

CURRICULUM VITAE

PERSONAL DATA

Name : SITI NURBAYA SUPARDAN
Sex : Female
Date of birth : 25 August 1983
Citizenship : Malaysia
Marital Status : Married
Address (Office) : School of Physics and Materials Studies,
Faculty of Applied Sciences, Universiti Teknologi MARA,
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EDUCATION & QUALIFICATION

PhD, University of Liverpool, United Kingdom– ongoing
Title: Study of High-k Dielectrics and their Interfaces on Semiconductors for Device Applications
Supervisors: Assoc. Prof. Dr Ivona Mitrovic & Prof. Vin Dhanak

Master of Microelectronics Engineering, La Trobe University Australia (2010)
Dissertation: *The Effect of Hydrogen Irradiation on the Growth of Strained InGaAs Grown on GaAs Substrates*
Supervisor: Assoc. Prof. Dr Brian Usher

Bachelor Degree in Physics, UiTM Shah Alam Malaysia (2006, CGPA: 3.57)
Final Year Project: *Effect of Deposition Temperature on the Properties of Carbon Nanotubes (CNT) Prepared from Palm Oil as a Precursor Material*
Supervisor: Prof. Dr Mohamad Rusop Mahmood

Diploma in Science, UiTM Shah Alam Malaysia (2004, CGPA: 3.48)

WORKING EXPERIENCES

2007 – 2008
Research Assistant
Institute of Research, Development & Commercialization (IRDC), UiTM Shah Alam Malaysia

Jan 2011 – Dec 2011
Research Advisor
Telekom Malaysia Research & Development (TMR&D), Cyberjaya Malaysia

Ogos 2010 – Current
Lecturer (Physics)
Faculty of Applied Sciences, UiTM Shah Alam Malaysia

PROFESSIONAL MEMBERSHIP

Ordinary Member of Institute of Materials Malaysia (IMM)
Life Member of Malaysian Solid State Science and Technology Society (MASS)
Member of MARA Institute of Technology Academic Staff Association (MITASA)

TEACHING EXPERIENCES

Fundamental Physics: Mechanics and Heat (PHY433), Device Physics 1 (PHY593), Industrial Physics Laboratory I (PHY595), Industrial Physics Laboratory II (PHY615), Special Topics in Microelectronics (PHY605), Semiconductor Process Technology (PHY585), Digital Integrated Circuit Design (PHY610), Optoelectronics (PHY574)

RESEARCH INTEREST

Semiconductor materials and devices, Optoelectronics, Oxide glass & Magnetic ceramics

RESEARCH PROJECTS/GRANTS

National Level

Project Title	Grant/Total Funding	Period	Role	Status
<i>Influence of Size Disorder on Elastic Anomaly and the Dynamic to Static Jahn- Teller Transition in Charge-Ordered $Nd_{0.3}La_{0.2}Ca_{0.5-x}Sr_xMnO_3$ and $Dy_{0.5-x}Er_xBa_{0.5}CoO_3$ Magnetic Ceramics</i>	Research Acculturation Grant Scheme (RAGS), RM80 000	15 Dec 2012 – 14 Dec 2014	Head	Completed
<i>Electrical Properties of Bismuth Nickel Tantalate Ternary System</i>	Funded by Research Acculturation Grant Scheme (RAGS), RM80 000	15 Dec 2012 – 14 Dec 2014	Member	Completed

Internal Level

Project Title	Grant/Total Funding	Period	Role	Status
<i>Design Optimization and Fabrication of GaAs-based Ridge Waveguide Laser Diode</i>	Excellent Fund UiTM, RM 9000	1 July 2012 – 30 Jun 2014	Head	Completed

SUPERVISION

Postgraduate Students

No.	Name	Title	Supervision	Status
1	Muliana Ismail	<i>Studies of Elastic, Optical, and Structural Properties on $x\text{BaO}-20\text{ZnO}-(80-x)\text{TeO}_2$ and $x\text{Ag}_2\text{O}-(35-x)[0.5\text{V}_2\text{O}_5-0.5\text{MoO}_3]-65\text{TeO}_2$ and Glass System</i>	Co-Supervisor	Completed

Undergraduate Students

No	NAME	TITLE	Supervision	Status
1	Nur Syarini Sahimi	<i>Studies on the Optical and Electrical Properties of $\text{Al}_x\text{Ga}_{1-x}\text{As}/\text{GaAs}$ Quantum Well Laser</i>	Main Supervisor	Completed July 2013
2	Afiqah Insyirah Mohd Hashim	<i>Design Optimization of $\text{Ga}_{1-x}\text{In}_x\text{N}_y\text{As}_{1-y}/\text{GaAs}$ Quantum Well for Long Wavelength Semiconductor Laser</i>	Main Supervisor	Completed July 2013
3	Noorhakim Bin Muhamad	<i>The Structural, Optical and Electrical Properties of Nanocomposite MEH-PPV NB Doped TiO_2 Thin Film</i>	Co-Supervisor	Completed July 2013
4	Akmal Hakim Bin Ayub	<i>Effect of Number of Deposition and Annealing Temperature on ZnO Thin Films Deposited by Sol Gel Technique for Gas Sensor</i>	Co-Supervisor	Completed July 2013
5	Syahira Farhana Ab Rahman	<i>Temperature Dependent of MEA For CNT Growth Via Floating Catalyst Method</i>	Co-Supervisor	Completed July 2013
6	Muhammad Nazrin Zulkarnain	<i>Optimization of $\text{Ga}_{1-x}\text{In}_x\text{N}_y\text{As}_{1-y}/\text{GaAs}$ Quantum Well for Long Wavelength Vertical Cavity Surface Emitting Laser (VCSEL)</i>	Main Supervisor	Completed Jan 2014
7	Davina Bodingin	<i>Fiber Sensor for Monitoring Oxygen in Gaseous and Aqueous State</i>	Co-Supervisor	Completed Jan 2014
8	Maureen Tommy Agan	<i>Study of the Effect of Oxide Aperture Layers on the Performance of Long Wavelength Vertical Cavity Surface Emitting Laser (VCSEL)</i>	Co-Supervisor	Completed Jan 2014

9	Afredza Nadziruddin Awang	<i>A Numerical Study on Distributed Bragg Reflector in a Long Wavelength Vertical Cavity Surface Emitting Laser (VCSEL).</i>	Co-Supervisor	Completed Jan 2014
10	Muhammad Najmi	<i>Spectral Analysis of Vitamin C Concentration in Daily product using Diffused Reflectance Spectroscopy</i>	Main Supervisor	Ongoing
11	Ahmad Imran Kamarudzaman	<i>Band Alignment study of ZrO₂/GaN using X-ray photoelectron spectroscopy measurement and Kraut's method</i>	Main Supervisor	Ongoing
12	Nurhaziqah Hamrizal	<i>Preparation and Characterization of Thulium doped SiO₂-HfO₂ Hybrid Thin Film/Nanofibers for Photonics Application</i>	Co-Supervisor	Ongoing
13	Aini Syuhada Mohd Taufik	<i>Preparation and Characterization of Erbium doped SiO₂-HfO₂ Hybrid Thin Film/Nanofibers for Photonics Application</i>	Co-Supervisor	Ongoing

PUBLICATIONS

Journal (Indexed)

1. E. Elyana, Z. Mohamed, S.A. Kamil, **S.N. Supardan**, S.K. Chen, A.K. Yahya “Revival of ferromagnetic behavior in charge-ordered $Pr_{0.75}Na_{0.25}MnO_3$ manganite by ruthenium doping at Mn site and its MR effect”, Journal of Solid State Chemistry 258 (2018) 191–200.
2. K. Sawangsri, P. Das, **S.N. Supardan**, I.Z. Mitrovic, S. Hall, R. Mahapatra, A.K. Chakraborty, R. Treharne, J. Gibbon, V.R. Dhanak, K. Durose, P.R. Chalker, “Experimental band alignment of Ta_2O_5/GaN for MIS-HEMT applications”, Microelectronic Engineering 178 (2017) 178–181.
3. M. Ismail, **S.N. Supardan**, A.K. Yahya, M.I.M. Yusof, M.K. Halimah, “Anomalous elastic and optical behaviours of mixed electronic-ionic of $xAg_2O-(35-x)[0.5MoO_3-0.5V_2O_5]-65TeO_2$ conductor glasses”, Chalcogenide Letters 13 (2016) 989–1005.
4. **S.N. Supardan**, M. Faiez Ali, R. Fauzi, M.H. Hassan, N. Sazani, K. Mohamed, M. Kamil Abd-Rahman, “Effect of nitrogen concentration on the optical and electrical performance of $Ga_{0.66}In_{0.34}N_YAs_{1-Y}/GaAs$ quantum well laser diodes”, IMPACT: International Journal of Research in Applied, Natural and Social Sciences 3 (2015) 31-38.
5. Muliana Ismail, **Siti Nurbaya Supardan**, Ahmad Kamal Yahya, Roslan Abd-Shukor, “Optical properties and weakening of elastic moduli with increasing glass transition temperature (T_g) in $(80-x)TeO_{2-x}BaO-20ZnO$ glasses”, International Journal of Materials Research 106 (2015) 893–901.
6. M.A. Ghani, **S.N. Supardan**, A.K. Yahya, “Effect of Bi Substitution on Transport and Magnetoresistance Properties of Electron-Doped $La_{0.7-x}Bi_xCe_{0.3}MnO_3$ Ceramics”, Journal of Superconductivity and Novel Magnetism 28 (2015) 1835–1841.
7. S. Shamsuddin, **S. N. Supardan**, Abdel-Baset M. A. Ibrahim A. K. Yahya, “Ultrasonic Anomaly near the Charge Ordering Transition in Sr-Doped $Nd_{0.3}La_{0.2}Ca_{0.5-x}Sr_xMnO_3$ Manganites”, Journal of Superconductivity and Novel Magnetism, Vol. 27, Issue 5 (2014) 1229–1234.
8. S. Laila, **S.N. Supardan**, A.K. Yahya, “Effect of ZnO addition and concurrent reduction of V_2O_5 on network formation and elastic properties of lead vanadate $(55-x)V_2O_5-45PbO-(x)ZnO$ glass system”, Journal of Non-Crystalline Solids 367 (2013) 14–22.

HONOURS/AWARDS

Academic Award (National Level)

Vice Chancellor's Award UiTM 2007

Dean's List Award for BSc. (Hons) Physics & Diploma in Sciences

Research Award (National Level)

Title	Award Authority	Award Type	Year
<i>Spintronic-Based Manganite Magnetic Sensor Element</i>	Competition & Exhibition Invention, Innovation & Design Expo 2013 (iindex2013) DATC UiTM Shah Alam	Silver Medal	2013
<i>Design Optimization of GaInNAs/GaAs Quantum Well for Long Wavelength Semiconductor Laser</i>	Invention, Innovation & Design Competition (IID JOHOR 2013), UiTM Johor	Bronze Medal	2013
<i>Power Maximization of GaInNAs-GaNAs Quantum Well Laser Diodes for Raman Amplifier Pumping</i>	Competition & Exhibition 3rd National Invention, Innovation & Design (NiiD), UiTM Perak	Gold Medal	2013
<i>Ultrasonic Wave and pH Enhanced The Formation of TiO₂ Nanotube Structure</i>	Competition & Exhibition Invention, Innovation & Design Exposition 2014 (iindex2014), DATC UiTM Shah Alam	Bronze Medal	2014

ACADEMIC COMMUNITY INVOLVEMENT

Academic Examiner (External Examiner, Editor, Reviewer) /Evaluator

1. Evaluator for Final Year Undergraduate Project Presentation, Faculty of Applied Sciences, UiTM (2012, 2013, 2014)
2. Evaluator for Pre-Viva session AS780 – Nur Syahida Abdul Rahim (2008528291)
Title of Thesis: Multiwavelength Signal Generation From Multiple Cavity Brillouin Erbium Fiber Laser
3. Evaluator for Defense Research Proposal AS760 – Siti Wahidah Nazari (2014229292)
Title of Thesis: Dielectric and Elastic Studies of Semiconducting Oxide Glasses

Administration

Role/Post	Level	Period
Committee Member, Curriculum Review of Industrial Physics Programme, Faculty of Applied Sciences, UiTM	Faculty	01/04/2012 – 30/05/2013
Committee Member, Academic Mission, Faculty of Applied Sciences, UiTM	Faculty	01/04/2012 – 30/05/2013
Secretary, School of Physics & Material Studies, Faculty of Applied Sciences, UiTM	Faculty	26/07/2012 – 25/07/2013
Auditor (Internal Audit), Faculty of Applied Sciences, UiTM	Faculty	01 /11/2012 – 31/10/2014
Time Table Committee, Faculty of Applied Sciences, UiTM	Faculty	01 /01/2013 – 31/12/2014
Committee member, Graduate Employability Engagement Taskforce (U-GET), UiTM	University	01/03/2013 – 28/02/2014
Advisor of Student Society IPHysS	Faculty	01/02/2014 – 31/12/2015

Referees

1. Dr. Syed Yusaine Syed Yahya
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Faculty of Applied Sciences, Universiti Teknologi MARA,
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