

CURRICULUM VITAE

PERSONAL DETAIL

Name Zulkifli bin Ahmad @ Manap
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D.O.B 25 April 1984
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Marital Status Married
Designation Lecturer DS45
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MALAYSIA



ACADEMIC QUALIFICATION

PhD (Biomedical Engineering)	Universiti Teknologi Malaysia	2016 - 2019
M.Sc (Mechanical & Materials Eng.)	Universiti Kebangsaan Malaysia	2009 - 2012
B.Eng (Mechanical)	Universiti Teknologi Malaysia (CGPA:3.66)	2003 - 2008
Matriculation	Institut Teknologi Tun Abdul Razak (CGPA:3.81)	2002 - 2003
SPM	SMK Agama Kedah	2000 - 2001

WORKING / PROFESSIONAL EXPERIENCES

Lecturer	Confirmation Date	22/06/2015
	Universiti Malaysia Pahang,	22/7/2012
	Faculty of Mechanical Engineering	Current
Tutor	Universiti Malaysia Pahang,	5/6/2008
	Faculty of Mechanical Engineering	
Design Engineer	Interior Design, R&D Division, Perusahaan Otomobil Nasional Berhad (PROTON), Shah Alam, Selangor	15/4/2008
Trainee Engineer	Hicom Honda, Kawasan Perindustrian Bakar Arang, Sungai Petani, Kedah.	3/2/2007

FIELD OF EXPERTISE

Biomechanics, Sports Engineering, Finite Element Analysis, Gait Analysis, Rehabilitation, Health Science, Probabilistic, Monte Carlo.

PROFESSIONAL AFFILIATION

Board of Engineer Malaysia (BEM)	Graduate Engineer	56668A
IEEE-EMBS	Graduate Membership	95206623
ResearcherID	Thomson Reuters	K-2465-2016

ORCID	ORCID	0000-0003-3206-567X
ScopusID	SCOPUS	55418069700

COURSES CONDUCTED (DD/MM/YY)

27/05/2016	Arduino for Beginners (for FKM Staff)
15-16/11/2014	Penceramah bagi Kursus: Perisian Using Arduino (PuO)
04-05/09/2014	Arduino Trainer for iCOE students
09-10/07/2014	Trainer for Arduino at KKTM Kuantan
06/2014	Arduino for Beginners (for FKM Staff)
17-18/05/2014	Penceramah bagi Kursus: Perisian Using Arduino

TRAINING/WORKSHOP/ACTIVITIES (DD/MM/YY)

Nov 2011	Collaboration with KBS, ISN and MSN at Putrajaya
20-22/9/2011	Delmia Software Training (UMP)
16-17/9/2011	Q1 Journal Publication Workshop at Beuford Hotel, Melaka (UKM)
18-20/7/2011	LS-Dyna Software Training (UMP)
July'11-July'12	Academic Coordinator and OBE for BMB Program
2-4/7/2011	Outcome Based Curriculum Design & Constructively Aligned Teaching & Learning Activities Workshop (UMP)
19/4/2011	Institut Sukan Negara Lecture Series 3/2011 (Bukit Jalil)
14-15/4/11	Workshop "Measurements and Analysis in Health Science Research" organized by UKM KL (Cheras)
Jan 2012	Website administrator for faculty journals (IJAME dan JMES)
Jan'12-Dec'12	Website administrator for focus group (SHEG)
9 Jan 2012	Committee for preparing the undergraduate prospectus task force
1/1/12 – 31/7/13	Committee for faculty conference ICMER 2013
1/1/12 –31/12/12	Committee for FKM bulletin publications
1/1/12 –31/12/12	Committee for Faculty Website
20/1/12–30/9/12	Member of electric vehicle UMP-EV for PGMC2010 competition
13/2/2012	OBE Education Talk by EAC at CIDB Convention centre, Cheras
29/2/2012	PGMC2012 Launching ceremony at Putrajaya
22/3/2012	Turn it in short course at UMP Library, Pekan
19/4/12	Sports Engineering experiment at Universiti Malaya
27/4/12	Mesyuarat Pembangunan Hala tuju dan Formasi untuk Pusat Kejuruteraan Sukan bersama KPT di MS Garden Hotel, Kuantan
4/9/2012	Meeting with Terengganu Sports Council
01/12-12/13	Website administrator and Asst. Editor for faculty journal (IJAME and JMES)
01/12–31/7/13	AJK Induk Penganjuran Program ICMER 2013
01/08/13–31/07/13	Document Accreditation Coordinator for BMB Program.
01/03/13–28/02/14	Fire Fighting Squad – Emergency response Team (ERT)
July 2013	Internal Reviewer for ICMER2013
21/05/2013	Panel for SolidWorks Student Design Competition 2013
9-13/06/2013	Chairperson for International Conference FEOFS2013 in Korea

01/07/13–31/07/14	Industrial Visit Coordinator for BMA Program
Semester 1 2013/2014	Pelantikan sebagai Tenaga Pengajar Seminar Pelajar Tahun 1 (UCS1110), Fakulti Kejuruteraan Mekanikal
18 Sept 2013	Perantikan sebagai Pegawai Pengiring Pelajar: Program Industrial Visit Series and SolidWork Student Design Competition Event 2013
17/01/2013	Mesyuarat CenSE dengan majlis sukan negeri terengganu (MSNT).
1/1 – 31/12/2014	CEO for Human Engineering Focus Group (HEG)
27 February 2014	Co-chairman of Seminar on Advanced Powder Metallurgy for Biomedical Application.
12-13/04/2014	BEM Mandatory Course: Code of Ethics
10-11/05/2014	BEM Mandatory Course: Engineering Management
16-18/07/2014	Impact Factor Journal Workshop
13/09/2014	Visual Basic Crashed Course
14/11/2014	Open Source Computer Vision (OPEN CV) and Kinect Application

TEACHING

DMM3623	Hydraulic & Pneumatic Technology	53 students	2008/2009/1
BMM1113	Engineering Mathematics	(Tutorial)	2008/2009/1
DMM1532	Statics	38 students	2008/2009/2
BMM1553	Dynamics	(Tutorial)	2008/2009/2
DMM2513	Solid Mechanics	31 students	2011/2012/1
DMM2932	Mechanical Technology Lab 3	28 students	2011/2012/1
DMM3663	CNC Technology	38 students	2011/2012/1
DMM2513	Solid Mechanics (Repeater)	2 students	2011/2012/2
DMM1523	Engineering Materials	55 students	2011/2012/2
DMM2942	Mechanical Technology Lab 4	28 students	2011/2012/2
DMM2513	Solid Mechanics	92 students	2012/2013/1
DMM2931	Mechanical Technology Lab 3	90 students	2012/2013/1
BMM3562	Finite Element Method	60 students	2012/2013/2
DMM2941	Mechanical Technology Lab 4	100 students	2012/2013/2
BMM2613	Computer Aided Design	33 students	2013/2014/1
BMM3562/3	Finite Element Method	49 students	2013/2014/1
BMM2613	Computer Aided Design	33 students	2013/2014/2
BMM3562/3	Finite Element Method	54 students	2013/2014/2
BMM2613	Computer Aided Design	29 students	2014/2015/1
BMM3562/3	Finite Element Method	51 students	2014/2015/1
BMM4693	Biomechanics	15 students	2014/2015/1
BMM3562	Finite Element Method	65 students	2014/2015/2
BMM4693	Biomechanics	33 students	2014/2015/2

SUPERVISION (*Name, ID No, Title, Year Completed*)

FINAL YEAR PROJECT (DEGREE)		
Adeline Neo Wei Qi (MG12028)	Multipurpose Portable e-transporter	2016

Kesavarma a/l Seluraju (MA12085)	Flood Detector Alert System	2016
Tai Jee Qian (MA13018)	Intelligent body posture garment	2016
Amirul Azman bin Shuib (MA12050)	Development of PVC Bending Heater	2016
Barath a/l Ponnusamy (MA12007)	Development of Bow Riser for Archery sport	2015
Wong Fei Yong (MA12001)	Development and Analysis of Arrow For Archery	2015
Tan Choon Mong (MA12005)	Development of Electrocardiography (ECG) and Electromyography (EMG) Devices By Using Arduino Interface	2015
Vorathin a/l Epin (MA12015)	Development of Portable Balance Force Plate Using Arduino	2015
Chow Kean Choong (MH11080)	Development of Car Monitoring and Security system using Arduino.	2015
Nor Arina Ali Bangsa (MH11090)	Development of Force distribution equipment for Car Seat	2016
Mohd Faizfikri bin Mat Ghani	Finite element analysis of soccer ball	2014
Mohd Haziq Rashid bin Husin	Finite element modeling of foot impact during kicking the ball	2014
Nursyuhada bt Hassan	Design and material study on archery equipment: Arrow simulation using FSI	2014
Muhammad Aminuddin bin Pi Remli	Experimental setup and finite element analysis of established design for soccer boot	2014
Mohd Razlan bin Azizan	Development of instrumented insole to monitoring the body balance	2014
Liyana Binti Baddar Khan	Finite Element Analysis of the Foot Pressure Distribution on Athlete Gait	2014
Muhammad Fakhrrur-Razi B. Abd. Rahim	The effect of weightlifting on spine physiology	2013
Nurul Jasmie bt Che Ahamed	Optimizing of stud configuration for soccer boot: A finite element method	2013

FINAL YEAR PROJECT (DIPLOMA)

Ahmad Kamal Tajuddin Bin Kamarulzamil MB14156	Garlic Peeler Machine	2016
Muhamad Firdaus Bin Azman MB14073	LED Display	2016
Ahmad Nadzirul Bin Mohd Azman MB14085	Automatic Smart Gardener Pot	2016
Nur Azira Binti Ab Aziz (MB13017)	Flood Monitoring System Using Bluetooth	2015
Muhammad Alif Bin Abd Rahim (MB13060)	Development of Arrow Launcher using Arduino	2015
Mohd Hazim Ishak (MB13074)	Development of Display Monitoring for receptionist counter	2015
Cornelius Kebing Saging (MB13130)	Table tennis ball launcher using Arduino	2015
Fazlan	Development of Arrow Launcher	2015
Nordin	Development of Smart Door Knob Access	2015
Mohamed Nizar Bin Zainal Abidin	Development of sprint test timing gate using Arduino	2014
Muhammad Syafiq bin Mohd Zaki	Improvement of Low Cost Foot 3D Scanner	2014
Mohd Riduan bin Kasim	Design and fabricate test rig for kicking soccer ball	2013
Nur Akashah binti Hasanuddin	Development of Arrow	2013
Shahren bin Manap	Development of portable Biomechanics Desk	2013

Vorathin a/l Epin	Design and fabrication of smart mouse trap	2011
Sigithasan a/ Nagantheram	Design and fabrication of smart rack gadget	2011
Roslina Abdul Jalil	Design and fabrication of knee walker for disable	2011
Nurul Ariffah Hamidi	Design and fabrication of walker for elderly	2011
Mohd Zulkefley Ibrahim	Design and fabrication of elderly and disable seat	2011
Ahmad Aiman Azmi	Design and develop a multi touch key board screen	2011
Zaihin Mohd Zahib	Development of lift machine using cable and pulley systems	2008
Mohd Khairulnizam	Development of clothes dryer machine	2008
Che Mohd Akhairil Akasyah	Development of the can crusher machine	2008
Shahmi Syahrom	Development of potato peeling machine	2008
Mohammad Afnan	Development of apple peeler machine	2008
Mohamad Ruzaini	Portable and foldable wet clothes hanger	2008

Research Project | Grant (ID; Title; Value)

1	RDU160389 (RM24,500)	Development of the Body Balance to prevent the Musculoskeletal Disorder (MSD) using Wearable Sensors System (Member)
2	RDU1603106 (RM23,300)	Design of Protective Headgear for Soccer Players through Experimental and Computational Analysis (Member)
3	RDU160398 (RM32,050)	Development of Native Application With Cloud Integration for the Measurement of GFR Glomerular Filtration Rate (GFR) for Kidney Function Analysis. (Member)
4	RDU140104 (RM115,100)	Enhanced Driver Seating Comfort In A Small Size Car Through Digital Human Modelling(DHM)And Pressure Mapping Method (Member)
5	RDU1403127 (RM35,060)	Development Of 3d Copier Machine For Non Metal Automotive Part (Member)
6	RDU140502 (RM92,050)	Development An Olympic Scale Of Recurve Bow And Archery For Local Junior Athletes Under 15 And 17 (U-15 And U-17) (Member)
7	RDU1303110 (RM16,100)	Three-Dimensional (3D) Modeling of Human Airway using Fluid Structure Interaction (FSI) Technique (Leader)
8	RDU1303108 (RM21,000)	Development and Analysis of Bow and Arrow for Malaysian Athlete (Leader)
9	RDU1303107 (RM27,400)	Modeling of Vehicle Seat for Human Comfort of a Small Size Passenger Car (K-Car) (Member)
10	RDU110331 (RM24,500)	Biomechanical Analysis and Prediction on Heart Valve Behaviour by Fluid Structure Interaction Approach (Member)
11	RDU100373 (RM30,500)	Development of Probabilistic Finite Element Analysis for Lumbar Spine Biomechanics (Leader)
12	RDU110702 (RM300,000)	Development of High Performance Sports Shoes and Knee Pad for Malaysian Athletes (Member)

PUBLICATIONS | THESIS (Year; Title)

Zulkifli bin Ahmad @ Manap (2019)	Prediction of Exhaustion Threshold to Prevent Sudden Death During Aerobic Exercise. (Universiti Teknologi Malaysia)	(Dissertation for Doctor of Philosophy in Biomedical Engineering)
Zulkifli Ahmad @ Manap (2012)	Analisis Kepatahan ke atas vertebra lumbar tulang belakang menggunakan kaedah unsur terhingga dan Monte Carlo – Fracture Analysis on lumbar vertebra using Finite Element Analysis and Monte Carlo method (Universiti Kebangsaan Malaysia)	(Dissertation for Master in Materials & Mechanical Engineering)

Zulkifli Ahmad @ Manap (2007) Adverse environment on composites buckling (Dissertation for Bachelor in Mechanical Engineering) (Universiti Teknologi Malaysia)

PUBLICATIONS | BOOK (Title; Year; Publisher)

1	Biomechanical Analysis of Weightlifting	2013	LAP Lambert
2	Modul Asas Arduino	2015	UMP Publisher

INTELLECTUAL PROPERTY (Patent No.; Title)

1. PI 2016000445 - A WEARABLE DEVICE FOR SELF-ASSESSMENT OF BODY POSTURE – [Link](#)
2. UI 2015701054 - A TABLE TENNIS LAUNCHER – [Link](#)

ACHIEVEMENTS / AWARDS (Project, Exhibition, Medal)

1.	Wearable Device to Detect Exhaustion Level Using Machine Learning Method	FBME Exhibition	Gold
2.	Prediction of Exhaustion using Artificial Neural Network	FBME Innopitch	3rd place
3.	Wearable Device of Exhaustion Threshold Detector	innoTVET2017	2nd Runner up
4.	WREHAB - A Rehab Device to Assist Wrist Recovery of Traumatic Brain Injury Patient	ITEX2016	Gold
5.	Smart Monitoring Shoe Insole for Rehabilitation application	CiTREX2015 / iTEX2015 / MTE2016	Gold / Silver / Silver
6.	Electro-goniometer for joint angle measurement	CiTREX2015 / i-ENVEX2015 / KIDE2015	Gold / Gold / Gold
7.	Smart Door Access using Arduino and Android	CiTREX2015 / i-ENVEX2015	Gold / Silver
8.	Monitoring and Security system of Car using GSM shield	CiTREX2015 / i-ENVEX2015	Gold / Silver
5	Portable Body Balance	CiTREX2015	Silver
6	Biofeedback of ECG and EMG devices	CiTREX2015	Silver
7	Smart Assist Device for Archery athlete	CiTREX2015	Silver
8	Instrumented Force Shoe Insole with Android Interface	CiTREX2014 / InnoFest	Gold / Gold
9	Automated Sprint Timing Gate	CiTREX2014 / InnoFest	Gold / Gold
10	Development of Table Tennis Launcher	CiTREX2014 / InnoFest / IYIC2014 / iCON2014	Gold / Bronze / Gold
11	Development of the archery test rig for Malaysian athlete	CiTREX2013 / i-ENVEX 2013	Gold / Bronze
12	Smart Green Watering System using Solar Powered	IGE2014	Silver
13	Intelligent LED Display using Bluetooth communication	IGE2014	Gold
14	National SolidWork Student Design Competition 2013		2- runner up
15	Proton Green Mobility Challenge at Sepang International Circuit	PGMC2012	1st runner up

JOURNALS (Author, Year, "Title", Journal Name, Page, ISSN)

- 1 Zulkifli Ahmad, Mohd Najeb Jamaludin and Kamaruzaman Soeed, 2019, "An effect of physical exercise-induced fatigue on the vital sign parameters: A preliminary study", *Malaysian Journal of Fundamental and Applied Sciences*, 15(2), 173-177. (Clarivate)
DOI: <https://doi.org/10.11113/mjfas.v15n2.1287>
- 2 Zulkifli Ahmad, Ummu Jamaludin, A Aishah, Mohd Najeb Jamaludin, 2019, "Development of Wearable Electromyogram for the Upper Extremity during Aerobic Exercise", *IOP Conference Series: Materials Science and Engineering*, 469(1), 1-9. (Scopus)
DOI: <http://iopscience.iop.org/article/10.1088/1757-899X/469/1/012085>
- 3 **Zulkifli Ahmad**, Mohd Najeb Jamaludin, Kamaruzaman Soeed, 2018, "Prediction of Exhaustion Threshold Based on ECG Features Using the Artificial Neural Network Model", *IEEE-EMBS Conference on Biomedical Engineering and Sciences (IECBES)*, 3-6 Dec 2018, 523-528.
DOI: <https://doi.org/10.1109/IECBES.2018.8626605>
- 4 Zulkifli Ahmad, Mohd Najeb Jamaludin, Abdul Hafidz Omar, 2018, "Development of Wearable Electromyogram for the Physical Fatigue Detection During Aerobic Activity", *Malaysian Journal of Movement, Health & Exercise*, 7(1), pages 15-25, ISSN: 2600-9404,
DOI: <http://dx.doi.org/10.15282/mohe.v7i1.225>
- 5 Zulkifli Ahmad, Mohd Najeb Jamaludin and Abdul Hafidz Omar, 2018, "Monitoring and Prediction of Exhaustion Threshold during Aerobic Exercise Based on Physiological System using Artificial Neural Network", *Journal of Physical Fitness, Medicine & Treatment in Sports*, 3(5), 1-3. ISSN: 2577-2945. Link: <https://juniperpublishers.com/jpfmts/JPFMTS.MS.ID.555624.php>
- 6 Zulkifli Ahmad, Wong Fei Yong, Tan Choon Mong, Idris Mat Sahat, and Zakri Ghazalli, 2016, "Development of the Wireless Goniometer in Measuring Range of Motion for Lower Extremities", *Advanced Science Letter*, Volume 23, Number 6, pages 5107-5111, ISSN: 1936-6612 (Print); EISSN: 1936-7317 (Online), DOI: <https://doi.org/10.1166/asl.2017.7320>. (SCOPUS-Q4), SJR-0.13. [Link](#)
- 7 Wong Fei Yong, Zulkifli Ahmad, and Idris Mat Sahat, 2016, "Development and analysis of arrow for archery", *ARPN Journal of Engineering and Applied Sciences*, Volume 11, Issue 12, 1 June 2016, Pages 7443-7450, ISSN: 1819-6608 (Online). (SCOPUS-Q3), SJR- 0.202. [Link](#)
- 8 Barath a/I Ponnusamy, Wong Fei Yong, and Zulkifli Ahmad, 2015, "A Low Cost Automated Table Tennis Launcher", *ARPN Journal of Engineering and Applied Sciences*, Volume 10, Issue 1, Pages 291-296, ISSN: 1819-6608 (Online). (SCOPUS-Q3), SJR-0.16. [Link](#)
- 9 Zulkifli Ahmad, Zahari Taha, Hasnun Arif Hassan, Mohd Azrul Hisham, Nasrul Hadi Johari, and Kumaran Kadirgama, 2014, "Biomechanics Measurements in Archery", *Journal of Mechanical Engineering and Sciences*, Volume 6, pp. 771-780, ISSN (Print): 2289-4659; e-ISSN: 2231-8380. (SCOPUS)
- 10 A. Zulkifli, Ahmad K. Ariffin, M.R.M. Akramin, 2014, "Probabilistic Model of Surface Crack on the Lumbar Vertebra", *Applied Mechanics and Materials*, Vol. 471, pp. 299-305, 10.4028/www.scientific.net/AMM.471.299. (SCOPUS)
- 11 Zahari Taha, Mohd Azri Aris, Zulkifli Ahmad, Mohd Hasnun Arif Hassan, Nina Nadia Sahim, 2014 "A Low Cost 3D Foot Scanner for Custom-Made Sports Shoes", *Applied Mechanics and Materials*, Vol. 440, pp. 369-372, 10.4028/www.scientific.net/AMM.440.369. (SCOPUS)
- 12 Mohd Azrul Hisham Mohd Adib, Mohd Fadhlán Yusof, Zulkifli Ahmad, and Nur Hazreen Mohd Hasni, 2012, "Detection of Cardiac Geometry via Difference Intensity of Echocardiogram Images", *Journal of Integrative Bioinformatics*, Vol. 9(2), pp. 1-6. ISSN: 1613-4516, doi:10.2390/biecoll-jib-2012-195. (SCOPUS)
- 13 A. Zulkifli and A.K. Ariffin, 2012, "Monte Carlo Analysis of the Human Vertebra based on Compressive Loading", *International Journal of Mechanical & Mechatronics*, Vol. 12, N. 5, pp. 69-73. ISSN: 2077-124X (Online) | 2227-2771 (Print). [Link](#)
- 14 A. Zulkifli and A.K. Ariffin, 2012, "Hybrid of Probabilistic and Finite Element Analysis in Biological Structure Failure: A Review" *International Review of Mechanical Engineering*, Vol. 6, N. 4, pp. 927-933. ISSN: 1970-8734. (Q4)
- 15 A. Zulkifli, A.K. Ariffin, and M.M. Rahman, 2011, "Probabilistic Finite Element Analysis of Vertebrae of the Lumbar Spine under Hyperextension Loadings" *International Journal of Automotive and Mechanical Engineering*. Vol. 3, pp. 256-264. ISSN: 1985-9325. (SCOPUS)

- 16 A. Zulkifli, A.K. Ariffin, A.E. Ismail, R. Daud, and M.R.M. Akramin, 2011, "Stress and probabilistic study of the lumbar vertebra under compression loading", *Applied Mechanics and Materials* Vols. 52-54, pp. 1394-1399, ISSN 1660-9336. (SCOPUS)
- 17 M.R.M. Akramin, A. Zulkifli and M. Mazwan Mahat, 2011, "Reliability Analysis of Uncertain Input Variables for Cracked Structures", *Applied Mechanics and Materials* Vols. 52-54, pp. 1358-1363, ISSN 1660-9336. (SCOPUS)
- 18 R. Daud, A.K. Ariffin, S. Abdullah, A.E. Ismail, A. Zulkifli, 2011, "Computation of Stress Intensity Factor for Multiple Cracks using Singular Finite Element" *Advanced Materials Research* Vol. 214, pp. 75-79. (SCOPUS)
- 19 A.E Ismail, A.K Ariffin, S. Abdullah, M.J Ghazali, R. Daud, M. Abdulrazzaq, and A. Zulkifli, 2011, "J-Integral Analysis of Surface Cracks in Round Bars under Tension Loadings" *Applied Mechanics and Materials* Vols. 52-54, pp. 37-42, ISSN 1660-9336. (SCOPUS)

International Conference (*Author, Title, Conference Name, Date*)

- 1 Zulkifli Ahmad, Mohd Najeb Jamaludin, Muhammad Amir As'ari, and Abdul Hafidz Omar, 2017, "Detection of Localised Muscle Fatigue by Using Wireless Surface Electromyogram (sEMG) and Heart Rate in Sports", International Medical Device and Technology Conference (iMEDiTEC2017), 6-7 September 2017, UTM, Skudai, Malaysia.
- 2 Wan Muhammad Asyraf Wan Zaki, Zulkifli Ahmad, Mohd Najeb Jamaludin, Muhammad Amir As'ari, and Abdul Hafidz Omar, 2017, "Design of Low Power and Miniature Wearable Electromyogram for", International Medical Device and Technology Conference (iMEDiTEC2017), 6-7 September 2017, UTM, Skudai, Malaysia.
- 3 Zulkifli Ahmad, Barath a/l Ponnusamy, and Zakri Ghazalli, 2016, "Finite Element Analysis Approach on 3D Modelling of Archery Bow Design", The 4th Annual Conference on Engineering and Information Technology (ACEAIT2016), 29-31st March 2016, Kyoto, Japan.
- 4 Zulkifli Ahmad, Wong Fei Yong, and Idris Mat Sahat, 2015, "Development and Analysis of Arrow for Archery", International Conference on Industrial and Design Engineering (InCIDE2015), 12-13 September 2015, Putrajaya, Malaysia.
- 5 Zulkifli Ahmad and Tan Choon Mong, 2015, "Development of Portable Biofeedback Devices for Sport Applications", The 2015 International Colloquium on Sports Science, Exercise, Engineering & Technology (iCOSSEET2015), 12-15 April 2015, Langkawi, Malaysia. [\[Link\]](#)
- 6 Zulkifli Ahmad, Mohd Razlan Azizan, Idris Mat Sahat and Zakri Ghazalli, 2015, "A Low-cost of Foot Plantar Shoes for Gait Monitoring System", The 3rd Annual Conference on Engineering and Information Technology (ACEAIT2015), 22-24 March 2015, Osaka, Japan.
- 7 Zulkifli Ahmad, Mohd Aminuddin Pi Remli, et.al, 2014, "The Performance of Kicking by Different Boots Material", Asia Pacific Conference on Performance Analysis of Sport (APCPAS2014), 21-24 April 2014, Langkawi, Malaysia. [\[Link\]](#)
- 8 Zulkifli Ahmad and Mohd Azri Aris, 2013, "Relationship of the young athlete foot anthropometry measurement and kicking ball velocity", International Conference on Computing, Mathematics and Statistics (iCMS2013), Penang, Malaysia.
- 9 Zahari Taha, Mohd Azri Aris, Zulkifli Ahmad, Mohd Hasnun Arif Hassan, Nina Nadia Sahim, 2013, "A Low Cost 3D Foot Scanner for Custom-Made Sports Shoes", International Conference on Advanced Materials & Sports Equipment Design (AMSED2013), Singapore. [\[Link\]](#)
- 10 Zulkifli Ahmad, Zahari Taha, Hasnun Arif Hassan, Mohd Azrul Hisham, Nasrul Hadi Johari, and Kumaran Kadirgama, 2013, "Biomechanics measurement in Archery", The 2nd International Conference on Mechanical Engineering Research (ICMER2013), Gambang, Kuantan, Pahang. [\[Link\]](#)
- 11 A. Zulkifli and K. Kadirgama, 2013, "Optimization of the surface crack on the human lumbar vertebra", The 9th International Conference on Fracture & Strength of Solids (FEOFS2013), Jeju Island, South Korea.
- 12 Nasrul Hadi, Johari and Zulkifli, Ahmad @ Manap and Syifak Izhar, Hisham (2012) A Quick Glance at Numerical Modeling in Obstructed Human Airway. In: Proceedings of the First International Conference on Computational Science and Information Management (ICoCSIM2012) Vol. 1, 03-05 December 2012, Toba Lake, North Sumatera, Indonesia.

- 13 M.A. Hisham, Z. Taha, K. Kadirgama, A. Zulkifli, N.H. Johari, "Computational Modeling: Stress/Strain Analysis on Soccer Kneepad Using Finite Element Method (FEM)", Asean University Sports Council International Conference (AUSCIC2012), 13-14 Dec 2012, Vientiane, Laos.
- 14 A. Zulkifli, Z. Taha, N.H. Johari, K. Kadirgama, A.R. Ismail, M.A. Hisham, Z. Anuar, M.H. Ariff, N. Saadah, 2012, "Correlation between football boot design material and ball speed", Asean University Sports Council International Conference (AUSCIC2012), 13-14 Dec 2012, Vientiane, Laos.
- 15 A. Zulkifli, A.K. Ariffin, A.E. Ismail, R. Daud, and M.R.M. Akramin, 2011, "Stress and probabilistic study of the lumbar vertebra under compression loading", International Conference of Mechanical Engineering (ICME2011), April 2011, Phuket, Thailand.
- 16 A. Zulkifli, A.K. Ariffin, "Biomechanical analysis of the lumbar spine under physiological loading", Numerical Analysis of Engineering (NAE2011), 19-21 May 2011, Manado, Sumatera, Indonesia.
- 17 M.R.M. Akramin, Zulkifli Ahmad, and A.K. Ariffin, "Finite element and Monte Carlo Analysis of Cracked Structure". Proceedings of ACE-X 2010, 4th International Conference on Advanced Computational Engineering and Experimenting, 8-9 July 2010, Paris, France, pp. 106.
- 18 Z. Ahmad, A.K. Ariffin, and M.R.M. Akramin, "Probabilistic Stress Analysis of the Human Lumbar Spine Extended Finite Element Method", 11th Asia Pacific Industrial Engineering & Management Systems Conference 2010 (APIEMS2010), 7-10 Disember 2010, Melaka, Malaysia.

National Conference (*Author, Title, Conference Name, Date*)

- 1 A. Zulkifli, A.K. Ariffin, A.R. Ismail, M.A. Hisham, and N.H. Johari, 2012, Probabilistic Analysis of the Human Vertebra under Compressive Loading, 2nd Regional Conference on Applied and Engineering Mathematics (RCAEM-II 2012), 30-31 May 2012, Penang.
- 2 Ahmad Rasdan Ismail, Mohd Azrul Hisham Mohd Adib, K. Kadirgama, Nasrul Hadi Johari, Zulkifli Ahmad, Hadi Abdul Salaam Zulfika Anuar, Nor Saadah N. Azmi, 2011, *Review on Biomechanics: A Potential Research*, Proceeding of Malaysian Technical Universities International Conference on Engineering and Technology 2011 (MUiCET 2011), 13 -15 November 2011, Batu Pahat, Johor.
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Paper Reviewer; Conference / Journal [\[Publons\]](#)

1	Identification of gunshot Residue from trace element by using ICP/OES	ISCI2013
2	Three-Dimensional Modeling and Analysis of a Human Ankle Joint	IEEE Student Conference on Research and Development (SCOREd)
3	Review of Biomechanical Modelling of Cortical Bone Stress Fracture	ICBE2015
4	Wearable Step Counting using a Force Myography Based Ankle Strap	Journal of Rehabilitation and Assistive Technologies Engineering
5	Unilateral Changes in Walking Surface Compliance Evoke Dorsiflexion in Paretic Leg of Impaired Walkers	Journal of Rehabilitation and Assistive Technologies Engineering

6	A Device for Measuring the Variable Lateral Bow Angle and its Impact on Score Loss	Proceedings of the Institution of Mechanical Engineers, Part P: Journal of Sports Engineering and Technology
7	Effect of Targeting Motor Control on Parameters of Gait in Both Healthy and Stroke-survivors Populations	Journal of Rehabilitation and Assistive Technologies Engineering

Products (Title; Status)

1	Smart LED using Bluetooth and Android	Completed
2	Automatic Remote Car prevent an obstacle	Completed
3	Table Tennis Launcher	Completed
4	Automatic Timing Gate	Completed
5	Instrumented Force Shoe Insole with Android Interface	Completed
6	Multifunction measurement box	Completed
7	Portable Solar Charger using Arduino	Completed
8	Temperature Data Logger	Completed
9	Smart Door Access using Arduino and Android	Completed
10	ECG and EMG device for health monitoring system using Arduino	Completed
11	Body weight balance device	Completed
12	Intelligent two-wheel balance robot for Segway system	Completed
13	Monitoring device for car security system using GSM and Arduino	Completed
14	Portable device to monitoring the bow vibration of archery	Completed
15	iPOST (Intelligent body posture device)	Completed