



Curriculum Vitae

I. Personal Particulars

CHUAH LEE SIANG

Name: _____
SENIOR LECTURER

Current position: _____
ASSOCIATE PROFESSOR

Position applied for: _____

II. A. Academic and Professional Qualifications (Please list all academic qualifications, from your first degree, in chronological order)

Year	Degree	Discipline	University
June 2002 – Mar 2005	Bachelor Degree of Applied Sciences	(Applied Physics), 3 years course (6semester) CGPA = 3.67 / 4.00 (1st Class)	Universiti Sains Malaysia
Dec 2005 – Sept 2009	Doctor of Philosophy (Physics – Research Mode)	Research Field: Solid State Physics (Semiconductor studies)	Universiti Sains Malaysia

B. Titles of postgraduate theses

Title of PhD Research: PA-MBE GaN-based Optoelectronics on silicon substrates.

III. Work Experience (Please list your relevant experiences in chronological order)

Year	Position	Field of Work	Place of Work
15 Dec 2009 - present	Senior Lecturer	Teaching in Physics subject	Physics Section, School of Distance Education, Universiti Sains Malaysia
1 July 2009 to 14 Dec 2009	Part Time Physics Lecturer	Teaching in Physics subject	Physics Section, School of Distance Education, Universiti Sains Malaysia

1 Jan 2009 to 30 April 2009	A-Level Physics Teacher	Teaching in Physics subject	KDU Penang
1 Jan 2007 to 31 Dec 2008	Tutor (USM Fellowship)	Conduct Physics tutorial class	School of Physics, USM
1 April 2005 to 30 Nov 2005	Physics Teacher	Teaching Physics in secondary school level	Han Chiang High School, Penang

IV. Main Current Research Areas (Please list a maximum of three)
Solid State Physics; Nanomaterials; Optoelectronics

1.0	RESEARCH AND PUBLICATION			
1.1	Research Publications			
(a)	Research Book/Monograph (i) Research Book (each publication) (ii) Monograph (each publication)			
(b)	Journal/E-Journal/Journal Proceeding (each publication) 1) Ella A., A. Amri, N. Mondinos, M. Altarawneh, T.S. Y. Moh, H. Widjaja, Lee Siang Chuah, H. L. Lee, Chun Yang-Yin, M. M. Rahman, I. Amri, I. Iwantono, Z-T Jiang, (2019) , Nanorose-like ZnCo ₂ O ₄ coatings synthesized via sol-gel route: morphology, grain growth and DFT simulations, Journal of Sol-Gel Science and Technology, pub date : 2019-04-14. 2) Rahman, M. M., Awaltanova, E., Amri, A., Altarawneh, M. Hossain, M. A., Zhao, W. Y. H. Liew, M. Minakshi, Y. Chun-Yang, Veder., <u>Lee Siang Chuah</u> , Jiang Zhong-Tao, (2019) A holistic analysis of surface, chemical bonding states and mechanical properties of sol-gel synthesized CoZn-oxide coatings complemented by finite element modeling. Ceramics International, 45 (8) 10882-10898.			

	<p>3) Myo Thuya Thein, Swee-Yong Pung, Lee Siang Chuah, Yuh-Fen Pung, Photodegradation behavior of ZnO nanorods on various types of organic dyes, <i>Advances in Materials and Processing Technologies</i>, volume 4, 2018 (272-280).</p> <p>4) Hussein A. Miran, M. Mahbubur Rahman, Zhong-Tao Jiang, Mohammednoor Altarawneh, Lee Siang Chuah, Hooi-Ling Lee, Ehsan Mohammedpur, Amun Amri, Nicholas Mondinos, Bogdan Z. Dlugogorski, Structural and Optical characteristics of pre- and post-annealed sol-gel derived CoCu-oxide coatings, <i>Journal of Alloys and Compounds</i> 701 (2017) 222-235.</p> <p>5) M. Mahbubur Rahman, Hussein A. Miran, Zhong-Tao Jiang, Mohammednoor Altarawneh, Lee Siang Chuah, Hooi-Ling Lee, Amun Amri, Nicholas Mondinos and Bogdan Z. Dlugogorski, Investigation of the post-annealing electromagnetic response of Cu-Co oxide coatings via optical measurement and computational modelling, <i>RSC Advances</i>, 7 (2017) 16826-16835.</p> <p>6) M. Mahbubur Rahman, Zhong-Tao Jiang, Chun-Yang Yin, Lee Siang Chuah, Hooi-Ling Lee, Amun Amri, Bee-Min Goh, Barry J. Wood, Chris Creagh, Nicholas Mondinos, Mohammednoor Altarawneh, Bogdan Z. Dlugogorski, Structural thermal stability of graphene Oxide-Doped Copper-Cobalt Oxide Coatings as a Solar Selective Surface, <i>Journal of Materials Science & Technology</i> 32, (2016) 1179-1191.</p> <p>7) L.S. Chuah, M. H. Jalal Bekri, Y. Yusof, Nanostripe of WO₃ Thin Films grown by Electrochemically Method, <i>Nanosci. Nanotechnol. Lett.</i> 8. (2016) 505-509.</p> <p>8) M. Mahbubur Rahman, Zhong-Tao Jiang, Paul Munroe, Lee Siang Chuah, Zhi-Feng Zhou, Zonghan Xiem Chun Yang Yin, Khalil Ibrahim, Amun Amri, Humayun Kabir, Md Mahbulul Haque, Nick Mondinor, Mohammednoor Altarawneh, Bogdan Z. Dlugogorski, Chemical bonding states and solar selective characteristics of unbalanced magnetron sputtered Ti_xM_{1-x}N_y films, <i>RSC Advances</i>. Issue 43, 6, 36373-36383 (2016)</p> <p>9) L.S. Chuah, G. Song, G. Tang, Synthesis and characterization of tungsten oxide nanoscaled fibers, <i>Nanoscience and Nanotechnology Letters</i>, vol. 7, num 7, 599-602 (2015).</p> <p>10) L. S. Chuah, G. Tang, Nanostructured WO₃-Synthesis and Properties, <i>Materials Science Forum</i>, vol. 819, 280-283 (2015).</p> <p>11) L.S. Chuah, Z. Hassan, Thermal annealing effect on properties of Zn foils substrates, <i>Materials Science Forum</i>, vol. 819, 215-219 (2015).</p> <p>12) L.S. Chuah, The growth and gas sensing properties of Al-Zn codoped SnO₂ via Solid-State Chemical Vapor Deposition, <i>International Journal of Engineering & Technical Research (IJETR)</i>, accepted 2015.</p> <p>13) L.S. Chuah, The Effect of the post-annealing temperature</p>			
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	<p>on the nanostructure of SnO₂ synthesized by thermal evaporation method, International Journal of Advanced Technology in Engineering and Science, Vol. 3, Issue 1, 521-526 (2015).</p> <p>14) L.S. Chuah, E. Kuang, S.S. Tneh, Z. Hassan, Synthesis, characterization, and effect of concentration variation on metal oxide nanostructures, Composite Interfaces, vol. 21, No. 3, 217-232 (2014)</p> <p>15) Ainorkhilah Mahmood, Naser M. Ahmed, Ion Tiginyanu, Yushamdan Yusof, Yam Fong Kwong, <u>Chuah Lee Siang</u>, and Zainuriah Hassan, The Role of Alternating Current on Photo-Assisted Electrochemical Porosification of GaN, Journal of Nanoelectronics and Optoelectronics, vol. 9, 1-4 (2014)</p> <p>16) L.S. Chuah, Z. Hassan, Nanoflakes of W/WO₃ Thin Films Grown by Electrochemical Anodization method, Nanoscience and Nanotechnology Letters, vol 6, 1-4 (2014).</p> <p>17) L.S. Chuah, S. S. Tneh, Z. Hassan, Electrical characterization of Al/Ag contacts on Al-Zn codoped SnO₂ thin films deposited by Solid-State Chemical Vapor Deposition, Advanced Materials Research, vol 925, 433-435 (2014)</p> <p>18) L.S. Chuah, S. Y. Chin, S. S. Tneh, M. A. Ahmad, S. K. Mohd Bakhori, Y. Yusuf, Z. Hassan, Electrochemical Self-Assembly of ZnO Nanosheetlike Structures, Applied Mechanics and Materials, vol. 606, pp 3-7 (2014)</p> <p>19) Ainorkhilah Mahmood, Zainuriah Hassan, Yushamdan Yusof, Yam Fong Kwong, <u>Chuah Lee Siang</u>, Naser Mahmoud Ahmed, Structural and surface studies of undoped porous GaN grown on sapphire, Advanced Materials Research, vol. 620, pp. 45-49 (2013).</p> <p>20) L. S. Chuah, S. S. Tneh, Z. Hassan, K. K. Saw, F. F. Yam, Ohmic Contacts to P-Type Doped ZnO, International Journal of Materials Engineering, vol. 3, 1-3, (2013)</p> <p>21) L.S. Chuah, G. Song, G. Tang, Raman and SEM Characterization of Electrospun WO₃ Nanofibers, Advances in Optoelectronic Materials, vol. 1, 1-3 (2013)</p> <p>22) Ainorkhilah Mahmood, Naser Mahmoud Ahmed, Yuhamdan Yusof, Yam Fong Kwong, <u>Chuah Lee Siang</u>, Husnen R. Abd and Zainuriah Hassan, A Novel AC Technique for High Quality Porous GaN, International Journal of ELECTROCHEMICAL SCIENCE, vol. 8, pp. 5801 – 5809 (2013).</p> <p>23) L.S. Chuah, Asmiet Ramizy, M. A. Mahdi, Z. Hassan, ZnO nano-stripes synthesized using photoelectrochemical wet etching method, International Journal of Materials Science and Applications, vol. 2, 74-77 (2013).</p> <p>24) L.S. Chuah, H. I. Abdulgafour, Z. Hassan, Preparation of aluminum foil-supported ZnO nanocoral reef films, The International Journal of Engineering and Science (THE IJES), vol. 2, issue 4, 42-45 (2013)</p> <p>25) L.S. Chuah, Z. Hassan, S. K. Mohd Bakhori, M. A.</p>			
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	<p>Ahmad, Y. Yusof, Fabrication and characterization of ZnO nanostructures on Si(111) substrate using a thin AlN buffer layer, American Journal of Nanoscience and Nanotechnology (NANO), 1-5 (2013)</p> <p>26) Lee Siang Chuah, Z. Mohamed, Z. Hassan, Microstructural and Optical Properties of SnO Thin Film by Thermal Evaporation, Advanced Materials research, 558-562 (2013).</p> <p>27) Ainorkhilah Mahmood, Naser Mahmoud Ahmed, Yam Fong Kwong, <u>Chuah Lee Siang</u>, Mohd Bukhari Md Yunus, Zainuriah Hassan, Application of the image processing method on the structure measurements in porous GaN, Journal of Experimental Nanoscience, 1-9 (2013).</p> <p>28) M. AMIRHOSEINY, Z. HASSAN, S. S. NG, <u>L. S. CHUAH</u>, M. A. AHMAD and Y. YUSOF, InN PHOTOCONDUCTORS ON DIFFERENT ORIENTATIONS OF Si SUBSTRATES, International Journal of Modern Physics B, 1250137 (9 pages) (2012)</p> <p>29) L.S. Chuah, S. M. Thahab, Z. Hassan, GaN on silicon substrate with AlN buffer layer for UV photodiode, Journal of Nonlinear Optical Physics & Materials, vol. 21 , No. 1, 1250014-1250025 (2012).</p> <p>30) L.S. Chuah, M. S. Yaacob, Z. Hassan, Low temperature synthesis of Ni-doped SnO₂ thin films by spin coating route, Optoelectronics and Advanced Materials Rapid Communications, vol. 6, no. 1-2, 149-153 (2012).</p> <p>31) L.S. Chuah, A. Mahyuddin, Z. Hasan, C.W. Chin, High-resolution TEM observation of AlN/GaN grown on Si substrates, Applied Mechanics and Materials, vol 110-116, pp. 991-996 (2012).</p> <p>32) Ainorkhilah Mahmood, Naser Mahmoud Ahmed, Zainuriah Hassan, Yam Fong Kwong, Siti Khadijah Mohd Bakhori, Yushamdan Yusof, Chuah Lee Siang, Enhanced properties of porous GaN prepared by UV Assisted Electrochemical Etching, Advanced Materials Research, vol. 364, 90-94 (2012).</p> <p>33) L.S. Chuah, M. A. Ahmad, Z. Hassan, S. K. Mohd Bakhori, M. J. Abdullah, Nanocrystalline ZnO film grown on porous SnO₂/Si(111) substrate, Composite Interfaces, vol. 18, 627-632 (2011).</p> <p>34) L.S. Chuah, A. Ramizy, M. A. Mahdi, M. A. Ahmad, Z. Hassan, S. K. Mohd Bakhori, Synthesis of ZnO nanosheets by a combined electrodeposition and illumination method, Composite Interfaces, vol. 18, 543-550 (2011).</p> <p>35) L.S. Chuah, Z. Hassan, S. K. Mohd Bakhori, N. H. Al-Hardan, M.J. Abdullah, Optical Analysis of nanocrystalline ZnO films coated on porous silicon by radio frequency (RF) magnetron sputtering, Composite Interfaces, vol. 18, 441-448 (2011).</p> <p>36) L.S. Chuah, Z. Hassan, S. S. Tneh, M. A. Ahmad, S. K. Mohd Bakhori, Y. Yusof, Catalyst-free growth and characterization of ZnO nanoscrewdrivers prepared by thermal evaporation, Microelectronics International, vol. 28, num 3, 3-6 (2011).</p> <p>37) L.S. Chuah, S.S. Tneh, Z. Hassan, Synthesis of porous Ni-</p>			
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	<p>doped SnO₂ Thin Film by using Spray Pyrolysis, Composite Interfaces, vol. 18, 371-376 (2011).</p> <p>38) L.S. Chuah, Z. Hassan, S.S. Tneh, "Single crystalline ZnO nanowires by oxidizing granular zinc film", Journal of Dispersion Science and Technology, vol 32, 677-679 (2011).</p> <p>39) L.S. Chuah, Z. Hassan, S. S. Tneh, S.G. Teo, "Study of electrical characteristics of ZnO Schottky photodiode on Si substrate", Microelectronics International, 28, 8-11 (2011).</p> <p>40) L. S. Chuah, Z. Hassan, S. S. Tneh, "Tetrapod-like ZnO nanostructures deposited on Si substrates with AlN as buffer layer", Composite Interfaces, 18, 49-56 (2011).</p> <p>41) L.S. Chuah, Z. Hassan, S.S. Ng, H. Abu Hassan, "Structural characterization of nanocrystalline InN grown on porous silicon by reactive sputtering", Optoelectronics and Advanced Materials Rapid Communications (OAM-RC), Vol. 5, No. 1, 34-38 (2011).</p> <p>42) L.S. Chuah, Z. Hassan, C.W. Chin, M. Hussein Mourad, F. K. Yam, S. S. Ng, "Strong room temperature 505 nm emission from hexagonal crack free InGaN thin film on Si(111) grown by MBE", Composite Interface, 18, 37-47 (2011).</p> <p>43) L.S. Chuah, Z Hassan, S.S. Tneh, K. G. Saw, S. S. Ng, F. K. Yam, F. Azhari, "The effects of thermal treatments on microstructure phosphorus-doped ZnO layers grown by thermal evaporation", Composite Interfaces, 17, 863-872 (2010).</p> <p>44) L.S. Chuah, Z. Hassan, S.G. Teo, "Effect of thermal annealing on the Ir/Ag contact to p-GaN", Journal of Non-Crystalline Solids, 356, 1863-1866 (2010).</p> <p>45) L. S. Chuah, M. Y. Yaacob, M. S. Fan, S. S. Tneh, Z. Hassan, "Synthesis, characterization and optical properties of Ni-doped nanocrystalline SnO₂", Optoelectronics and Advanced Materials-Rapid Communications (OAM-RC), vol. 4, ISS 10, pp. 1542-1545 (2010).</p> <p>46) A. Mahmood, Z. Hassan, F.K. Yam, L.S. Chuah, "Characteristics of undoped porous GaN prepared by UV assisted electrochemical etching", Optoelectronics and Advanced Materials-Rapid Communications (OAM-RC), vol. 4, ISS. 9, pp. 1316-1320 (2010).</p> <p>47) L.S. Chuah, Z. Hassan, S.S. Tneh, H. Abu Hassan, "Porous silicon as an intermediate buffer layer for zinc oxide nanorods", Composite Interfaces, 17, 733-742 (2010).</p> <p>48) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Performance improvement of large area GaN MSM photodiode with thin AlGaIn surface layer", Microelectronics International, Vol. 27, Issue 3, 140-142 (2010).</p> <p>49) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Red light emitting Schottky diodes on p-type GaN/AlN/Si(111) substrate", International Journal of Modern Physics B, Vol. 24, Issue 9, 1129-1135 (2010).</p> <p>50) L.S. Chuah, Z. Hassan, S.S. Tneh, "Thermal annealing effect on properties of Zn thin films deposited on Si(111) substrates by dc sputtering", Optoelectronics and Advanced Materials-Rapid Communications (OAM-RC), Vol. 4, No. 4, 502-504 (2010).</p>			
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	<p>51) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Ohmic contacts properties of Ni/Ag metallization scheme on p-type GaN", <i>Journal of Non-Crystalline Solids</i>, 356 (2010) 181-185.</p> <p>52) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Preferential orientation growth of AlN thin films on Si(111) substrates by plasma-assisted molecular beam epitaxy", <i>Surface Review and Letters</i>, Vol. 16, Issue 6, 925-928 (2009).</p> <p>53) L.S. Chuah, Z. Hassan, S.S. Ng, H. Abu Hassan, "Structural properties of doped GaN on Si(111) studied by X-ray diffraction technique", <i>Journal of Nondestructive Evaluation</i>, vol 28, number 3-4, 125-130 (December) 2009.</p> <p>54) L.S. Chuah, Z. Hassan, S.S. Tneh, "Zinc oxide nanorods on porous silicon/silicon substrates", <i>Journal of Optoelectronics and Advanced Materials (JOAM)</i>, Vol. 11, No. 11, 1637 - 1640 (2009).</p> <p>55) L.S. Chuah, Z. Hassan, H. Abu Hassan, N.M. Ahmed, "GaN Schottky barrier photodiode on Si(111) with low-temperature-grown cap layer", <i>Journal of Alloys and Compounds</i> 481, L15-L19 (2009).</p> <p>56) L.S. Chuah, Z. Hassan, H. Abu Hassan, C.W. Chin, S.M. Thahab, S.C. Teoh, "Silicon Schottky barrier photodiodes with a thin AlN nucleation layer", <i>Microelectronics International</i>, Vol. 26, Issue2, 41-44 (2009).</p> <p>57) L.S. Chuah, Z. Hassan, S.S. Ng, H. Abu Hassan, "Porous Si(111) and Si(100) as an intermediate buffer layer for nanocrystalline InN films", <i>Journal of Alloys and Compounds</i> 479, L54-L58 (2009).</p> <p>58) L.S. Chuah, Z. Hassan, F.K. Yam, H. Abu Hassan, "Structural and optical features of porous silicon prepared by electrochemical anodic etching", <i>Surface Review and Letters</i>, Vol. 16, No.1, 93-97 (2009).</p> <p>59) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Influence of Al monolayers on the properties of AlN layers on Si(111)", <i>Surface Review and Letters</i>, Vol. 16, No.1, 99-103 (2009).</p> <p>60) L.S. Chuah, Z. Hassan, H. Abu Hassan, "The effects of annealing treatment in oxygen ambient on Ni/Al_{0.09}Ga_{0.91}N UV photodetectors", <i>Journal of Optoelectronics and Advanced Materials (JOAM)</i>, Vol. 11, No. 1, 76-82 (2009).</p> <p>61) L.S. Chuah, Z. Hassan, C.W. Chin, H. Abu Hassan, "Structural and electrical characteristics of metal contacts on n-type GaN/Si(111)", <i>Optoelectronics and Advanced Materials-Rapid Communications (OAM-RC)</i>, Vol. 2, No. 12, 842-845 (2008).</p> <p>62) L.S. Chuah, Z. Hassan, H. Abu Hassan, F.K. Yam, C.W. Chin, S.M. Thahab, "Barrier height enhanced GaN Schottky diodes using a thin AlN surface layer", <i>International Journal of Modern Physics B (IJMPB)</i>, Vol. 22, No. 29, 5167-5173 (2008).</p> <p>63) L.S. Chuah, Z. Hassan, H. Abu Hassan, M. Hussein Mourad, "p-GaN/n-Si heterojunction photodiodes", <i>Surface Review and Letters</i>, Vol. 15, No.5, 699-703 (2008).</p> <p>64) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Electrical resistance of crack-free GaN/AlN heterostructures grown</p>			
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	<p>on Si(111)", Journal of Nonlinear Optical Physics and Materials (JNOPM), Volume 17, Issue 3, 299-304 (2008).</p> <p>65) L.S. Chuah, Z. Hassan, H. Abu Hassan, "High-quality $\text{In}_{0.47}\text{Ga}_{0.53}\text{N}/\text{GaN}$ heterostructure on Si(111) and its application to MSM detector", Microelectronics International, Vol. 25, Issue 2, 3-8 (2008).</p> <p>66) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Optical characterization of nanoporous GaN through electroless wet chemical etching", Materials Science-Poland, Vol. 26, No. 3, 609-615 (2008).</p> <p>67) L.S. Chuah, Z. Hassan, N. Shamsuddin, N. Amirruddin, C.W. Chin, H. Abu Hassan, "Ohmic metal contact to InGaN", Optoelectronics and Advanced Materials-Rapid Communications (OAM-RC), Vol. 2, No. 10, 650-654 (2008).</p> <p>68) L.S. Chuah, Z. Hassan, H. Abu Hassan, C.W. Chin, "Structural and optical characterization of hexagonal crack free GaN films grown on Si(111) by plasma-assisted molecular beam epitaxy (PAMBE)", Optoelectronics and Advanced Materials-Rapid Communications (OAM-RC), Vol. 2, No. 5, 296-298 (2008).</p> <p>69) L.S. Chuah, Z. Hassan, H. Abu Hassan, C.W. Chin, S.M. Tahab, "Large area GaN metal semiconductor metal (MSM) photodiode using a thin low temperature GaN cap layer", Journal of Nonlinear Optical Physics and Materials (JNOPM), Volume 17, Issue 1, 59-69 (2008).</p> <p>70) L.S. Chuah, Z. Hassan, H. Abu Hassan, F.K. Yam, C.W. Chin, N.M. Ahmed, "Growth of III-nitrides on Si(111) by RF-MBE and its application to MSM photodiodes", Journal of Optoelectronics and Advanced Materials (JOAM), Vol. 10, No. 3, 569-572 (2008).</p> <p>71) L.S. Chuah, Z. Hassan, H. Abu Hassan, "The growth of AlN thin films on Si(111) substrate by plasma-assisted molecular beam epitaxy", Optoelectronics and Advanced Materials-Rapid Communications (OAM-RC), Vol. 2, No. 3, 137-139 (2008).</p> <p>72) L. S. Chuah, Z. Hassan, H. Abu hassan, Morphology and luminescence properties of porous $\text{Al}_{0.09}\text{Ga}_{0.91}\text{N}$ generated via Pt-assisted electroless etching, Jurnal Fizik Malaysia, vol. 29, 55-58 (2008).</p> <p>73) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Enhanced UV photodetector responsivity in porous GaN/Si(111) by metal assisted electroless etching", Advanced Materials Research, Vol. 31, 39-41 (2008).</p> <p>74) L.S. Chuah, Z. Hassan, H. Abu Hassan, "The study of Pd schottky contact on porous GaN for UV metal-semiconductor-metal (MSM) photodetectors", Journal of Nonlinear Optical Physics and Materials (JNOPM), Vol. 16, No. 4, 497-503 (2007).</p> <p>75) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Dark current characteristics of Ni contacts on porous AlGaN-based UV photodetector", Journal of Optoelectronics and Advanced Materials (JOAM), Vol. 9, No. 9, 2886-2890 (2007).</p> <p>76) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Comparative study of characteristics in Ni, Ag and Ni/Ag metal contact schemes on n-type InN", Optoelectronics and Advanced Materials-Rapid Communications (OAM-RC), Vol. 1, No. 10, 523-527 (2007).</p>			
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	<p>77) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Enhanced UV photodetector responsivity in porous GaN by Pt assisted electroless etching", <i>Optoelectronics and Advanced Materials-Rapid Communications (OAM-RC)</i>, Vol. 1, No. 8, 400-403 (2007).</p> <p>78) L.S. Chuah, Z. Hassan, S.S. Ng, H. Abu Hassan, "High carrier concentrations of n- and p-doped GaN on Si(111) by nitrogen plasma-assisted molecular beam epitaxy (PAMBE)", <i>Journal of Material Research (JMR)</i>, Vol. 22, No.9, 2623-2630 (2007).</p> <p>79) F.K. Yam, Z. Hassan, <u>L.S. Chuah</u>, Y.P. Ali, "Investigation of structural and optical properties of nanoporous GaN film", <i>Applied Surface Science (ASS)</i>, Vol. 253, Issue 18, 7429-7434 (2007).</p>			
(c)	<p>Chapter In Research Book (non proceedings) each document</p> <p>1. GaN-based Photodiodes on Silicon Substrates L.S. Chuah, Z. Hassan, Chapter 16, 331-348 (2011). Chapter in a book entitled "Advances in Photodiodes" ISBN 978-953-307-163-3 Published by InTech, Janeza Trdine 9, 51000 Rijeka, Croatia</p>			
(d)	<p>Proceeding</p> <p>1) L.S. Chuah, Z. Hassan, S. S. Tneh, Y. Yusuf, S. K. Mohd Bakhori, M. A. Ahmad, n-ZnO/p-Si Heterojunctions for photosensor applications, <i>Conference Proceedings – 2011 IEEE 2nd International Conference on Photonics, ICP 2011</i>, art. no. 6106818, page1-3 (2011).</p> <p>2) Ainorkhilah Mahmood, Zainuriah Hassan, Yam Fong Kwong, Siti Khadijah Mohd Bakhori, Chuah Lee Siang, "Effect of porosity on the characteristics of GaN grown on sapphire", <i>AIP Conference Proceeding</i>, vol. 1341, 45-47 (2011).</p> <p>3) L.S. Chuah, Z. Hassan, S.S. Tneh, "Optical Properties of ZnO thin films prepared by oxidation of granulated Zn", <i>Second International Conference on Computer Research and Development</i>, pp. 602-604 (2010).</p> <p>4) L.S. Chuah, Z. Hassan, H. Abu Hassan, 'Visible-light emission due to quantum size effects in porous crystalline silicon', <i>AIP Conference Proceedings</i>, Vol 1250, pp. 385-388 (7 July 2010).</p> <p>5) L.S. Chuah, Z. Hassan, C.W. Chin, H. Abu Hassan, "Surface morphology and formation of nanostructured porous GaN by UV-assisted electrochemical etching", <i>Proceedings of World Academy of Science, Engineering and Technology (July 29-31) Oslo, Norway</i>, Vol 55, 16-19 (2009).</p> <p>6) S.S. Ng, L.S. Chuah, Z. Hassan, H. Abu Hassan, "Surface phonon polariton characteristics of $\text{In}_{0.47}\text{Ga}_{0.53}\text{N}/\text{GaN}$ on</p>			

	<p>Si(111) substrate grown by RF-PAMBE”, 2nd International Conference on Science and Technology: Applications in Industry and Education (ICSTIE), 1826-1830 (2008).</p> <p>7) L.S. Chuah, Z. Hassan, H. Abu Hassan, “Optical characterization of GaN thin film grown on Si(111) by radio-frequency plasma-assisted molecular beam epitaxy”, Malaysia-Japan International Symposium on Advanced Technology (MJISAT), 1-6 (2007) - on CD</p> <p>8) L.S. Chuah, Z. Hassan, H. Abu Hassan, “Red Emission of electroluminescent device based on p-GaN in thin film form”, Malaysia-Japan International Symposium on Advanced Technology (MJISAT), 1-5 (2007) - on CD</p> <p>9) L.S. Chuah, Z. Hassan, H. Abu Hassan, F.K. Yam, S. M. Thahab, C.W. Chin, N.M. Ahmed, “High quality Al_{0.09}Ga_{0.91}N on Si(111) by RF-MBE and its application to MSM photodiode”, Proc. of International Conference on Materials for Advanced Technologies: Materials for Advanced sensors and detectors (ICMAT), 1-6 (2007) - on CD</p> <p>10) F.K. Yam, Z. Hassan, L.S. Chuah, N. Zainal, C.W. Chin, S. M. Thahab, M. Hussein, “The growth of III-V nitrides heterostructure on Si substrate by plasma-assisted molecular beam epitaxy”, IEEE International Conference on Semiconductor Electronics Proceedings (ICSE), 928-932 (2006).</p> <p>11) L.S. Chuah, Z. Hassan, H. Abu Hassan, “Nanoporous InN films synthesized using photoelectrochemical wet etching”, IEEE International Conference on Semiconductor Electronics Proceedings (ICSE), 618-621 (2006).</p> <p>12) L.S. Chuah, Z. Hassan, H. Abu Hassan, “Effect of post annealing treatments on the characteristics of ohmic contacts to n-Type InN”, IEEE International Conference on Semiconductor Electronics Proceedings (ICSE), 614-617 (2006).</p> <p>13) L.S. Chuah, C.W. Chin, Z. Hassan, H. Abu Hassan, “Characteristics of thermally treated contacts on porous silicon based metal–semiconductor–metal (MSM) photodetector structures”, IEEE International Conference on Semiconductor Electronics Proceedings (ICSE), 442-446 (2006).</p> <p>14) L.S. Chuah, C.W. Chin, Z. Hassan, H. Abu Hassan, “Porous silicon dioxide synthesized using photoelectrochemical (PEC) wet etching”, IEEE International Conference on Semiconductor Electronics Proceedings (ICSE), 438-441 (2006).</p>			
(e)	<p>Conference Presentation (oral and poster)</p> <p>1) L.S. Chuah, S. S. Tneh, Z. Hassan, K. G. saw, F. K. Yam, Ohmic contacts to p-type doped ZnO, International Conference on Enabling Science and Nanotechnology 2012 (EciNano2012), 1-2 (Abstract), 5-7 January 2012, Persada Johor International Convention Center, Johor</p>			

	<p>Bahru, Malaysia.</p> <ol style="list-style-type: none"> 2) Ainorkhilah Mahmood, Naser Mahmoud Ahmed, Asmiet Ramizy, Zainuriah Hassan, Yam Fong Kwong, <u>Chuah Lee Siang</u>, Mohd Bukhari Md Yunus, Applications of Image Processing (IP) Method on The Structure Measurements in Porous GaN, International Conference on Enabling Science and Nanotechnology 2012 (EciNano2012), 1-2 (Abstract), 5-7 January 2012, Persada Johor International Convention Center, Johor Bahru, Malaysia. 3) Z. Hassan, <u>L.S. Chuah</u>, A. Ramizy, C. W. Chin, Fabrication and Characterization of Nanostructured Porous GaN on Si(111), Asia-Pacific Workshop on Materials Characterization, page 122 (Abstract), 22-24 September 2011, Crystal Growth Centre, Anna University, Chennai, India. 4) L.S. Chuah, A. Mahmood, Z. Hassan, S. K. Mohd Bakhori, "Structural, Optical and Photoelectrochemical (PEC) characterization of n-Si (100) synthesized by wet chemical etching, Workshop on Advanced Materials Science and Nanotechnology, 75 (Abstract), 21-23 Dec 2010, Flamingo Hotel, Penang, Malaysia. 5) L.S. Chuah, Z. Hassan, "GaN-based wide band gap semiconductor grown on silicon by PA-MBE for ultraviolet photodetection", 25th Regional Conference on Solid State Science & Technology 2009", 37 (Abstract) Dec 21-23, 2009 Penang. 6) L.S. Chuah, Z. Hassan, H. Abu Hassan, N.M. Ahmed, "GaN Schottky barrier photodiode with thin AlN cap layer", Proceedings of The OSA Topical Conference on Nanophotonics, 120 (Abstracts) May 26-29, 2008 Nanjing, China. 7) L.S. Chuah, Z. Hassan, S.S. Ng, H. Abu Hassan, "Nanocrystalline InN film grown on porous silicon/Si(111) substrate", Proceedings of The OSA Topical Conference on Nanophotonics, 83 (Abstracts) May 26-29, 2008 Nanjing, China. 8) L.S. Chuah, Z. Hassan, C.W. Chin, H. Abu Hassan, "Schottky diodes based on p-type GaN grown by Radio-Frequency Molecular Beam Epitaxy", Journal of Solid State Science and Technology Letters, Vol 14, No. 2, 112 (Supplementary) November 2007. 9) L.S. Chuah, Z. Hassan, H. Abu Hassan, C.W. Chin, "UV photodetector based on high quality GaN grown on Si(111) by RF-MBE", International Conference on Advancement of materials and Nanotechnology (ICAMN), 75 (Abstract) (2007). 10) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Growth of high quality In_{0.47}Ga_{0.53}N/GaN heterostructure on Si(111) via RF-MBE and its application to MSM photodiode", International Conference on Advancement of materials and Nanotechnology (ICAMN 2007), 196 (Abstract) (2007). 11) L.S. Chuah, Z. Hassan, H. Abu Hassan, "Photoluminescence studies of nanoporous GaN through electroless wet chemical etching", ISESCO International Workshop and Conference on Nanotechnology (IWCN), 42 (Abstracts) (2007). 12) L.S. Chuah, Z. Hassan, H. Abu Hassan, M. Hussein 			
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(f)	<p>Mourad, K. Ibrahim, "Series resistance in thin film n-GaN/AlN/n-Si(111) heterostructure", ISESCO International Workshop and Conference on Nanotechnology (IWCN), 41 (Abstracts) (2007).</p> <p>13) L.S. Chuah, Z. Hassan, H. Abu Hassan, M. Hussein, F.K. Yam, N. Zainal, C.W. Chin, S. M. Thahab, "High quality Al_{0.09}Ga_{0.91}N film on Si(111) by radio-frequency molecular beam epitaxy", 3rd Colloquium on Postgraduate Research National Postgraduate Colloquium on Materials, Mineral Resources and Polymers (MAMIP), 157-159 (Extended Abstracts) (2007) - on CD.</p> <p>14) L.S. Chuah, Z. Hassan, H. Abu Hassan, C.W. Chin, "InGaN/GaN heterostructure for photodetector applications", 3rd Colloquium on Postgraduate Research National Postgraduate Colloquium on Materials, Mineral and Polymers (MAMIP), 43-44 (Extended Abstracts) (2007) - on CD.</p> <p>15) L.S. Chuah, Z. Hassan, H. Abu hassan, Characteristics of Thermally Treated Contacts on Nanoporous GaN based MSM Photodetector Structures, page 77 (Abstract), National Physics Conference, 26-28 December 2007, Terengganu Heritage Bay Club, Pulau Duyung, Kuala Terengganu, Malaysia.</p>			
total				

1.2	<p>Publications Related to Teaching</p> <p>Please list authors, year, title, publisher and number of pages.</p>			
(a)	<p>(i) University Textbooks</p> <p>(ii) Chapter in University Text Book</p>			
(b)	<p>(i) First Edition</p> <p>(ii) Translation</p>			

(c)	<p>(i) Teaching Modules</p> <p>(ii) Fast Print Edition</p>			
(d)	<p>Professional Creative Works (Studio/Drawing/Music Composition)</p> <p>(i) Original works in fine arts, design, music, drama and theatre (individual/solo)</p> <p>(ii) Original works in fine arts, design, music, drama and theatre (group/compilation/arrangement)</p> <p>(iii) Curator/Director/Conductor/Creative Team</p> <p>(iv) Design Registration/Industrial Design Art/Tradema</p>			
(e)	<p>(i) CAI/ Multimedia/Installer/Software/Coswer</p>			
total				

1.3	Research Grant Please list project title, sponsorship, amount, list of researchers and date/duration.			
(a)	<p>International</p> <p>(i) Programme Head (Top Down Multiple Projects) will be awarded 10 marks each.</p> <p>(ii) Project Head will be awarded 5 marks each.</p> <p>1. Title: Improved Solar Selectivity of Mixed Metal Oxide Incorporated with Graphenes Grant: IRU-MRUN COLLABORATION RESEARCH PROGRAM (Australia) Amount: RM73,312.00 Period: 1 Oct 2015 – 30 Sept 2018 Role: Project Leader Co-Researcher : Dr Lee Hooi Ling (USM), Dr Zhong-Tao Jiang (Murdoch Uni Aus), Dr Mohammednoor Altarawneh, Dr Juita.</p> <p>(iii) Co-researcher will be awarded 2 marks each.</p>			
(b)	<p>National</p> <p>(i) Programme Head will be awarded 5 marks each.</p> <p>(ii) Project Head will be awarded 3 marks each.</p> <p>2. Title: GaN Nanostructures and their Application for LEDs Amount: RM 20,000.00 Grant: L'OREAL MALAYSIA SDN. BHD Period : 1 Jan 2012 – 31 Dec 2013 Role : Project Leader</p> <p>3. Title: Study of Nanostructured WO₃ Grant : The Fundamental Research Grant Scheme (FRGS) Amount : RM 119,200.00 Period : 1 May 2013 – 30 April 2015 Role : Project Leader Co-researcher : Prof Dr Zainuriah Hassan</p> <p>3. Title : Study of Nanostructured Porous ZnO Grant : The Fundamental Research Grant Scheme (FRGS) Amount : RM 63,000.00 Period : 1 April 2011 – 31 Mac 2013 Role : Project Leader Co-researcher : Prof Dr Zainuriah Hassan</p>			

	<p>(iii) Co-researcher</p> <p>1. Title : Preparation and Characterization Porous ternary and Quaternary III-nitrides Alloys Grant : The Fundamental Research Grant Scheme (FRGS) Amount : Rm200,000.00 Period : 1 Jan 2014 – 31 Dec 2016</p> <p>2. Title : The Study of Doped Tin Oxide (SnO₂) nanostructured in Poly (Hydroxyalkanoates) (PHA) Nanocomposites Grant : The Fundamental Research Grant Scheme (FRGS) Amount : RM 96,770.00 Period : 1 Dec 2013 – 30 Nov 2016</p>			
(c)	<p>University</p> <p>1. Title : Zinc oxide nanostructures on silicon substrates Grant : Incentive Grant, Universiti Sains Malaysia (USM) Amount : RM 5,000.00 Period : 12 Feb 2010 – 11 Feb 2011 Role : Project Leader</p> <p>2. Title : Metal Oxide Nanostructures on Silicon Substrates Grant : Short Term, Universiti Sains Malaysia (USM) Amount : RM 36,121.00 Period : 1 Nov 2010 – 31 Oct 2012 Role : Project Leader Co-researcher: Prof Zainuriah Hassan, Cik Siti Khadijah Mohd Bakhori, Encik Yushamdan Yusof, Encik Mohd Anas Ahmad</p> <p>3. Title : Synthesis and Characterization of Spray Pyrolysis Porous Ni-Doped SnO₂ Grant : Short Term, Universiti Sains Malaysia (USM) Amount : RM 37,112.00 Period : 15 Ogos 2011 – 14 Ogos 2013 Role : Project Leader Co-researcher: Prof Zainuriah Hassan</p> <p>4. Title: Fabrication and Thermal Oxidation of Metal Oxide Nanofibers Synthesized by Electrospinning Method Grant : Short Term, Universiti Sains Malaysia (USM) Amount : RM 40,000.00 Period : 15 Nov 2013 – 14 Nov 2015 Role : Project Leader</p> <p>(ii) Co-researcher</p> <p>1. Title: Sunlight-Driven Water Purifier Based On Semiconductor Photocatalysts That Grown On Polymer Fiber For Degradation Of Organic Pollutants And Bacteria Removal Grant: RUI (Individual) Amount : RM 238,080.00 Period : 1 Dec 2013 – 30 Nov 2016</p>			

	total			

1.4	Other Publications Please list authors, year, title and publisher			
(a)	(i) Textbooks (each book) (ii) Popular Academic Books			
(b)	Editing of Books/Videos and Others			
(c)	Multimedia Material			
(d)	Video/Audio			
(e)	Novel/Literature Anthology/Anthology of Poems			
(f)	Mass Media (Main Stream) 1. Chuah Lee Siang, Julai 2014, Struktur Nano Tungsten Oksida, muka surat 52-53, Dewan Kosmik. 2. Dr Chuah Lee Siang, Mac 2011, Penyediaan Filem Nipis Melalui Teknik Penyejatan Vakum, muka surat 48-49, Dewan Kosmik. 3. Dr Chuah Lee Siang, Oct 2010, Lampu Diod Pemancar Cahaya Menerangi Dunia, muka surat 20-22, Dewan Kosmik.			
(g)	Report			
total				

2.0	TEACHING AND SUPERVISION			
(a)	<p>Undergraduate Teaching/Post-Graduate Teaching</p> <p><u>2009/2010</u></p> <ol style="list-style-type: none"> 1. JIF 216/3 Electronics 1 (Semester 1 & 2), 1 lecturer only, 24 students. 2. JIF 217/3 Electricity and Magnetism (Semester 1 & 2), 1 lecturer only, 29 students. 3. JIF 314/2 Thermodynamics (Semester 1 & 2), 1 lecturer only, 19 students. 4. JIF 381/2 Practicals III (Semester 1 & 2), 1 lecturer only, 23 students. <p><u>2010/2011</u></p> <ol style="list-style-type: none"> 5. JIF 216/3 Electronics 1 (Semester 1 & 2), 1 lecturer only, 27 students. 6. JIF 217/3 Electricity and Magnetism (Semester 1 & 2), 1 lecturer only, 31 students. 7. JIF 314/2 Thermodynamics (Semester 1 & 2), 1 lecturer only, 28 students. 8. JIF 381/2 Practicals III (Semester 1 & 2), 1 lecturer only, 25 students. <p><u>2011/2012</u></p> <ol style="list-style-type: none"> 9. JIF 216/3 Electronics 1 (Semester 1 & 2), 1 lecturer only, 9 students. 10. JIF 217/3 Electricity and Magnetism (Semester 1 & 2), 1 lecturer only, 22 students. 11. JIF 314/2 Thermodynamics (Semester 1 & 2), 1 lecturer only, 24 students. <p><u>2012/2013</u></p> <ol style="list-style-type: none"> 12. JIF 216/3 Electronics 1 (Semester 1 & 2), 1 lecturer only, 37 students. 13. JIF 217/3 Electricity and Magnetism (Semester 1 & 2), 1 lecturer only, 38 students. 14. JIF 314/2 Thermodynamics (Semester 1 & 2), 1 lecturer only, 20 students. <p><u>2013/2014</u></p> <ol style="list-style-type: none"> 15. JIF 216/3 Electronics 1 (Semester 1 & 2), 1 lecturer only, 41 students. 16. JIF 217/3 Electricity and Magnetism (Semester 1 & 2), 1 lecturer only, 56 students. 17. JIF 314/2 Thermodynamics (Semester 1 & 2), 1 lecturer only, 29 students. <p><u>2014/2015</u></p> <ol style="list-style-type: none"> 18. JIF 216/3 Electronics 1 (Semester 1 & 2), 1 lecturer only, 38 students. 19. JIF 217/3 Electricity and Magnetism (Semester 1 & 2), 1 lecturer only, 56 students. 20. JIF 314/2 Thermodynamics (Semester 1 & 2), 1 lecturer only, 29 students. 			

(b)	<p>2016/2017</p> <p>21. JIF 216/3 Electronics 1 (Semester 1 & 2), 1 lecturer only, 25 students.</p> <p>22. JIF 217/3 Electricity and Magnetism (Semester 1 & 2), 1 lecturer only, 30 students.</p> <p>23. JIF 314/2 Thermodynamics (Semester 1 & 2), 1 lecturer only, 25 students.</p> <p>2017/2018</p> <p>24. JIF 216/3 Electronics 1 (Semester 1 & 2), 1 lecturer only, 25 students.</p> <p>25. JIF 320/4 Electricity and Magnetism (Semester 1 & 2), 1 lecturer only, 30 students.</p> <p>Graduate Supervision</p> <p>(i) Ph.D</p> <p style="text-align: center;">AINORKHILAH BINTI MAHMOOD, Porous GaN for Photodetector Applications, 2017 Penyelia BERSAMA</p> <p>(ii) Master Degree (Research) (iii) Doctoral Dissertation (Mixed mode)/MMed (Mixed Mode)</p>			
	<p>(iv) Master's Dissertation (Mixed Mode)</p> <p>(v) Project (Course Work Mode)</p>			
(c)	<p>Undergraduate Supervision</p> <p>(i) Final Year</p> <ol style="list-style-type: none"> 1. Chin Pooi Yoke, 2010/2011, Porous Semiconductors for gas sensor applications. 2. Muhamad Syakir bin Yaa'cob, 2010/2011, The growth of Ni-doped SnO₂ prepared by Chemical Spin-Coating Method. 3. Zaidi bin Hj Mohamed, 2011/2012, Thermal annealing effect on properties of Sn thin films by thermal evaporation. 4. Mohamed Asril Hasni bin Md Radzi, 2011/2012, Synthesis of ZnO by Oxidation technique. 5. Mazrul bin Abdlah, 2011/2012, Accurate resistor modeling for analog circuit design application. 			

6. Lim Kai Shue, 2011/2012, Porous Silicon synthesized using photoelectrochemical (PEC) wet etching method.
7. Azral bin Mohd Saad, 2011/2012, Annealing effect on structural properties of thermally evaporated ZnO thin films.
8. Eng Kuang, 2012/2013, The growth of ZnO nanowires in aquas medium.
9. Leong Kok Peng, 2012/2013, Study on light scattering and absorption properties of aerosol.
10. Liw Han Ping, 2012/2013, Sun tracker for dual axis.
11. Noraiza Yanty binti Mohamed, 2012/2013, Effects of thermal oxidation temperature on thermally evaporated tin oxide thin films.
12. Chin Su Yee, 2012/2013, The growth of ZnO nanostructure prepared by electrochemical deposition method
13. Muhamad Zaidi bin Ilias, 2013/2014, Facile Approach ZnO nanostructure by directly etching
14. Syed Mohd Tarmizi bin Tuan Sayid, 2013/2014, Fabrication and characterization of ZnO nanostructures through electrochemical method.
15. Mohd Faizal bin Ab Basir, 2013/2014, Preparation and Properties of ZnO nanostructures electrochemical anodization method.
16. Wan Asmadi bin wan ismail, 2013/2014, The growth of tungsten hydroxide nanoporous structures.
17. Abdul rahman bin daud, 2013/2014, The electrochemical synthesis of tungsten oxide from tungsten foil with annealing process.
18. Muhd Hushaini bin Ab. Jalal Bekri, 2014/2015, Fabrication of Nanostructured Tungsted Oxide using electrochemically method by varying solution concentricity.
19. Noor Haliza binti Ramli, 2014/2015, Fabrication of tungsten oxide (WO₃) nanostructure by using electrochemical method.

	<p>20. Mohd Haziezan bin hassan, 2014/2015, Performance study of copper tube in increasing the natural convection solar water heater.</p> <p>21. Zaidi bin yahya, 2014/2015, ZnO nanostructure prepared by chemical bath deposition method.</p> <p>22. Shamsul bin Abdullah, 2014/2015, Solving walkie-talkie APX1000 and APX2000/4000 RF Chopper Noise Issue by implementing L-Pad attenuator with improvement on grounding and shielding.</p> <p>23. Sharifah Nur Afifa binti Syed Othman, 2014/2015, Reverse Voltage Improvement Through Laser Lift Off Optimization Process for LED product.</p> <p>24. Muhammad Assaifullah bin Sidon, 2014/2015, Fabrication of tungsten oxide nanostructure using electrochemical method.</p> <p>25. Mohd Zaidan Munir bin Mohd Yasin, 2014/2015, Noise induced hearing loss (NIHL) amongst electroplating workers.</p> <p>26. Rasidah binti dol Rahim, 2014/2015, Metal 1 Bad Profile Improvement (tungsten split and overlay sizing for C13Z Met 1).</p> <p>27. Mohd Firdaus bin Shafife@haron, 2014/2015, Structural, Morphological and Optical Investigation of ZnO Nanostructure.</p> <p>(ii) Other Years - 100 % course work</p> <p>(iii) Industrial Training/Practicum/Community Case Study -</p>			
(d)				
	total			



3.0 ACADEMIC RECOGNITION AND LEADERSHIP				
(a)	Academic Awards (Recognition from a prestigious body for academic achievement)			
(b)	Assessor / Examiner (i) Academic Assessor/External Examiner/ Member of Board of Studies Jury Panel , "Loreal-Unesco For Woman" in Science Award, 2018. (ii) External Examiner for Thesis: (iii) Internal Examiner for Thesis: (iv) External Assessor for Promotion: (v) Assessor/Professional Examiner			
(c)	(i) Visiting Lecturer / Visiting Scientist / Visiting Fellow / Visiting Professor 1. Visiting Scholar, Advanced Materials Institute, Graduated School at ShenZhen, Tsinghua University, 1 Sept 2012 – 30 Nov 2012 (3 months). (ii) Visiting Lecturer / Visiting Scientist / Visiting Fellow / Visiting Professor 1. Visiting Professor, from 3 July 2011 to 26 July 2011 at Department of Electronic Engineering, University of Rome Tor Vergata, Via del Politecnico 1, 00133 Roma, Italy. (iii) Fellowship			
(d)	(i) Reviewing Articles in Academic Journals / Assessor of Working Papers / Reviewing Books 1. 2017, High-density amorphous phase of CdO, Journal of Non-Crystalline Solids. 2. 2016, GaN Schottky Metal-Semiconductor-Metal UV Photodetectors on Si(111) grown by Ammonia-			

	<p>MBE, IEEE Sensors Journal.</p> <p>3. 2016, A Novel Approach to Design High-Resolution Absolute Rotary Encoder System Based on Affine, IEEE Sensors Journal.</p> <p>4. 2015, Interface Reaction between Nd₂O₃ and Alumina Single crystal, MST-S .</p> <p>5. 2015, Thermoluminescence Properties of Doped YAP crystal, MST-S.</p> <p>6. 2015, Laser-induced growth of oriented Sb₂S₃ single crystal dots on the surface of 82SbSi-18Sb₂S₃ glasses, Journal of Non-Crystalline Solids.</p> <p>7. 2015, Simulation study on the electrical performance of equilibrium thin-body double-gate, Journal Teknologi, UTM.</p> <p>8. 2015, Synthesis and characterization of Polyethylene oxide incorporated with cadmium sulphide, Advances in Materials Physics and Chemistry.</p> <p>9. 2015, The investigation of Al-doped ZnO as an electron transporting layer for visible-blind ultraviolet, Materials Science in Semiconductor Processing.</p> <p>10. 2015, The investigation of Al-doped ZnO as an electron transporting layer for visible-blind ultraviolet, Materials Science in Semiconductor Processing.</p> <p>11. 2015, Hybrid UV Active Pixel Sensor Implemented Using GaN MSM UV Sensor and Si-based Circuit, IEEE Sensors Journal.</p> <p>12. 2015, Fabrication and Characterization of Solar Cells Based on Silicon Nanowire Homojunctions, Silicon, Springer.</p> <p>13. 2015, Formation of cubic inverse truncated pyramid-like porous GaN layer on RF-sputtering GaN/GaAs substrate, Journal of Physics and Chemistry of solids.</p> <p>14. 2015, Built-in-polarization field effect on lattice thermal conductivity of Al_xGa_{1-x}N/GaN heterostructure, Journal of Physics and Chemistry of Solids.</p> <p>15. 2014, A Catalyst-Free Growth of Aluminium-Doped ZnO Nanorods by Thermal Evaporation, Advances in Materials Physics and Chemistry (AMPC).</p> <p>16. 2014, Plasma enhanced-chemical vapour deposition of scuff-resistant hydrogenated amorphous carbon coatings on C100 steel, Journal of Surface Engineered Materials and Advanced Technology (JSEMAT).</p> <p>17. 2014, Schottky barrier inhomogeneity at Ti/Pd/Au</p>			
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	<p>/n-InAlAs Schottky Contacts, Advances in Materials Physics and Chemistry (AMPC).</p> <p>18. 2014, On the use of laser ablation for cleaning high voltage ceramic insulators, Journal of Surface Engineered Materials and Advanced Technology (JSEMAT).</p> <p>19. 2014, Characterization and dopamine sensing property of V2O5@polyaniline Nanohybrid, Synthetic Metals.</p> <p>20. 2014, Effect of blending ratio of fibers on the properties of nonwoven fabrics based of Alfa fibers, Advances in Materials Physics and Chemistry (AMPC).</p> <p>21. 2014, The effect of tightening on the corrosion properties of the PVD layers on magnesium AZ91D alloy, Journal of Surface Engineered Materials and Advanced Technology (JSEMAT).</p> <p>22. 2014, Dependence of atomic-scale Si(110) surface roughness on hydrogen introduction temperature after high-temperature Ar annealing, Journal of Surface Engineered Materials and Advanced Technology (JSEMAT)</p> <p>23. 2014, Surface Modification ofMultiferroic BiFeO3 Ceramic by Argon Sputtering, Journal of Surface Engineered Materials and Advanced Technology (JSEMAT)</p> <p>24. 2014, Photoelectrochemical properties of nanocrystalline Cd_{0.5}Fe_{0.5}S thin films grown by spray pyrolysis technique on different substrates, Advances in Materials Physics and Chemistry (AMPC).</p> <p>25. 2014, "A Low-Noise, Large-Dynamic-Range Enhanced Photodetector Based on JFET Buffering Input and JFET Bootstrap Structure" for the IEEE Sensors Journal.</p> <p>26. 2013, On the Structural and Optical Characteristics of Vacuum Evaporated In_xSe_{1-x} Thin Films," for Walailak Journal of Science and Technology (WJST)</p> <p>27. 2013, "Sensing of gaseous malodors in landfills and waste treatment plants" for the IEEE Sensors Journal.</p> <p>28. 2013, Capacitive effects in PINPIN photodiodes, Microelectronic Engineering.</p> <p>29. 2013, A Detection Method for Large Shaft Centerline Alignment Based on Position Sensitive Detectors and Laser Technology Optics & Laser Technology</p> <p>30. 2013, Synthesis of SbSI by CVD technique and its electrical property, Advances in Materials Physics and Chemistry (AMPC)</p>			
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	<p>31. 2013, Direct observation by electron microscopy techniques of the polarity control mechanism in aluminum nitride grown on sapphire". National Fellowship Program.</p> <p>32. 2013, A Simple phenomenological model for the elegant correlation between the Meyer-Neldel Rule's parameters, Journal of Non-Crystalline Solids</p> <p>33. 2013, Energy transfer and upconversion emission of Tm³⁺/Tb³⁺/Yb³⁺ co-doped transparent glassceramics containing Ba₂LaF₇ nanocrystals, Journal of Non-Crystalline Solids</p> <p>34. 2013, Thin Film Hydrogen Gas Sensor at Reduced Operating Temperature using Chromium Doped ZnO" for the IEEE Sensors Journal</p> <p>35. Novel and Simple Solution processed MIS Ultraviolet (UV) Detector Based on Core-Shell Si/SiO₂ Nano-Crystals, Journal of Electronic Materials.</p> <p>36. Prof Julian Chan, 2012, Photo-sensitivity enhancement of HfO₂-based MOS Photodiode with specific perimeter dependency due to edge fringing field effect, IEEE Sensors Journal.</p> <p>37. Andrea Cusano, 2012, Theoretical study on enhancement of the lateral photovoltaic effect for position sensitive detector with photonic crystals, Optics & Laser Technology.</p> <p>38. Prashant Kumta, 2012, Structural, Electrical and Optical Properties of Stannous Oxide (SnO) Thin Film by Reactive Thermal Evaporation Method, Materials Science and Engineering B.</p> <p>39. S. Buddhudu, 2012, Structural characterizations and the influence of metal work function contact for nanocrystalline Zn_{0.5}Cd_{0.5}S devices, Physica B.</p> <p>40. Andrea Cusano, 2012, Experimental investigations on fluorescence excitation and depletion of ATTO 390 dye, Optics & Laser Technology.</p> <p>41. Kate Scherler, 2011, Carrier concentration dependence of donor activation energy in n-type GaN epilayers grown on Si(111) by plasma-assisted MBE, Materials Research Bulletin.</p> <p>42. Dr. Habibah Lateh, 2011, Penggunaan Hasil Sampingan Industri Pertanian sebagai bahan makanan ternakan untuk kelestarian alam, Buku Terbitan PPPJJ, USM.</p> <p>43. Dr. Alexander Fish, 2011, Low Frequency Noise Characteristics of GaN Schottky Barrier Photodetectors Prepared with Nickel Annealing, IEEE Sensors Journal.</p> <p>44. Dr. M. Abedin, 2011, UV-A Selective Photo-responsivity in a GaN MSM Photodetector using</p>			
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	<p>ITO Schottky Electrodes, IEEE Sensors Journal.</p> <p>45. Prof. Julian Chan, 2011, Photo-Sensitivity Enhancement of HfO₂-based MOS Photodiode with specific perimeter dependency due to edge fringing field effect, IEEE Sensors Journal.</p> <p>46. Dr. Larry Nagahara, 2011, A Camera phone-based UV-dosimeter for monitoring the solar disinfection (SODIS) of Water, IEEE Sensors Journal.</p> <p>47. Prof. Prashant Kumta, 2011, The non-ohmic and dielectric behavior evolution of CaCu₃Ti₄O₁₂ after heat treatments in oxygen-rich atmosphere, Materials Science and Engineering B.</p> <p>48. S. W. James, 2011, An Experimental Investigation of P-N Diode Electrical Characteristics by Soft X-ray annealing Method, Optics & Laser Technology.</p> <p>49. Prof. Istvan Barsony, 2011, Fiber-optic Strain Sensor System with Temperature Compensation for Arch Bridge Condition Monitoring, IEEE Sensors Journal.</p> <p>50. Dr. Hartmut Zabel, 2011, Study of rapid thermal annealing effects on structural and electrical properties of double metal structure Ru/Cu contacts on n-type InP, Superlattices and Microstructures.</p> <p>51. Evgeny Katz, 2011, Photoconductive Gain of Vertical ZnO Nanorods on Flexible Polyimide Substrate by Low Temperature Process, IEEE Sensors Journal.</p> <p>52. Dr. M. Abedin, 2011, A deep UV sensitive Ta₂O₅/a-IGZO TFT, IEEE Sensors Journal.</p> <p>53. Jaan Laane, 2011, Synthesis and characterization of multilayer porous silicon on SOI wafer, Journal of Molecular Structure.</p> <p>54. Evgeny Katz, 2011, Ta₂O₅ Solar-blind photodetectors, IEEE Sensors Journal.</p> <p>55. Evgeny Katz, 2011, A monolithic implementation of Active Inductor VLQC and Jitter Free Photon Current Detection for Bio-luminescence SPAD Sensor, IEEE Sensors Journal.</p> <p>56. Prof Niaz Ahmed, 2011, C-V and Y-Parameters Determination of JFETs under Different Environmental Condition, Scientific Journals International (SJI).</p> <p>57. Evgeny Katz, 2010, An (Al_xGa_{1-x})₂O₃ metal-semiconductor-metal VUV photodetector, IEEE Sensors Journal.</p> <p>58. Evgeny Katz, 2010, A β-Ga₂O₃/GaN hetero-structured solar-blind and visible-blind dual-band photodetector, IEEE Sensors Journal.</p>			
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	<p>59. Evgeny Katz, 2010, 4H-SiC Schottky Photodiode Based Demonstrator Board for UV-Index Monitoring, IEEE Sensors Journal.</p> <p>60. Prof. Leda Lunardi, 2010, Study of the AlGaIn-based tungsten MSM photodetectors operating since to 450 °C , IEEE Transactions on Electron Devices.</p> <p>61. Hongge Pan, 2010, ZnO interconnected network nanostructures grown on cracked GaN by the aqueous solution method, Journal of Alloys and Compounds.</p> <p>62. S. Buddhudu, 2009, Raman spectroscopic characterization of highly (10-11) oriented InN films deposited by sputtering technique, Physica B.</p> <p>63. Rosemary Schreiber, 2009, Impact of B-SiC Buffer Layer Structure on Ultraviolet Detecting Performance of GaN Growing on silicon substrate, IEEE Transactions on Electron Devices.</p> <p>64. Roberto Fornari, 2009, Crystal Growth and Characterization of Nanoporous Gallium Nitride Structures on Silicon Substrates by Chemical Vapor Deposition, Journal of Crystal Growth.</p> <p>65. Naureen Hasan, 2009, Design of Series Resonant Parallel Loaded Transformer less DC Power Supply, The Open Electrical & Electronics Engineering Journal.</p> <p>(ii) Technical Assessor (per appointment) / Assessor for Grant Application (per appointment)</p> <p>(iii) Member of a Panel Discussion / Forum</p>			
(e)	<p>Editorial Board (per appointment)</p> <p>1. Member of Editorial Board, on Engineering and Physical Sciences, 2011 & 2012.</p> <p>2. Member of Reviewer Board, Nanosciences and Nanotechnologies: An International Journal (NIJ), 2011 & 2012.</p> <p>3. Member of Editorial Board, Journal of Physical Science and Research (JPSR), 2011 & 2012.</p> <p>4. Member of Editorial Board, International Journal of Physics and Research (IJPR), 2011 & 2012.</p> <p>5. Member of Editorial Board, Advances in Applied Science Research, 2011 & 2012.</p> <p>6. Member of Reviewer Board, International Journal of Applied Sciences (IJAS), 2012.</p>			

(f)	<p>Keynote Speaker (Conference / Seminar / Symposium and other similar academic forums)</p> <p>1. Ice Breaking Session (Inspirasi Penulisan & Penerbitan) organized by School of Distance Education, Universiti Sains Malaysia, 21 June 2011.</p>			
(g)	<p>Awards for Innovation</p> <ol style="list-style-type: none"> 1. Anugerah Sanggar Sanjung USM, Kategori Penerbitan Jurnal 2017. 2. Title: GaN Nanostructures and their Application for LEDs. 2012, Amount: RM 20,000.00, L'OREAL MALAYSIA SDN. BHD 3. Ainorkhilah Mahmood, Mohd Bukhari Md Yunus, Prof Zainuriah Hassan, Dr. Yam F.K., <u>Dr. Chuah Lee Siang</u>, Gold Medal, 10-11 September 2011, Invention, Innovation & Design IID PENANG 2011, UiTM Pulau Pinang. 4. Ainorkhilah Mahmood, Naser Mahmoud Ahmed Ahmad, Zainuriah Hassan, Yam Fong Kwong, Siti Khadijah Mohd Bakhori, Yushamdan Yusof, <u>Chuah Lee Siang</u>, 4-5 July 2011, The International Conference for Nanomaterials synthesis and characterization (INSC 2011), Best Poster Presentation, Seri Kembangan, Selangor, Malaysia. 5. L.S. Chuah et. al., 7-9 December 2009, Best Abstract, National Physics Conference (PERFIK 2009), Avillion Legacy Hotel, Malacca. 6. Chuah Lee Siang, 7-9 December 2009, Best Poster Award, National Physics Conference (PERFIK 2009), Avillion Legacy Hotel, Malacca. 			
(h)	<p>Member in Professional / Academic Associations</p> <p>(ii) Member (per society)</p> <ol style="list-style-type: none"> 1. Operating permit for radioactive equipment (X-ray diffraction system) – A registered member of Atomic Energy Licensing Board, under Ministry of Science, Technology and Innovation, Malaysia, June 2006 – present. 2. Member of the American Physical Society, 2010. 3. Member in American Association of Physics Teachers, 2010. 4. Member in Australian Institute of Physics, 2010. 5. Member in Malaysian Institute of Physics, 2010. 			

	<p>6. Life Member in The Malaysian Solid State Science and Technology Society MASS, 2010 - present.</p> <p>7. Life member in International Association of Computer Science and Information Technology (IACSIT).</p> <p>(iii) Committee Member (Conference / Seminar /Workshop)</p> <p>1. Committee Member, Writing Boot Camp I, 25-27 June 2010, Cinta Sayang Golf & Country Resort, Sg. Petani.</p> <p>2. Committee Member, Writing Boot Camp II, 12-14 Nov 2010, Bukit Jawi Golf Resort, Seberang Prai Selatan.</p> <p>3. Committee Member, Workshop on Advanced Characterization Methods for Nanomaterials, 1st June – 3rd June, 2010, organised by School of Physics, Universiti Sains Malaysia.</p> <p>4. Committee Member, Workshop on Monograph Preparation, 11 January 2011, organized by School of Distance Education, Universiti Sains Malaysia.</p> <p>5. Committee Member, Motivation on "Positive work attitude - the key to higher productivity" 3 Nov 2011, organized by School of Distance Education, Universiti Sains Malaysia.</p> <p>6. Committee Member, One day "preparation of grant proposal" workshop, 22 Ogos 2013, organized by School of Distance Education, Universiti Sains Malaysia.</p>			
	total			

4.0	State consultancy work that benefited the University and the School. Please list title of project, sponsor, value, main researchers and duration of consultancy.			
(a)	<p>Consultancy With Monetary Reward (University / School / Personal)</p> <p>(i) Principal Consultant</p> <p>Academic</p> <p>Research</p> <p>Service</p> <p>(ii) Co-Consultant</p> <p>Academic</p> <p>Research</p> <p>Service</p>			
(b)	Commercialization of Research Product (per product)			
(c)	<p>Consultation Without Monetary Rewards (with appointment letter / consultation report)</p> <ol style="list-style-type: none"> 1. Part time project supervisor for TIC 309/10 ICT Project, Wawasan Open University, 16 Jan 2012 to 13 January 2013. 2. Part time project supervisor for TEL 309/10 EL Project, Wawasan Open University, 16 Jan 2012 to 13 January 2013. 3. Part time tutor for "Solid State Semiconductor Devices", Wawasan Open University, 16 Jan 2012 to 15 July 2012. 4. Part time tutor for "Analog Circuits", Wawasan 			

	<p>Open University, 16 Jan 2012 to 15 July 2012.</p> <ol style="list-style-type: none"> 5. Part time tutor for "Solid State Semiconductor Devices", Wawasan Open University, 17 Jan 2011 to 12 June 2011. 6. Part time tutor for "Electronic Principles", Wawasan Open University, 18 July 2011 to 11 December 2011. 7. Moderator in Ice Breaking Session (Inspirasi Penulisan & Penerbitan), "Citation-Indexed Journals: Academician as a writer and mentor", at PPPJarak Jauh, USM, 21 June 2011. 8. Workshop on Advanced Characterization Methods for Nanomaterials, RM500, 1-3 June 2010. 9. Assisting in organizing the "National Science Challenge" Semi Final, 16-22 June 2009. <p>total</p>			
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5.0 SERVICE TO THE UNIVERSITY				
(a)	<p>Administration (per appointment)</p> <p>1. Program Physics Chairperson, 1 Sept 2014- 31 May 2015, PPPJJ, USM</p>			
(b)	<p>University Committee</p> <ol style="list-style-type: none"> 1. Ahli Jawatankuasa Keselamatan dan Kesihatan Pekerjaan Universiti (JKKPU), 13 Mei 2011 – 16 Februari 2013. 2. Ahli Jawatankuasa Sidang Pengarang Sains, 7 September 2011 – 6 September 2013. 3. Ahli Jawatankuasa Pengurusan Penggunaan Tenaga USM, 2012. 4. Panel Penilai Cadangan Penulisan Tesis Kaedah USM dan Software latex, 2012. 			
(c)	<p>School Committee</p> <ol style="list-style-type: none"> 1. Ahli Jawatankuasa Kecl Program Diploma, PPPJJ, 1 Jan 2018 – 31 disember 2018. 			

	<ol style="list-style-type: none"> 2. Ahli Jawatankuasa Kecil Kumpulan Penerbitan, PPPJJ, 1 Jan 2018 – 31 disember 2018. 3. Ahli Jawatankuasa Kualiti Pengurusan Akademik PPPJJ, 1 Jan 2017 – 31 Disember 2017. 4. Ahli Jawatankuasa Keselamatan & Kesihatan Pekerja (KKP) PPPJJ, 1 Jan 2014 – 31 Mei 2015. 5. Ahli Jawatankuasa Keselamatan & Kesihatan Pekerja (KKP) PPPJJ, 1 Julai 2011 – 30 Jun 2012. 6. Ahli Jawatankuasa Keselamatan & Kesihatan Pekerja (KKP) PPPJJ, 1 Januari 2012 - 31 Disember 2013. 7. Ahli Jawatankuasa Pengajian Siswazah dan Penyelidikan (JPSP) Pusat Pengajian Pendidikan Jarak Jauh, 1 Februari 2011 – 31 Januari 2012. 8. Ahli Jawatankuasa Pengajian Siswazah dan Penyelidikan (JPSP) Pusat Pengajian Pendidikan Jarak Jauh, 1 Januari 2012 – 31 Disember 2013. 9. Ahli Jawatankuasa Teknologi Pendidikan PPPJJ, 1 Januari 2012 – 31 Disember 2013. 10. Ahli Jawatankuasa Pra Bengkel Geran Penyelidikan (RUT), 17 Mei 2012. 11. Ahli Jawatankuasa Kecil Majlis Syarahan Umum Pelantikan, 28 Mei 2012 - 19 Disember 2012. 12. Ahli Jawatankuasa Sambutan Ulangtahun ke-40 RPJJ, 2011. 13. Committee member for the "Science and Arts Intellectual Series", School of Distance Education, Universiti Sains Malaysia (Jul 2010). 14. Committee member for the "Science and Arts Intellectual Series", School of Distance Education, Universiti Sains Malaysia (Jul 2011). 15. Ahli Penerbitan Buku Laporan Tahunan 2010. 16. Ahli Jawatankuasa Adhoc KPI/KIP bagi tahun 2010 PPPJJ (Penerbitan) 17. Ahli Jawatankuasa Badan Kebajikan PPPJJ 2011-2013. 18. Committee member for the motivation on "Positive work attitude - the key to higher productivity, 3 November 2011. 			
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(d)	University Representative (Sports and Non-Academic Activities)			
total				

6.0 SERVICE TO THE COMMUNITY/INDUSTRY				
(a)	Participation in activities at the following levels. Please list activities, venue and dates.			
(i)	International 1. Volunteer in Penang Bridge International MARATHON, 21 Nov 2010.			
(ii)	National 1. Ahli Pergerakan tenaga Akademik Malaysia (GERAK) 2010.			
(iii)	State 1. Ahli Jawatankuasa PKPAUSM 2010/2011 2. Ahli Jawatankuasa PKPAUSM 2011/2012 3. Member in Society For The Prevention Of Cruelty To Animals, Penang branch. 4. Voluteer in "Penang for Japan Disaster Relief Charity Drive", 27 march 2011. 5. Volunteer task in "SPCA World Animal Day 2010", 10 Oct 2010. 6. Volunteer task in Food fair, At Silver Jubilee Hall, Sungai Dua, 7 April 2010. 7. Life Member in "Penang Chinese Town Hall" 8. Voluteer in "HPP- MPPP Charity Walk 2010", Penang. 9. Voluteer in "Charity Walk for Health" in Healthy Lifestyle Campaign 2011.			
(iv)	District / Village / Institution 1. Committee Member 2017, Residents Association Sunway Cassia, Batu Maung.			
total				

GRAND TOTAL

CATEGORY				
			Total Marks	
			Candidate	Appraisal Committee
1.0	RESEARCH AND PUBLICATION (M₁)			
	1.1	Research Publication		
	1.2	Publication Related to Teaching		
	1.3	Research Grants		
	1.4	Other Publications		
Total M₁				
2.0	TEACHING AND SUPERVISION (M₂)			
3.0	ACADEMIC RECOGNITION AND LEADERSHIP (M₃)			
4.0	CONSULTANCY (M₄)			
$M_a = 0.35M_1 + 0.3M_2 + 0.1M_3 + 0.1M_4$				
5.0	SERVICE TO THE UNIVERSITY (M₅)			
6.0	COMMUNITY/INDUSTRY ENGAGEMENT (M₆)			
$M_b = 0.1M_5 + 0.05M_6$				

I declare that all the information given in this form is true. The University has the right to withdraw or reject the application if any information in this form is found to be false.



Signature : _____

Name : **CHUAH LEE SIANG**

Department : **PHYSICS SECTION, SCHOOL OF DISTANCE EDUCATION, USM**

Date : **10 -11-2020**
