

DR. MUHAMMAD ABD HADI BUNYAMIN

CURRICULUM VITAE



Contact Information

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Employment History

- 31 August 2017-Now, Senior Lecturer, School of Education, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia (UTM) Johor Bahru.
- 19 October 2009-30 August 2017, Tutor, Department of Science and Mathematics Education and Creative Multimedia, Faculty of Education, Universiti Teknologi Malaysia (UTM) Johor Bahru.

Education

- Doctor of Philosophy (Science Education), Completed: 31 August 2017, University of Minnesota, United States.
- Master of Education (Physics Education), Completed: 18 August 2011, Universiti Teknologi Malaysia (UTM).
- Bachelor of Science with Education (Physics Education), Completed: 18 August 2009, Universiti Teknologi Malaysia (UTM).

Academic Recognition (2018-now)

- Keynote Speaker, Conference: Bangladesh STEM Society Conference 2019, Dhaka, Bangladesh, 20 July 2019.
- Invited Speaker, Symposium: 2nd STEAM Education Symposium 2018, Chosun University, South Korea, 29 January 2018.

Teaching (2018-now)

- MPPF 1103-01 Semester II 2019/2020 – Design and Implementation of Physics Curriculum.
- UHAK 1012-13 Semester II 2019/2020 – Graduate Success Attribute.
- MPPU 1003-03 Semester I 2019/2020 – Innovations in Teaching and Learning.
- MPPF 1113-01 Semester I 2019/2020 – Models of Teaching and Learning in Physics Education.
- UHMT 1012-24 Semester I 2019/2020 – Graduate Success Attribute.
- UHMT 1012-28 Semester I 2019/2020 – Graduate Success Attribute.
- UHMS 1172-25 Semester I 2019/2020 – Dynamics of Malaysia.
- UHMS 1172-21 Semester I 2019/2020 – Dynamics of Malaysia.
- UHAK 1012-28 Semester I 2019/2020 – Graduate Success Attribute.
- UHAK 1012-07 Semester II 2018/2019 – Graduate Success Attribute.
- UHAK 2012-01 Semester II 2018/2019 – Leadership.
- MPPF 1103-01 Semester II 2018/2019 – Design and Implementation of Physics Curriculum.
- MPPF 1313-01 Semester II 2018/2019 – Creativity and Innovation in Physics Education.
- UHAS 1172-02 Semester I 2018/2019 – Dynamics of Malaysia.
- UHAS 3052-02 Semester I 2018/2019 – Organizational Leadership.
- MPPF 1113-01 Semester I 2018/2019 – Models of Teaching and Learning in Physics Education.
- MPPU 1003-02 Semester I 2018/2019 – Innovations in Teaching and Learning.

- UHAK 1012-05 Semester II 2017/2018 – Graduate Success Attribute.
- MPPF 1313-01 Semester II 2017/2018 – Creativity and Innovation in Physics Education.
- MPPF 1103-01 Semester II 2017/2018 – Design and Implementation of Physics Curriculum.

Supervision (2018-now)

PhD Student Supervision

- 29 September 2019-Now, *Main Supervisor*, Student: Izzah Mardhiya Mohammad Isa, School of Education, Universiti Teknologi Malaysia. On-going.
- 10 September 2017-Now, *Co-Supervisor*, Student: Mazlena Mursyid, School of Education, Universiti Teknologi Malaysia. On-going.

Master's Student Supervision

- 8 February 2020-Now, *Main Supervisor*, Physics Education Master's Degree (Mixed Mode), Student: Hafiza Ibrahim, School of Education, Universiti Teknologi Malaysia. On-going.
- 10 September 2019-Now, *Main Supervisor*, Physics Education Master's Degree (Taught Course), Student: Nur Asyikin Zailan, School of Education, Universiti Teknologi Malaysia. On-going.
- 1 February 2019-7 February 2020, *Main Supervisor*, Physics Education Master's Degree (Taught Course), Student: Mariani Tain, School of Education, Universiti Teknologi Malaysia. Completed.
- 10 September 2017-7 February 2020, *Main Supervisor*, Physics Education Master's Degree (Mixed Mode), Student: Ng Han Guan, School of Education, Universiti Teknologi Malaysia. Completed.
- 10 September 2017-31 January 2019, *Main Supervisor*, Physics Education Master's Degree (Taught Course), Student: Amelia Huda Amaruddin, School of Education, Universiti Teknologi Malaysia. Completed.
- 10 September 2017-30 June 2018, *Main Supervisor*, Physics Education Master's Degree (Taught Course), Student: Hanin Fathan Nurafina Istiqomah, School of Education, Universiti Teknologi Malaysia. Completed.

Research Grants (2018-onward)

- 2 January 2020-1 January 2022, **Principal Investigator**, Title: MYRGS 2.5 Knowledge Transfer for Effective Communication and Cultural Changes in Wastewater Management. MRUN Young Researcher Grant Scheme (MY-RGS) (RM 17,500). Level: National Grant. On-going.
- 1 September 2019-31 August 2021, **Principal Investigator**, Title: *VITAL Framework for STEM Higher Education Teaching and Learning*. National Fundamental Research Grant Scheme (FRGS) (MYR 55,200). Level: National Grant. On-going.
- 1 August 2019-31 July 2021, **Principal Investigator**, Title: *Developing Instruments for Informal STEM Education Programs*. Research University Grant Tier 2-UTM) (MYR 15,000). Level: UTM Grant. On-going.
- 1 December 2019-30 November 2022, **Co-Investigator**, Title: *Climate Change Education and Ethnic Factor*. Transdisciplinary Research Grant Scheme (TRGS) (MYR 130,000). Level: National Grant. On-going.
- 1 February 2018-30 April 2019, **Principal Investigator**, Title: *Analisis Keperluan Pembangunan Profesional Pedagogi STEM Secara dalam Talian. Geran Universiti Penyelidikan*. Research University Grant Tier 2- UTM) (MYR 10,000). Level: UTM Grant. Completed.
- 1 January 2019-31 December 2020, **Co-Investigator**, Title: Teachers-Students' Scientific Epistemology Model Through Critical Theory as Social Innovation Mechanism in STEM Education. Fundamental Research Grant Scheme (FRGS) (MYR 64,140). Level: National Grant. On-going.
- 1 March 2018-28 February 2021, **Co-Investigator**, Title: Data-Driven Curriculum for Future-Ready Graduates. High Impact Research (HIR) Grant, UTM (MYR 36,000), Level: UTM Grant. On-going.

Publications

Books

- Universiti Teknologi Malaysia (UTM) Vice-Chancellor 2020 New Year Address. Book Writing Contributor (In-progress).
- Universiti Teknologi Malaysia (UTM) Vice-Chancellor 2019 New Year Address. Book Writing Contributor.

Indexed Publications (Web of Science and Scopus) (2018-2020)

Note: * means corresponding author or UTM first author.

- **Muhammad Abd Hadi Bunyamin***, Corrienna Abdul Talib, Nur Jahan Ahmad, Nor Hasniza Ibrahim, & Johari Surif. (2020). Current Teaching Practice of Physics Teachers and Implications for Integrated STEM Education. Accepted publication in *Universal Journal of Educational Research* (Scopus).
- **Muhammad Abd Hadi Bunyamin***. (2019). Morality and science teaching: Expanding the idea of zakah. *Cultural Studies of Science Education*, 14(2), 355-360 (Web of Science).
- Sharifah Osman, Shahrin Mohammad, Mohd Salleh Abu, Mahani Mokhtar, **Muhammad Abd Hadi Bunyamin**, Abdul Halim Abdullah, Hanifah Jambari, & Jamilah Ahmad. (2019). Math-Related Critical Thinking Theory In Civil Engineering Design. *Pertanika Journal of Social Sciences and Humanities*, 27(2), 899-913 (Web of Science).
- Nur Jahan Ahmad, Nor Asniza Ishak, & **Muhammad Abd Hadi Bunyamin***. (2019). Learning Demand and Classroom Discourse Design Tools to Improve Students Conceptual Understanding of the Nature of Electrolytes. *Asia Pacific Journal of Educators and Education*, 34, 187-218 (Scopus).
- Nur Asyikin Zailan, **Muhammad Abd Hadi Bunyamin***, Chuzairy Hanri, Nor Hasniza Ibrahim, Sharifah Osman, Norulhuda Ismail, & Nur Izyan Wan Azelee. (2019). Assessment and Evaluation of Non-Formal STEM Education Programs. *International Journal of Recent Technology and Engineering*, 7(6S5), 762-768 (Scopus).
- Nur Adilah Abdol Samat, Nor Hasniza Ibrahim, Johari Surif, Marlina Ali, Abdul Halim Abdullah, Corrienna Abdul Talib, & **Muhammad Abd Hadi Bunyamin**. (2019). Chem-A Module Based on STEM Approach in Chemical Bond. *International Journal of Recent Technology and Engineering*, 7(6S5), 700-710 (Scopus).
- Mohd Rustam Mohd Rameli, **Muhammad Abd Hadi Bunyamin**, Tan Joo Siang, Zainudin Hassan, Mahani Mokhtar, Jamilah Ahmad, & Hanifah Jambari. (2018). Item Analysis on the Effects of Study Visit Programme in Cultivating Students' Soft Skills: A Case Study. *International Journal of Engineering and Technology*, 7(2.10), 117-120 (Scopus).

Newspaper Articles (2018-2020)

- **Muhammad Abd Hadi Bunyamin** & Kassim Thukiman. (23 Januari 2020). Merealisasikan Amalan Terbaik Tadbir Urus. *Berita Harian Sisipan Varsiti*.
- **Muhammad Abd Hadi Bunyamin** & Kassim Thukiman. (15 Januari 2020). Universiti Perlu Pupuk Budaya Niaga. *Berita Harian*.

- Wahid Omar & **Muhammad Abd Hadi Bunyamin**. (18 Mei 2019). Universiti Patut Manfaatkan Masyarakat. *Berita Harian*.
- **Muhammad Abd Hadi Bunyamin** & Zainuddin Abdul Manan. (23 Ogos 2019). Perbetulkan Nawaitu, Berintegriti Ketika Melakukan Sesuatu Pekerjaan. *Sinar Harian*.
- **Muhammad Abd Hadi Bunyamin**. (24 April 2019). Guru Muda Teraju Reformasi Pendidikan. *Sinar Harian*.
- Nur Izyan Wan Azelee & **Muhammad Abd Hadi Bunyamin**. (17 Februari 2019). Menjayakan Agenda Sifar Plastik. *Sinar Harian*.
- **Muhammad Abd Hadi Bunyamin**. (4 November 2018). Pentafsiran Yang Lebih Formatif. *Sinar Harian*.

Non-Indexed Publications (2018-2020)

*Note: * means corresponding author or UTM first author.*

- Izzah Mardhiyya Mohd Isa & **Muhammad Abd Hadi Bunyamin***. (2019). *Funds of Knowledge* Dalam Pendidikan: Konsep, Aplikasi dan Implikasi untuk Penyelidikan Dalam Pendidikan Sains. *Buletin Persatuan Pendidikan Sains dan Matematik Johor*, 25(1), 22-30.
- Nur Asyikin Zailan, **Muhammad Abd Hadi Bunyamin*** & Corrienna Abdul Talib. (2018). A Mini Review on Informal STEM Education: Elements, Impacts and Future Prospects. *Buletin Persatuan Pendidikan Sains dan Matematik Johor*, 24(1), 30-39.

Others/Conference Presentations/Proceedings (2018-2020)

*Note: * means corresponding author or UTM first author.*

- **Muhammad Abd Hadi Bunyamin*** & Nina Diana Nawi. (2019). Empirical Research Project Approach for Curriculum Development. New Academia Learning Innovation (NALI) 2019. Universiti Teknologi Malaysia.
- Mazlena Mursyid, Fatin Aliah Phang & **Muhammad Abd Hadi Bunyamin**. (2018). Multiple Representations in Physics. International Conference of STEM, Kuala Lumpur, 2-4 October 2018.
- Nur Asyikin Zailan, Mariani Tain & **Muhammad Abd Hadi Bunyamin***. (2018). Flash Floods Detector. New Academia Learning Innovation (NALI) 2018. Universiti Teknologi Malaysia.
- **Muhammad Abd Hadi Bunyamin*** & Nur Izyan Wan Azelee. (2018). Agenda Pembangunan Mahasiswa di Era Malaysia Baru: Kerangka Utama dan

Kerangka Sokongan. Paper presented at NASDEC 2018 on 21 September 2018 at Universiti Teknologi Malaysia.

- **Muhammad Abd Hadi Bunyamin***, Nur Jahan Ahmad, & Nor Hasniza Ibrahim. (2018). Coordination of STEM Ideas and Initiatives: Challenges and Resolutions. Paper Presented during the International Conference of Korean Association for Science Education (KASE) on January 25, 2018 at Dankook University, South Korea.

Commercialization/Consultation

- Study Visit by Universitas Ahmad Dahlan and Universitas Hamzanwadi, Indonesia. (January-March 2018). (MYR 32,000). UTIM UTM.
- Academic Visit by Universitas Negeri Surabaya (UNESA), 7-16 January 2018, School of Education, Universiti Teknologi Malaysia (MYR 30,000). UTIM UTM.
- Training of Trainers (TOT) for Afghanistan's Scholars. Center for Engineering Education (CEE), Universiti Teknologi Malaysia. September 2017 (Paid: MYR 1000).

Administrative Services (2018-onward)

- Advisor of Persatuan Mahasiswa Pendidikan UTM, 1 January 2020-Now.
- Committee Member of Jawatankuasa Pembangunan dan Kecemerlangan Pelajar, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, 1 March 2020-Now.
- Committee Member of New Academia Learning Innovation (NALI), Universiti Teknologi Malaysia, 30 April 2018-Now.
- Committee Member of Taskforce Penawaran Semula Program Diploma Pendidikan Lulusan Ijazah (DPLI), School of Education, Universiti Teknologi Malaysia, 1 October 2018-30 September 2020.
- Committee Member of Taskforce Semakan Kurikulum Program Diploma Pendidikan Lulusan Ijazah (DPLI), School of Education, Universiti Teknologi Malaysia, 1 October 2018-30 September 2020.
- Committee Member of Teaching Practice, School of Education, Universiti Teknologi Malaysia, 1 July 2018-30 June 2020.
- Committee Member of Academic Professional Development, School of Education, Universiti Teknologi Malaysia, 1 July 2018-30 June 2020.
- Committee Member of OSHE and Sustainability, School of Education, Universiti Teknologi Malaysia, 1 July 2018-30 June 2020.

Community Services (2018-2020)

- Program Pengasingan Sisa Pepejal Luar Bandar (*Knowledge Transfer Program*). Kg Gunung, Gopeng, Perak. Program Dibiayai oleh Kementerian Pembangunan Luar Bandar, 27-28 August 2019.
- Penceramah *Matematik dalam Kehidupan*. Program Kolaborasi Pendidikan UPSR, SK Taman Indahpura I, Kulai, Johor, 5 Mac 2019.
- Sit-In Program Phu Yen University of Vietnam. Committee Member. 6-13 March 2019.
- Co-Advisor of Persatuan Inovasi Sekolah Menengah Kebangsaan Sultan Ismail, Johor Baru, 21 January 2018-20 January 2019.
- Perasmi Program Karnival Matematik 2018. MRSM Johor Bahru, Johor, 30 April 2018.
- Penceramah *Matematik dan Sains Dalam Kehidupan*. Program Slot Motivasi Kem PT3 dan SPM 2018. MRSM Tun Dr Ismail Pontian, Johor, 12 Julai 2018.

Program Committee (2018-2020)

- i-STEM Conference 2019, Scientific Committee. Universiti Sains Malaysia, 19-20 January 2019.
- ICSTEM Chair of Parallel Session. Universiti Teknologi Malaysia. Kuala Lumpur, 2-4 October 2018.
- NASDEC 2018, Chair of Parallel Session. Universiti Teknologi Malaysia, 21 September 2018.
- New Academia Learning Innovation (NALI) Jury Award and Chair of Parallel Session. Universiti Teknologi Malaysia, 14-21 September 2018.
- i-CITE Conference 2018, Chair of Parallel Session and Transportation Committee Member. Universiti Teknologi Malaysia, 24-25 July 2018.
- Program Director. Academic Visit by Universitas Ahmad Dahlan, Indonesia at School of Education, Universiti Teknologi Malaysia, 7-13 April 2018.
- Committee Member. Academic Visit by Universitas Negeri Surabaya, Indonesia at School of Education, Universiti Teknologi Malaysia, 7-16 January 2018.

Editing and Reviewing Services (2018-2020)

Journal Editorial Board Team

- Indonesian Review of Physics. Universiti Ahmad Dahlan, 1 August 2018-now.

Proceedings Edited

- **Muhammad Abd Hadi Bunyamin.** (2019). Isu-isu Semasa Pendidikan. Editor. School of Education, Universiti Teknologi Malaysia.
- **Muhammad Abd Hadi Bunyamin.** (2017). Kajian Tindakan Dalam Pendidikan STEM. Editor. School of Education, Universiti Teknologi Malaysia.

Journal Manuscript Reviewed

- 1 January 2020. Cultural Studies of Science Education.
- 1 March 2019. ASEAN Journal of Engineering Education.
- 1 February 2019. PERTANIKA Journal of Social Sciences and Humanities.
- 15 February 2018. Malaysian Online Journal of Educational Sciences (MOJES).

Professional Body Membership and Services (2018-2020)

- National Association for Research in Science Teaching (NARST), United States, 16 October 2013-Now, Member.
- Persatuan Pendidikan Sains dan Matematik Johor, Malaysia, 25 May 2017-Now, Executive Committee.
- Association for Science Teacher Education (ASTE), United States, 9 January 2016-8 January 2019, International Executive Board Member.