


Brief CV

Name	LEE TE CHUAN	中文名	李得传	
Gender	MALE	Title (Pro./Dr.)	Dr.	
Position (President...)	Lecturer	Country	Malaysia	
University/ Department	Department of Production and Operation Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia			
Personal Website	https://community.uthm.edu.my/tclee			
Research Area	<ul style="list-style-type: none"> • Biomaterials processing and characterisation • <i>In vitro</i> testings (simulated body fluid) • Surface modification of titanium (anodic oxidation) • Extraction of hydroxyapatite • Biopolymer self-healing coatings • Biocomposite for furniture application • 3D printing for bio-scaffold • Industry 4.0 • Engineering management 			
Brief introduction of your research experience:				
<p>Dr. Lee Te Chuan is a lecturer from Department of Production and Operation Management, Faculty of Technology Management and Business, Universiti Tun Hussein Onn Malaysia. His research expertise is in biomaterials processing and characterisation (coatings and <i>in vitro</i> testing).</p> <p>Dr. Lee is actively involved in biomedical research, particularly surface modification of titanium for implants. Over the past few years, he put a lot of effort in improving the biocompatibility of the titanium implants as well as hasten the healing process and minimise the need for any post-implantation steps. Dr. Lee successfully produced a superior bioactivity surface (nano-flower sodium titanate on titanium substrate) and revealed the potential of ultraviolet light to accelerate the growth of bone-like apatite (artificial bone) in</p>				

collaboration with researchers from University of New South Wales, UNSW Sydney (APEC member). His finding had been published in two reputable journals (Materials Letters and Surface & Coating Technology, Elsevier). It is noteworthy to mention that his findings is a scientific breakthrough in enhancing the osseointegration of tissues and bones with the implant titanium and shorten the recovery time of patient suffered injury.

Aside from biomedical research, Dr. Lee also actively involved as consultant (R&D) for Small and Medium Enterprise in Malaysia. He helps DHIA Legacy Enterprise, a detergent manufacturer, to improve the blood stain remover detergent by increasing the blood removal efficiency and reducing the operation cost. This product has been commercialised in local market.

List of Peer Reviewed Scholarly Publications

Journal article

- [1] Lee, T. C., Abdullah, H. Z., Koshy, P. & Idris, M. I. (2018). Deposition Of Novel Bioactive Nanoflower-Like Sodium Titanate On TiO₂ Coating Via Anodic Oxidation For Biomedical Applications. *Materials Letters*, 216, pp 256-260. (Elsevier, Impact Factor = 2.57)
- [2] Lee, T. C., Koshy, P., Abdullah, H. Z. & Idris, M. I. (2017). Biomimetic Bone-Like Apatite Coating On Anodised Titanium In Simulated Body Fluid Under UV Irradiation. *Materials Science Forum*, 888, pp 251-255.
- [3] Lee, T. C., Koshy, P., Abdullah, H. Z. & Idris, M. I. (2016). Precipitation of bone-like apatite on anodised titanium in simulated body fluid under UV irradiation. *Surface & Coating Technology*, 310, pp.20-28. (Elsevier, Impact Factor = 2.00)
- [4] Lee, T. C., Rashid, M. H. A., Selimim, M. A., Abdullah, H. Z. & Idris, M. I. (2016). Precipitation of Hydroxyapatite on Pure Titanium Substrate via Single Step Anodic Oxidation. *Key Engineering*, In Press. (Impact Factor = 0.19)
- [5] Abdullah, H. Z., Lee, T. C., Idris, M. I., & Sorrell, C. C. (2015). Effect of current density on anodised titanium in mixture of β -glycerophosphate (β -GP) and calcium acetate (CA). *Advanced Materials Research*, 1087, pp. 212-217.
- [6] Lee, T. C., Idris, M. I., Abdullah, H. Z. & Sorrell, C. C. (2015). Effect of electrolyte concentration on anodised titanium in mixture of β -glycerophosphate (β -GP) and calcium acetate (CA). *Advanced Materials Research*, 1087, pp. 116-120.
- [7] Lee, T. C., Rathi, M. F. M., Abidin, M. Y. Z., Abdullah, H. Z. & Idris, M. I. (2015). Characterisation and in vitro bioactivity of UV-treated anodised titanium. *Advanced Materials Research*, 1125, pp. 450-454.
- [8] Lee, T. C., Abdullah, H. Z. & Idris, M. I. (2015). Effect of UV wavelength on apatite formation of anodised

titanium. *Advanced Materials Research*, 1125, pp. 465-469.

[9] Lee, T. C., Idris, M. I. & Abdullah, H. Z. Effect of UV light treatment condition on apatite formation of anodised titanium (2015). *Advanced Materials Research*, 1125, pp. 460-464.

[10] Lee, T. C., Mazlan, M. H. H., Abbas, M. I., Abdullah, H. Z. & Idris, M. I. (2016) Effect of ultrasonic amplitude on surface properties of anodised titanium for biomedical application. *Materials Science Forum*, 840, pp. 860-864.

[11] Lee, T. C., Mazlan, M. H. H., Abbas, M. I., Abdullah, H. Z. & Idris, M. I. (2016) Effect of bath temperature on surface properties of anodised titanium for biomedical application. *Materials Science Forum*, 840, pp. 175-178.

[12] Lee, T. C., Mazlan, M. H. H., Abbas, M. I., Abdullah, H. Z. & Idris, M. I. (2016) Preparation of bioactive titanium film via anodic oxidation in agitation condition. *Materials Science Forum*, 840, pp. 220-224.

Conference proceeding

[1] Ariffin, N. A., Haslizam, N. N., Samsurrijal, S. A., Selimin, M. A., Manap, N., Lee, T. C., Abdullah, H. Z. and Idris, M. I. (2018). A comparative study of physical and mechanical properties of wood plastic composite produced from different agriculture residues. *Proceedings of the International Conference on Industrial Engineering and Operation Management*. Bandung, Indonesia.

[2] Ahmad, A. N. A, Lee, T. C., Ramlan, R., Ahmad, M. F., Husin, N., Rahim, M. A (2017). Value stream mapping to improve workplace to support lean environment. *Proceeding of 8th International Conference in Mechanical and Manufacturing Engineering*. Langkawi, Malaysia.

[3] Ahmad, A. N. A, Lee, T. C., Ramlan, R., Ahmad, M. F., Husin, N., Rahim, M. A (2017). The hybrid lean system to improve manufacturing environment. *Proceeding of 8th International Conference in Mechanical and Manufacturing Engineering*. Langkawi, Malaysia.

[4] Lee, T. C., Rathi, M. F. M., Abidin, M. Y. Z., Abdullah, H. Z. & Idris, M. I. (2015). Effect of applied voltage on surface properties of anodised titanium in mixture of β -glycerophosphate (β -GP) and calcium acetate (CA). *Proceedings of the 23rd Scientific Conference of Microscopy Society Malaysia (SCMSM 2014)*. Universiti Teknologi Petronas: AIP Publishing.

[5] Lee, T. C., Abdullah, H. Z. & Idris, M. I. (2015). Surface properties, crystallinity and optical properties of anodised titanium in mixture of β -glycerophosphate (β -GP) and calcium acetate (CA). *Proceedings of the 23rd Scientific Conference of Microscopy Society Malaysia (SCMSM 2014)*. Universiti Teknologi Petronas: AIP Publishing.

[6] Lee, T. C., Abdullah, H. Z. & Idris, M. I. (2015). UV-induced precipitation of bone-like apatite on anodised titanium in simulated body fluid. *Proceedings of the 3rd International Conference on Advances in Civil, Structural and Mechanical Engineering (CSM 2015)*. Birmingham City University: Seek Digital Library. pp. 22-26.

[7] Lee, T. C., Abdullah, H. Z. & Idris, M. I. (2015). Mechanism of bone-like apatite formation on anodised titanium under UV irradiation. *Proceedings of the 3rd International Conference on Advances in Civil, Structural and Mechanical Engineering (CSM 2015)*. Birmingham City University: Seek Digital Library. pp. 51-55.

Other Awards/Achievements/Contributions to market-led innovations

1. Faculty Award: Research and Innovation Awards 2018
2. Silver Medal, An International Innovation, Invention & Design Competition & Conference 2017, Product: Environmentally Friendly Medium Density Fibreboard for Furniture Applications
3. Bronze Medal, An International Innovation, Invention & Design Competition & Conference 2017, Product: Novel Bioactive Nanoflower-like Sodium Titanate on TiO₂ Coating via Anodic Oxidation for Biomedical Applications
4. Best Poster in Seminar on Materials Characterisation Techniques in Research, Industry and Nuclear Applications (AMCT 2015), Palace of the Golden Horses, Seri Kembangan, Kuala Lumpur, Malaysia
5. Semi-finalist of Material Lecture Competition 2014
6. Silver Medal, Research and Innovation Competition 2014, Product: UV Treated Anodised Titanium for Biomedical Application
7. Silver Medal, 1st National Technological Exposition on Rural Innovation 2012, Product: Home Compost Fertilizer Maker.
8. Advisory Committee (Research & Development) for DHIA Legacy Enterprise, 2017- Present. Product: Blood stain remover detergent.

*******All the columns need to be filled in.**