



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

CURRICULUM VITAE



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ACADEMIC QUALIFICATION

2006 : Ph.D. Micro Electromechanical System (MEMS), Faculty of Science, Agriculture and Engineering & Institute for Nanoscale Science and Technology (INSAT), Newcastle University, Newcastle upon Tyne,
Thesis title: "Micro-Electromechanical System (MEMS) Mass Sensor"

1998 : M.Sc. (Physics) Universiti Teknologi Malaysia
Thesis title: "The Design and Development of a Voltammetric System"

1994 : B. Sc. (Hons), Science (Physic) and Computer (Education) Universiti Teknologi Malaysia

AWARDS AND HONORS RECEIVED

| Year | Awards/Achievement |
|------|--|
| 2017 | 1) Anugerah Perkhidmatan Cemerlang, Fakulti Sains UTM, 2017 2) Anugerah Kualiti Akademik, Fakulti Sains UTM, 2017 3) Award of Excellence Active Blended Learning, Course SSCP3343-01 Instrumentation and Data Acquisition, Sem 2-2017/2018 |

- 4) Award of Excellence Active Blended Learning, Course SSCP4393-01 Computer Interfacing, Sem 1-2017/2018
 - 5) Award of Excellence Active Blended Learning, Course SSCP2333-03 Computer Programming, Sem 1-2017/2018
- 2016
- 1) Anugerah Perkhidmatan Cemerlang, Citra Karisma UTM, 2016
 - 2) Anugerah Inovasi dan Jaringan Industri, Fakulti Sains, Konvensyen Inovatif, Efisien dan Produktif (KIEP) ke-2 UTM
 - 3) Award of Excellence Active Blended Learning, Course SSCP4393-01 Computer Interfacing, Sem 1-2016/2017
 - 4) Award of Excellence Active Blended Learning, Course SSCP3343-01 Instrumentation and Data Acquisition, Sem 2-2016/2017
 - 5) Award of Excellence Active Blended Learning, Course SSCP2333-03 Computer Programming, Sem 1-2016/2017
- 2015
- 1) Anugerah Perkhidmatan Cemerlang, Fakulti Sains UTM, 2015
 - 2) Bronze Medal, 17th INATEX 2015, "Rapid Two-Phase Micro-EME of Pharmaceuticals from Aqueous Samples"
 - 3) Award of Excellence Active Blended Learning, Course SSCP2333-02 Computer Programming, Sem 1-2015/2016
 - 4) Award of Excellence Active Blended Learning, Course SSCP3343-01 Instrumentation and Data Acquisition, Sem 2-2015/2016
- 2014
- 1) Anugerah Perkhidmatan Cemerlang, Fakulti Sains UTM, 2014
 - 2) Anugerah Inovasi Terbaik dan Naib Johan (Kategori Pengurusan), Konvensyen KIK Peringkat IPTA ke-10 di UNIMAS
- 2013
- 1) Anugerah Perkhidmatan Cemerlang, Fakulti Sains, UTM, 2013
 - 2) Anugerah Inovasi Fakulti Sains Kumpulan KIK BEST, Konvensyen KIK Peringkat Universiti (UTM)
 - 3) Award of Excellence Active eLearning, Course SSCP2333-01
 - 4) Computer Programming, Sem 1-2013/2014
- 2012
- 1) Anugerah Perkhidmatan Cemerlang, Citra Karisma UTM, 2012
 - 2) Bronze Medal, 14th INATEX 2012, BOD-Rap for Rapid Pollution Sensing
 - 3) Award of Excellence Active eLearning, Course SSCP2333-01 Computer Programming, Sem 1-2012/2013
- 2003
- 1) Best Paper Award, titled "Very Thin Membrane Resonator Structure Using Anodically Bonded SOI Wafer to Glass Substrate" presented in Annual Postgraduate Conference 8-9 April 2003, Newcastle University, U.K
- 2002
- 1) MOSTI/UTM Scholarship Award for Doctorate Degree Program in Micro Electromechanical System (MEMS), Department of Mechanical System Engineering, Faculty of Science, Agriculture and Engineering and Institute for Nanoscale Science and Technology

(INSAT), Newcastle University, Newcastle upon Tyne, 2002-2005

- 1996 1) UTM-Pembangunan Teknologi dan Perindustrian (Industrial and Technology Development) Fellowship Award for Master Degree Program in Physics, Department of Physics, Universiti Teknologi Malaysia, 1996-1 997

PROFESSIONAL/WORKING EXPERIENCE

| Date | Positions/Employer |
|-------------------------|--|
| Sept 2016 - 31 Aug 2019 | : Research Fellow for “Centre for Sustainable Nanomaterials (CsNano), Ibnu Sina Institute for Scientific and Industrial |
| Aug 2011 - present | : Senior Lecturer in Department of Physics at University Technology of Malaysia, Johor |
| Feb 2008 - July 2011 | : Lecturer/Principal Researcher in Ibnu Sina Institute for Fundamental Science Studies at University Technology of Malaysia, Johor |
| Dec 1998 - Jan 2008 | : Lecturer in Department of Physics at University Technology of Malaysia, Johor |
| April 2002-Dec 2006 | : Junior Research Associate in the School of Clinical and Laboratory Sciences, Newcastle University, Newcastle Upon Tyne, Sponsors: DTI and BBSRC ref num. QCBC/C/002/00006 (DTI), 13/ABY15453 (BBSRC) |
| June - Dec 1998 | : Research Officer, Faculty of Science, Physic and Chemistry Department, University Technology of Malaysia, Johor |
| Sept 1994 - June 1996 | : Science Teacher (Guru Sementara Siswazah), SMKA Kuala Selangor |
| Jan - July 1994 | : Lecturer in Department of Engineering at Inst. Technology of MIDAS Johor Bahru |

JOURNAL EDITOR/EDITORIAL/ADVISORY PANEL

Editorial Board

- i) **Editorial Board Member**, Journal of Fundamental Sciences (JFS), Ibnu Sina Institute for Fundamental Science Studies, 1 April 2011 – 31 Mac 2013
- ii) **Editorial Board Member**, Journal of Science and Technology, UTHM, 2011-2015

Journal Reviewer

- 1) Journal Reviewer of Measurement Science, (Institute of Physics) IOP for article entitled "*Data evaluation of linkage of RMO.M.D-K4 comparisons to CCM.D-K4 Hydrometer by numerical simulation, based on Monte Carlo method*", 2017
- 2) Journal Reviewer of Malaysian Journal of Fundamental and Applied Sciences (MJFAS), Ibnu Sina Institute for Fundamental Science Studies (IIS) for article entitled "*DMagnetic and Microwave Absorption Properties of Nickel Ferrite NixFe3-xO4 by HEM Technique*", 2017
- 3) Journal Reviewer of Applied Surface Science Elsevier, Amsterdam for article entitled "*Thickness effect of Catalyst Layer on Silicon Nanowires Morphology and Features*", 2015
- 4) Journal Reviewer of Biomedical Signal Processing and Control, Elsevier, Amsterdam for article entitled "*Decoding of Object Categories from Brain Signals using Cross Frequency Coupling Methods*", 2015
- 5) Journal Reviewer of Jurnal Teknologi, UTM for article entitled "*Peltier Heat Pump*", 2011
- 6) Journal Reviewer of Radiation Physics and Chemistry, Elsevier Amsterdam for article entitled "*Investigation of Effects of Simulating Environment on Reflectivity of SiC Mirror*", 2010
- 7) Journal Reviewer of Journal of Science and Technology, UTHM for article entitled "*The Influence Of Palm Stearin Content On The Rheological Behaviour Of 316L Stainless Steel Mim Compact*", 2010

ADMINISTRATIVE EXPERIENCE

Faculty Level

| Date | : Positions/Appointment |
|------------------------|-------------------------|
| 3 June 2020 - till now | : Director (Physics) |

| | | |
|----------------------------|---|---|
| 7 Oct 2018 - 30 June 2020 | : | Head of Instrumentation Panel (Ketua Panel Bidang Instrumentasi) Department of Physic, FS |
| 15 Dec 2018 - 15 Sept 2020 | : | RG Leader (Scientific Computing and Instrumentation Research Group) |
| 1 Aug 2015 - 30 June 2018 | : | Facility Manager, Fakulti Sains |
| 1 May 2013 - 31 July 2015 | : | IT Manager, Fakulti Sains |

University Level

-n/a

APPOINTMENT/COMMITTEE

Departmental Level Appointment/Committee

- 1) Facilitator for Industry Educational Trip 3rd Year Student, Physics Department to Nuclear Malaysia, AELB and MPOB, 10-12 Oct 2017
- 2) Facilitator for Astro Physics Program 4th Year Student 4SSCZ, Physics Department to Teluk Gorek Camp Site & Resort, 21-23 Dec 2017
- 3) Facilitator for Firts Year Experience (FYE) Program, Physics Department to Teluk Gorek Camp Site & Resort, 7-9 Dec 2017
- 4) Task Force Committee Member for Msc Taught Course (Nanotechnology)-Transnational Education with Twente University, 2017
- 5) Committee Member for Information Technology, Website, NALI and OBE Department of Physics, 2016
- 6) Facilitator for “Training of Trainer (TOT) 3rd Year Physics Laboratory”, 29-30 Aug 2016
- 7) Facilitator for CSR MIGTY 3rd Year Secondary School MRSM Mersing, 27-29 Okt 2016
- 8) Committee Member for “Documentation of L1 Msc Mixed Mode”, 2016
- 9) Committee Member for Alumni, Employable, Industrial Training, Internationalization and Promotion, Physics Department, 16 March 2014 - 15 March 2016
- 10) Committee Member for “Information Technology Physics Department”, 16 March 2014-15 March 2016

- 11) Committee Member for “Writing, Publication and Seminar Physics Department”, 16 March 2014-15 March 2016
- 12) Facilitator for Outdoor Camp First Year Experience (FYE) Program, Physics Department to Pasir Lanun Camp & Chalet, Penyabong 15 - 17 Mac 2013
- 13) Committee Member for Innovation, Physics Department, 2013
- 14) Committee Member for 3rd Year Practical Physics Laboratory, 2012
- 15) Committee Member for Promotion, Physics Department, 2012
- 16) Chairman for the talk on “7 Habits of Successful Person”, Physics Department, 6 Jun 2012
- 17) Committee Member for Research, Innovation and Consultation, Physics Department, 2011
- 18) Facilitator for Basics Electronic Practical, Physics Department, 19-21 July 2011
- 19) Committee Member for Student Development, Department of Physics, 2010
- 20) Committee Member for Final Year Student Project, Physics Department, 2008
- 21) Committee Member, Seminar for Physics Department, 2008
- 22) Assistant Coordinator for 2nd Year Physics (Practical), 2008
- 23) Committee Member for “Peralatan Pengajaran Fizik IDB”, 2008
- 24) Committee Member for Physics Laboratory Management , Ibnu Sina Institute for Fundamental Science Studies (IIS), 2008
- 25) Committee Member for Youth Science Camp (YSC), 2008
- 26) Committee Member for “Perundingan Komputer”, Physics Department, 2000-2001
- 27) Committee Member for “Unit Bengkel Am “, Physics Department, 2000-2001
- 28) Committee Member for “Unit Perkhidmatan”, Physics Department, 2000-2001

Faculty Level Appointment/Committee

- 1) Committee Member for Occupational Safety, Health and Environment (OSHE) Fakulti Sains, 8 May 2017 - 8 Apr 2019

- 2) Committee Member for “Penentuan dan Penilaian Spesifikasi Teknikal (Budget D & Q)” Fakulti Sains, 18 Apr 2017 - 18 March 2019
- 3) Panel Evaluator for Industrial Training Program Poster Competition with Alumni, 2 May 2017
- 4) Task Force Chairman for “Occupational Safety, Health and Environment (OSHE) Awareness Program”, May 2017
- 5) Task Force Committee Member for “Anugerah Kualiti Akademik (AKA)” 2016
- 6) Task Force Committee Member for “Anugerah Cemerlang KKP Peringkat Kebngsaan 2017
- 7) Facilitator for “Workshop on Research Group Website Development”, 17 Aug 2016
- 8) Committee Member for “Penentuan dan Penilaian Spesifikasi Teknikal (Budget D & Q)” Fakulti Sains, 17 May 2016 - 17 Apr 2017
- 9) Asistant Chairman for Committee Member for Occupational Safety, Health and Environment (OSHE) Fakulti Sains, Dec 2016
- 10) Task Force Committee Member for “Penyediaan Dokumen bagi Perolehan Alatan RMK-11 Fakulti Sains” 2015
- 11) Task Force Committee Member for “Anugerah Kualiti Akademik (AKA)” 2015
- 12) Committee Member for “Penentuan dan Penilaian Spesifikasi Teknikal (Budget D & Q)” Fakulti Sains, 25 Sept 2014 - 25 Aut 2016
- 13) Appointment as Data Manager Fakulti Sains, June 2015
- 14) Member of Annual Science Academia Forum Fakulti sains, DK1 L50, 13 Okt 2015
- 15) Committee Member for “Kumpulan Inovatif Kreatif (KIK) Fakulti Sains, 2015
- 16) Facilitator for “Laboratory Management Week” Fakulti Sains, 10-12 Aug 2015
- 17) Appointment as Speaker for “Taklimat Sistem Kemasukan Markah Peperiksaan Akhir Program Pasca Siswazah Secara Dalam Talian, 2014
- 18) Committee Member for “Kumpulan Inovatif Kreatif (KIK) - Bahagian Audit Fakulti Sains, 2014
- 19) Committee Member for Occupational Safety, Health and Environment (OSHE) Fakulti Sains, 2013

- 20) Committee Member for for “Occupational Safety, Health and Environment (OSHE) Awareness Week Program”, 26-29 Nov 2013
- 21) Committee Member for “Penilai Sebut Harga” Fakulti Sains, 29 Okt 2013 - 29 Sept 2015
- 22) Committee Member for “Penilai Teknikal Bajet KPT”, Fakulti Sains, 30 Jan 2013 - 30 Dec 2015
- 23) Committee Member for Emergency Response Team (ERT), Fakulti Sains, 2013
- 24) Appointment as Coordinator for Undergraduate Physics Research Program (UGRP), 2013
- 25) Committee Member for “Penilai Teknikal” Fakulti Sains, 25 Aug 2011 - 25 Jul 2013
- 26) Facilitator for “Kumpulan Inovatif Kreatif (KIK) Kumpulan BEST”, Fakulti Sains, 2012
- 27) Committee Member for “Msc Science (Nanotechnology) Program”, Fakulti Sains 2009
- 28) Committee Member for Website Editor, Fakulti Sains, 2008

University Level Appointment/Committee

- 1) Speaker for Bridging Program for Basic Science Laboratory, Principle of Measurement 1, 5 Jan 2018
- 2) Committee Member for “Task Force Penambahbaikan Laboratory Management Information System (LIMS), UTM”, 2017
- 3) Appointment as Technical Evaluator for RUG Tier 1 Proposal Application Niche Area , UTM for Frontier Materials, Phase 1, 2017
- 4) Committee member for “Lab Value Management 4th Rolling Plan-EPU”, Putrajaya 2015
- 5) Committee member for “Penyediaan Dokumen dan Penilaian Spesifikasi Teknikal Perlatan TEM, STEM dan FIB ”, UIRL, UTM, 2014
- 6) Appointment as Technical Evaluator for RUG Tier 1 2E & PAS Proposal Application, UTM for Nanotechnology Research Alliance , 2014

- 7) Facilitator/Speaker for Bridging Program for Assistant Science Officer, Level 2 , 24 June - 5 July 2013
- 8) Appointment as Technical Evaluator for eScience Fund Proposal Application , MOSTI, for Nanotechnology Research Alliance, 2013
- 9) Appointment as Technical Evaluator for RUG Tier 1 & 2 Proposal Application , Cycle 1 and 2, UTM, for Nanotechnology Research Alliance, 2013
- 10) Appointed as “Pakar Bidang Fizik, Projek Ensiklopedia Sains dan Teknologi (EST) UTM-DBP”, Fasa Kedua, 1 Aug 2009 - 1 Apr 2012
- 11) Appointed as Committee Member for “Festival Inovasi & Kreativiti UTM 2012” (UTMost Imagination 2012), 29 Mac - 1 Apr 2012
- 12) Appointed as Committee Member for UTM Solar Car Model Challenge 2011, UTMost Imagination 2011
- 13) Panel Pakar Bidang Fizik, Projek Ensiklopedia Sains dan Teknologi (EST) UTM-DBP, Fasa Kedua, 1 Aug 2009 - 1 Aug 2011
- 14) Appointment as Monitoring Panel for RUG Tier 1/2 Research Grant, UTM for Nanotechnology Research Alliance , April - Oct 2011
- 15) Appointment as Technical Evaluator for eScience Fund Proposal Application , Cycle 1, MOSTI for Nanotechnology Research Alliance, 2012
- 16) Appointment as Technical Evaluator for Fundamental Research Grant (FRGS) Proposal Application, Cycle 1, MOHE, Nanotechnology Research Alliance, 2012
- 17) Appointment as Technical Evaluator for Prototype Development Research Grant Scheme (PRGS) Proposal Application, MOHE for Nanotechnology Research Alliance, 2012
- 18) Appointment as Technical Evaluator for Exploratory Research Grant Scheme (ERGS) Proposal Application, MOHE for Nanotechnology Research Alliance, 2011
- 19) Appointment as Technical Evaluator for eScience Fund Proposal Application , Cycle 1 and 2, MOSTI for Nanotechnology Research Alliance, 2011
- 20) Appointment as Technical Evaluator for Fundamental Research Grant (FRGS) Proposal Application, Cycle 1, MOHE, Nanotechnology Research Alliance, 2011
- 21) Appointment as Technical Evaluator for RUG Tier 1 & 2 Proposal Application , Cycle 2, UTM, for Nanotechnology Research Alliance, 2011

- 22) Appointment as Technical Evaluator for RUG-Innovation Encouragement Proposal Application , UTM, for Nanotechnology Research Alliance, 2011

National Level Appointment/Committee

- 1) Appointment as Fasilitator of National Science Challenge and Science Outreach Johor State Level 2016, SM Sanis Kota Tinggi, 11 May 2016
- 2) Appointment as “Panel Pakar Bidang Sains Fizik” Dewan Bahasa dan Pustaka (DBP) 2013.
- 3) Facilitator / Committee member for “Computer Interfacing Workshop (ComInt)”, Peringkat Kebangsaan, Organized by Physics Department, 3rd Sept 2013
- 4) Appointed as Committee Member for “Penyediaan Modul Fizik bagi Kem Olympiad NanoMalaysia Peringkat Sekolah”, 3-7 Dec 2012
- 5) Appointment as Chairperson for Parallel Session in Regional Annual Fundamental Science Symposium (RAFSS), 10-13 Dec 2012
- 6) Appointment as “Penilai Kategori Makalah Jurnal Terbaik”, Anugerah Majlis Penerbitan Ilmiah Malaysia (MAPIM) 2011.
- 7) Organizing Committee of Regional Annual Fundamental Science Symposium (RAFSS) 2011, 20-21 Dec 2011
- 8) Facilitator / Committee member for “Computer Interfacing Workshop (ComInt)”, Peringkat Kebangsaan, Organized by Physics Department, 28-29 Dec 2011
- 9) Organizing Committee Member of Regional Annual Fundamental Science Symposium (RAFSS) 2009
- 10) Appointment as Chairperson for Invited Speaker in Regional Annual Fundamental Science Symposium (RAFSS), 20-21 Dec 2011
- 11) Appointment as Chairperson for Parallel Session in Regional Annual Fundamental Science Symposium (RAFSS), 20-21 Dec 2011
- 12) Facilitator / Committee member for “Computer Interfacing Course (ComInt)”, Peringkat Kebangsaan, Organized by Physics Department, 16-17 Dec 2010
- 13) Appointment as Chairperson for Parallel Session in Regional Annual Fundamental Science Symposium (RAFSS), Grand Season Hotel, KL, 8-9 June 2010
- 14) Secretary of Regional Annual Fundamental Science Symposium (RAFSS), 2010

- 15) Facilitator/Speaker on Short Course "Computer Monitor & Power Supply - Maintenance and Troubleshooting", Organized by CICT Johor and Physics Department, 2008
- 16) Organizing Committee of Regional Annual Fundamental Science Symposium (RAFSS) 2008

International Level Appointment/Committee

- i) Organizing Committee for 3rd International Conference on Computational & Social Sciences, UTM, 25-27 August 2014
- ii) Appointment as Chairman Person for Parallel Session in 4th International Conference and Workshop on Basic and Applied Sciences-Regional Annual Fundamental Science Symposium (ICOWOBAS-RAFSS) 4-5 Sept 2013

PROFESSIONAL MEMBERSHIP AND RECOGNITION

- i) The Malaysian Solid State Science & Technology Society
- ii) Member, IEEE Instrumentation and Measurement Society, Membership No: 92174184
- iii) Member, IEEE Membership No: 92174184

TEACHING EXPERIENCES

UNDERGRADUATE COURSES TAUGHT

| Course / Subject | Code | Sem, Session | Credit hours |
|--|-------------|---------------------|---------------------|
| Instrumentation and Measurement (Instrumentasi dan Pengukuran) | SSP4313 | 2, 2006-2007 | 3 |
| Electronic Circuit Simulation (Simulasi Litar Elektronik) | SSF3392 | 2, 2006-2007 | 2 |
| Electric Machine (Mesin Elektrik) | SSP3312 | 1, 2007-2008 | 2 |
| Electric Machine (Mesin Elektrik) | SSF3312 | 1, 2007-2008 | 2 |
| Computational Physics (Fizik Berkomputer) | SSP2122 | 1, 2007-2008 | 2 |
| Instrumentation and Measurement (Instrumentasi dan Pengukuran) | SSP2343 | 2, 2007-2008 | 6 |
| Instrumentation and Measurement (Instrumentasi dan Pengukuran) | SSP4313 | 2, 2007-2008 | 3 |
| Computational Physics (Fizik Berkomputer) | SSP2122 | 1, 2008-2009 | 4 |
| Advance Electronic (Elektronik Lanjutan) | SSP2323 | 1, 2008-2009 | 3 |

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|--|----------|--------------|---|
| Instrumentation and Measurement (Instrumentasi dan Pengukuran) | SSP2343 | 2, 2008-2009 | 6 |
| Instrumentation and Measurement (Instrumentasi dan Pengukuran) | SSP4313 | 2, 2008-2009 | 3 |
| Computational Physics (Fizik Berkomputer) | SSP2122 | 1, 2009-2010 | 4 |
| Instrumentation and Measurement (Instrumentasi dan Pengukuran) | SSP2343 | 1, 2009-2010 | 6 |
| Computational Physics (Fizik Berkomputer) | SSP2122 | 1, 2010-2011 | 4 |
| Instrumentation and Measurement (Instrumentasi dan Pengukuran) | SSP2343 | 2, 2010-2011 | 3 |
| Computer Programming (Pengaturcaraan Komputer) | SSP2333 | 1, 2011-2012 | 3 |
| Electric Machine (Mesin Elektrik) | SSP3312 | 1, 2011-2012 | 2 |
| Instrumentation and Measurement (Instrumentasi dan Pengukuran) | SSP2343 | 2, 2011-2012 | 3 |
| Physics - Practical II (Amali Fizik II) | SSCP1821 | 2, 2011-2012 | 1 |
| Computer Programming (Pengaturcaraan Komputer) | SSCP2333 | 1, 2012-2013 | 3 |
| Instrumentation and Data Aquisition (Instrumentasi dan Pemerolehan Data) | SSP3343 | 2, 2012-2013 | 3 |
| Computer Programming (Pengaturcaraan Komputer) | SSCP2333 | 1, 2013-2014 | 3 |
| Computer Interfacing (Pengantaramukaan Komputer) | SSP4393 | 1, 2013-2014 | 3 |
| Instrumentation and Data Aquisition (Instrumentasi dan Pemerolehan Data) | SSCP3343 | 2, 2013-2014 | 3 |
| Computer Programming (Pengaturcaraan Komputer) | SSCP2333 | 1, 2014-2015 | 3 |
| Computer Interfacing (Pengantaramukaan Komputer) | SSCP4393 | 1, 2014-2015 | 3 |
| Instrumentation and Data Aquisition (Instrumentasi dan Pemerolehan Data) | SSCP3343 | 2, 2014-2015 | 3 |
| Physics - Practical III Sem 1 (Amali Fizik Tahun 3 Sem 1) | SSCP3811 | 1, 2015-2016 | 2 |
| Computer Programming (Pengaturcaraan Komputer) | SSCP2333 | 1, 2015-2016 | 3 |
| Computer Interfacing (Pengantaramukaan Komputer) | SSCP4393 | 1, 2015-2016 | 3 |
| Instrumentation and Data Aquisition (Instrumentasi dan Pemerolehan Data) | SSCP3343 | 2, 2015-2016 | 3 |
| Process Control (Kawalan dan Process) | SSCP4303 | 2, 2015-2016 | 3 |
| Computer Programming (Pengaturcaraan Komputer) | SSCP2333 | 1, 2016-2017 | 3 |

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|--|----------|--------------|------------|
| Computer Interfacing (Pengantaramukaan Komputer) | SSCP4393 | 1, 2016-2017 | 3 |
| Instrumentation and Data Aquisition (Instrumentasi dan Pemerolehan Data) | SSCP3343 | 2, 2016-2017 | 3 |
| Physics - Practical II (Amali Fizik II) | SSCP1811 | 1, 2017-2018 | 1 |
| Physics - Practical V Sem 1 (Amali Fizik Tahun 3 Sem 1) | SSCP3811 | 1, 2017-2018 | 1 |
| Computer Programming (Pengaturcaraan Komputer) | SSCP2333 | 1, 2017-2018 | 3 |
| Computer Interfacing (Pengantaramukaan Komputer) | SSCP4393 | 1, 2017-2018 | 3 |
| Instrumentation and Data Aquisition (Instrumentasi dan Pemerolehan Data) | SSCP3343 | 2, 2017-2018 | 3 |
| Total credit hours | | | 120 |

POSTGRADUATE COURSE TAUGHT

Code : **Subject / Course**

n/a

n/a

SUPERVISION OF VISITING PROFESSORS

-n/a

RESEARCH PROJECT UNDERTAKEN

RESEARCH UNIVERSITY GRANT (RUG) UTM

- 1) **Project Leader**, "Stability analysis and current monitoring for effective wearable treatment", UTM-TDR 16.2(T1) Tier 1 Vot Q.J130000.3554.06G21, Budget approved **RM 56,000 (1 Dis 2018-30 Nov 2021)**
- 2) **Project Leader**, "Structural and optical properties of SiC Nanowires grown by VHF-PECVD", RUG-UTM Tier 1 Vot Q.J130000.2526.15H46, Budget approved **RM 40,000.00, (1 Oct 2016 - 30 Sept 2018)**
- 3) **Project Leader**, "Puzzled Response in Brain Decision Making Using Visio-Brain Evoked Potential" , RUG-UTM Tier 1 Vot Q.J130000.2526.07H93, Budget approved **RM 39,173, (April 2013-March 2016)**
- 4) **Project Leader**, "Electrolysis Mechanism and Structural Characterization of Voltammetric Sensor Based on Au-Si nanodots Structure for the Detection of Electroactive Species", RUG-UTM Tier 2 Vot Q.J130000.2626.10J69, Budget approved **RM 20,000.00, (1 Oct 2014- 30 Sept 2015)**

- 5) **Project Leader**, “Synthesis of Defect-Free InGaAs Nanowires Using MOCVD”, RUG-UTM Tier 2, Vot Q.J130000.2626.07J68, Budget approved **RM 32,000, (Dec 2012-Dec 2013)**
- 6) **Project Leader**, “Nanoelectromechanical System (NEMS) Sensor Based on Au-Si Nanodots Structure for Generic Detection of Biochemical Species”, RUG-UTM Tier 2, Vot Q.J130000.7126.04J26, Budget approved **RM 40, 000, (April 2011-Mac 2012)**
- 7) **Project Leader**, “Development of Computerized Eddy Current Inspection System”, Research Management Center, University Technology of Malaysia, RMC Vot 71731, Budget approved **RM 14, 500.00, (Jan. 2001 – Dec. 2001)**
- 8) **Project Member**, “Resolution optimization for radiographic imaging”, RUG-UTM Tier 1 Vot Q.J130000.2526.20H35, Budget approved **RM 50,000, (1 Feb 2018 - 31 Jan 2020)**
- 9) **Project Member**, “Luminescence Properties of Nanophosphor of Alkaline Earth Sulphoborophosphates Material Doped with Rare Earth Ions for White Led Applications.”, RUG-UTM Tier 2 Vot Q.J130000.2626.13J71, Budget approved **RM 20,000, (1 Jan 2017 - 30 June 2018)**
- 10) **Project Member**, “Low Temperature Synthesis of Graphene from Liquid Benzene by Chemical Vapor Deposition Method.”, RUG-UTM Tier 1 Vot Q.J130000.2524.16H37, Budget approved **RM 40,000, (1 July 2017 - 30 June 2019)**
- 11) **Project Member**, “Development and Analysis of Portable Low Direct Current Stimulation Device for Medical Applications.”, RUG-UTM Tier 1 Vot Q.J130000.2524.16H12, Budget approved **RM 40,000, (1 July 2017 - 30 June 2019)**
- 12) **Project Member**, “Fabrication of Copper Oxide (CuO/Cu₂O) Nanowires.”, RUG-UTM Tier 1 Vot Q.J130000.2509.06H69, Budget approved **RM 39,173, (1 Apr 2014 - 31 Mac 2015)**
- 13) **Project Member**, “Integrated Mathematical Modeling on GIS Processed Data of Diseases Infected Animal.”, RUG-UTM Tier 2 E Vot Q.K130000.2611.10J00, Budget approved **RM 28,040 (1 Apr 2014 - 30 June 2015)**
- 14) **Project Member**, “Numerical Simulation of Nutrient Effect to Single Cell of Avascular Tumor Growth.”, RUG-UTM Tier 2 E Vot Q.J130000.2626.10J32, Budget approved **RM 28,040 (1 Apr 2014 - 30 June 2015)**
- 15) **Project Member**, “Thermolumination Properties of Doped Al₂O₃ Thin Film Dosemetry Subjected to Ionizing Radiattion”, RUG-UTM Tier 1 Vot Q.J130000.2526.03H65, Budget approved **RM 90,000, (1 Dec 2012 - 31 Dec 2014)**

- 16) **Project Member**, “Novel Photonic Materials for Device Operation in the Near- and Mid-Infrared: Bismides, Bismides/Nitrides and Antimonide-Based-QCL Structures”, RUG-UTM Tier 1 Vot Q.J130000.2526.04H30, Budget approved **RM 102,000, (1 Dec 2012 - 31 Dec 2014)**
- 17) **Project Member**, “Characterization of Tin-Doped Zinc Oxide Nanobelts”, RUG-UTM Tier 2 Vot Q.J130000.2626.08J25, Budget approved **RM 32,000, (1 Dec 2012 - 31 Dec 2013)**
- 18) **Project Member**, “Characterisation of InGaP/GaAs Quantum Dots Heterostructure For Solar Cells Fabricated Using Metal Organic Chemical Vapor Deposition (MOCVD)”, RUG-UTM Tier 1 Vot Q.J130000.2526.04H65, Budget approved **RM 97,900, (1 Dec 2012 - 31 Dec 2014)**
- 19) **Project Member**, “Structural and Optical Characterization of Ge/Si Nano Islands and Quantum Dots Grown using Magnetron Sputtering and PECVD”, RUG-UTM Tier 1 Vot Q.J130000.2526.02H94, Budget approved **RM 65,000, (1 May 2012 - 30 Apr 2014)**
- 20) **Project Member**, “Structural Characteristics Of InxGa1-xP Nanowires Grown Using Vertical Chamber MOCVD with Gold Seed-Assisted As Catalyst”, RUG-UTM Tier 2 Vot Q.J130000.2626.02J38, Budget approved **RM 40,000, (1 Apr 2011 - 31 July 2012)**
- 21) **Project Member**, “Dilute-Nitride InNAs Quantum Dots for Room Temperature Long Wavelength Laser Operation in The Mid-Infrared”, RUG-UTM Tier 1 Vot Q.J130000.2526.01H55, Budget approved **RM 150,000, (1 Apr 2011 - 31 March 2013)**
- 22) **Project Member**, “Synthesis Of Carbon Nanotubes Using a Very High Frequency-Chemical Vapour Deposition”, RUG-UTM Tier 1 Vot Q.J130000.2526.01H38, Budget approved **RM 150,000, (1 Apr 2011 - 31 March 2013)**
- 23) **Project Member**, “High Performance Library For Eye Blinks, Movements , Muscle Stress Detection and Observation Using EEG Record”, RUG-UTM Tier 1 Vot Q.J130000.2509.09H71, Budget approved **RM 46,125, (1 May 2015 - 31 Oct 2016)**
- 24) **Project Member**, “Study of High Resolution Transmission Electron Microscopy To the Indium Gallium Phosphide Nanowires Grown By Metal Organic Chemical Vapor Deposition”, RUG-UTM Tier 2 Vot Q.J130000.2626.02J85, Budget approved **RM 40,000, (1 Apr 2011 - 31 July 2012)**
- 25) **Project Member**, “Enhancement of Second Harmonic Generation from Seashell-based Glass using Multilayer Coating Approach”, UTM FR, Vot

- R.J130000.2554.21H25, Budget approved **RM 90,000.00, (1 Jan 2020-31 Dec 2022)**
- 26) **Project Member**, “Multilayer SiC/C Thin Film Approach to Improve FBG Thermal Stability”, RUG-UTM Tier 2, Vot Q.J130000.2654.16J23, **Budget approved RM 20,000, (1 Aug 2019 - 31 July 2021)**
 - 27) **Project Member**, “Understanding The Generation Mechanism of Multiple Equatorial Plasma Bubbles (EPBS) using Low Earth Orbit Satellite (LEOS)”, RUG-UTM Tier 2, Vot Q.J130000.2654.15J86, **Budget approved RM 30,000, (1 Aug 2019 - 31 July 2021)**
 - 28) **Project Member**, “Medical Device for the Treatment of Mental Illness for Malaysia Patient”, UTM-TDR 16, Vot Q.J130000.3554.06G84, Budget approved **RM 240,000 (1 Dis 2018-30 Nov 2021)**
 - 29) **Project Member**, “Highly Flexible and Conductive Graphene/CNTs-Polymer Composite for Medical Electrode”, UTM-TDR 16.4(T1) Tier 1, Vot Q.J130000.3551.06G85, Budget approved **RM 80,000 (1 Dis 2018-30 Nov 2021)**
 - 30) **Project Member**, “Stability Analysis and Current Monitoring for Effective Wearable Treatment”, UTM-TDR 16.2(T1) Tier 1, Vot Q.J130000.3554.06G21, Budget approved **RM 56,000 (1 Dis 2018-30 Nov 2021)**

ESCIENCE FUND MOSTI

- 1) **Project Leader**, “Synthesis and Testing of Advanced Semiconductor Thermoelectric Material for Microchip Cooling” MOSTI, eScience Grant Vot 79359, Budget approved **RM 175,000.00, (March 2009- Feb. 2011)**

FUNDAMENTAL RESEARCH GRANT SCHEME (FRGS FUND)

- 1) **Project Leader**, “Enhancement of Perovskite Solar Cell Electron Transport Layer using Aluminum-doped Titanium Dioxide Embedded Gold Nanoparticles”, MOHE-FRGS, Vot R.J130000.7854.5F236, Budget approved **RM 112,000.00, (1 Sept 2019 - 31 Nov 2021)**
- 2) **Project Leader**, “Investigation On Growth Kinetics And Properties Of One-Dimensional Silicon Carbide Nanostructures Synthesis By Ultra High Frequency VHF)-PECVD”, MOHE-FRGS Vot R.J130000.7826.4F847, Budget approved **RM 136,000.00, (1 August 2016 - 31 July 2018)**
- 3) **Project Leader**, “Investigation on Structural Properties of Nanocrystalline SiC for N-MEMS (Nano-Microelectromechanical System)”, MOHE-FRGS Grant Vot 78471, Budget approved **RM 26,000.00, (Nov 2009- Nov 2011)**
- 4) **Project Member**, “Computational Study on the Performance of a Graphene-Topological Insulator Based Photodetector from the First Principles”, FRGS Vot R.J130000.7826.4F915, Budget approved **RM 40,000, (1 Aug 2016 - 31 July 2018)**
- 5) **Project Member**, “Enhancement of Human Motion Recognition Algorithm for Cooperative Multisensor of Muslim Salat Movement”, FRGS Vot

R.J130000.7801.4F863, Budget approved **RM 65,400, (1 Aug 2016 - 31 Jan 2018)**

- 6) **Project Member**, “High Performance Modeling and Simulation of Image Processing Technique for Detecting the Valuable Metals in Electronic Waste”, FRGS Vot R.J130000.7826.4F795, Budget approved **RM 73,100, (2 Nov 2015 - 1 Nov 2017)**
- 7) **Project Member**, “Determination of Fundamental Electronic Band Structure of III-V Semiconductors For Improved Infrared Device Performance”, Vot R.J130000.7809.4F163, Budget approved **RM 83,000, (1 Apr 2018 - 31 March 2015)**
- 8) **Project Member**, “High Performance PSVM Modeling and Simulation on Tumor Cell Classification using MRI Medical Images”, Vot R.J130000.7826.4F675, **Budget approved RM 68,000, (1 Dec 2014 - 30 Nov 2016)**
- 9) **Project Member**, “High Performance PSVM Modeling and Simulation on Tumor Cell Classification using MRI Medical Images”, Vot R.J130000.7826.4F675, **Budget approved RM 68,000, (1 Dec 2014 - 30 Nov 2016)**
- 10) **Project Member**, “Enhancement of Perovskite Solar Cell Electron Transport Layer using Aluminium-doped Titanium Dioxide Embedded Gold Nanoparticles”, Vot R.J130000.7854.4F236, **Budget approved RM 112,000, (1 Sep 2019 - 31 Aug 2021)**
- 11) **Project Member**, “Calculations of Magnetic Properties of CR-Based Max-Phase Compounds using Density Functional Theory”, Vot R.J130000.7854.5F231, **Budget approved RM 80,000, (1 Sep 2019 - 31 Aug 2021)**
- 12) **Project Member**, “Growth Mechanism of High Crystallinity Silicon Carbide/Diamond Like Carbon Multilayer Structure for Optical Fiber Coating”, Vot R.J130000.7854.5F243, **Budget approved RM 96,000, (1 Sep 2019 - 31 Aug 2021)**

TOP-DOWN LONG TERM RESEARCH GRANT SCHEME (LRGS) RESEARCH PROJECT

AWARDED BY MINISTRY OF HIGHER EDUCATION

- 1) **Project Member**, “Solid-Oxide Fuel Cells based on Semiconductor Nanostructure for Power Industry”, FRGS Vot R.K130000.7340.4L825, Budget approved **RM 1,500,000, (1 Feb 2015 - 31 Jan 2020)**

TOP-DOWN LONG TERM EXPLORATORY RESEARCH GRANT SCHEME (ERGS) RESEARCH PROJECT

- 1) **Project Member**, “Exploratory Spatio Temporal Library in Observing the large scope Ocean circulation and Movement for Sensor Grid Based on CPU-GPU

Platform”, FRGS Vot R.J130000.7809.4L131, Budget approved **RM 89,000 (1 June 2013 - 31 May 2016)**

- 2) **Project Member**, “An Ultramicroelectrode (UME) Based Biosensor as a New Approach to Measuring Biochemical Oxygen Demand In Water Systems”, Vot R.J130000.7835.4L048, Budget approved **RM 81,000, (15 June 2012 - 14 June 2014)**

NETWORKING GRANT (NG)

- 1) **Project Member**, “program CSR MRSM Mersing”, FRGS Vot S.J130000.7326.4X184, Budget approved **RM 962, (1 Oct 2016 - 31 Oct 2016)**

PPRN GRANT

- 1) **Project Member**, “Metal-Organic and Gas Supply Control and Management for Semiconductor Deposition System”, Industri Grant CR DTD, vot R.J130000.7854.4L439, Budget approved **RM 69,263 (23 Dec 2019-22 Dec 2020)**

CONTRACT RESEARCH (DTD) PROJECT

- 1) **Project Leader**, “Optimizing PE-MOCVD parameter for GaN thin film using TMGa”, Industri Grant CR DTD, vot R.J130000.7654.4C400, Budget approved **RM 20,600 (20 Sept 2020 - 19 Sept 2021)**
- 2) **Project Leader**, “Development Of 20-500 MHz RF Impedance Matching for VHF-PECVD System”, Industri Grant CR DTD, vot R.J130000.7654.4C363, Budget approved **RM 10,000 (16 June 2020 - 15 June 2021)**
- 3) **Project Leader**, “Radiation Shielding Design and Monitoring Using MCNP5 and On-Site Personal Radiation Detector”, Industri Grant CR DTD, vot R.J130000.7654.4C325, Budget approved **RM 31,000 (20 Dec 2019-19 Dec 2021)**
- 4) **Project Member**, “ANSI & IEC Standard Compliance Scientific and Technical Consultation for Cargo and Vehicle Inspection”, Industri Grant CR DTD, vot R.J130000.7654.4C326, Budget approved **RM 33,000 (20 Dec 2019-19 Dec 2021)**
- 5) **Project Member**, “Calibration and Compliance of Malaysia Radiation Portal Monitor (My-RPM) for Monitoring of Inspection Area”, Industri Grant CR DTD, vot R.J130000.7654.4C324, Budget approved **RM 86,000 (20 Dec 2019-19 Dec 2021)**
- 6) **Project Member**, “Metal-organic and Gas Supply Control and Management for Semiconductor Deposition System”, Industri Grant CR DTD, vot R.J130000.7654.4C315, Budget approved **RM 29,684 (23 Dec 2019-22 Dec 2020)**
- 7) **Project Member**, “Research Activity on Evaluating Performance of Wet Scrubber”, Industri Grant CR DTD, vot R.J130000.7654.4C316, Budget approved **RM 16,000 (9 Sep 2019-9 Apr 2020)**

8) Project Member, “Density Functional Theory Study (DFT) Study of Interactions between Photocatalystbioadsorbents (O-Pyrite/Chitosan)”, National CRG, Vot R.J130000.7351.4B450, Budget approved **RM 20,000.00, (1 Nov 2019-31 Oct 2021)**

9) Project Member, “Hybrid Photocatalyst-Bioadsorbent using Naturally Occuring Materials for Water and Waste Treatment”, CRG, Vot R.J130000.2451.08G85, Budget approved **RM 100,000.00, (1 Nov 2019-31 Oct 2021)**

10) Project Member, “Radiation Shielding Design and Monitoring using MCNP5 and On-Site Personal Radiation Detector”, CR DTD , Vot R.J130000.7654.4C325, Budget approved **RM 31,000.00, (20 Dec 2019-19 Dec 2021)**

PATENT GRANTED

- 1) Shafinaz Shahir, Abd Khamim Ismail , *A Redox Mediated UME Biosensor*, PATEN Malaysia, MY-172592-A, (PI 2014 703005)

PATENT FILED/DISCLOSURE

- 2) Mohd Marsin Sanagi, Abd Khamim Ismail, *A Method of Sample Preparation*, PATEN Malaysia (PI 2014 002627)
- 3) Nor Azman bin Ismail, Abd. Khamim bin Ismail, Kamarul Azmi bin Jasmi, Mohd Sharul Hafiz bin Razak, Mohd Ismail bin Mustari, Yusman Azimi bin Yusoff, Nor Azrini binti Jaafar, *A Motion System And Method For Monitoring Salat Movements*, PATEN Malaysia (PI 2018701425)

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- 1) Abd Khamim Ismail, Mohd Khalid Kasmin, [SSP2122-Computational Physics](#), Copyright UTM Open Courseware
- 2) Abd Khamim Ismail, Abd Rahman Tamuri, Mohd Khalid Kasmin, Yaacob Mat Daud, [SSP3312 COMPUTER INTERFACING](#), Copyright UTM Open Courseware

POSTGRADUATE SUPERVISION

PhD Students (Main Supervisor) - 3 graduated, 4 active

| No. | Year | Name | Status | Title |
|-----|------|---------------------------|-----------|---|
| 1 | 2011 | Muhammad Firdaus Bin Omar | Graduated | Synthesis, Growth and Characterization of Nanostructured SiC by 150 MHz VHF-PECVD |
| 2 | 2011 | Ahmed Fadhil | Graduated | Decision Making and Puzzled |

| | | | | |
|---|------|--------------------------------|-----------|--|
| | | Hassoney Al-Murshedi | | Response Assessment Using Visual Evoked and Event Related Potentials |
| 3 | 2011 | Ainun Jariah Binti Awang | Graduated | Feasibility of Using Carbon Doped Aluminium Oxide Co-doped with Magnesium as Thermoluminescence Dosimeter |
| 4 | 2015 | Emilly Binti Albert Alim | Active | Synthesis of Silicon Carbide Nanotubes By Ultra-High Frequency Plasma Enhanced Chemical Vapor Deposition (UHF-PECVD) Technique |
| 5 | 2015 | Zainatul Izzah Binti Ab. Ghani | Active | Enhancement in Photovoltaic Properties of Perovskite Solar cells by Gold Nanoparticle Embedded with Zinc Oxide |
| 6 | 2017 | Muhamad Faiz Bin Hashim | Active | |
| 7 | 2019 | Azzafeerah Binti Mahyuddin | Active | Synthesis of Graphene From Palm Oil Waste Using CVD Method |

PhD Students (Co-Supervisor) - 8 graduated, 3 active

| No. | Year | Name | Status | Title |
|-----|------|----------------------------|-----------|---|
| 1 | 2010 | Khor Beng Hoi | Graduated | Chromobacterium Violaceum R1-Ferricyanide Mediated Biosensor for Determination of Biochemical Oxygen Demand |
| 2 | 2011 | Leong Chuey Yong | Graduated | Thermoluminescence Dosimetric Performance of Carbon and Titanium-doped Aluminium Oxide Subjected to Photon and Electron Irradiation |
| 3 | 2012 | Nursyahirah Binti Mustapha | Graduated | Gas Phase Monitoring in VHF-PECVD Process of SiC Deposition Using Optical Techniques |
| 4 | 2012 | Syahida Binti Suhaimi | Graduated | A Catalyst-Free Growth of Aluminium-Doped ZnO Nanorods by Thermal Evaporation |
| 5 | 2014 | Mazlan Bin Setapa | Active | Strategi Pembelajaran Daya dan Gerakan Berasaskan Projek Robotik bagi Meningkatkan Kreativiti Sainifik |
| 6 | 2014 | Hafzan Binti Ibrahim | Graduated | Penggunaan Robotik dalam Meningkatkan KBAT Pelajar Tingkatan 4 bagi Tajuk Daya dan Gerakan |

| | | | | |
|----|------|--|-----------|---|
| 7 | 2014 | Nur Hazwani Binti Zakaria | Graduated | The Impact of Mobile Computer-based Physics Laboratory in Learning Forces and Motion |
| 8 | 2014 | Younis Mohammed Salih Hama | Graduated | Performance Analysis of a Fiber Bragg Grating Bonded Onto Graphene Substrate |
| 9 | 2014 | Muhammad Abdullah Izat Bin Mohd Yassin | Graduated | Structural and Optical Properties of Radiation Induced Grafted of Methylmethacrylate on Silicon Nanowires |
| 10 | 2015 | Mohd Fazrulhisyam Bin Mohd Nor | Active | Improved Measurement Method for Gold Purity based on Density and Thermal Expansion |
| 11 | 2015 | Anis Diyana Bt Halim | Active | Kajian Perwakilan Multi Modal Dalam Pembelajaran Konsep Haba |

MSc. Students (Main Supervisor) - 10 graduated, 5 active

| No | Year | Name | Status | Title | Type |
|----|------|---------------------------------|-----------|---|----------|
| 1 | 2010 | Mohd 'Azizir-Rahim Bin Mukri | Graduated | Nanostructured Zinc Antimonides (Zn_4Sb_3) Thermoelectric Thin Films Prepared by RF Magnetron Sputtering | Research |
| 2 | 2010 | Emilly Binti Albert Alim | Graduated | Structural and Surface Morphology of Nanocrystalline Bismuth Telluride Thin Films Deposited using RF Magnetron Sputtering | Research |
| 3 | 2011 | Mohd Fazrulhisyam Bin Mohd Nor | Graduated | An Improved Ring Method for Hydrometer Calibration | Research |
| 4 | 2011 | Muhammad Akmal Bin Hasanudin | Graduated | Investigation on Morphology and Structural Properties of 2D Carbon Nanostructure Grown Via VHF-PECVD | Research |
| 5 | 2012 | Naziha Binti Jamaludin | Graduated | The Influence of Growth Parameter on Zinc Oxide Nanowires | Research |
| 6 | 2014 | Nur Farah Nadia Binti Abd Karim | Graduated | Morphological and Structural Properties of Silicon Carbide Quantum dots Grown | Research |

| | | | | | |
|----|------|---------------------------------------|-----------|---|----------|
| | | | | by Very High Frequency Plasma Enhanced Chemical Vapor Deposition | |
| 7 | 2014 | Nor Fadilah Binti Mohamad Nasir | Graduated | Morphology of GaAs Nanowires Grown by RF Sputtering with Single Buffer Layer Assisted | Research |
| 8 | 2015 | Haezah Munyati Binti Jusoh | Graduated | Structural and optical properties of SiC Nanowires grown by VHF-PECVD | Research |
| 9 | 2016 | Norafizah Binti Salihin | Graduated | Synthesis and characterization of aluminium doped zinc oxide nanoflowers by thermal evaporation | Research |
| 10 | 2016 | Nor Hariz Bin Kadir Rosman | Graduated | Nanocrystal Transition of Silicon Thin Film Grown By VHF-PECVD | Research |
| 11 | 2016 | Muhamad Muizzudin Bin Azali | Active | Nanocrystal Structure Transition of SiC Thin Film Grown by VHF-PECVD | Research |
| 12 | 2017 | Zainur Atika Binti Ibrahim | Active | Synthesis and Characterization of Graphene by VHF-PECVD | Research |
| 13 | 2019 | Md Nazrul Khan Bin Md Shaharudin Khan | Active | Current Stability Analysis and Monitoring For Effective tDCs (Transcranial Direct Current Stimulation) Wearable Treatment | Research |
| 14 | 2019 | Ain Ajeerah Binti Ramli | Active | Characterization of Lead-Free Perovskite Absorbing Layer Deposited using Spin Coating Technique | Research |
| 15 | 2020 | Ahmed Abdalla Moustafa Hussein | Active | Viricator Microwave Generator Design and Simulation | Research |

MSc. Students (Co-Supervisor) - 6 graduated, 1 active

| No | Year | Name | Status | Title | Type |
|----|------|------|--------|-------|------|
|----|------|------|--------|-------|------|

| | | | | | |
|---|------|-------------------------------|-----------|---|----------|
| 1 | 2008 | Didik Aryanto | Graduated | Morphology and Structure of Self-Assembled In x Ga 1-x As Quantum Dots Grown on GaAs (100) Using MOCVD | Research |
| 2 | 2008 | Nurul Aini Tarjudin | Graduated | SiC Quantum Dots Grown by RF Magnetron Sputtering | Research |
| 3 | 2008 | Salwa Binti Hussin | Graduated | A Locally Developed Microbial-based Biosensor for Rapid Determination of Biochemical Oxygen Demand in Waste Water | Research |
| 4 | 2010 | Amira Saryati Binti Ameruddin | Graduated | Surface Morphology of In _{0.5} Ga _{0.5} Quantum Dots Grown using Stranski-Krastanov Growth Mode | Research |
| 5 | 2011 | Mohamad Helmi Bin Abd Mubin | Graduated | Optical and Sensing Properties of Sputtered Indium Tin Oxide (ITO) Thin Films | Research |
| 6 | 2015 | Nurul Anati Binti Salleh | Graduated | Copper Doped and Strontium Co-doped Magnesium Borate Glass as Thermoluminescence Dosimeter Irridiated by Co-60 | Research |
| 7 | 2019 | Khairul Aizat Bin Nadzari | Active | Growth Mechanism of Diamond-Like Carbon (DLC) Multilayer Structure for Optical Filter Coating | Research |

POSTGRADUATE EXAMINATION /VIVA

UTM STUDENTS/VIVA

- 1) Examiner for MSc 1st Assessment for Mohd Ikhwan Hadi, Mac 2007
- 2) Examiner for MSc 1st Assessment for Wan Rashidah Majid, Mac 2007
- 3) Examiner for MSc 1st Assessment for Chew Teong Han, April 2008
- 4) Examiner for MSc 1st Assessment for Nurkhaizan Zulkepli, April 2009

- 5) Examiner for MSc 1st Assessment for Siti Zulaika Ngah, April 2009
- 6) Examiner for MSc 1st Assessment for Siti Nafisah Md Rashid, April 2009
- 7) Assistant Chairman of MSc Viva, Suzairi Daud for the thesis entitled "*Fiber Bragg Grating Temperature Sensor*", 2010
- 8) Chairman for Msc 1st Assessment for Zeki Ahmed Darwish, 1 April 2010
- 9) Examiner for MSc Mixed Mode Viva for Suzana Menjon and Farah Hanani Zulkifli, 4 Nov 2010
- 10) Examiner for MSc 1st Assessment for Hanafi Ithnin, 1 April 2010
- 11) Assistant Chairman of MSc Viva, Masitah Othman for the thesis entitled "*Monte Carlo Simulation of Neutron Radiography System*", 2011
- 12) Examiner for PhD 1st Assessment for M.Gul Bahar Ashiq, 19 April 2011
- 13) Assistant Chairman of PhD Viva, Yusef Ab. A. Alwafi f, 3 May 2012
- 14) Examiner for MPhil (Bioscience) 1st Assessment for Herman Tuminoh, "*Interaction Between Bioelectroactive Bacteria and a Carbon Nano-fiber Electrode*", 24 Nov 2015
- 15) Examiner for MSc 1st Assessment for Norafizah Salihin, "*Structural and Electrical Conductivity of GaAs Nanowires by Radio Frequency Magnetron Sputtering*", 21 Dec 2015
- 16) Examiner for MSc 1st Assessment for Nurul Wahidah Zainal 'Abidin Sham, "*Ultrasonic Bulk Waves Measurements for Defect Detection in Composite Materials*", 8 Nov 2016
- 17) Chairman for Msc 1st Assessment for Nurul Wahidah Zainal 'Abidin Sham, 8 Nov 2016
- 18) Examiner for PhD 1st Assessment for Afiq Ridwan, "*Computational Modeling and Characterization of the Antimony Sulphide Semiconductor Material for Energy Efficient Technologies*", 20 July 2016
- 19) Examiner for PhD 1st Assessment for Anis Nazihah Mat Daud, "*Design and Development of Computerized Acoustic Properties Measurement of Non-porous Solid Tissue Mimicking Materials*", 29 Nov 2017
- 20) Chairman of Msc Viva, Shairah Gafar for the thesis entitled "*Holmium Concentration Dependent Structural Properties of Zinc Tellurite Glass*", 8 Feb 2018

PhD EXTERNAL EXAMINER

- n/a

MSc EXTERNAL EXAMINER

- n/a

PhD INTERNAL EXAMINER

- 1) Mohd Syafiq Affandi, "*In-Situ Measurement of Gold Nanoparticle Production*", 2 Aug 2015

- 2) Arshad Hussain, "*Fabrication and Characterization of Cu-Sb-S and Cu-Bi-S Thin Film Libraries for the Application of Photovoltaic Cells*", 13 Sept 2017
- 3) Afiq Bin Radzwan, 3 Oct 2019
- 4) Auwal Mustapha Imam, "*Design and Development of a Single Input Multiple Outputs (SIMO) Power System for Off-grid Photovoltaic Applications*", 20 Nov 2019
- 5) Ibrahim Abdullahi, "*Lasing And Thermoluminescence Features Of Samarium/Dysprosium Co-Doped Barium-Sulfur-Telluro-Borate Glass Embedded With Pure Gold Nanoparticles*", 16 Okt 2020

MSc INTERNAL EXAMINER

- 1) Muhammad Mahfuz Saleh, "*Magnetic Flux Leakage System for Steel Wire Rope Inspection System with Bluetooth Communication*", viva and thesis examiner, Mac 2014
- 2) Daing Hanum Farhana Binti Ab Munap, "*Feasibility of Hydrogen Concentration Measurement by Using Fiber Optic Displacement Sensor*", viva and thesis examiner, 7 Jan 2014
- 3) Noor Fariza Subari, "*Synthesis of Carbon Nanotube Using a Very High Frequency-Chemical Vapour Deposition*", viva and thesis examiner, 22 Jul 2014
- 4) Tashi Dori, "*A Catalyst-Free Growth of Aluminum-Doped ZnO Nanorods By Thermal Evaporation*", viva and dissertation examiner, 23 May 2014
- 5) Suleiman Badamasi, "*Synthesis and Characterization of Dysprosium Doped Zinc-Sodium-Tellurite Glass*", viva and thesis examiner, 21 Dec 2016
- 6) Muhammad Azim Izzuddin Mohd Amin, 6 Sept 2016
- 7) Mustapha Isah, "*Model Evaluation of Proton Exchange Membrane Fuel Cell Performance*", viva and thesis examiner, 29 June 2016
- 8) Siti Najwa Zamri, "*Adsorption of Vinazene Molecule on Graphane Layer by Computational Approach*", viva and thesis examiner, 20 Aug 2017
- 9) Muhammed Buba, viva and dissertation examiner, 15 Oct 2019
- 10) Noraqidah Akhiruddin, "*Thermal Evaporation Synthesized Zinc Oxide Nanowires For Improved Morphological and Structural Properties*", viva and thesis examiner, 27 Mac 2020

PUBLICATIONS AND PAPER PRESENTED

THESIS

- 1) Abd Khamim Ismail, "*Micro-Electromechanical System (MEMS) Mass Sensor*", PhD Thesis, Newcastle University, Newcastle upon Tyne, 2006
<http://www.worldcat.org/title/mems-mass-sensor/oclc/500395716>
- 2) Abd Khamim Ismail, "*The Design and Development of a Voltammetric System*", Master Thesis, Universiti Teknologi Malaysia (1998)

ORIGINAL BOOK

- 1) Abd Khamim (**penulis artikel**) "*Pluto*", Ensiklopedia Sains dan Teknologi : Fizik (Jilid 4), Universiti Teknologi Malaysia, Dewan Bahasa dan Pustaka dengan kerjasama Kementerian Pendidikan Malaysia, ISBN: 983627116, 2002
- 2) Abd Khamim (**penulis artikel**) "*Bima Sakti*", Ensiklopedia Sains dan Teknologi : Fizik (Jilid 4), Universiti Teknologi Malaysia, Dewan Bahasa dan Pustaka dengan kerjasama Kementerian Pendidikan Malaysia, ISBN: 983627116, 2002

EDITED BOOK

- n/a

BOOK CHAPTER IN ORIGINAL BOOK

- 1) Didik Aryanto, Zulkafli Othaman, Abd.Khamim Ismail, Shahrizar Roslan, Rosnita Muhammad, Imam Sumpono and Amira Saryati Ameruddin, "*Advances in Fundamental and Social Sciences (Surface Morphology and Lateral Distribution of Self-assembled In_{0.5}Ga_{0.5}As Nanostructures Grown on GaAs (100) Substrates)*". Penerbit Universiti Teknologi Malaysia, ISBN 978-983-52-0608-5, First Edition 2008.

RESEARCH BOOK

- 1) **Abd Khamim Ismail**, "*The Design and Development of a Sound Level Detection System*", Research Monograph, Penerbit Universiti Teknologi Malaysia, ISSN : 978-967-354-168-3, First Edition, 2008
- 2) **Abd Khamim Ismail**, "*Modelling a Gate Turn-off (GTO) Thyristor using pSpice*", Research Monograph, Penerbit Universiti Teknologi Malaysia, ISSN : 978-967-353-988-8, First Edition 2008

EXPERT REPORT

- n/a

PUBLICATIONS

Refereed Journal

<http://scholar.google.com.my/citations?user=7XAvvkUAAAJ&hl=en>

https://www.researchgate.net/profile/Abd_Khamim_Ismail

<https://www.scopus.com/authid/detail.uri?authorId=55936400100>

Scopus ID : 55936400100

- 1) YM Salih, MM Ameen, FF Muhammadsharif, MF Ahmad, NAH Mokhtar, The Impact of Deflection on the Sensing Response of Fiber Bragg Gratings Bonded to Graphene and PMMA Substrates, *Current Optics and Photonics* 4 (2), 95-102, 2020, **(Scopus)**
- 2) Fazrul Mohd Nor, Abd Rahman Tamuri, **Abd Khamim Ismail**, New Development Of Metal Volume Thermal Expansion Measurement using Hydrostatic Weighing System (HWS), *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences* 53, Issue 1, pp 106-110, 2019, **(Scopus)**
- 3) FM Nor, AR Tamuri, **AK Ismail**, Fake Gold: Gold Purity Measurement Using Non Destructive Method, *International Journal of Engineering & Technology* 8 (1.1), 165-172, 2019, **(Scopus)**
- 4) AF Almurshedi, **AK Ismail**, N Sulaiman, Feature Extraction of Visual Evoked Potentials Using Wavelet Transform and Singular Value Decomposition, *Iranian Journal of Medical Physics* 15 (4), pp 206-214, 2018, **(Scopus)**
- 5) AF Almurshedi, AK Ismail, Neural Correlation of Maturity and Perceptual Decision Making: An Event Related Potential Evidence, Time-Frequency and Measure Projection Analysis, *NeuroQuantology* 16, (12), 2018, **(non-index)**
- 6) MA Hasanudin, Y Wahab, **AK Ismail**, ZAZ Jamal, Morphology and Structural Characterization of Carbon Nanowalls Grown via VHF-PECVD, *IOP Conference Series: Materials Science and Engineering* 318 (1), 012043, 2018, **(Scopus)**
- 7) AD Halim, WY Wong, FA Phang, MB Ali, NA Samah, **AK Ismail**, Nor Farahwahidah Abdul Rahman, Comparing Multi Modal Representations of Latent Heat Concepts Among Physics Teachers, *Advanced Science Letters* 24 (1), pp 15-17, 2018 **(ISI)**
- 8) Nor Suhaila Mohamad Hanapi, Mohd Marsin Sanagi, **Abd Khamim Ismail**, Nor'ashikin Saim, Wan Nazihah Wan Ibrahim, Wan Aini Wan Ibrahim, Faridah Mohd Marsin, Rapid Determination of Non-steroidal Anti-inflammatory Drugs in Aquatic Matrices by Two-phase Micro-electrodriven Membrane Extraction Combined with with Liquid Chromatography, *Journal of Chromatographic Science* 56 (2), pp 166-176, 2018 **(ISI, IF 0.98, Q4)**
- 9) MA Kaus, MB Ali, NDA Halim, FA Phang, NA Samah, **AK Ismail**, The Roles of Parents in Their Children's Physics Problem-Solving Ability, *Advanced Science Letters* 23 (8), pp 7517-7520, 2017, **(Scopus)**
- 10) NSM Hanapi, MM Sanagi, **AK Ismail**, WAW Ibrahim, WNW Ibrahim, Ionic liquid-impregnated agarose film two-phase micro-electrodriven membrane extraction (IL-AF- μ -EME) for the analysis of antidepressants in water samples *Journal of Chromatography B* 1046, pp 73-80, 2017, **(ISI, IF 2.6, Q2)**
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PLENARY LECTURE/KETNOTE ADDRESS

-n/a

INVITED/GUST SPEAKER

-n/a

SPEAKER IN WORKSHOP AND SHORT COURSES

- i) Speaker/Facilitator, National Workshop Computer Interfacing (COMiNT) 2002, 2010, 2011 and 2012
- ii) Speaker/Facilitator in Short Course on “Computer Monitor and Power Supply Maintenance and Troubleshooting 2008, Department of Physics, UTM

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