

# Curriculum Vitae



Name	<b>Ts. Dr. Abdul Halim Abdullah</b>	Nationality	Malaysia
Date of Birth	05-02-1982	Gender	Male
Age	39	Marital Status	Married
Current Position	Senior Lecturer		
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Scopus ID	<a href="https://www.scopus.com/authid/detail.uri?authorId=55886098400">https://www.scopus.com/authid/detail.uri?authorId=55886098400</a>		
Research Gate	<a href="https://www.researchgate.net/profile/Halim-Abdullah-2">https://www.researchgate.net/profile/Halim-Abdullah-2</a>		
Publons	<a href="https://publons.com/researcher/3736002/abdul-halim-abdullah">https://publons.com/researcher/3736002/abdul-halim-abdullah</a>		
Google Scholar	<a href="https://scholar.google.co.jp/citations?user=SE69HsUAAAAJ&amp;hl=en">https://scholar.google.co.jp/citations?user=SE69HsUAAAAJ&amp;hl=en</a>		
<b>Academic Background</b>			
Year	Contents		
2012- 2016	<b>Interdisciplinary Graduate School of Engineering Sciences, Kyushu University, Japan</b>		
2007-2009	Received the degree of Doctor of Engineering <b>Faculty of Mechanical Engineering, Universiti Teknologi Malaysia</b>		
2001-2005	Received the degree of Master of Engineering (Mechanical) – <i>by research</i> <b>School of Mechanical Engineering, Universiti Sains Malaysia</b> Received the degree of Bachelor of Engineering (Hons) Mechanical		

<b>Working Experience(s)</b>	
Year	Contents
2008~Present	<b>Universiti Teknologi MARA, Malaysia</b> Senior Lecturer at the Faculty of Mechanical Engineering (2013-present) Lecturer at the Faculty of Mechanical Engineering (2009-2013) Junior Lecturer at the Faculty of Mechanical Engineering (2008-2009)
2006	<b>Department of Standards Malaysia, Ministry of Science, Technology and Innovation</b>
2005~2006	Science Officer (Accreditation Division) <b>GG Circuit Industries Sdn. Bhd. Malaysia</b> Pre-Production Engineering (PPE) Assistant Engineer
<b>Professional Position / Professional Bodies / Member of Society</b>	
<ul style="list-style-type: none"> <li>• Professional Technologist (Ts.) Biotechnology – PT17120022</li> <li>• Graduate Technologist, Malaysia Board of Technologists (MBoT)</li> <li>• Member, Board of Engineers Malaysia (BEM) (57196A)</li> <li>• Member, International Association of Engineers (IAENG)</li> <li>• Member, International Association of Computer Science and Information Technology (IACSIT)</li> <li>• Editorial Board Member for International Journal of Current Research in Engineering and Technology (IJCRET), India (Dec 2017 – Dec 2019)</li> <li>• Industrial Advisor (Penasihat Industri) for Diploma in Mechanical Engineering (Petrochemical), Politeknik Tun Syed Nasir Syed Ismail, Malaysia (since May 2017)</li> <li>• Member, Centre of Excellence for Design, Engineering and Manufacturing (CADEM), UiTM</li> <li>• Member, Biomechanical &amp; Clinical Engineering (BioMeC) Research Group UiTM</li> </ul>	
<b>Teaching and Supervising Experience(s)</b>	
<p>Mechanical Engineering subjects: Finite Element Method, Numerical Method and Applications, CAD/CAM, Strength of Materials, Mechanical Engineering Design I &amp; II</p> <p>Postgraduate Supervision:</p> <p style="padding-left: 40px;"><i>Doctor of Philosophy – (5 on-going)</i></p> <ol style="list-style-type: none"> <li>1. Muhammad Saiful Islam bin Mohd Izra'ai, 2019894814 (Main Supervisor), School of Mechanical Engineering, College of Engineering UiTM</li> <li>2. Muhammad Azeeb bin Mazlan, 2020189531 (Main Supervisor), School of Mechanical Engineering, College of Engineering UiTM</li> <li>3. Siti Mariam binti Abdul Ghani, 2017836982 (Co-Supervisor), Faculty of Dentistry UiTM.</li> <li>4. Mohd Afril Hafiz bin Sariman, 2020535177 (Co-Supervisor), School of Mechanical Engineering, College of Engineering UiTM</li> <li>5. Nur Nabila binti Mohd Nazali, 2020238228 (Co-Supervisor), School of Mechanical Engineering, College of Engineering UiTM</li> </ol>	

*Master of Science – (5 on-going)*

6. Maizatul Afirah binti Ahmad, 2019308611 (Main Supervisor), School of Mechanical Engineering, College of Engineering UiTM
7. Wan Nur Fatini Syahirah binti W. Dagang, 2019832482 (Main Supervisor), School of Mechanical Engineering, College of Engineering UiTM
8. Abd Razak bin Ab Manap, 2020115499 (Main Supervisor), School of Mechanical Engineering, College of Engineering UiTM
9. Najwa Syakirah binti Hamizan, 2020185903 (Co-Supervisor), School of Mechanical Engineering, College of Engineering UiTM
10. Ruhaimi bin Mustapa, 2020654658 (Co-Supervisor), School of Mechanical Engineering, College of Engineering UiTM

*Master of Science – (8 completed)*

11. Muhammad Syahmi bin Yusof, 2017547849 (Main Supervisor), Faculty of Mechanical Engineering UiTM, 2021
12. Nor Aiman bin Nor Izmin, 2018623262 (Main Supervisor), Faculty of Mechanical Engineering UiTM, 2020
13. Madya Mastika binti Ahmad, 2017626408 (Main Supervisor), Faculty of Mechanical Engineering UiTM, 2020
14. Rusnani Yahaya, 2017878152 (Main Supervisor), Faculty of Mechanical Engineering UiTM, 2019
15. Nabila Aznan, 2017482654 (Main Supervisor), Faculty of Mechanical Engineering UiTM, 2019
16. Mohd Hazwan Mohamed Norli, 2017697576 (Main Supervisor), Faculty of Mechanical Engineering UiTM, 2019
17. Muhammad Faris bin Abd Manap, 2014866284 (Co-Supervisor), Faculty of Mechanical Engineering UiTM, 2017
18. Shahrul Hisyam bin Marwan, 2011242614 (Main Supervisor), Faculty of Mechanical Engineering UiTM, 2014

**Administration & Management Experience(s)**

- Head, Biomechanical & Clinical Engineering (BioMeC) Research Group, Universiti Teknologi MARA  
*12 July 2021 - present*
- Head, Department of Strategic Partnership, UiTM Global, UiTM  
*01 April 2021 - present*
- Coordinator of Marketing Arms & Industry Liaison Officer, Academic Collaboration, Community & Alumni Network, Faculty of Mechanical Engineering, UiTM  
*01 January 2020 – 31 March 2021*
- Liaison Officer (Faculty of Mechanical Engineering), Office of International Affairs, UiTM  
*01 January 2020 – 31 March 2021*
- Head, Center of Studies (Dynamics, Control & System Engineering), Faculty of Mechanical Engineering, UiTM

01 April 2018 – 31 March 2019

- Coordinator of Student Development, Faculty of Mechanical Engineering, UiTM

01 August 2016 – 31 July 2017

- Coordinator of Industrial Training & Local Networking, Faculty of Mechanical Engineering, UiTM

01 August 2011 – 31 July 2012

- Coordinator of Industrial Training, Faculty of Mechanical Engineering, UiTM

01 August 2010 – 31 July 2011

### Achievements & Awards

<i>Achievements/Awards</i>	<i>Year</i>	<i>Competition/Exhibition/Bodies</i>	<i>Level</i>
Silver Award	2021	<b>Malaysia Technology Expo 2021 (MTE2021), International Expo on Inventions and Innovations, 22-26 February 2021</b> Project Member – “MyErat: Malaysia Exoskeleton Robotic Assisted Therapy”	International
Gold Award	2020	<b>31<sup>st</sup> International Invention, Innovation &amp; Technology Exhibition (ITEX’20), 20-21 November 2020</b> Projek Leader – “RehabMaker: Assistive Device Prescription through Social Innovation”	International
Gold Award (Social Innovation Asia Awards)	2020	<b>Malaysia Technology Expo 2020 (MTE2020), The 19<sup>th</sup> International Expo on Inventions and Innovations, 20-22 February 2020</b> Project Leader – “Customized Orthotics in Assistive Adaptive Device Prescription for Disability Management”	International
Gold Award	2019	<b>Invention, Innovation &amp; Design Exposition 2019 (IID 2019), 10-15 September 2019</b> Project Leader – “Development of Customized Prosthetics & Orthoses using 3D Printing Technology”	International
Silver Award	2019	<b>International Invention &amp; Innovation Competition 2019 (InIIC 2019), 27 April 2019</b> Project Leader – “Customized Ankle Foot Orthosis for Cerebral Palsy & Stroke Patient”	International
Silver Award	2019	<b>International Invention &amp; Innovation Competition 2019 (InIIC 2019), 27 April 2019</b> Project Leader – “Customized 3D printed Lower Limb Socket for Prosthetic Leg”	International
Bronze Award	2019	<b>International Student Affairs Invention, Innovation &amp; Design Competition 2019 (ISAID 2019), 26 March 2019</b> Project Leader – “3D Printed Lower Limb Socket for Prosthetic Leg”	International

Gold Medal Best of The Best	2018	<b>International Creative Design Competition 2018 (ICDC 2018), 29-30 October 2018</b> Project Leader – “Adjustable Ankle Foot Orthosis for Cerebral Palsy”	International
Innovative & Dedicated Research Technologist (Mechanical Engineering)	2018	<b>International Convention on Innovative Scientific Research Strategies, 10-12 October 2018</b>	International
Silver Medal	2018	<b>The 4<sup>th</sup> International Innovation, Design and Articulation 2018 (i-IDEA 2018), 24-26 April 2018</b> Project Leader – “Adjustable Ankle Foot Orthosis for Cerebral Palsy Patient”	International
Silver Medal	2013	<b>Invention, Innovation &amp; Design Expo 2013</b> Project member – “Basic Database Program for Youth Anthropometry (A Case Study in Universiti Teknologi MARA)”	National
Bronze Medal	2012	<b>Invention, Innovation &amp; Design 2012</b> Project Member – “A New Design of A Superbike Paddock Stand”	National
Silver Medal	2012	<b>Pecipta 2012</b> Project member – “A New Design of A Superbike Paddock Stand”	International
Silver Medal	2011	<b>Malaysia Technology Expo 2011 (MTE 2011), 17 – 19 February 2011</b> Project member – “A New Design of A Superbike Paddock Stand”	International
Gold Medal	2010	<b>Invention, Innovation &amp; Design 2010-Special Edition (IID2010-SE), 12 – 14 October 2010</b> Project member – “A New Design of A Superbike Paddock Stand”	University
Silver Medal	2010	<b>Invention, Innovation &amp; Design 2010-Special Edition (IID2010-SE), 12 – 14 October 2010</b> Project leader – “Innovation In Prosthesis Stem Design of Total Hip Arthroplasty For Asian Population”	University
Anugerah Khidmat Cemerlang UiTM	2010	<b>Anugerah Khidmat Cemerlang 2010</b>	University

<b>Consultancy(s)</b>	
<ul style="list-style-type: none"> <li>• Consultant, Innovation Project: Development of Customized 3D Printed Product (Phase 2), AA 3 D Printing &amp; Engineering, 2020.</li> <li>• Consultant, Making of Six and Multiple Perforated Holes on PVC Films for Face Shields Application, Gaia Plas Bhd., 2020.</li> <li>• Consultant, Innovation Project: Development of Customized 3D Printed Product during Covid-19 Pandemic, AA 3 D Shop, 2020.</li> <li>• Event Consultant, Mobile Shop Contest, 2019.</li> <li>• Program Coordinator, 4th International Exchange and Innovation Conference on Engineering &amp; Sciences (IEICES 2018), Japan, 2018</li> <li>• Event Consultant, ErgoCup 2018, Human Factors &amp; Ergonomics Society Malaysia, 2018</li> <li>• DreamEDGE Sdn. Bhd. Malaysia : CATIA V5 Fundamental Training, 2011</li> <li>• Cytron Technologies Sdn. Bhd. Malaysia: Microchip Workshop, 2010-2011</li> </ul>	
<b>Thesis / Dissertation / Project</b>	
<i>Degree</i>	<i>Title / Supervisor</i>
Doctor of Engineering Kyushu University, Japan, 2016	Biomechanical Analysis of Lower Limbs with Hip Arthroplasties using CT-based Finite Element Method Supervisor: Assoc. Prof. Dr. Mitsugu Todo
Master of Engineering (Mechanical) Universiti Teknologi Malaysia, 2009	Effects of Prosthesis Stem Lengths and Tapers on Stress Distribution in Cemented Hip Arthroplasty Supervisor(s): Prof. Dr. Mohd Nasir Tamin, Dr. Mohammed Rafiq Abdul Kadir
Bachelor of Engineering (Hons) Mechanical Universiti Sains Malaysia, 2005	Design and Fabrication of Biomass Fluidized Bed Gasifier System Supervisor: Assoc. Prof. Dr. Zainal Alimuddin Zainal Alauddin
<b>Research Grant(s)</b>	
<ol style="list-style-type: none"> <li>1. Geran Insentif Penyeliaan (GIP), Customization of Assistive Adaptive Device for Tetraphocomelia Patient Using 3D Printing Technology, 15 December 2021 – 14 December 2022, RM 21,600.00 (Project Leader) <i>600-RMC/GIP 5/3 (069/2021)</i></li> <li>2. Strategic Research Partnership (SRP) UI-UITM BISA 2021 Grant, Development of A Smart Bed Resting Ankle Foot Orthosis, 15 July 2021 – 14 July 2023, RM 17,850.00 (Project Leader) <i>100-RMC 5/3/SRP (037/2021)</i></li> <li>3. TVET Applied Research Grant Scheme (T-ARGS), Smart Adjustable Headrest for Total Body Involvement in Cerebral Palsy Children using 3D Printer, 1 July 2021 – 30 June 2022, RM 74,500.00 (Project Member) <i>KPT.JPP.PPPP.700-1 Jld 31 (91) - 1007/21.</i></li> </ol>	

4. Geran Penyelidikan Kolaborasi Entiti Penyelidikan UiTM (KEPU), Study of Design for Additive Manufacturing (DfAM) for Coated Hip Implant, 15 July 2021 – 14 July 2023, RM 40,000.00 (Project Member) *600-RMC/KEPU 5/3 (009/2021)*
5. Strategic Research Partnership (SRP) Grant, Development of Life-Size Flexible Jig for Handheld 3D Scanner, 21 December 2020 – 20 December 2021, RM 20,000.00 (Project Leader) *100-RMC 5/3/SRP PRI (021/2020)*
6. Geran Penyelidikan Khas (GPK) UiTM, Design Optimization of Customized 3D Printed Socket for Transtibial Prosthetic Leg, 21 December 2020 – 20 December 2022, RM 20,000.00 (Project Leader) *600-RMC/GPK 5/3 (113/2020)*
7. Strategic Research Partnership (SRP) Grant, Assessment Analysis and Evaluation of 3D Scanner Flexible Jig, 21 December 2020 – 20 December 2021, RM 20,000.00 (Project Leader) *100-RMC 5/3/SRP (005/2020)*
8. Strategic Research Partnership (SRP) Grant, Manufacturing of Optimized Hip Implant System through Additive Manufacturing Technology, 21 December 2020 – 20 December 2021, RM 50,000.00 (Project Member) *100-RMC 5/3/SRP(012/2020)*
9. Geran Penyelidikan UMP-IIUM-UiTM Sustainable Research Collaboration 2020, IoT-Based Visually Impaired Community (VIC) Geospatial Tracking with Swarming RoVision (SR), 23 December 2020 – 22 December 2022, RM 20,000.00 (Project Member)
10. Geran Penyelidikan MyRA, Multilevel Digital Microfluidics Device Employing Polyimide Film as Both Substrate and Dielectric Components, 21 December 2020 – 20 December 2022, RM 20,000.00 (Project Member) *600-RMC/MyRA 5/3/LESTARI (010/2020)*
11. Geran Penyelidikan Khas (GPK), UiTM, Biodynamics Modeling of Human Lower Limbs Implanted with Knee Prosthesis under Ambient Condition, 21 December 2020 – 20 December 2022, RM 20,000.00 (Project Member) *600-RMC/GPK 5/3 (098/2020)*
12. Fundamental Research Grant Scheme (FRGS), Malaysia, Identifying New Hyperelastic Constitutive Model via Integration of Multiple Models in Medical Hybrid Biomaterials, 1 September 2019 – 31 August 2021, RM109,700.00 (Project Member) *600-IRMI/FRGS 5/3 (363/2019)*
13. Fundamental Research Grant Scheme (FRGS), Malaysia, Numerical Synthesis and Rheological Characterization of Complex Biofluid, 1 September 2019 – 31 August 2021, RM87,200.00 (Project Member) *600-IRMI/FRGS 5/3 (435/2019)*
14. Fundamental Research Grant Scheme (FRGS-RACER), Malaysia, Fundamental Process Analysis of 3D-Printing Technology in Customization of Assistive Adaptive Device Prescription in Rehabilitation Medicine, 1 September 2019 – 31 August 2021, RM51,200.00 (Project Member) *600-IRMI/FRGS-RACER 5/3 (106/2019)*
15. Fundamental Research Grant Scheme (FRGS-RACER), Malaysia, Prediction on the Biomechanical Performance of Posterior Lumbar Interbody Fusion using CT-Based Finite Element Model, 1 September 2019 – 31 August 2021, RM70,000.00 (Project Member) *RACER/1/2019/TK03/UMP//2*
16. Fundamental Research Grant Scheme (FRGS-RACER), Malaysia, Parameters optimization of Porous Architected Posterior Lumbar Interbody Fusion Cage based on Finite Element Approach for Minimized Subsidence, 1 September 2019 – 31 August 2021, RM40,000.00 (Project Member) *RACER/1/2019/TK03/UTHM//1*

17. Sinergi Research Fund (Sinergi), Malaysia, Prototype Development of Wireless Transmission System for Surface Electromyography (sEMG), 1 May 2019 – 30 April 2020, RM35,000.00 (Project Member) *600-IRMI/DANA 5/3/SINERGI (004/2019)*
18. Fundamental Research Grant Scheme (FRGS), Malaysia, Characterizing polymerization shrinkage surface displacement in the presence of debonding and voids in resin composite restoration, 1 January 2019 – 31 December 2021, RM185,300.00 (Project Member) *600-IRMI/FRGS 5/3 (030/2019)*
19. Prototype Research Grant Scheme (PRGS), Malaysia, Prototyping of Customized High Flexion Femoral Component for Total Knee Arthroplasty, 1 January 2019 – 31 December 2020, RM138,000.00 (Project Member) *600-IRMI/PRGS 5/3 (010/2019)*
20. Fundamental Research Grant Scheme (FRGS), Malaysia, Mathematical Modelling Theory of Metal Doped Hydroxyapatite Artificial Cranium Impact Behaviour, 1 January 2019 – 31 December 2020, RM88,000.00 (Project Member) *600-IRMI/FRGS 5/3 (162/2019)*
21. Bestari Perdana Research Grant Scheme (Bestari Perdana), UiTM, Bone Remodeling and Adaptation in Operated and Non-Operated Limbs after Hip Arthroplasty, 2018, RM25,000.00 (Project Leader) *600-IRMI/PERDANA 5/3 BESTARI (103/2018)*
22. Bestari Perdana Research Grant Scheme (Bestari Perdana), UiTM, Tool Performance Verification in Friction Stir Welds by Finite Element Modeling, 2018, RM30,000.00 (Project Member) *600-IRMI/PERDANA 5/3 BESTARI (073/2018)*
23. Lestari Research Grant Scheme (Lestari), UiTM, Prediction of Femoral Bone Fractures in Hip Arthroplasties, 2017, RM20,000.00 (Project Leader) *600-IRMI/MyRA 5/3/LESTARI (025/2017)*
24. Exploratory Research Grant Scheme (ERGS), Malaysia, Investigation of Binaural Beats and Isochronic Tones on Brain Wave Frequency Patterns, 2011, RM 77,000.00 (Project Member) *600-RMI/ERGS 5/3 (15/2011)*
25. Excellent Fund Grant, UiTM, Development of Anthropometric Database of Malaysian Youth, 2011, RM6,500.00 (Project Member) *600-RMI/ST/DANA 5/3/Dst (143/2011)*
26. Excellent Fund Grant, UiTM, Effects of Screw Length on The Primary Stability of Anterior Cruciate Ligament Reconstruction, 2011, RM6,000.00 (Project Member) *600-RMI/ST/DANA 5/3/Dst (147/2011)*
27. Fundamental Research Grant Scheme (FRGS), Malaysia, Basic Study of Interference Screw Fixation Stability in Anterior Cruciate Ligament Reconstruction, 2010, RM 50,740.00 (Project Leader) *600-RMI/ST/FRGS 5/3/Fst (162/2010)*
28. Excellent Fund Grant, UiTM, Primary Stability of Cemented Hip Arthroplasty: Effects of Cement Mantle Thickness, 2010, RM6,000.00 (Project Leader) *600-RMI/ST/DANA 5/3/Dst (229/2009)*

### **Intellectual Property**

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1. CRLY00024482 | New Design on Wireless EMG with Additional Onboard Sensors | 2020 | Member
2. CRAR00004678 | Personal Protective Face Shield using Plastic Injection Molding and Film Piercing | 2020 | Member
3. CRLY00020759 | Development of Customized Prosthetics & Orthoses using 3D Printing Technology | 2020 | Leader
4. CRLY00014823 | 3D Printed Socket for Prosthetic Legs | 2019 | Leader
5. CRLY00017565 | Springed Ankle Foot Orthosis for Stroke Patient | 2019 | Leader



## Publication(s)

### JOURNAL(S)

1. Muhammad Syahmi Yusof, Nabila Aznan, Nor Fazli Adull Manan, Shahrul Hisyam Marwan, Muhammad Hazli Mazlan, **Abdul Halim Abdullah**, “Effects of Varus and Sagittal Implant Positioning to the Stress Adaptation in Cementless Hip Arthroplasty,” *Malaysian Journal of Medicine and Health Sciences*, vol. 17, supp. 13, pp. 22-27, 2021.
2. Mohammad Azeeb Mazlan, Natiara Mohamad Hashim, Noor Ayuni Che Zakaria, **Abdul Halim Abdullah**, “3D Printed Assistive Writing Device for Phocomelia Patient,” *Malaysian Journal of Medicine and Health Sciences*, vol. 17, supp. 13, pp. 7-11, 2021.
3. Wan Nur Fatini Syahirah W. Dagang, Shahrul Hisyam Marwan, Jamaluddin Mahmud, Nor Fazli Adull Manan and **Abdul Halim Abdullah**, “The Influence of Pore Size and Material Properties on Biomechanical Analysis of Parietal-Temporal Implant,” *Evergreen*, vol. 8, iss. 4, pp. 750-758, 2021.
4. Mohd Hazwan Mohamed Norli, Madya Mastika Ahmad, Wan Nur Fatini W. Dagang, Mohd Hafiz Mohd Noh and **Abdul Halim Abdullah**, “Effects of Material Properties in Fabricating the Assistive Headrest Orthosis,” *International Journal of Emerging Technology and Advanced Engineering*, vol. 11, iss. 11, pp. 123-129, 2021.
5. Wan Nur Fatini Syahirah W. Dagang, Nik Harisha Qistina Nik Hamdi, Shahrul Hisyam Marwan, Jamaluddin Mahmud, Nor Fazli Adull Manan, Muhammad Hanif Ramlee and **Abdul Halim Abdullah**, “Effects of Pentagonal Pore Sizes in the Zinc Hydroxyapatite Parietal-Temporal Implant,” *International Journal of Emerging Technology and Advanced Engineering*, vol. 11, iss. 11, pp. 76-85, 2021.
6. Ahmad Amirul Faiz Mamat Hazri, Amir Mustakim Ab Rashid, **Abdul Halim Abdullah**, Ng Bing Wui, Ahmad Kafrawi Nasution, Gan Hong Seng and Muhammad Hanif Ramlee, “In Silico of Different Gait Cycle in Customised Leg Orthosis: A Finite Element Approach,” *ASM Science Journal*, vol. 16, pp. 1-8, 2021.
7. **Abdul Halim Abdullah** and Mitsugu Todo, “Prediction of Bone Mineral Density (BMD) Adaptation in Pelvis-Femur Model with Hip Arthroplasties,” *Journal of Functional Biomaterials*, vol. 12, no. 3, 49, pp. 1-11, 2021.
8. Nurnedilah Mohammad Kata, Nur Afikah Zainal Abidin, Aishah Umairah Abd Aziz, **Abdul Halim Abdullah**, Ng Bing Wui, Ahmad Kafrawi Nasution, Mohammed Rafiq Abdul Kadir, Muhammad Hanif Ramlee, “Finite Element Analysis of External Fixator for Treating Femur Fracture: Analysis on Stainless Steel and Titanium as Material of External Fixator,” *Malaysian Journal of Fundamental and Applied Sciences*, vol. 17, pp. 274-284, 2021.
9. Nor Aiman Nor Izmin, Fatin Hazwani, Mitsugu Todo and **Abdul Halim Abdullah**, “Risk of Bone Fracture in Resurfacing Hip Arthroplasty at Varus and Valgus Implant Placements,” *International*

*Journal of Technology*, vol. 11, No. 5, pp. 1025-1035, 2020.

10. Maizatul Afirah Ahmad, Nurul Nadhirah Mohamed Elias Zulkifli, Solehuddin Shuib, Shahrul Hisham Sulaiman and **Abdul Halim Abdullah**, “Finite Element Analysis of Proximal Cement Fixation in Total Hip Arthroplasty,” *International Journal of Technology*, vol. 11, No. 5, pp. 1046-1055, 2020.
11. Muhammad Hazli Mazlan, Mitsugu Todo, Ida Laila Ahmad, Hiromitsu Takano, Ikuho Yonezawa, **Abdul Halim Abdullah**, Muhammad Hilmi Jalil and Nur Dalilah Diyana Nordin, “Biomechanical Evaluation of Two Different types of Interbody Cages in Posterior Lumbar Interbody Fusion,” *International Journal of Emerging Trends in Engineering Research*, vol. 8, Iss 11.2, 2020.
12. Nabila Aznan, Muhammad Syahmi Yusof, **Abdul Halim Abdullah**, Shahrul Hisham Sulaiman and Mitsugu Todo, “Effects of Retroversion and Anteversion Alignment in Cemented Hip Arthroplasty,” *Journal of Mechanical Engineering*, vol. SI 9, Iss. 1, pp. 25-41, 2020.
13. Wan Fatimatul Aifaa Wan Fadzil, Mohammad Azeeb Mazlan, **Abdul Halim Abdullah**, Fazah Akhtar Hanapiah and Azizah Intan Pangesty, “Effects of Infill Density on 3D Printed Socket for Transtibial Prosthetic Leg,” *Journal of Mechanical Engineering*, vol. SI 9, Iss. 1, pp. 229-238, 2020.
14. Nor Aiman Nor Izmin, Fatin Hazwani, Mitsugu Todo, and **Abdul Halim Abdullah**, “Development of Inhomogeneous Femoral Bone Model for CT-based Finite Element Analysis,” *Journal of Scientific and Engineering Research*, vol. 7, No. 6, pp. 98-103, 2020.
15. Rusnani Yahya, Muhammad Hazli Mazlan, Solehuddin Shuib, **Abdul Halim Abdullah**, “Biomechanical Analysis of Spinal Fusion Cage for Lumbar Vertebrae,” *International Journal of Recent Technology and Engineering*, vol. 8, Iss. 4, pp. 6859-6863, 2019.
16. Mohammad Azeeb Mazlan, Wan Fatimatul Aifaa Wan Fadzil, Helmi Rashid and **Abdul Halim Abdullah**, “Development of 3D Printed Symbrachydactyly Prosthetic Hand,” *International Journal of Engineering and Advanced Technology*, vol. 9, Iss. 1, pp. 5943-5947, 2019.
17. Nor Aiman Nor Izmin, Mitsugu Todo and **Abdul Halim Abdullah**, “Prediction of Bone Damage Formation in Resurfacing Hip Arthroplasty,” *International Journal of Engineering and Advanced Technology*, vol. 9, Iss. 1, pp. 5879-5885, 2019.
18. Siti Rasyidah Hamzah, Nor Aiman Nor Izmin, Giha Tardan, and **Abdul Halim Abdullah**, “Design and Analysis of Adjustable Headrest for Total Body Involvement Cerebral Palsy,” *International Journal of Recent Technology and Engineering*, vol. 8, Iss. 1, pp. 3208-3211, 2019.
19. Wan Fatimatul Aifaa Wan Fadzil, Mohammad Azeeb Mazlan, Fazah Akhtar Hanafiah and **Abdul Halim Abdullah**, “3D Printed Lower-Limb Socket for Prosthetic Legs,” *International Journal of Engineering Research and Management*, vol. 6, Iss. 3, pp. 14-18, 2019.
20. Shahrul Hisyam Marwan, Nor Aiman Nor Izmin, Muhaimin Berhan, **Abdul Halim Abdullah**, “Biomechanical Analysis of Stem Malalignment in Resurfacing Hip Arthroplasty,” *International Journal of Engineering & Technology*, vol. 7, no. 4.42, pp. 168-171, 2018.
21. **Abdul Halim Abdullah**, Nik M. Mohsien, Muhammad Syahmi Yusof, Nabila Aznan and Shahrul Hisyam Marwan, “Effects of Stem Malalignment in Cementless Hip Arthroplasty: A Computational Study,” *International Journal of Engineering & Technology*, vol. 7, no. 4.27, pp. 137-140, 2018.
22. Eka Noorul Amanina Darwin, Giha Tardan and **Abdul Halim Abdullah**, “Computational Analysis of Adjustable Ankle Foot Orthosis for Cerebral Palsy Children,” *International Journal of Engineering & Technology*, vol. 7, no. 4.26, pp. 83-88, 2018.

23. Mohd Hazwan Mohamed Norli, Mohammad Al Faiz Hilmi Mohd Al Zahari, Shahrul Hisyam Marwan, **Abdul Halim Abdullah**, "Computational Analysis on Skull Fractures and Brain Injury using Finite Element Analysis," *International Journal of Engineering & Technology*, vol. 7, no. 4.26, pp. 119-122, 2018.
24. Luqman Hakim Noordin, Shahrul Hisyam Marwan, **Abdul Halim Abdullah**, "Effects of Screw and Plate Positions in the Dual Plating of Distal Humerus Fixation," *International Journal of Engineering & Technology*, vol. 7, no. 4.26, pp. 123-127, 2018.
25. Helmi Rashid, Anis Salwa Ahmad, Abdul Rahman Omar, Wan Muhammad Syahmi Wan Fauzi, **Abdul Halim Abdullah**, Shahfuan Hanif Ahmad Hamidi, "Advanced Motorcycle Riding Simulation: A Case Study of Sleep Deprivation Effects on Motorcyclist Muscle Fatigue," *International Journal of Engineering & Technology*, vol. 7, no. 4.27, pp. 144-147, 2018.
26. Muhammad Hazli Mazlan, **Abdul Halim Abdullah**, Mitsugu Todo, Ikuho Yonezawa and Hiromitsu Takano, "Biomechanics of Thoracolumbar Spine with Vertebral Compression Fractures," *Advanced Science Letters*, vol. 24, no. 11, pp. 8770-8773(4), 2018.
27. S.H. Marwan, M.A.M. Wahi, **A.H. Abdullah** and M.H. Mazlan, "Finite Element Analysis of Protective Bicycle Helmet & Dummy Head under Dynamic Loading," *Journal of Fundamental and Applied Sciences*, vol. 10, iss. 4S, pp. 870-881, 2018.
28. Nor Fazli Adull Manan, Abdul Hakeem Abdul Aziz, Jamaluddin Mahmud and **Abdul Halim Abdullah**, "Analysis of Dryness Effect on Skin by Adapting Hyperelastic Constitutive Model," *Journal of Mechanical Engineering*, vol. SI 5, Iss. 3, pp. 123-140, 2018.
29. Shahrul Hisyam Marwan, Giha Tardan, Muhammad Syafiq Zainal and **Abdul Halim Abdullah**, "Effects of Stem Mal-alignment in The Primary Stability of Total Hip Arthroplasty," *Journal of Mechanical Engineering*, vol. 4, iss. 4, pp. 79-91, 2017.
30. **Abdul Halim Abdullah**, Mitsugu Todo and Yasuharu Nakashima, "Stress and Damage Formation Analysis in Hip Arthroplasties using CT-based Finite Element Method," *Journal of Engineering and Applied Sciences*, vol. 12, Iss. 10, pp. 2715-2719, 2017.
31. **Abdul Halim Abdullah**, Mitsugu Todo and Yasuharu Nakashima, "Prediction of Damage Formation in Hip Arthroplasties by Finite Element Analysis using Computed Tomography Images," *Medical Engineering and Physics*, vol. 44, pp. 8-15, June 2017.
32. **Abdul Halim Abdullah** and Mitsugu Todo, "Effects of Hip Arthroplasties on Bone Adaptation in Lower Limbs: A Computational Study," *Journal of Biosciences and Medicines*, vol. 3, pp. 1-7, Apr. 2015.
33. **Abdul Halim Abdullah** and Mitsugu Todo, "Stress Evaluation of Lower Limbs with Hip Osteoarthritis and Hip Arthroplasty," *Journal of Medical and Bioengineering*, vol. 4, no. 2, pp. 100-104, Apr. 2015.
34. **Abdul Halim Abdullah** and Mitsugu Todo, "Effects of Total Hip Arthroplasty on Stress Adaptation and Bone Remodeling in Lower Limbs," *Evergreen*, vol. 2, issue 1, pp. 6-11, Mar. 2015.
35. **Abdul Halim Abdullah** and Mitsugu Todo, "Prediction of Damage Formation in Total Hip Arthroplasty using Finite Element Method," *Engineering Sciences Reports, Kyushu University*, vol. 36, no. 2, pp. 6-9, Feb. 2015.
36. **Abdul Halim Abdullah** and Mitsugu Todo, Yasuharu Nakashima and Yukihide Iwamoto, "Risk of

- Femoral Bone Fractures in Hip Arthroplasties during Sideway Falls,” *International Journal of Applied Physics and Mathematics*, vol. 4, no. 4, pp. 286-289, July 2014.
37. Shahrul Hisyam Marwan, **Abdul Halim Abdullah** and Jamaluddin Mahmud, “Frontal Impact Analysis of Human Skull for Accident Reconstruction,” *International Journal of Enhanced Research in Science Technology & Engineering*, vol. 2, iss. 7, pp. 58-64, 2013.
  38. Muhamad Firdaus Selamat, **Abdul Halim Abdullah**, Helmi Rashid, Alias Mohd Saman and Giha Tardan, “Computational Analysis of Cementless Hip Arthroplasty for Different Prosthesis Stem Tapers,” *Advanced Science Letter*, vol. 19, no. 12, pp. 2931-2934, 2013.
  39. **Abdul Halim Abdullah**, Muhamad Fauzi Othman, Helmi Rashid, Jamaluddin Mahmud, Alias Mohd Saman and Ahmad Zainalabidin Zolkepli, “Effects of Interference Screw Lengths on the Primary Stability of Anterior Cruciate Ligament Reconstruction,” *Advanced Science Letter*, vol. 19, no. 3, pp. 873-876, 2013.
  40. Mohd Hafiz Mohd Noh, Nik Mohamad Amirudin Nik Lah, Helmi Rashid, Ahmad Hussein Abdul Hamid and **Abdul Halim Abdullah**, “Design and Development of a Portable Paddock Stand using CAD and CAE Tools,” *Advanced Science Letter*, vol. 19, no. 3, pp. 775-779, 2013.
  41. Shahrul Hisyam Marwan, **Abdul Halim Abdullah**, Jamaluddin Mahmud and Helmi Rashid, “Dynamic Analysis of Frontal Human Skull Using Finite Element Simulation,” *Advanced Materials Research*, vol. 647, pp. 418-423, 2013.
  42. Shahrul Hisyam Marwan, **Abdul Halim Abdullah**, Jamaluddin Mahmud, Muhammad Israr Abu Hasan and Nur Hanis Arzami, “The Development of Three Dimensional of Human Skull Model for Computational Analysis,” *Advances In Biomedical Engineering*, vol. 14, pp. 75-80, 2012.
  43. **Abdul Halim Abdullah**, Helmi Rashid, Jamaluddin Mahmud, Muhammad Fauzi Othman and Muhamad Widad Al-Jefri Ibrahim, “Effects of Screw Materials in Anterior Cruciate Ligament Reconstruction using Finite Element Analysis,” *Procedia Engineering*, vol. 41, pp. 1614-1619, 2012.
  44. Helmi Rashid, Mohd Khairol Anuar Mohd Ariffin, Mohd Hafiz Mohd Noh, **Abdul Halim Abdullah**, Ahmad Hussein Abdul Hamid, Mohammad Azzeim Mat Jusoh and Akbar Othman, “Design Review Of Scissors Lifts Structure For Commercial Aircraft Ground Support Equipment Using Finite Element Analysis,” *Procedia Engineering*, vol. 41, pp. 1696-1701, 2012.
  45. Helmi Rashid, **Abdul Halim Abdullah**, Mohd Hafiz Mohd Noh, Ahmad Hussein Abdul Hamid and Nur Marini Zainal Abidin,” Design Of A Superbike Paddock Stand Using CAD And CAE Tools,” *International Journal of Automotive and Mechanical Engineering*, vol. 5, pp. 670-679, 2012.
  46. **Abdul Halim Abdullah**, Nur Hanis Arzami, Helmi Rashid, Muhammad Israr Abu Hassan and Muhammad Adil Khattak, “Impact Biomechanics Analysis of Frontal Skull Fracture,” *Advances in Biomedical Engineering*, Volume 13, pp. 263-267, 2012.
  47. **Abdul Halim Abdullah**, Muna Salsabila Abdullah, Mohd Hafiz Mohd Noh, Ahmad Hussein Abdul Hamid and Muhammad Adil Khattak, “Biomechanical Analysis Of Buttress Screw Dental Implant,” *Advances in Biomedical Engineering*, Volume 13, pp. 256-262, 2012.
  48. Ishkrizat Taib, Shahrin Hisham Amirnordin, Rais Hanizam Madon, Norrizal Mustafa and **Abdul Halim Abdullah**, “The Flow Modeling in Stented Aneurysm under Hypertension Condition,” *IERI Computers Letters*, vol. 1, no. 2, pp. 53-58, 2012.
  49. H. Rashid, M.A.M Jusoh, M.H.M Noh, **A.H. Abdullah**, A.H.A. Hamid, A.M Saman, M.F.F.M Roslan

and A. Othman, "Computer Aided Design and Engineering Simulation Opportunity in Design Optimization of a Superbike Paddock Stand," *IERI Computers Letters*, vol. 1, no. 2, pp. 75-81, 2012.

50. **Abdul Halim Abdullah**, Emmi Farisa Jaafar, Nursalbiah Nasir, Eli Nadia Abdul Latip and Giha Tardan, "Influences of Prosthesis Stem Lengths in Cementless Total Hip Arthroplasty," *Applied Mechanics and Materials*, vol. 52-54, 2011, pp. 2088-2093, 2011.
51. **Abdul Halim Abdullah**, Alias Mohd Saman, Mohd Asri Mohd Nor, Ishrizat Taib and Giha Tardan, "Effects of Prosthesis Stem Materials on Stress Distribution of Total Hip Replacement," *Advanced Materials Research*, vol. 129-131, pp. 343-347, 2010.
52. Alias Mohd Saman, **Abdul Halim Abdullah**, Mohd Asri Mohd Nor, Hasbullah Idris, "The Effects of Nodularity Distribution on Vertical Configuration Mould for Automotive Ductile Iron Casting," *Advanced Materials Research*, vol. 129-131, pp. 1059-1063, 2010.
53. **Abdul Halim Abdullah**, Mohd Asri Mohd Nor, Alias Mohd Saman, Mohd Nasir Tamin and Mohammed Rafiq Abdul Kadir, "Effects of Prosthesis Stem Tapers on Stress Distribution of Cemented Hip Arthroplasty," *IAENG Transaction on Engineering Technology Volume 5: Special Edition of the International Multiconference of Engineers and Computer Scientists 2010*, AIP Conf. Proc., vol. 1285, pp. 561-575, 2010.

#### CONFERENCE PROCEEDINGS

54. Nor Aiman Nor Izmin, Fatin Hazwani, Mitsugu Todo and **Abdul Halim Abdullah**, "Fracture Analysis of Resurfaced Femur with Varus Implant Placement," Proceedings of International Exchange and Innovation Conference on Engineering & Sciences (IEICES), vol. 7, pp.7-12, October 2021.
55. Nur Saliha Md Salleh, Muhammad Hazli Mazlan, Nur Sarah Abdullah, Ida Laila Ahmad, **Abdul Halim Abdullah**, Muhammad Hilmi Abd Jalil, Hiromitsu Takano and Nur Dalilah Diyana Nordin, "Design and Analysis of Infill Density Effects on Interbody Fusion Cage Construct Based on Finite Element Analysis," 2021 IEEE National Biomedical Engineering Conference (NBEC), pp. 25-29, 2021.
56. Nur Ariza Hayani Mohd Nizam, Muhammad Hazli Mazlan, Nur Saliha Md Salleh, Muhammad Anas Razali, **Abdul Halim Abdullah**, Muhammad Hilmi Abd Jalil, Hiromitsu Takano and Nur Dalilah Diyana Nordin, "Design and Analysis of Interbody Fusion Cage Materials Based on Finite Element Analysis," 2021 IEEE National Biomedical Engineering Conference (NBEC), pp. 7-12, 2021.
57. Wan Nur Fatini W. Dagang, Jamaluddin Mahmud, Nor Fazli Adull Manan and **Abdul Halim Abdullah**, "The Reconstruction of Three-Dimensional (3D) Model of the Right Parietal-Temporal Implant," AIP Conference Proceeding, vol. 2344, 050018, 2021.
58. Nur Nabila Mohd Nazali, Nor Fazli Adull Manan, Jamaluddin Mahmud and **Abdul Halim Abdullah**, "Integrating Hyperelastic Constitutive Models in Natural Biopolymer for Healing Patch Technology," AIP Conference Proceeding, vol. 2344, 020024, 2021.
59. Rusnani Yahya, Muhammad Lukman Shudin, Muhammad Hazli Mazlan, Solehuddin Shuib and **Abdul Halim Abdullah**, "Effects of Material Properties in Spinal Fusion Cage for Lumbar Vertebrae," *IOP Conference Series: Materials Science and Engineering*, vol. 834, 012073, 2020.
60. Wan Fatimatul Aifaa Wan Fadzil, Mohammad Azeeb Mazlan, Fazah Akhtar Hanapiah and **Abdul**

- Halim Abdullah**, "Development of 3D Printed Socket for Transtibial Prosthetic Leg," *Proceeding of International Exchange and Innovation Conference on Engineering & Sciences (IEICES2019)*, vol. 5, pp. 44-46, October 2019.
61. Mohammad Azeeb Mazlan, Wan Fatimatul Aifaa Wan Fadzil,, Helmi Rashid and **Abdul Halim Abdullah**, "Design and Analysis of 3D Printed Prosthetic Hand for Symbrachydactyly Patients," *Proceeding of International Exchange and Innovation Conference on Engineering & Sciences (IEICES2019)*, vol. 5, pp. 87-88, October 2019.
  62. Nor Aiman Nor Izmin, Mitsugu Todo and **Abdul Halim Abdullah**, "Effects of Varus and Valgus Implant Malposition in Resurfacing Hip Arthroplasty," *Proceeding of International Exchange and Innovation Conference on Engineering & Sciences (IEICES2019)*, vol. 5, pp. 89-92, October 2019.
  63. Maizatul Afirah Ahmad, Muhammad Abid Zafran Mohd Yusri, Solehuddin Shuib and **A.H. Abdullah**, "Effects of Proximal Cement Mantle Sizes in Total Hip Arthroplasty," *Proceeding of the 1<sup>st</sup> Research Colloquium 2019 (RC 2019)*, vol. 1, pp. 42-45, September 2019.
  64. M.H.M. Norli, M.I.E.W.M. Amiruddin and **A.H. Abdullah**, "Effect of Endcap Type in Beltline Outer using Finite Element Analysis," *IOP Conference Series: Materials Science and Engineering*, vol. 469, January 2019.
  65. B. Abdullah, K. Venkatason, M.A. Ahmad, B. Singh, **A.H. Abdullah**, N.H. Saad and S. Kasolang, "Distribution of TUA-CDIO Element in Learning Outcome (LO5-LO9) for Engineering Subjects," *Proceeding of the 2016 IEEE 8th International Conference on Engineering Education: Enhancing Engineering Education Through Academia-Industry Collaboration (ICEED 2016)*, Kula Lumpur, Malaysia, 7-8 December 2016.
  66. Mitsugu Todo, **Abdul Halim Abdullah**, Yasuharu Nakashima and Yukihide Iwamoto, "Prediction of Bone Resorption in Lower Limbs with Osteoarthritis and Hip Arthroplasty," *The Bone & Joint Journal (Orthopaedic Proceeding)*, vol. 98, supp. 1, pp. 4-4, Jan. 2016.
  67. Mitsugu Todo, **Abdul Halim Abdullah**, Yasuharu Nakashima and Yukihide Iwamoto, "Risk of Femoral Fracture in Hip Arthroplasties during Falling and Twisting Configurations: A Finite Element Study," *The Bone & Joint Journal (Orthopaedic Proceeding)*, vol. 98, supp. 1, pp. 5-5, Jan. 2016.
  68. **A.H. Abdullah** and M. Todo, "Biomechanical Analysis of Femoral Fracture after Resurfacing Hip Arthroplasty," *Proceeding of the JSME 26<sup>th</sup> Biofrontier Symposium*, Fukuoka, Japan, 2-3 October 2015.
  69. **A.H. Abdullah**, M. Todo and Y. Nakashima, "Prediction of Bone Remodeling Mechanism in Lower Limbs with Different Hip Arthroplasties," *Proceeding of the 8<sup>th</sup> Asia-Pacific Conference on Biomechanics (AP Biomech 2015)*, Sapporo, Japan, 16-19 September 2015.
  70. **A.H. Abdullah** and M. Todo, "Analysis of Periprosthetic Fracture after Total Hip Arthroplasty under Different Falling Configurations," *Proceeding of the JSME 26<sup>th</sup> Computational Mechanics Division Conference (CMD 2013)*, Saga, Japan, 2-4 November 2013.
  71. **Abdul Halim Abdullah**, Helmi Rashid, Mohd Nasir Tamin, Mohammed Rafiq Abdul Kadir and Giha Tardan, "A Review on Anthropometric Study of Total Hip Replacement for Asian Population," *2011 International Journal Conference on Engineering and Technology (CET 2011)*, 16 – 17 July 2011. Kota Kinabalu, Malaysia.
  72. Nursalbiah Nasir, **Abdul Halim Abdullah**, Helmi Rashid and Mohd Fitri Shuib, "Anthropometric

Study of Malaysian Youth (A Case Study in Universiti Teknologi MARA),” *2011 IEEE Colloquium on Humanities, Science and Engineering Research (CHUSER 2011)*, 05-06 December 2011. Pulau Pinang, Malaysia.

73. **Abdullah, A.H.**, Mohd Asri M.N., Alias M.S., Giha T., “Finite Element Analysis of Cemented Hip Arthroplasty: Influence of Stem Tapers,” *Lecture Notes in Engineering and Computer Science: Proceedings of the International MultiConference of Engineers and Computer Scientists 2010*, IMECS 2010. Vol. III.17-19 March, 2010, Hong Kong.
74. Mohd Asri Mohd Nor, Alias Mohd Saman, **Abdul Halim Abdullah**, “Pitch-axis Robust Control Design for MIMO System Using Internal Model Control PID,” *International Symposium on Robotics and Intelligent Sensors (IRIS 2010)*, Nagoya Japan.
75. **Abdul Halim Abdullah**, Alias Mohd Saman, Mohd Asri Mohd Nor and Giha Tardan, “Computational Analysis of Cemented Hip Arthroplasty using Triple Taper Prosthesis Stem,” *1<sup>st</sup> National Postgraduate Seminar (NAPAS 2010)*, 6<sup>th</sup> – 7<sup>th</sup> July 2010. Shah Alam, Malaysia.
76. Alias Mohd Saman, **Abdul Halim Abdullah**, Mohd Asri Mohd Nor, Hasbullah Idris, “Microstructure and Hardness Study of Vertical Parted Ductile Iron Automotive Casting,” *World Engineering Congress (WEC 2010)*, 2<sup>nd</sup> – 5<sup>th</sup> August 2010. Kuching, Malaysia.
77. Nor Azali Azmir, Ishkrizat Taib, **Abdul Halim Abdullah**, Mohammed Rafiq Abdul Kadir, “The Effect of Press Fit on Osseointegration of Acetabular Cup,” *2010 International Conference on Advances in Mechanical Engineering (ICAME 2010)*, 2<sup>nd</sup> – 5<sup>th</sup> December 2010. Shah Alam, Malaysia
78. **Abdul Halim Abdullah**, Mohd Asri Mohd Nor and Alias Mohd Saman, “Stress and Strain Distribution in Cemented Total Hip Arthroplasty for Walking Load Case,” *International Conference on Computer Technology and Development (ICCTD 2009)*, vol 2. 13<sup>th</sup> –15<sup>th</sup> November 2009, Kota Kinabalu Malaysia.
79. Alias Mohd Saman, **Abdul Halim Abdullah** and Mohd Asri Mohd Nor, “Computer Simulation Opportunity in Plastic Injection Mold Development For Automotive Part,” *International Conference on Computer Technology and Development (ICCTD 2009)*, vol 1. 13<sup>th</sup> –15<sup>th</sup> November 2009, Kota Kinabalu Malaysia.
80. Mohd Asri Mohd Nor, **Abdul Halim Abdullah**, Alias Mat Saman, “Harmonic Balance Simulation for the Nonlinear Vibration Isolation System Using Negative Stiffness,” *The 2nd International Conference in Machine Vision (ICMV 2009)*, Dubai UAE.
81. **Abdul Halim Abdullah**, Mohammed Rafiq Abdul Kadir and Mohd Nasir Tamin, “Effects of Stem Lengths on Stress and Strain Distribution of Cemented Hip Arthroplasty,” *International Conference on Ergonomics (ICE 2007)*, 3<sup>rd</sup> – 5<sup>th</sup> December 2007, Kuala Lumpur Malaysia.

#### CHAPTER IN BOOK(S)

82. Nor Aiman Nor Izmin, Fatin Hazwani, Mitsugu Todo and **Abdul Halim Abdullah** (2021). Computational Analysis on Bone Adaptation in Resurfacing Hip Arthroplasty with Valgus-Varus Placement. In *Recent Trends in Manufacturing and Materials Towards Industry 4.0, Lecture Notes in Mechanical Engineering* (pp. 179-189). Singapore: Springer Nature.

83. Amutha Lekthumi, Muhammad Hazli Mazlan, Ida Laila Ahmad, **Abdul Halim Abdullah** and Muhammad Hilmi Abd Jalil (2020). Biomechanical Analysis of Posterior Lumbar Interbody Cages. In *Advanced Computer Modelling and Electronics Engineering* (pp. 49-69). Malaysia: Penerbit UTHM.
84. Wan Fatimatul Aifaa Wan Fadzil, Mohammad Azeeb Mazlan, Fazah Akhtaar Hanapiah and **Abdul Halim Abdullah** (2019). Customized 3D Printed Socket for Transtibial Prosthetic Leg. In *Leading Towards Creativity & Innovation* (pp. 112-116). Malaysia: MNNF Publisher.
85. Ahmad Aizat Johar, Muhammad Iddin Saufi Abdul Wahid, Eka Noorul Amanina Darwin, Giha Tardan and **Abdul Halim Abdullah** (2019). Development of Springed Ankle Foot Orthosis. In *Leading Towards Creativity & Innovation* (pp. 107-111). Malaysia: MNNF Publisher.

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