

TS. DR. MUHAMMAD HEIKAL ISMAIL

SENIOR LECTURER, PROFESSIONAL TECHNOLOGIST



📍 Department of Chemical and Environmental Engineering, Faculty of Engineering
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📅 13 January 1985

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Date of Appointment: 3/12/2018

Date of Confirmation: 21/10/2020

Salary Grade: DS51

Actual Salary:

RM 7015.00

Salary Movement: October

PROFILE

- Associate Fellow, Pusat Strategik dan Perhubungan Korporat (PSPK) UPM
- International Lecturer, Tokyo University of Agriculture, Japan
- ASEAN India Research, Training, and Fellowship 2021 Recipient
- SEARCA Research Mobility 2019 Fellow Tokyo University of Agriculture
- President, Celik Volunteer Club
- Department's Coordinator of Community and Industry
- Department's Head of Promotion and Media
- Committee Member, IChemE Food and Drinks Special Interest Group

FIELD OF INTEREST

- Food waste valorisation
- Food dehydration
- 3D food printing

EDUCATION

2019 University of Nottingham
PhD. in Chemical Engineering
Investigating the Effect of Pre-treatment on Drying Behaviour and Quality Traits of Rice Noodle

- IPTA Academic Training Scheme, Ministry of Higher Education

2007 Universiti Teknologi Malaysia (UTM)
Bachelor of Engineering (Chemical) with honours

- Shell Malaysia Scholarship

MEMBERSHIP

- Malaysia Board of Technologist
- Institution of Engineers Malaysia
- Association of Academician of UPM
- Malaysian Society of Agricultural Engineers

CAREER

2018-PRESENT *SENIOR LECTURER, Department of Chemical and Environmental Engineering, Faculty of Engineering, Universiti Putra Malaysia (UPM) Serdang*

- Responsible in the lecture session for undergraduate students in the department and different faculty
- Coordinated laboratory session with the assistant engineer and science officer for undergraduate students
- Supervised undergraduates and postgraduates towards efficient graduation period in the scope of research
- Published scientific findings in high impact journal
- Collaborated with multidisciplinary researchers in scientific and knowledge transfer activities
- Established collaboration with industries in sustainable food system through MoU/MoA signing procedure
- Participated as the organising committee of conference, webinar, and talk held by the University

2009-2018 *TUTOR, Department of Chemical and Environmental Engineering, Faculty of Engineering, UPM Serdang*

- Prepared the Environmental Index Assessment for the highway project in East Coast Malaysia.
- Harmonized the curriculum book for the Bachelor of Chemical Engineering with honours
- Further study at doctorate level in the scope of research
- Attended conference to present the research findings

2009 *RESEARCH OFFICER, Rubber Research Institute of Malaysia*

- Investigated rubber behaviour of latex production
- Participated in the development of rubber processing complex in South Malaysia

2009 *MANAGER, SME Corp Malaysia*

- Coordinated the loans and finances of the small and medium companies (SME) in wood and chemical industries
- Prepared the documentation on the financial standings of the SMEs

2008 *JUNIOR FIELD ENGINEER, Dimension Bid Sdn Bhd., Malaysia*

- Performed well service procedures during oil injection
- Submitted services report to the main contractor

TEACHING

No	Subject	Department	Year	Credit hours	Evaluation(5.0)
1	ENG3004 Engineering Statistics	Chemical and Environmental Engineering	2021	3+0	4.62
2	ECH3108/3120 Chemical Engineering Thermodynamics	Chemical and Environmental Engineering	2020	3+0	4.5
3	ECH3905 Chemical Engineering III Laboratory	Chemical and Environmental Engineering	2021	0+1	3.21
4	ECH4304 Petroleum and Natural Gas Engineering	Science in Petroleum Chemistry	2020	3+0	4.20
5	ECC3014 Engineering Statistics	Aerospace Engineering	2019	3+0	4.82
		Chemical and Environmental Engineering	2022	3+0	
6	EMM3213 Thermodynamics	Chemical and Environmental Engineering	2019	3+0	4.43
7	ECG3903 Material Engineering Laboratory	Chemical and Environmental Engineering	2019	0+2	4.40
			2021	0+2	
8	ECH3904 Chemical Engineering II Laboratory	Chemical and Environmental Engineering	2019	0+2	4.64
			2020	0+2	
9	EPF4804 Process Simulation and Optimization	Process and Food Engineering	2019	2+1	4.81

TEACHING INNOVATION

No	Title	Competition	Role	Level	Year	Achievement
1	Immersive Online Delivery Through Telegram for The Future Education of Low Bandwidth Users	Putra Innocreative Competition of Teaching and Learning (PICTL) 2020	Project Leader	International	2020	Gold
2	Empowering Lifelong Learning Through Creativity and Innovation Skills from Waste Resources	PICTL 2020	Project Member	International	2020	Gold
3	Improving Learning Experience Using Problem-Based Learning Approach for Cross-Discipline Courses	PICTL 2020	Project Member	International	2020	Gold
4	Engaging Students Through A Castle of Cards Challenge for Strategic Employment and Workplace Management Course	PICTL 2020	Project Member	International	2020	Gold
5	Dari Skrip Ke Skrin	PICTL 2020	Project Member	International	2020	Silver
6	Visualize Teaching Strategies Among International Student Towards Malaysian Nationhood Subject	PICTL 2020	Project Member	International	2020	Bronze
7	No Such Thing as A Stupid Question!	PICTL 2020	Project Member	International	2020	Bronze
8	Convenient Immersive Delivery through Macbook and Iphone Screen Recording and Screen Mirroring	PICTL 2019	Project Leader	National	2019	Silver
9	Immersive Superpro and AutoCAD Learning in 3D Environment	PICTL 2019	Project Leader	National	2019	Bronze
10	Best Innovative Learning and Teaching Practice for the Faculty/Centre Competition	PICTL 2019	Project Member	National	2019	Finalist

SUPERVISION

No	Name of Student	Level	Role	Title	Year	Status
1	Khalida Aziz	Master (Research)	Main Supervisor	Drying Behaviour Of Food Waste And Leftovers For Trench Composting	2022	Graduated
2	Veknesh Arumugam	Master (Research)	Main Supervisor	Relationship Of Food Waste Vermicomposting On Soil Fertility, Nutrient Dynamics, And Plant Growth Of Capsicum Annuum L.	2022	Graduated
3	Adila Fazliyana Binti Aili Hamzah	Phd (Research)	Co-Supervisor	Ammonia Inhibition Behavior In Biogas Production Through An Experimental Data Driven And Model-Based Approaches	2022	On-going
4	Halim Zakaria	Master Dissertation	Main Supervisor	Modelling of Active Steering Controller For Safety Performance of Inland Logistics Vehicle during Slippery Road Condition	2021	Graduated
5	Ismail Abdullahi	Master Dissertation	Main Supervisor	The Impact Of Covid-19 On Solid Waste Generation In The Perspectives Of Socioeconomic And People's Behavior: A Case Study In Serdang, Malaysia	2021	Graduated
6	Aimi Nadhirah Roslan	Master (Research)	Co-Supervisor	The Study of Riverine Litter Transport Pathway in Delek River using Integrated GIS	2020	On-going
7	Nazhatul Ezzaty	Master Dissertation	Main Supervisor	Health Risk Assessment of Mercury/Benzene at Platform A by using SPR-LOP hybrid tool	2020	On-going
8	Amiza Surmi	Master Dissertation	Main Supervisor	Analysis of Inherently Safer Design of High-Pressure CO ₂ Blowdown in a Cryogenic System	2019	Graduated
9	Miiraa Muruga	Final Year Project	Main Supervisor	The Effect of Soil Pre-Treatment to the Germination Quality of Lady's Finger	2020	Graduated
10	Siti Norfatiha Binti Mohammad Ehsan	Final Year Project	Main Supervisor	Drying Kinetics of Laksam And Yellow Noodles	2020	Graduated
11	Muhamad Wazif Zakwan Bin Mubarak	Final Year Project	Main Supervisor	Effect of Food Paste and Printing Parameter Towards Extrusion Quality of Potato	2020	Graduated
12	Veknesh Arumugam	Final Year Project	Main Supervisor	Synthesizing Magnetic Chitosan from Waste Prawn Shell for Wastewater Treatment	2019	Graduated
13	Tharsini Amma	Final Year Project	Main Supervisor	The Effect of Bio-fertilizer through the Fermentation of Food Waste and Leftovers on the Growth of Plants	2019	Graduated

PUBLICATIONS

1. Sreekala A.G.V., Ismail M.H.B., Nathan V.K., Biotechnological interventions in food waste treatment for obtaining value-added compounds to combat pollution, *Environmental Science and Pollution Research*, 2022.
2. Food Waste Dehydration for Composting: A Review. Aziz, K., Abdullah, L.C., Manaf, L.A., Omar, R., Poy, T.T., Ismail, M.H., *Pertanika Journal of Science and Technology*, 2022.
3. Palupi, C. C., Ngadisi, N., Karyadi, J. N. W. ., Tirtalistyani, R., Heikal Ismail, M. ., & Mawandha, H. G. . Effect of Biogas Slurry Fertilizer on Dynamics of Soil Consistency and Tillage Power Requirement, *Jurnal Ilmiah Rekayasa Pertanian Dan Biosistem*, 10 (1), 14–23, 2022.
4. The Impact of COVID-19 on Solid Waste Generation in the Perspectives of Socioeconomic and People's Behavior: A Case Study in Serdang, Malaysia. Arumugam, V., Abdullahi, I., Md Yusoff, I.S., Abdullah, N.L., Tahir, R.M., Nasir, A.M, Omar, A.E., Ismail, M.H., *Sustainability*, 13, 1, 2021.

5. Food Waste Treatment Methods and Its Effects to the Growth Quality of Plants: A Review. Arumugam, V., Ismail, M.H., Puspakaran, T.A., Routray, W., Ngadisih, N., Karyadi, J.N.W., Suwignyo, B., Suryatmojo, H., *Pertanika Journal of Tropical Agricultural Science*, 2021.
6. Bio-Compost Behaviour as Soil Additive by Food Waste Pre-treatment on the Growth of *Abelmoschus esculentus* L.: A Systematic Review. Muruga, M., Arumugam, V., Ismail, M.H., *Pertanika Journal of Tropical Agricultural Science*, 2021.
7. Biomass-derived Carbon-Based and Silica-Based Materials for Catalytic and Adsorptive Applications-An Update Since 2010. Chen, K., Ng, K.H., Cheng, C.K., Cheng, Y.W., Chong, C.C., Vo, D.V.N., Witoon, T., Ismail, M.H. *Chemosphere*, 2021, 287, 132222.
8. Recent Updates on the Conversion of Pineapple Waste (*Ananas comosus*) to Value-Added Products, Future Perspectives and Challenges. Aili Hamzah, A.F.; Hamzah, M.H.; Che Man, H.; Jamali, N.S.; Siajam, S.I.; Ismail, M.H. *Agronomy*, 2021, 11, 2221.
9. Determining the Effect of Pre-Treatment in Rice Noodle Quality Subjected to Dehydration through Hierarchical Scoring. Ismail, M.H., Lik, H.C., Routray, W., Woo, M.W., *Processes*, 2021, 9(8), 1309.
10. Impact of Movement Control Order (MCO) due to Coronavirus Disease (COVID-19) on Food Waste Generation: A Case Study in Klang Valley, Malaysia. Ismail, M.H., Ghazi, T.I.M., Hamzah, M.H., Ramli, M.T., Nasir, A.M., Omar, A.E. *Sustainability (Switzerland)*, 2020, 12(21), 1–17, 8848.
11. Assessing Driving Posture Among Elderly Taxi Drivers In Malaysian Using RULA And QEC Approach. MY, I.S., Ruhaizin, S., Ismail, M.H., AM, A.Z., *Malaysian Journal of Public Health Medicine* 20 (Special1), 116-123.
12. Inherently Safer Design for Low-Temperature Process During Depressurization: An Industrial Case Study. Surmi, A., Ismail, M.H., Radiah, D., Cozzani, V., *Journal of Loss Prevention in the Process Industries*, 2020, 68, 104286
13. Two-step falling rate in the drying kinetics of rice noodle subjected to pre-treatment and temperature. Ismail, M.H., Khan, K.A., Ngadisih, N., Mami, I., Hii, C.L., Law, C.L., *Journal of Food Processing and Preservation*, 2020, 44(11), e14849.
14. Synthesizing Green Chitosan-Magnetic Composite Particles From *Fenneropenaeus indicus* sp. for Palm Oil Mill Effluent (POME) Pre-Treatment. Arumugam, V., Ismail, M.H.. *Proceedings of the Third International Conference on Separation Technology 2020 (ICoST 2020), Advances in Engineering Research*.
15. Transparency phenomena of flat-rice noodles (kuew teow) at drying at soaking variation. Ismail, M.H., Law, C.L., Hii, C.L., *International Food Research Journal*, 2016, 23, pp. S195–S202.

OTHER PUBLICATIONS

1. D.T. Yudhistira, Ngadisih, J.N.W. Karyadi, R. Tirtalistyani, M.H. Ismail and H.G. Mawandha. Modeling of Sandy Soil Compaction and Water Holding Capacity Due to Biogas Slurry Ameliorant 2022 IOP Conf. Ser.: Earth Environ. Sci. 1005 012007, 1-9
2. FU Hidayat, JNW Karyadi, R Tirtalistyani, MH Ismail, HG Mawandha Mathematical Model for Rice (*Oryza Sativa*) Growth Analysis Under Green Fertilizer of Biogas Slurry 2022 IOP Conference Series: Earth and Environmental Science, 1005 (1), 012016, 1-8
3. Veknesh Arumugam, Muhammad Heikal Ismail, Winny Routray. Biofertilizers from Food and Agricultural By-Products and Wastes. *Biomolecular Engineering Solutions for Renewable Specialty Chemicals*, 419-448
4. Arumugam, V., Ismail, M.H., Asih, N., Irie, M., Omar, R. (2020). Synthesizing green Chitosan-magnetic composite particles for palm oil mill effluent (POME) pre-treatment: A comprehensive review, *Materials Today: Proceedings*, 46, 1680–1683.
5. Muhammad Heikal Ismail (2020). Pembelian Makanan Ketika PKP Perlu Ada Strategi, *Harian Metro*.
6. Muhammad Heikal Ismail (2020). PKP didik masyarakat urus pembuangan sisa pepejal, *Berita Harian*.
7. Muhammad Heikal Ismail (2020). Pengurusan sisa makanan pasca PKPB, *Bernama*.
8. Muhammad Heikal Ismail (2020). Potensi pengurangan sisa makanan menuju norma baharu, *Malaysia Gazette*

CONFERENCE PROCEEDINGS

1. Muhammad Heikal Ismail, Veknesh Arumugam, Ngadisih Asih, Rozita Omar And Mami Irie, Synthesizing Green Chitosan-Magnetic Composite Particles from *Fenneropenaeus Indicus* Sp. For Palm Oil Mill Effluent (POME) Pre-Treatment, The 3rd International Conference on Separation Technology (ICOST 2020)
2. Veknesh Arumugam, Muhammad Heikal Ismail, Ngadisih Asih, Mami Irie, Rozita Omar, Synthesizing Green Chitosan-Magnetic Composite Particles For Palm Oil Mill Effluent (POME) Pre-Treatment: A Comprehensive Review, *Innovative Manufacturing, Mechatronics & Materials Forum 2020*
3. Muhammad Heikal Ismail, Law Chung Lim, and Hii Ching Lik, Effect of Pretreatment on the Drying Kinetics of Rice Noodles, *Asia Pacific Drying Conference*, 2019.
4. Muhammad Heikal Ismail, Mami Irie, Muhammad Izuan Fahmi Romli, Analysis of Food Waste from Different Sources by Cloud Computing Database, *UC Faculty Forum*, 2019.

5. Muhammad Heikal Ismail, Law Chung Lim, and Hii Ching Lik, The Effects of Different Drying Methods on the Quality of Rice Noodle, Nordic Baltic Drying Conference (NBDC) 2015, Gdansk, Poland, 2015.
6. Muhammad Heikal Ismail, Law Chung Lim, and Hii Ching Lik, The transparency phenomenon of rice noodle subjected to high temperature drying. 7th International Conference on Sustainable Agriculture for Food, Energy and Industry (ICSAFEI) 2015.
7. Muhammad Heikal Ismail, Law Chung Lim, and Hii Ching Lik, The Microstructural Effects of Rice Noodle subjected to Different Drying Methods, 8th Asia Pacific Drying Conference (ADC 2015), Kuala Lumpur, 2015.

PROJECT GRANTS

No	Project Title	Role	Year	Source of fund	Status
1	Aerated Static Pile Food Waste Composting in UPM Serdang	Principal Researcher	2022	Ministry of Environment and Water	On-going
2	Automated Food Waste Composting by Black Soldier Fly Larvae using Internet of Things (IoT) for Restructured Bio-circular Economy in Kampung Pulau Meranti, Puchong	Principal Researcher	2022	KTGS Grant	On-going
3	Ex-Situ Land Rehabilitation through Aerobic Composting for Kebun Komuniti Initiative in Seri Kembangan	Principal Researcher	2022	CIMB Foundation	On-going
4	Intervention of Stunting among Kids in Putrajaya through Pinggan Sihat Malaysia	Principal Researcher	2022	Kementerian Kesihatan Malaysia	On-going
5	Elucidating the ammonia inhibition behaviour in biogas production through an experimental data driven and model-based approaches	Co-Researcher	2022	FRGS Grant	On-going
6	Waste to Wealth	Co-Researcher	2021	Wazan UPM	Completed
7	The Application of Multi Criteria Decision Making in Selecting the Best Food Waste Management Method	Co-Researcher	2021	UPM-UGM UC Seed Fund	On-going
8	Agri-Food Waste Anaerobic Digestion for Sustainable Livelihood of The Orang Asli Community in Kachau Luar	Principal Researcher	2020	KTGS Grant	Completed
9	Knowledge Transfer of Food Waste Treatment for Lifelong Income Generation to the B40 Community in Sri Serdang	Principal Researcher	2020	Knowledge Transfer Programme Grant	Completed
10	Food Waste Analysis by Using Fourth Industrial Revolution Tools	Co-Researcher	2020	UPM-NODAI UC Seed Fund	On-going
11	Producing Fertilizer through Food Waste Fermentation for the Community	Principal Researcher	2019	Selangor Government	Completed
12	Feasibility Studies on Application of Forward Osmosis (FO) on Concentrated Tropical Juice	Co-Researcher	2019	Putra-SEGI Matching Grant	On-going
13	Investigating the Effect of Food and Agricultural Waste on The Quality of Biogas and Bio-Fertilizer	Principal Researcher	2019	UPM-Gadjah Mada UC Seed Fund	On-going
14	Humidity Control and Shelf Life of Noodle: A Drying Perspective	Principal Researcher	2019	Putra Grant	On-going

INTELLECTUAL PROPERTY

No	IP Title	Role	Issuing Body	Year	IP Number
1	Modul STEM Alam: Ciri-ciri Tumbuhan	Owner	Intellectual Property Corporation of Malaysia	April 2019	LY2019002281
2	Modul STEM Alam: Makanan Beraksi	Owner	Intellectual Property Corporation of Malaysia	April 2019	LY2019002282
3	Modul STEM Alam: Pengangkutan Air dalam Tumbuhan	Owner	Intellectual Property Corporation of Malaysia	April 2019	LY2019002283

NETWORKING PROJECTS

No	Project Title	Role	Year	Location	Status
1	Intervensi Permasalahan Bantut menerusi Pemindahan Ilmu Pemakanan Seimbang dalam kalangan Ibu dan Kanak-kanak di Presint 5, Putrajaya menggunakan Konsep Pinggan Sihat Malaysia	Project Leader	2022	Presint 5, Putrajaya	Completed
2	Knowledge Transfer Of Food Waste Treatment For Lifelong Income Generation To The B40 Community In Sri Serdang	Project Leader	2022	Flat Ikan, Seri Serdang	Completed
3	Agri-Food Waste Anaerobic Digestion For Sustainable Livelihood Of The Orang Asli Community In Kachau Luar	Project Leader	2021	Kachau Luar, Semenyih	Completed
4	Riau AgriAqua	Project Leader	2019	Riau Island, Indonesia	High Impact
5	One Book One Future One Love	Project Member	2019	Borneo Island, Malaysia	Completed
6	Asli Talent	Project Leader	2019	Kachau Luar, Semenyih	High Impact
7	Hutan Classroom	Project Leader	2019	Kachau Jungle	High Impact
8	Sri Ayesya STEM Week	Project Leader	2019	Sri Ayesya School	Completed
9	Little Einstein in Nature	Project Leader	2019	Kachau Jungle	Completed
10	Celik Classroom	Project Leader	2018	Kachau Luar, Semenyih	Completed

PROJECT COVERAGE

No	Activity	Role	Level	Medium
1	Community Composting	Project Leader	National Television Coverage	Agrotek RTM
2	Food Waste Generates Income of the Community	Project Leader	National Newspaper Coverage	Utusan Malaysia
3	Knowledge Transfer Project Of Food Waste Treatment For Lifelong Income Generation To The B40 Community In Sri Serdang	Project Leader	UPM	PSPK UPM
4	Hutan Classroom Educates the Indigenous Kids through Nature	Project Leader	National Television Coverage	Astro Awani
5	The Enthusiasm of Merbau Community, Indonesia towards Riau Agriaqua Programme	Project Leader	International Newspaper Coverage	Ranah Riau
6	The Launching of Clean Water Training Has Received Enthusiastic Support from The Villagers in Indonesia	Project Leader	International Newspaper Coverage	Ranah Riau
7	Class Inside The Jungle	Project Leader	National Newspaper Coverage	Harian Metro
8	Jungle Learning	Project Leader	National Newspaper Coverage	The Star

AWARDS

No	Name of Activity	Role	Level	Award Type	Year
1	Annual Key Performance Index 2020	Academic Staff	University	Excellent Service	2021
2	Final Year Project Day for Effect of Food Paste and Printing Parameter Towards Extrusion Quality of Potato	Main Supervisor	University	Silver	2021
3	Final Year Project Day for The Effect of Soil Pre-Treatment to the Germination Quality of Lady's Finger	Main Supervisor	University	Bronze	2021
4	7th Southeast Asian Agricultural Engineering Student Chapter Annual Regional Convention 2021 (ARC2021) Video Competition	Supervisor	International	Silver & Most Favourite	2021

5	ARC2021 Poster Competition	Supervisor	International	Bronze & Most Favourite Gold	2021
6	Final Year Project Day for Synthesizing Magnetic Chitosan from Waste Prawn Shell for Wastewater Treatment	Main Supervisor	University		2020
7	Final Year Project Day for The Effect of Bio-fertilizer through the Fermentation of Food Waste and Leftovers on the Growth of Plants	Main Supervisor	University	Bronze	2020
8	University of Nottingham Professional Development Programme	Participant	University	Postgraduate Students Teachers	2018
9	FTA Playschool 2018 Helping Hands	Affiliate	National	Star Collaborator Award	2018

PROFESSIONAL SERVICES

No	Activity	Level	Role	Year
1	Tokyo University of Agriculture	International	Short Term International Teacher	2022, 2023
2	Green Technology Innovation Roadmap	National	Task Force	2022
2	Sharing on the Planning and Strategy on the Impactful Community Project	Institut Nanosains Dan Nanoteknologi (ION2)	Speaker	2022
3	University 4 Society@Keluarga Malaysia (UNiTY)	National	Task Force Member	2022
4	Choose Well Buy Less, The Right Way to Manage Food Waste	University	Panel of Expert	2022
5	Demonstration of Compost Production from Food Waste for Earth Day Malaysia 2022	University	Speaker	2022
6	IchemE Food and Drinks Special Interest Group Roadshow Event (Swinburne University)	National	Speaker	2021
7	User Acceptance Testing for ICRIS 2.0 (Industry)	University	Expert User Panel	2021
8	International Conference On “Advances in Agriculture, Environmental and Biosciences for Sustainable Development (AAEBSD-2021)”	International	Guest Lecture	2021
9	Food Waste: Income Generation	National	Moderator	2021
10	IchemE Food and Drinks Special Interest Group Roadshow Event (UTAR)	National	Speaker	2021
11	Fighting Food Waste in order to Feed World’s Population	Netherlands Embassy	Forum Panel	2021
12	7th Southeast Asian Agricultural Engineering Student Chapter Annual Regional Convention 2021 (ARC2021)	International	Jury	2021
13	Community and Industrial Linkage Harmonization Meeting	University	Committee	2021
14	Food Waste: Research to Community	National	Forum Panel	2021
15	Innovative Research, Invention And Application Exhibiton 2021 (I-Ria)	National	Jury	2021
16	International Eureka Innovation Exhibition 2021	International	Jury	2021
17	Food Waste Management: Who is Responsible?	National	Moderator	2021
18	Student and Faculty Development Workshop on Innovative Food Processing Technologies: Value Addition, Food Safety and Security	International	Keynote Speaker	2020
19	Research portfolio Master’s examination, Jing Liu, University of Auckland	International	External Examiner	2020
20	Research portfolio Master’s examination, Yunlu Zheng, University of Auckland	International	External Examiner	2020
21	PhD Viva: Omale, Sunday Ogakwu	University	Assistant Chairman	2020

22	PhD Viva: Adeyi Abel Adekanm	University	Assistant Chairman	2020
23	PhD Viva: Nur Atiqah binti Mohamad Aziz	University	Assistant Chairman	2020
24	UC Faculty Forum	International	Forum Panel	2019
25	Malaysia's Technical and Vocational Education- Material Science	National	Advisor	2019
26	Shell Selamat Sampai Varsity Challenge	National	Supervisor	2019
27	Final Year Project Exhibition	University	Examiner	2019
28	PhD Viva: Chen Jia Tian	University	Assistant Chairman	2019

RESEARCH NETWORKING

1.	Research Gate	https://www.researchgate.net/profile/Muhammad-Heikal-Ismail
2.	ORCID	https://orcid.org/0000-0002-6797-5369
3.	Youtube	https://www.youtube.com/c/TsDrMuhammadHeikalIsmail