

PERSONAL PROFILE



Name	Dr. Nur Amalina Mustaffa
Telephone No. (Office/HP)	03-5544 4521 / 012 - 3540110
Current Position (Lecturer, Senior Lecturer, Associate Professor, Professor)	Senior Lecturer
Area(s) of Expertise	Advanced Materials (Solid State Ionics)
Date Joined UiTM	10 July 2008

Academic Qualifications

	Qualifications	Areas of Specialization	Universities / Organisations	Date
1.	Bachelor of Science (Hons)	Instrumentation Science	Universiti Putra Malaysia	2005
2.	Master of Science	Materials Science	Universiti Putra Malaysia	2009
3.	Doctor of Philosophy	Advanced Materials	University of Malaya	2017

Teaching Related Activities

Activities that you carried out in relation to teaching and learning.

1. Supervision of Thesis

Title / Name of Student(s)	Level (Diploma, Degree, Post-graduate)	Institution(s)	Year / Semester
1. Mohd Akmal bin Jaafar	Degree	UiTM	November 2010
2. Noorafidah binti Ismail	Degree	UiTM	November 2010
3. Nor Suriyati binti Mustapa	Degree	UiTM	May 2011
4. Nurul Khairiah binti Mohd. Nawî	Degree	UiTM	May 2011
5. Nurul Afaah binti Abdullah	Degree	UiTM	July 2012
6. Noor Hasibah binti Ridzuan	Degree	UiTM	July 2012
7. Nadhirah binti Nur Azhar	Degree	UiTM	Sept 2017
8. Nor Hani Hafiza binti Mohd Harimanto	Degree	UiTM	Sept 2017

2. Advisor/Mentor

Level (Certificate, Diploma, Degree, Post-graduate)	No. of Students	Year / Semester
Degree	10	Mac – July 2017
Degree	10	Sept – Jan 2018

Curriculum Development: Program(s), Course(s) Designed / Developed / Reviewed / Evaluated

1. Involvement in program development, course design and related activities at various levels i.e. department, faculty, UiTM.

Level (Certificate, Diploma, Degree, Post-graduate)	Program / Course, etc.	Description of Activities	Year	Position / Status*
Degree	Physics and Industrial Physics	Curriculum review for courses under School of Physics and Materials Studies.	2010	AJK
Degree	Physics and Industrial Physics	Curriculum review for courses under School of Physics and Materials Studies.	2011	AJK
Degree	Physics and Industrial Physics	Curriculum review for courses under School of Physics and Materials Studies.	2013	Secretary
Degree	Physics and Industrial Physics	Hi-Tea Ceremony to get feedback on the curriculum from physics and industrials physics alumni and key person from industrial for curriculum review for courses under School of Physics and Materials Studies.	2013	Secretary

Committee Member

1. Involvement in committees in UiTM

Level (Department / Faculty / UiTM)	Name of Committee	Year (From – To)	Position / Status*
Faculty	Jawatankuasa Kualiti (ISO 9001:2000)	2010 – 2011	AJK
Department	Jawatankuasa Pembangunan Aktiviti Akademik	2010	AJK
Faculty	AJK Peperiksaan Akhir Asasi Sains Mac 2010	2010	Secretary
Department	Jawatankuasa Latihan Industri bagi Program Fizik dan Fizik Industri	2010	AJK
Faculty	Jawatankuasa Latihan Industri bagi Program Fizik dan Fizik Industri	2011 – 2012	Chairman
Faculty	Jawatankuasa Penerbitan Fakulti	2017 - 2019	AJK
Faculty	Jawatankuasa Pengendalian Peperiksaan	2017 - 2018	AJK
Faculty	Sambutan Hari Kemerdekaan UiTM	2017	AJK Cenderamata
Faculty	Seminar "Choosing The Right Journal"	2017	AJK
Department	Seminar Industri NDT	2017	Chairman

2. Involvement in committees National and/or International

Level (National / International)	Name of Committee	Year (From – To)	Position / Status*
National	Malaysia Solid State Science & Technology Society (MASS)	Life Member	Life Member
National	Malaysian Institute of Physics	2017	Ordinary Member

ACCOMPLISHMENTS RELATED TO TEACHING AND LEARNING

List of teaching and learning related activities accomplished such as researches, publications, presentations, consultations, collaborations, community services, acknowledgements, recognitions by professional bodies, organisations, institutions, peers and students, awards, etc.

Accomplishments

1. Research

Title	Grant Received (Value of Grant)(RM)	Sponsor (s)	Date	
			Begin	Completed
1.Synthesis and Characterization of Fe ₂ O ₃ Prepared via Sol-gel Method	RM 10,000	Dana Kecemerlangan UiTM	2010 - 2011	
2. Thermal and Phase Studies of Titanium Dioxide Nanomaterials	RM 10,000	Dana Kecemerlangan UiTM	2010 - 2011	
3. Investigation of Band Gap Energies of Single Phase Zn _{1-x} Cu _x O ₂ Nanoparticles	RM 39,200	FRGS, MOHE	2010 - 2012	
4. Effect of Particle Size on the Strain of TiO ₂ Nanoparticles	RM 39,200	FRGS, MOHE	2010 - 2012	
5. Unit Cell Parameter, Cation Position and Oxygen Occupancy Factor of Fe _x O _y and Fe _x Al _z O _y Nanomaterials Prepared by Combustion Method	RM 65,000	FRGS, MOHE	2010 - 2013	

6. Conductivity and Electrochemical Studies on Novel Stannum Based NASICON Structured Solid Electrolyte Prepared Via Sol-gel Method	RM 90,000	FRGS, MOHE	2013 - 2016
7. The Effects of Structural Modifications to the Electrical and Electrochemical Properties of NASICON Structured Solid Electrolytes	RM 11,000	IPPP, UM	2014 - 2016
8. Sol-gel Processing of NASICON-Structured Magnesium Stannum Phosphate Solid Electrolytes	RM 20,000	Geran Lestari, UiTM	2017 - 2019
9. Elastic and Optical Studies in the Mixed Ionic-Electronic Transition Region of $30\text{LiO}_2\text{-}4\text{MoO}_3\text{-(}66\text{-x)TeO}_2\text{-xV}_2\text{O}_5$ Tellurite Glasses	RM 20,000	Geran Lestari, UiTM	2017 - 2019

Grants Received

Name of Grant	Title	Awarding Institution	Amount	Year
Dana Kecemerlangan	Synthesis and Characterization of Fe ₂ O ₃ Prepared via Sol-gel Method	UiTM	RM 10,000	2010 - 2011
Dana Kecemerlangan	Thermal and Phase Studies of Titanium Dioxide Nanomaterials	UiTM	RM 10,000	2010 - 2011
FRGS	Investigation of Band Gap Energies of Single Phase Zn _{1-x} Cu _x O ₂ Nanoparticles	MOHE	RM 39,200	2010 - 2012
FRGS	Effect of Particle Size on the Strain of TiO ₂ Nanoparticles	MOHE	RM 39,200	2010 - 2012
FRGS	Unit Cell Parameter, Cation Position and Oxygen Occupancy Factor of Fe _x O _y and Fe _x Al _z O _y Nanomaterials Prepared by Combustion Method	MOHE	RM 65,000	2010 - 2013
FRGS	Conductivity and Electrochemical Studies on Novel Stannum Based NASICON Structured Solid Electrolyte Prepared Via Sol-gel Method	MOHE	RM 90,000	2013 - 2016

Postgraduate Research Fund (PPP)	The Effects of Structural Modifications to the Electrical and Electrochemical Properties of NASICON Structured Solid Electrolytes	UM	RM 11,000	2014 - 2016
Geran Lestari, UiTM	Sol-gel Processing of NASICON-Structured Magnesium Stannum Phosphate Solid Electrolytes	UiTM	RM 20,000	2017 - 2019
Geran Lestari, UiTM	Elastic and Optical Studies in the Mixed Ionic-Electronic Transition Region of $30\text{LiO}_2\text{-}4\text{MoO}_3\text{-(}66\text{-x)}\text{TeO}_2\text{-xV}_2\text{O}_5$ Tellurite Glasses	UiTM	RM 20,000	2017 - 2019

Publications

Title	Position / Role*	Publisher	Date of Publication
1.Synthesis and Characterization of Fe ₂ O ₃ Prepared Via Sol-Gel Method	Co - author	Advanced Materials Research, Trans Tech Publications	2012
2. Effect of temperature on the purity, particle size and morphology of Fe ₂ O ₃ nanomaterials	Co - author	Advanced Materials Research, Trans Tech Publications	2014
3. Low Temperature			

Sintering Effects on NASICON Structured $\text{LiSn}_2\text{P}_3\text{O}_{12}$ Solid Electrolytes Prepared via Citric Acid Assisted Sol-gel Method	Author	Ionics, Springer	2015
4. Properties of Stannum-Based Li-NASICON-Structured Solid Electrolytes for Potential Application in Electrochemical Devices	Author	International Journal of Electrochemical Science, ESG	2015
5. Zirconium-substituted $\text{LiSn}_2\text{P}_3\text{O}_{12}$ solid electrolyte prepared via sol-gel method	Author	Journal of Sol-Gel Science Technology, Springer	2016
6. Structural, Electrical and Electrochemical Properties of $\text{Mg}_{0.55}\text{Si}_{1.9}\text{Al}_{1.1}\text{Fe}_{0.1}(\text{PO}_4)_3$ Ceramic Electrolytes	Co - author	Journal of New Materials for Electrochemical Systems	2017

Paper Presentations

Title	Name of Seminar / Conference	Place / Country	Date of Presentation
1. Lithium conducting NASICON Structured $\text{Li}_{1-x}\text{Cr}_x\text{Sn}_{2-x}\text{P}_3\text{O}_{12}$ Solid Electrolytes Prepared via Citric Acid Assisted Sol-gel Method	International Conference on Materials Challenges in Alternative & Renewable Energy 2015 (MCARE 2015)	Jeju, South Korea	24 – 27 February 2015
2. Effects of Cr^{3+} and Zr^{4+} Substitution on Stannum Based NASICON-Structured Ceramic Electrolytes	5 th International Conference on Solid State Science and Technology (ICSSST) 2015	Langkawi, Malaysia	13 – 15 December 2015
3. Enhanced Conductivity and Electrochemical Stability of NASICON-Structured Lithium Stannum Phosphate Ceramic Electrolytes via Aluminium Substitution	11 th Annual International Electromaterials Science Symposium at Melbourne, Australia	Deakin University, Australia	10 – 12 February 2016
4. Silicon Substituted Lithium Stannum Phosphate Ceramic	4 th International Conference on Nano and Materials Engineering	Bali, Indonesia	7 – 8 April 2016

Electrolytes: Electrical and Electrochemical Properties	(ICNME 2016)		
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Industrial Linkages and Collaboration

1. Linkages and collaborations with industry / external organization, etc.

Name of Industry / Organization	Type of Linkages / Collaborations	Duration	
		Begin	End
Electrochemical Materials and Devices Research Group, University of Malaya	Research Collaborator	2017	

Community Service

1. Contribution to Community

Name of Organization(s), Community, etc.	Type of Contribution / Service Rendered	Duration	
		Begin	End
World Wide Fund for Nature (WWF) Malaysia	Monthly Contribution	2017	

Awards

1. Academic Award

Award	Title/Product/Invention	Level*	Year
Invention, Innovation & Design Competition (IID) – Bronze Medal	Design Optimization of $Ga_{1-x}N_xYAs_{1-y}$ / GAAS Quantum Well for Wavelength Semiconductor Laser	National	2013
Invention, Innovation &	New Sn based	National	2015

Design Exposition (IIDEX) 2015 – Bronze Medal	NASICON-structured ceramic electrolytes towards development of Li-ETED		
5 th International Conference on Solid State Science and Technology (ICSSST 2015) – Poster presentation & Best Poster Award	Effects of Cr ³⁺ and Zr ⁴⁺ Substitution on Stannum Based NASICON-Structured Ceramic Electrolytes	International	2015
1st Place , University of Malaya Three Minute Thesis Competition (UM3MT)	Li-NASICON: Next Generation Solid State Battery	Faculty Level	2016
1st Runner-up , University of Malaya Three Minute Thesis Competition (UM3MT)	Battery Failures. What's Next?	University Level	2016