

CURRICULUM VITAE

PROFILE	
Name :	Norazharuddin Shah Bin Abdullah, Dr.
Faculty:	School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia, Engineering Campus, 14300 Nibong Tebal, Penang, MALAYSIA.
Phone Number :	013-3975667
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Position :	University Lecturer (DS51)
Fields of Specialization:	'computational mass transport and reaction kinetics, materials and minerals characterization, tissue engineering applications'
ACADEMIC QUALIFICATIONS	
<p>UNIVERSITI OF OXFORD (2009)</p> <ul style="list-style-type: none"> • Doctor of Philosophy (D.Phil.) Chemical Engineering • Thesis Title: 'Mathematical Modelling of Nutrient Transport in Bioreactors for Bone Tissue Growth'. <p>UNIVERSITI SAINS MALAYSIA (2003)</p> <ul style="list-style-type: none"> • Masters of Science (M.Sc.) Mineral Resources Engineering • Thesis Title: 'Kinetic Studies of Ilmenite Chlorination at Relatively Lower Temperatures'. <p>UNIVERSITI SAINS MALAYSIA (2000)</p> <ul style="list-style-type: none"> • Bachelor of Engineering with Honours (B.Eng.(Hons.)) Mineral Resources Engineering 	

RESEARCH

(Project Title),(Sponsorship),(Total Grant),(Project Leader),(Date/Duration)

As Main Researcher (Total RM 205,432.00)

- 1) Bioreactors for Growing Artificial Bone Tissue: Detailing the Effects of Scaffold Micro-Structural Properties on the Nutrient Mass Transport Behaviour in Hollow Fibre Membrane Bioreactor (HFMB) Through Computational Modelling, USM (INCENTIVE GRANT), RM 5,000.00, 24/2/2011-23/2/2012.
- 2) Bioreactors for Growing Artificial Bone Tissue: A 'Convection-Enhanced' Mathematical Approach to Improve Traditionally Defined 'Diffusion-Limited' System in Representing Nutrient Transport in Hollow Fiber Membrane Bioreactors, USM (SHORT TERM), RM 39,392.00, 1/6/2012-30/11/2014.
- 3) Microdialysis Probes for Sampling and Continuous Monitoring Of Tissue Function In Three-Dimensional Engineered Tissues: Mass Transport Phenomena In Short Concentric Probes For Recovery Of Larger Molecules, USM (RU-INDIVIDUAL), RM 161,100.00, 15/12/2012-14/6/2015.

As Co-Researcher (Total RM 830,000.52)

- 1) Exploring A Novel Approach to Sintering of Dense Silicon Substituted Carbonated Hydroxyapatite (Si-CHA) Bioceramics For Human Bone Graft Substitute, MOHE (ERGS), RM 80,000.00, Ahmad Fauzi Bin Mohd Noor, 1/8/2012-31/1/2015.
- 2) Fabrication of Intelligent Three-Dimensional (3D) Scaffold For Bone Tissue Engineering (BTE), USM (RU-INDIVIDUAL), RM 243,561.00, Ahmad Fauzi Bin Mohd Noor, 1/12/2013-30/11/2016.
- 3) New Active Morphing Wing of Micro Air Vehicle with Shape Memory Alloy Compliant Mechanism Actuator, MOHE (FRGS), RM 51,000.00, Nor Iswadi Bin Ismail, 15/4/2012 - 14/4/2014.
- 4) Investigation on the Permeability of Semipregs Composites during the OOA Manufacturing Process, MOHE (FRGS), RM123,000.00, Abdul Rahim bin Othman, 1/7/2014 - 30/6/2017.
- 5) Development of a Sustainable Gold extraction Process in the Cyanidation of Low Grade Gold Ores, USM (RU-INDIVIDUAL), RM 160,179.12, Norlia Baharun, 1/3/2015-28/2/2017.
- 6) Reductive Leaching Studies Of Malaysian Low Grade Manganese Using Agricultural Biomass, USM (SHORT TERM), RM 46,560.40, 1/6/2015-31/05/2017
- 7) Degradation of Phenolic Compounds via Photocatalytic Application with Polyoxometalate as Photocatalyst: Studies on its Reaction Kinetics and Mass Transfer, MOHE (FRGS), RM125,700.00, Siti Kartini Binti Enche Ab Rahim, 1/11/2015 - 31/10/2017.

PUBLICATIONS

(Authors),(Title of Article),(Name of Journal),(Publisher, Rank), (Year), (Volume), (Edition), (Number of Pages)

Peer Reviewed Journals

- 1) N.S. Abdullah, D.B. Das, H. Ye, Z.F. Cui, 3D bone tissue growth in hollow fibre membrane bioreactor: implications of various process parameters on tissue nutrition , International Journal of Artificial Organs (Wichtig, 26/42), 2006, 29, 11.
- 2) N.S. Abdullah, D.B. Das, Modelling Nutrient Transport in Hollow Fibre Membrane Bioreactor for Growing Bone Tissue with Consideration of Multi-Component Interactions, Chemical Engineering Science (Elsevier, 17/114), 2007, 62, 19
- 3) N.S. Abdullah, D.R. Jones, D.B. Das , Nutrient Transport in Bioreactors for Bone Tissue Growth: Why do Hollow Fibre Membrane Bioreactors Work?, Chemical Engineering Science (Elsevier, 26/128), 2009, 64(1), 17
- 4) W.F.F. Wan Ali, M. Othman, N.A. Rejab, M.Z. Abdullah, A. Marzuki, S.D. Hutagalung, J.J. Mohamed, M.F. Ain, N.S. Abdullah, Z.A. Ahmad, Synthesis and Characterization of Ba_{0.3}Sr_{0.7}ZrO₃ Ceramic Thick Films Prepared by Sol-Gel Technique, Advanced Materials Research (Trans Tech, -/), 2013, 620, 6
- 5) S. Ismail, N.S. Abdullah, H. Hussin, S.F. Saiyid Hashim, Bamboo Sawdust as a Reduction Agent in Leaching Applications: Characterization Studies, Advanced Materials Research (Trans Tech, -/), 2013, 620, 6
- 6) W.F.F Wan Ali, M.F. Ain, N.S. Abdullah, Z.A. Ahmad, Studies on the Formation of Yttrium Iron Garnet (YIG) through Stoichiometry Modification Prepared by Conventional Solid-State Method , Journal of the European Ceramic Society (Elsevier, 2/25), 2013, 10
- 7) W.F.F Wan Ali, M. Othman, M.F. Ain, N.S. Abdullah, Z.A. Ahmad, The Effect of Fe₂O₃ excess in Y₃Fe₅O₁₂ (YIG) ceramics for high frequency tunable dielectric resonator antenna (DRA), Journal of Materials Science: Materials in Electronics (Springer, 62/248), 2013, 13
- 8) N.I. Ismail, A.H. Zulkifli, M.Z. Abdullah, M. Hisyam Basri, N.S. Abdullah, Computational aerodynamic analysis on perimeter reinforced (PR)-compliant wing, Chinese Journal of Aeronautics (Elsevier, 19/28), 2013, 5, 13
- 9) N.I. Ismail, A.H. Zulkifli, M.Z. Abdullah, M. Hisyam Basri, N.S. Abdullah, Optimization of Aerodynamic Efficiency for Twist Morphing MAV Wing, Chinese Journal of Aeronautics (Elsevier, 10/28), 2014, 2, 12
- 10) A.H. Zulkifli, M.Z. Abdullah, M. Hisyam Basri , N.I. Ismail , N.S. Abdullah, Aerodynamic Performance of Twist Morphing MAV Wing, International Journal of Advancements in Mechanical and Aeronautical Engineering (IRED, -/), 2014, 1, 5
- 11) W.F.F. Wan Ali, H.H. Jaafar, M.F. Ain, N.S. Abdullah, Z.A. Ahmad, Enhancement of YIG bandwidth efficiency through Ce-doping for dielectric resonator antenna (DRA) applications, Journal of Materials Science: Materials in Electronics (Springer, 98/249), 2014, 11
- 12) Kho C.M., A. Aziz, Z.A. Ahmad, S.K. Enche Ab Rahim, N.S. Abdullah, Physical Characterization of Microdialysis Probe Membrane to Augment the Mathematical Modelling of Mass Transport in Such Systems, Advanced

- Materials Research (Trans Tech, -/-), 2015, 1087, 6
- 13) N.S. Shahbudin, Z.A. Ahmad, N.S. Abdullah, A Bentonite Layer Between Alumina Foam and its Hydroxyapatite Coat: An Improved Scaffold for Bone Tissue Engineering Applications., Advanced Materials Research (Trans Tech, -/-), 2015, 1078, 5
- 14) N.S. Abdullah, A. Aziz, K. Hussin, Initial Comparative Studies of Ilmenite Chlorination Using Gaseous CCl₄ and HCl at Relatively Low Temperatures., Advanced Materials Research (Trans Tech, -/-) 2015, 1087, 5
- 15) W.F.F. Wan Ali, H.H. Ahmad, M. Othman, M.I. Zubir, M.F. Ain, N.S. Abdullah, Z.A. Ahmad, Structural Properties of Cerium Substituted Yttrium Iron Garnet., Advanced Materials Research (Trans Tech, -/-), 2015, 1087, 5
- 16) S. Ismail, H. Hussin, S.F. Saiyid Hashim, N.S. Abdullah, Leached Residue Characterization of Manganese-Bamboo Saw Dust Blend: An X-Ray Diffraction Study., Advanced Materials Research (Trans Tech, -/-) 2015, 1087, 5
- 17) W.F.F.W. Ali, M. Othman, M.F. Ain, N.S. Abdullah, Z.A. Ahmad, From Optimization to Dielectric Resonator Antenna (DRA) Application of YIG: Synthesis Approach., Journal of Alloys and Compounds (Elsevier, 4/74), 2015, 645(5), 12

PROFESSIONAL MEMBERSHIP

(Membership Level), (Awarding Institution), (Year Conferred)

- Graduate Member, Institution of Engineers Malaysia, 2000
- Graduate Member, Board of Engineers Malaysia, 2000
- Associate Member, Institute of Chemical Engineers (AMIChemE), 2006
- Professional Member, Institute of Materials Malaysia (MIMM), 2011

MISCELLANEOUS

(Name of Award), (Awarding Institution), (Occasion, Year), (Level)

Awards:

- Ireland's Institute of Technology Special Award (IOTI) conferred by Athlone Institute of Technology. 2nd International Malaysia-Ireland Joint Symposium on Engineering, Science and Business 2012 (IMiEJS 2012), International
- Best Poster Presentation, XAPP Malaysia and Universiti Sains Malaysia, International Conference on X-Rays & Related Techniques in Research and Industry 2012 (ICXRI 2012), International
- Best Poster Presentation, XAPP Malaysia and Universiti Tun Hussien Onn, International Conference on X-Rays & Related Techniques in Research and Industry 2014 (ICXRI 2014), International
- Universiti Sains Malaysia's Sanggar Sanjung (Publication), Universiti Sains Malaysia, 2014, University
- Best Poster Presentation, XAPP Malaysia and Malaysia Nuclear Agency, Seminar on Advanced Materials Characterization Techniques in Research, Industry and Nuclear Applications 2015 (AMCT 2015), National