Natasha binti Ahmad Nawawi

Senior Lecturer

School of Mechanical Engineering,

College of Engineering,

Universiti Teknologi Mara,

40200 Shah Alam, Selangor

PERSONAL PROFILE

Date & Place of birth: 28 November 1983, Wilayah Persekutuan

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EDUCATION

Doctor of Philosophy (Engineering) (2017)
University of Malaya (UM), Kuala Lumpur, Malaysia

Master of Science (Materials Engineering) (2010)
International Islamic University Malaysia (IIUM), Kuala Lumpur, Malaysia

Bachelor of Engineering (Materials) (Honours) (2007)
International Islamic University Malaysia (IIUM), Kuala Lumpur, Malaysia

Matriculation Programme (Engineering) (2003)
Matriculation Centre of International Islamic University Malaysia (IIUM), Kuala Lumpur, Malaysia

PROFESSIONAL MEMBERSHIP

Graduate Member, Board of Engineers Malaysia (BEM) (G.E No: 146132A)
Graduate Member, Institute of Engineers Malaysia (IEM) (113129)

EXPERIENCE

WORKING EXPERIENCE

Date	Employer	Position
2010-2012	Royal Selangor International Sdn. Bhd, Kuala Lumpur, Malaysia	Metallurgist
2007-2010	International Islamic University Malaysia (IIUM)	Teaching Assistant

RESEARCH

No.	Title	Grant/ Research	Role	Year
1	Development of Mn-doped biphasic calcium phosphate for load bearing biomedical application	MSc Research	-	2007-2009
2	Properties of calcium phosphate bioceramic prepared by solid state and chemical route	PhD Research	-	2013-2016
3	Enhancement of Heat Transfer on Hybrid C-TiO2 nanofluid as a Quenching Medium for Automotive Part	Grant: RDU1803186 (UMP Pahang)	Member	2018-2020
4	Mechanism of "zero strain intercalation" into binary titanate system	FRGS 2019	Member	2019-2022
5	Mechanism of "zero strain intercalation" into binary titanate system	Grant: RDU1901205 (UMP Pahang)	Member	2019-2021
6	Upscaling the electroplating process of corrosion resistant cobalt alloy coated mild steel	PRGS 2020	Member	2020-2022
7	Microwave-assisted Sol-Gel Combustion Method Synthesis of ZnO Nanoparticles	Geran Penyelidikan UMP-IIUM-UiTM Sustainable Research Collaboration 2020	Member	2020-2022

INNOVATION AWARD

1. Bronze Medal for the invention of "Designing of A Multipurpose Rack for Electroplating" at Penang International Invention, Innovation and Design (PIID) 2021 (UiTM Penang, Malaysia, 10-11 March 2021)

2. Bronze Medal for the invention of "Multipurpose of Telescopic Ladder" at Ipoh International Summit on Professionalism, Research and Education 2019 (Perak, Malaysia, 17-19 November 2019)

3. Gold Medal for the invention of "Development of Bioactive Bone Implant Materials" at International Trade Fair "Ideas, Inventions, New Products" Exhibition (iENA) 2008 exhibition (Nurenberg, Germany, 30 Oct-2 Nov 2008). (Inventors: Iis Sopyan, Natasha A. Nawawi, Toibah Abd Rahim, Ramesh Singh).

4. Gold Medal for the Innovation of "Bioactive Dense Bone Implants" at 56th EUREKA International Invention and Innovation Show, Brussels (Belgium), 22-25 November 2007. (Inventors: Iis Sopyan, Natasha Ahmad Nawawi, Ramesh Singh, Mohd. Hamdi).

5. Silver Medal for the Innovation of "A Novel Method to Produce TiO_2 Powder for Photocatalyst Application" at 56th EUREKA International Invention and Innovation Show, Brussels (Belgium), 22-25 November 2007. (Inventors: Iis Sopyan, Nor Hafizah, Natasha A. Nawawi, Radhiyah A. Aziz)

6. Bronze medal for the inventions of "Dense Hydroxyapatite" at Malaysia Technology Expo 2008 (MTE 2008), Kuala Lumpur, 21-23 February 2008. (Inventors: Iis Sopyan, Natasha A. Nawawi)

5. Bronze Medal for the invention of "Nanostructured Manganese Doped Biphasic Calcium Phosphate Ceramics for Human Cortical Bone Implant Application" at Bio Malaysia 2009, Kuala Lumpur (Malaysia), November 2009. (Inventors: Iis Sopyan, Natasha Ahmad Nawawi & Qasim Hussain Shah)

PUBLICATION

1. A.N Natasha, S. Ramesh, L.T Bang, M. H. Koay (2021). Influence of calcination temperature in synthesizing eggshell-derived calcium phosphate, *Materials Today: Proceedings*.
2. A.N Natasha, S. Ramesh, C.Y. Tan, L.T Bang (2021). Sinterability of Calcium Phosphate through Rapid Sintering, Journal of Physics: Conference Series, *1892* 012038.
3. Natasha, A. N., Ramesh, S., & Tan, C. Y. (2020). Sinterability study of microwave sintered eggshell-hydroxyaptite powder. *NaSMiNT 2019 ORGANIZING COMMITTEE*, 13.
4. A.N. Natasha, S. Ramesh & C.Y. Tan (2018). Calcium Phosphate Nanoparticles Prepared via Solid-State Route, *International Journal of Engineering and Technology*, *7*(14.8), 80-83.
4. Natasha Ahmad Nawawi, Ramesh Singh & Tan Chou Yong (2018). Consolidation of Calcium Phosphate Powder Through Microwave Sintering, *ESTEEM Academic Journal*, *14*, 10-19.
5. Ramesh, S., Natasha, A. N., Tan, C. Y., Bang, L. T., Ching, C. Y., & Chandran, H. (2016). Direct conversion of eggshell to hydroxyapatite ceramic by a sintering method. *Ceramics international*, *42*(6), 7824-7829.
6. Ramesh, S., Natasha, A. N., Tan, C. Y., Bang, L. T., Niakan, A., Purbolaksono, J., Chandran, H., Ching, C. Y. Ramesh, S., & Teng, W. D. (2015). Characteristics and properties of hydoxyapatite derived by sol–gel and wet chemical precipitation methods. *Ceramics International*, *41*(9), 10434-10441.
7. Chew, W. K., Niakan, A., Nawawi, N. A., Bang, L. T., & Ramesh, S. (2015). Influence of powder morphology and sintering temperature on the properties of hydroxyapatite. *International Journal of Automotive and Mechanical Engineering*, *12*, 3089.
8. Nawawi, N. A., Singh, R., Hamdi, M., Young, T. C., Purbolaksono, J., & Toulouei, R. (2014). Synthesis and properties of biphasic calcium phosphate prepared by different methods. *Advanced Materials Research*, *970*.
9. Sopyan, I., Ramesh, S., Nawawi, N. A., Tampieri, A., & Sprio, S. (2011). Effects of manganese doping on properties of sol–gel derived biphasic calcium phosphate ceramics. *Ceramics International*, *37*(8), 3703-3715.
10. Nawawi, N. A., Sopyan, I., & Ramesh, S. (2011). Phase behaviour of manganese-doped biphasic calcium phosphate ceramics synthesized via sol-gel method. *Asia-Pacific Journal of Chemical Engineering*, *6*(6), 823-831.
11. Sopyan, I., Nawawi, N. A., Shah, Q. H., Ramesh, S., Tan, C. Y., & Hamdi, M. (2011). Sintering and properties of dense manganese-doped calcium phosphate bioceramics prepared using sol-gel derived nanopowders. *Materials and Manufacturing processes*, *26*(7), 908-914.
12. A Nawawi, N., SF Alqap, A., & Sopyan, I. (2011). Recent progress on hydroxyapatite-based dense biomaterials for load bearing bone substitutes. *Recent Patents on Materials Science*, *4*(1), 63-80.

13. Sopyan, I., Ahmad Nawawi, N., & Shah, Q. H. (2010). Dense manganese doped biphasic calcium phosphate for load bearing bone implants. *Advanced Materials Research* (Vol. 93, pp. 393-396). Trans Tech Publications.
14. Sopyan, I., & Natasha, A. N. (2009). Preparation of nanostructured manganese-doped biphasic calcium phosphate powders via sol–gel method. *Ionics*, *15*(6), 735-741.
15. Natasha, A. N., Sopyan, I., Mel, M., & Ramesh, S. (2008). Influence of manganese doping into HA powders on the properties of its dense bodies. *Medical Journal of Malaysia*, *63* (Supplement A), 85-86.
16. Natasha, A. N., Sopyan, I., & Zuraida, A. (2008). Fourier transform infrared study on sol-gel manganese-doped hydroxyapatite. *Advanced Materials Research* (Vol. 47, pp. 1185-1188). Trans Tech Publications.
17. Sopyan, I., Toibah, A. R., & Natasha, A. N. (2008). Nanosized bioceramic hydroxyapatite powders via sol-gel method. *International Journal of Mechanical and Materials Engineering*, *3*(2).

PATENT

1. Iis Sopyan and Natasha A. Nawawi, Bioactive Dense Hydroxyapatite for Load Bearing Bone Implant Applications and Effect of Manganese Doping on Mechanical Improvement, Malaysia Patent, PI No. 20093856 (15 September 2009)

RESPONSIBILITIES

1. Ketua Bidang Mekanik & Bahan (Diploma), Fakulti Kejuruteraan Mekanikal, UiTM Permatang Pauh, Pulau Pinang (July 2019 - September 2020)
2. *Resource Person* MEC211 (Strength of Materials) for Diploma in Mechanical Engineering UiTM (June 2018 - September 2020)
3. *Reviewer* Self Review Portfolio UiTM Pulau Pinang (December 2019 - September 2020)
4. Ketua Unit (Academic Curriculum) Akreditasi ETAC Program Diploma (EM110) Fakulti Kejuruteraan Mekanikal, UiTM Permatang Pauh, Pulau Pinang (Januari 2019 - September 2020)
5. Editorial Board Member for Journal of Modern Manufacturing Systems and Technology, Faculty of Manufacturing and Mechatronic Engineering Technology Universiti Malaysia Pahang (2018-current)
6. Koordinator Industrial Technology (IT) di Research Nexus UiTM (ReNeU), Pejabat Timbalan Naib Canselor (Penyelidikan & Inovasi) (September 2021-current)
7. Resource Person MEC411 (Engineering Statics) for Bachelor in Mechanical Engineering UiTM (September 2021 - current)