virt. Conf. in Multidisciplinary Method and Model 2016.* 25-27 August 2016. Ibnu Sina Inst. for Sci. Ind. Res. UTM: Malaysia
12. R. Abd. Wahab, N. A. Atan, A H. Abdullah, M. Mokhtar and M. S. Abu (2016). The Effects Of Learning Geometry through Sketchup Make to Enhance Visual Spatial Skill Among Students. *Int. Grad. Conf. on Eng. Sci. Human. 2016*. 15-17 August 2016. PGSS-UTM, UTM: Malaysia.
13. R. Abd. Wahab, N. A. Atan, A H. Abdullah, M. Mokhtar and M. S. Abu (2016). The Effects Of Adopting Learning Strategy For 3-Dimensional Geometry Using Sketchup Make On Students' Geometry Thinking. *Int. Conf. on Sci. Eng. Mgmt. and Soc. Sci. (ICSEMSS2016)*. 6-7 Oct 2016. Int. St. Soc., UTM: Malaysia

14. M. N. Arshad, N. A. Atan, A H. Abdullah, M. Mokhtar and M. S. Abu (2016). Mastering Reasoning Skills In Learning Differentiation Using The Marzano's Strategy. *Int. Virt. Conf. in Multidisciplinary Method and Model (ICMMM2016).* 25-27 August 2016. Ibnu Sina Inst. for Sci. and Ind. Res., UTM: Malaysia
13. M. A. Naufal, A. H. Abdullah, S. Osman, M. S. Abu and Z. Z. Abidin (2018) *A Case Study on van Hiele of Geometrc Thinking among Secondary School Students in Makassar, Indonesia*. 5th IEPS 2018. 10-11 Dec 2018. UTM: Malaysia

POSTGRADUATE SUPERVISION (YEAR 2000 ONWARDS):

Masters Degree (Full Research - completed):

1. Tan Wee Chuen (2000) The Design and Development of *VATrans* Prototype Courseware Based on The Synchronization of Visualization and Analytical Thinking (M.Ed. (Maths)).
2. Tai Ai Lee (2000) The Design and Development of *DisAP* Prototype Courseware Based on The Guided Discovery for The Learning of Areas and Perimeter (M.Ed. (Maths)).

Masters Degree (Mixed Mode - completed):

1. Chu Hong Heng (2000) Pendekatan Aktif Penyelesaian Masalah dan Keberkesanannya Dalam Membantu Pelajar Mempelajari Matematik Tambahan (M.Ed. (Maths)).
2. Liew Chin Yin (2000) Optimizing Multimedia Applications to Help Students Overcoming Difficulties in Learning Negative Numbers (M.Ed. (Maths)).
3. Nora Sairan (2005) Strategi 3M-Metakognitif Bagi Membantu Pelajar Mempelajari Penyelesaian Masalah Dalam Matematik Tambahan (M.Ed. (Maths)).
4. Tan Tong Hock (2011) Assisting Primary School Children to Progress Through the van Hiele's Levels of Geometry Thinking Using Google Sketch-Up (M.Ed. (Maths).
5. Chiang Kok Wei (2012) Easing Learning Difficulties in Circles Among Fourth Formers Students Using van Hiele-Oriented Learning Instructions (M.Ed (Maths)).
6. Hafizah Mohd Hanafiah (2106) Sistem Pengurusan Maklumat Bidang Kepakaran Staf Akademik UTM (M.Ed (Educ. Tech)).

Masters Degree (Course Work - completed):

1. Haspiah Basiran (2006) Modul Pembelajaran Menggunakan Kalkulator Grafik bagi Membantu Pelajar Mempelajari Persamaan Kuadratik (M.Ed. (Maths)).
2. Mazniha Berahim (2008) Pembelajaran Kognitif Berpandu Menggunakan MATLAB bagi Mempelajari Penyelesaian Masalah Dalam Perkomputeran Linear (M.Ed. (Maths)).
3. Omar Ali (2009) Perlaksanaan Pengajaran Matematik Dalam Bahasa Inggeris Sekolah Menengah (M.Ed. (Maths)).
4. Nurrul A'iin Morsid (2012) Menangani Kesukaran Pembelajaran Dalam Topik Garis Lurus Dalam Kalangan Pelajar Tingkatan Dua Menggunakan Geometer's Sketchpad (M.Ed (Maths)).
5. Azlin Bustamam (2012) Easing Learning Difficulties in Transformations among Form Two Students Using Geometer's Sketchpad (M.Ed (Maths)).
6. Noor Izana Ab. Halim (2012) Menangani Kesukaran Pembelajaran Dalam Bulatan Di Kalangan Pelajar Tingkatan Dua Menggunakan Geometer's Sketchpad (M.Ed (Maths)).

7. Mastura Ahmad (2013) Mempertingkatkan Kepercayaan Diri dan Keyakinan Pembelajaran Pelajar Tahun 6 Dalam Topik Bentuk dan Ruang Menggunakan Perisian Berasaskan Google Sketch-Up (M.Ed (Maths)).
8. Ariffin Baserrany (2013) Analisis Pola Ke Atas Pilihan Keutamaan Program dan Kualilti Kemasukan Pelajar Program Ijazah Sarjana Muda Kejuruteran Mekanikal di UTM (M.Ed (Ed. Admin)).
9. Mohd Hairudin Shahari (2013) Kebolehpasaran Graduan Sarjana Muda Mekanikal di UTM (M.Ed (Ed. Admin)).
10. Farizan Ismail (2013) Pendekatan Model Bar bagi Membantu Pelajar Tahun Enam Mengatasi Penyelesaian Masalah Matematik Berayat (M.Ed (Maths)).
11. Dhinapriya Balachandran (2013) Easing Learning Difficulties in Shapes and Spaces Among Primary School Children Using to Google Sketch-Up (M.Ed (Maths)).
12. Leong Hsueh Yan (2014) Creative Reasoning Mathematical Writing to Improve Conceptual Undertanding and Creative Reasoning in the Learning of Differential Calculus. (M.Ed (Maths)).
13. Che Norleyanti Che Omar (2015) Improving Students' Problem Solving Skills using Peer Collaborative Approch of Mixed Multiple Intelligences. (M.Ed (Maths)).
14. Chan Tak Choon (2015) Teachers' Perceptions on the Use of Virtual Learning Environment in Mathematics Teaching. (M.Ed (Maths)).
15. Izzatul Fahimah Zakaria (2015) Tahap Pemikiran Geometri van Hiele Dalam Kalangan Pelajar Tingkatan Empat Di Daerah Baro, Sarawak. (M.Ed (Maths)).
16. Norhayati Samuri (2016) Using Mathematical Thinking in Solving Word Problems in Mixed Operations among Year 5 Students. (M.Ed (Maths)).
17. Tan Joo Lee (2016) Improving The Scientific Inquiry Skills among Primary School Students using Mathematical Modeling Problem Solving Method (M.Ed (Maths)).
18. Hemalatha Arumugam (2017) Strategi Penyelesaian Masalah Berayat Menggunakan Kemahiran Heuristik Berasaskan Model Schoenfeld di Kalangan Murid Sekolah Rendah. (M.Ed (Maths)).
19. Muhammad Ammar Naufal (2017) Penyelesaian Masalah Berasaskan Aktiviti Pembelajaran Metakognitif untuk Membantu Meningkatkan Kemahira Penaakulan Matematik Pelajar Sekolah Menengah. (M.Ed (Maths)).

<u>Doctoral Degree</u> (Completed):

1. Baharuddin Aris (2000) The Use of Information Technology in Education: Using an Interactive Multimedia Courseware Package to Upgrade Teachers' Knowledge and Change Their Attitudes. (Ph.D. (Educational Tech.) at Robert Gordon University, Abeerdeen, Scotland. A joint supervision with Prof. H. I. Ellington of RGU, Scotland).
2. Md. Sefai Jusoh (2006) Pembangunan Model *CoLC* Menggunakan Gabungan Pendekatan Konstruktivisme dan Pembelajaran Koopertif Bagi Membantu Pelajar Mempelajari Topik Pecahan (PhD (Maths Ed.)).
3. Tan Wee Chuen (2006) A Learner Oriented Web-Based (LOWB) Educational Software Designed to Assist Students in The Learning of Computer Hardware (PhD (Educ. Tech.)).
4. Mohd Bilal Ali (2009) A Web-Environment Personalized Learning Based on The Capitalization of Individual Multiple Intelligence (Ph.D (Educ. Tech)).
5. Syed Ahmad Helmi Syed Hassan (2012) Enhancing Problem Solving Skill of Engineering Students through Cooperative Problem-Based Learning (PhD (Eng. Educ.)).
6. Zaid Zainal (2013) Mempertingkatkan Peringkat Kemahiran Berfikir Geometri Pelajar Lepasan SMP Menggunakan Model Video Pembelajaran Geometri BerasaskanTeori van Hilele (PhD (Maths. Ed.)).
7. Nourooz Hashemi (2015) Modified Generalization Strategies in Problem Solving of Derivatives and Integrals among Undergraduates (PhD (Maths. Ed.)).

8. Sharifah Osman (2016) Integral Relationship between Critical Thinking and Mathematical Thinking among Practicing Civil Engineers (Phd (Eng. Educ.))
9. Rohani Abdul Wahab (2017) Pembelajaran Geometri Tiga Dimensi Melalui *Sketch-up Make* Bagi Meningkatkan Kemahiran Visual Spatial dan Tahap Pemikiran Geometri Pelajar (PhD (Maths. Ed.))
10. Mohd Nizam Arshad (2018) Strategi Pembelajaran Pembezaan Berfokuskan Metakognisi bagi Mempertingkatkan Penaakulan Matematik (PhD (Maths. Ed.))
11. Najua Syuhada Ahmad Alhassora (2018) Mathematics Teachers' Scales in the Teaching of Higher Order Thinking Skills in Secondary Schools (PhD (Maths. Ed.))
12. Jacinta a/p Johnny (2018) Developing the Questioning for Reasoning Strategy to Elevate Mathememetical Thinking among Mathematical High Achievers (PhD (Maths. Ed.))

<u>Doctoral Degree</u> (in progress):

1. Chiang Kok Wei (completing) van Hiele-Oriented Learning Instructions to Elevate Spatial Visualization and Overcome Learning Difficulties in 3-Dimensional Geometry (PhD (Maths. Ed.)).
2. Nor Delyliana Admon (completing) Menjana Kemahiran Berfikir Aras Tinggi Melalui Pembelajaran Kolaboratif Luar Bilik Darjah Dalam Pembelajaran Kebarangkalian (PhD (Maths. Ed.))
3. Muhammad Ammar Naufal (completing) Strategi Pembelajaran Geometri Berasaskan Kemahiran Metakognitif Bagi Mempertingkatkan Tahap Geometri Pelajar (PhD (Maths. Ed.))
4. Tan Jun You (progressing) Improving Problem Solving Skills of Ill-Defined Mathematical Problems using Design Thinking Process (PhD (Maths. Ed.))

RESEARCH WORK (PRINCIPAL INVESTIGATOR):

1. The Status of Research in Science and Mathematics Education in Malaysia (RMC Vote No.: 3B074. Sub-Project Code: RJ13000073313B074). Funded by The Cluster of Science & Mathematics, National Council of Professors of Malaysia. Duration: 1 Nov 2010 - 28 Feb 2011. Total value of grant: RM20,000. .
2. Kajian Semakan Semula Keberkesanan *Malaysian Educators Selection Inventory* (MEdSI). RMC Vote No.: 4B038 Sub-Project Code: RJ13000073314B038. Funded by The Ministry of Higher Education, Malaysia. Duration: 15 June 2011 – 14 March 2012. Total value of grant: RM176,850.
3. Pola Pemilihan Program Akademik IPT oleh Pelajar Cemerlang SPM. Registered under Uscience USM Funded by The Ministry of Higher Education. Duration: 1 Dec – 31 May 2012. Total value of grant: RM148,000.

RESEARCH WORK (COLLABORATOR/MEMBER):

1. Development and Evaluation of USM Learning Object Repositories. Funded by Universiti Sains Malaysia (Research University Grant). Duration: Oct 2007 – Oct 2009. Total value of grant: RM591,907.
2. Employment Opportunity: A Critical Match Analysis of Community College Graduates. A FRGS BP&P 2011 project registered and collaborated with IMREC-UTM. Funded by The Ministry of Higher Education, Malaysia. Duration: 1 Oct 2011 – 31 March 2012. Total value of grant: RM110,000.
3. A Feasibility Study on the Development of Educity: A Case Study. A FRGS BP&P 2011 project registered and collaborated with IMREC-UTM. Funded by The Ministry of Higher Education, Malaysia. Duration: 1 Oct 2011 – 31 March 2012. Total value of grant: RM80,000.
4. Pedagogical Practices of UTM Lecturers. Funded by UTM R&D Fund – DPP. Duration: 1 Nov 2012 – 31 Oct 2013. Cost Centre: A.J160000.7731.4J082. Total value of grant: RM15,000.

5. Curriculum Design for Cooperative Problem-Based Learning (CPBL) to Enhance Complex Problem Solving Skills among Mechanical Engineering Students.. Funded by UTM R&D Fund – DPP. Duration: 16 Oct 2013 – 15 Oct 2015. Cost Centre: R.J130000.7724.4J124. Total value of grant: RM34,000.
6. Framework for Developing Academic Change Agent Among Engineering Lecturers in Malaysia. Funded by RUG UTM. Duration: 1 Jan 2014 – 30 Sept 2016. Cost Centre: Q.J130000.2424.02G64. Total value of grant: RM40,00.
7. Recognition of Students' Patterns of Metacognitive Knowledge Strategies in Online Learning. Funded by RUG UTM. Duration: 1 July 2014 – 30 June 2015. Cost Centre: Q.J130000.2631.10J58. Total value of grant: RM20,000.
8. Impak Perlaksanaan Program Latihan Pembangunan Profesional Terhadap Kompetensi Staf Akademik di UTM. Funded by UTM R&D Fund – DPP. Duration: 1 July 2014 – 30 June 2016. Cost Centre: R.J130000.7716.4J138. Total value of grant: RM20,000.
9. Framework for Developing Academic Change Agents among Engineering Lecturers in Malaysia. Funded by RUG UTM - Flagship. Duration: 1 Oct 2014 – 31 Mar 2017. Cost Centre: R.J130000.2424.02G64. Total value of grant: RM40,000.
10. The Use of Learning Analytics to Support Improvements in Teaching Practices. Funded by Gov. of Malaysia (MRUN-IRU). Duration: 1 Feb 2015 – 31 Jul 2018. Cost Centre: Q.J130000.3010.00M68. Total value of grant: RM200,000.00.
11. Development of Substantiative Theory on The Interrelation and Interaction among Pertinent Elements of Critical Thinking and Mathematical Thinking in Real-World Practices. Funded by UTM - - FRGS. Duration: 1 Aug 2016 – 31 Jul 2018. Cost Centre: R.J130000.7831.4F912. Total value of grant: RM60,200.
12. Kerangka Kaedah Pembelajaran Di Luar Bilik Darjah (PLBD) Bagi Mempertingkatkan Kemahiran Berfikir Aras Tinggi Pelajar Dalam Matematik. Funded by UTM - FRGS. Duration: 1 Sept 2019 – 31 Aug 20218. Cost Centre: R.J130000.7853.5F132. Total value of grant: RM51,200.

CONSULTANCY:

1. Projek Latihan Kaedah Penyelidikan dan Pembinaan Instrumen Kebolehpasaran Lepasan IKBN Fasa 1. Project owner: Ministry of Youth & Sports. Total cost: RM49,800.00 Duration: 24 Feb – 23 July 2013. Vote No.: 708. Role: Consultant.
2. Projek Latihan Kaedah Penyelidikan dan Pembinaan Instrumen Kebolehpasaran Lepasan IKBN Fasa 2. Project owner: Ministry of Youth & Sports. Total cost: RM20,000.00 Duration: 29 Sept – 28 Dec 2013. Vote No.: 744. Role: Consultant.
3. Pembangunan Sistem Repositori Abstrak Hasil Penyelidikan Pendidikan IPTA. Project owner: Malaysian Education Dean Council (MEDC). Total cost: RM20,000.00. Duration: 19 Oct – 21 Dec 2013. Vote No: 735. Role: Lead Consultant.
4. Projek Intervensi Tambah Opsyen (PITO) Guru 2103. Project owner: Teacher Education Division, Ministry of Education. Total cost: RM382,470.00. Duration: 19 Oct – 21 Dec 2013. Vote No.: 748. Role: Lead Consultant.

EXTERNAL EXAMINER (Panel of Accreditation of Post Graduate Academic Programs & Viva-Voce Examination)

1. Universiti Sains Malaysia (USM)
2. Universiti Kebangsaan Malaysia (UKM)
3. Universiti Perguruan Sultan Idris (UPSI)
4. Universiti Tun Hussin Onn Malaysia (UTHM)

5. Universiti Malaysia Terengganu (UMT)
6. University of Auckland, New Zealand
7. Unversiti Brunei Darussalam (UBD), Brunei

PANEL OF ASSESSORS (Promotion & Tenure of Academic Staff)

1. Universiti Sains Malaysia (USM)
2. Universiti Kebangsaan Malaysia (UKM)
3. Universiti Perguruan Sultan Idris (UPSI)
4. Universiti Teknologi MARA (UiTM)
5. Universiti Tun Hussin Onn Malaysia (UTHM)
6. Universiti Teknikal Melaka Malaysia (UTeM)
7. Universiti Malaysia Terengganu (UMT)
8. Universiti Utara Malaysia (UUM)
9. Universiti Malaysia Sabah (UMS)

MEMBERSHIP OF INTERNAL COMITTEE/TASK FORCES:

1. Panel Member of Assessors, The Assessment of Staff Competency Level for The Malaysian Remuneration System (Education Scheme DS45 – DS54) (June 2003 – April 2004)
2. Head, Panel Member of Assessors for The Assessment of Staff Competency Level of The Malaysian Remuneration System (Education Scheme DS45 – DS54) (April 2004 – Nov 2005)
3. Senate Representative for The Select Committee for The Staff Appointment, Tenure & Career Advancement (Management & Professional Group) (April 2004 – January 2009).
4. Panel Member, The Committee of Graduate Employability (Nov 2004 – July 2010).
5. Panel Member, The Committee for Staff Development, UTM (July 2004 – July 2010).
6. Panel Member of UTM Key Performance Indicators (KPI) Main Committee (July 2006 – 2011)
7. Distinguished Academic Fellow of Kolej Rahman Putra UTM (Jan 2010 – Jan 2011)
8. Board Member of Doctoral Degree Program in Engineering Education, UTM (March 2007 – June 2016).
9. Member of Champion Council for KFA on Human Capital (March 2011 –June 2016)
10. Senate Representative of The Senate Standing Committee of Examination & Examination Results for Undergraduate Studies (January 2005 – January 2014)
11. Senate Representative of The Senate Standing Committee of Postgraduate Studies (Examination) (Dec 2011 – June 2016)
12. Senate Representative of The Senate Standing Committee of Examination and Certification (23 January 2014 – June 2016)
13. Member of Senate, Universiti Teknologi Malaysia (July 2002 – June 2016)
14. Member of Task Force, UTM Human Resource Blueprint (March 2014 – June 2016)
15. Member of Task Force, University Global Plan – Teaching & Learning Excellence (July 2014 – June 2016)
16. Chairman of Task Force, Policy on Training and Professional Development for Academiv Staff (July 2014 – June 2016)
17. Chairman of Task Force, Quantification of Workload for Academic Staff (responsible for developing the quantification method and application system (BTSA); May 2015 – present)

MEMBERSHIP OF NATIONAL COMMITTEES:

1. Subject Matter Expert (SME) for The Review of Five Major ICT Initiatives and Ministry of Education (MoE) ICT Strategic Planning, Ministry of Education (March 2006 – Sept 2006).
2. Member of MoHE Special Task Force for the curriculum design and development of the program entitled 'Developing Soft Skills Among Students at Higher Education Institutions in Malaysia' (by the appointment of The Minister of Higher Education) (July 2006 – Dec 2007).
3. Committee Member of Malaysia Education Dean Council (June 2007 – June 2014).
4. Vice Chairperson, Malaysia Education Dean Council (August 2009 – July 2010)
5. Vice Chairperson, Malaysia Education Dean Council (October 2012 – 2014)
6. Member of Protem Committee of Majlis Profesor Negara of Malaysia (April 2010)
7. Committee Member of Kluster Pendidikan & Pembangunan Modal Insan, Majlis Profesor Negara (April 2010 – June 2016)

SUMMARY OF MAJOR CONTRIBUTIONS TO UNIVERSITY IN ADDITION TO BASIC CORE RESPONSIBILITIES (towards the establishment of new university policies/practices, establishment of new center/unit of excellence, , etc).

1. (2002 - 2007) Played leading roles in founding and consolidating The Centre for Teaching & Learning (CTL), UTM.
2. (August 2002 - April 2005) Played leading roles in the:
    a. Promotion of wider range of various student-centered learning approaches (cooperative, problem-based, project-based and case-based) across all disciplines.
    b. Enhancement of various types of English Language Support Program (ELSP) designed to facilitate learning (in their area of specialization) in English.
    c. Advancement of university-wide e-learning system.
    d. Enhancement of Outcome-Based Education (OBE) across all disciplines of studies.
    e. Establishment of University Policy on Teaching & Learning at UTM.
    f. Improvisation of tool, procedure and system applications used for the assessment of individual lecturer's teaching performance (called Penilaian Pengajaran Pensyarah or PPP).
    g. Establishment of electronic PPP (e-PPP).
    h. Institution of UTM Graduate Attributes comprising of seven major components of generic skills to be mastered by all UTM undergraduates.
    i. The revision of University Academic Grading System.
3. (June 2003 - 2010) Played leading roles in the institution and implementation of The Assessment of Staff Competency Level (Penilaian Tahap Kompetensi – PTK) for The Malaysian Remuneration System (SSM-Skim Pendidikan DS45 – DS54) covering wide phases & stages of PTK; setting up, consolidation and implementation of procedures, content, delivery, assessment and reporting results of assessments and feedbacks from participants.
4. (July 2006 - Dec 2007) Played leading roles in designing, developing and implementing various programs designated to assist the inculcation of soft skills among all IPTA students nationwide.
5. (April 2004 - Jan 2014) Played leading roles in designing, implementing and improvising the university-wide Professional Development Program for Academic Staff at UTM.
6. (Feb 2014 – June 2016) Played leading roles in the formation and consolidation of UTM Academic Leadership (UTMLead)
7. (May 2015 – present) Pioneering the design, systemization and deployment of Workload for Academic Staff (BTSA).

AWARDS RECEIVED:

1. Anugerah Kepujian Universiti (1995)
2. Anugerah Khidmat Cemerlang (1999)
3. Anugerah Perkhidmatan Cemerlang (2014)
4. Anugerah Jasa Bakti (2001)
5. Anugerah Persatuan Sains Matematik Malaysia (PESAMA) 2005 for the Original Manuscript of Academic Book category (2007)
6. Bintang Kesatria Mangku Negara (K.M.N.) (2009)