



SAIFUL ANWAR BIN CHE GHANI

IDENTITY CARD NO: 810407-11-5665

1.0 PERSONAL DETAILS

Nationality: Malaysian
Date of Birth: 7th April 1981
Place of Birth: Kuala Terengganu, Malaysia
Gender: Male
Religion: Islam
Marital Status: Married
Driving license: D (possess own transport)

Permanent & Mailing Address: 3905 Kampung Bukit, Chendering, 21080 Kuala Terengganu, Terengganu, MALAYSIA

Current Job Managerial Post: Senior Lecturer (DS 51) | Staff ID: 01553
Head of Mechanical Program

Appointment: Faculty of Mechanical Engineering
Universiti Malaysia Pahang

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2.0 FORMAL EDUCATION BACKGROUND

Year	Institution	Level
2009-2013 (25 th April 2013)	Advanced Manufacturing and Enterprise Engineering Department, School of Engineering and Design, Brunel University, Uxbridge, U. K.	Doctor of Philosophy <i>in Advanced Manufacturing</i>
2001-2006 (3 rd August 2006)	Department of Mechatronics and Microsystem Engineering, University of Applied Sciences Heilbronn, Germany	Diplom Ingenieur (FH)

1999-2001	Pusat Pendidikan Persediaan (PPP), Universiti Teknologi Mara, Shah Alam, Malaysia	A-Level with German Language (DSH)
1997-1998	Maktab Rendah Sains Mara Kuala Berang, Hulu Terengganu, Terengganu, Malaysia	SPM 1998 (Grade 1: 7 Aggregates)
1994-1996	Sekolah Menengah Kebangsaan Agama Sheikh Abdul Malek, Kuala Terengganu, Malaysia	PMR (9A's)
1988-1993	Sekolah Kebangsaan Kampong Bukit, Chendering, Kuala Terengganu, Terengganu, Malaysia	Completed Standard 6 UPSR 1993 (4A's)

3.0 PROFESSIONAL AND SEMI-PROFESSIONAL EXPERIENCE

Year	Position	Organization/Institution
15 Nov 2016 - present	Head of Programme	Mechanical Programme, Faculty of Mechanical Engineering, Universiti Malaysia Pahang
23 July 2013 – present	Senior Lecturer DS51	Faculty of Mechanical Engineering, Universiti Malaysia Pahang
1 Jan 2014 - 31 December 2016	CEO (Research Group)	Human Engineering Group, Faculty of Mechanical Engineering, Universiti Malaysia Pahang
15 April 2013 – 22 July 2013	Tutor DA41	Faculty of Mechanical Engineering, Universiti Malaysia Pahang
1 September 2011 – 30 April 2013	Teaching Assistant	School of Engineering and Design, Brunel University, United Kingdom
1 September 2011 – 30 April 2013	Lab Demonstrator	School of Engineering and Design, Brunel University, United Kingdom
March 2007 – March 2008	Test Process Engineer	Infineon Technologies (M) Sdn. Bhd., Malacca, Malaysia
September 2004 – March 2005	Industrial Internship	Audi AG, Neckarsulm, Germany
February 2003 – July 2003	Industrial Internship	Robert Bosch GmbH, Reutlingen, Germany

4.0 GRANT

Principle Investigator

Research ID	Research Title	Start Date	End Date	Status
1 RDU141102	Development of a Smart Cutting Tool by Powder Metallurgy for Sustainable Machining	25/02/2014	24/02/2015	Completed
2 RDU151007	Improvement of Extracted Agarwood Aquilaria Oil Productivity and quality By Installing Automated Hydro Distillation System	01/12/2015	30/11/2017	Ongoing
3 RDU160135	Evaluation of the Surface Integrity Generated from Sustainable Machining of Austenitic Stainless Steel with Internally Cooled Cutting Tool	01/08/2016	31/07/2019	Ongoing
4 RDU150338	Progressive Wear in Sustainable Machining of Cobalt Chromium Alloy using Cutting Inserts of Different Coating Materials	25/06/2015	24/06/2017	Completed
5 RDU140377	Development of a Smart Cutting Tool for Sustainable Machining of Nickel Based Alloys for the Application to Turbocharger Manufacturing	05/06/2014	04/06/2016	Completed
6 RDU151313	Investigation of Machinability Characteristics of Cobalt-Chromium Alloy Produced by Different Powder Metallurgy Techniques	01/01/2016	31/01/2018	Ongoing
7 GRS150396	Meta-Biomaterial of Load Bearing Implant using Cobalt Chromium alloy Manufactured by Direct metal Laser Sintering	25/08/2015	24/08/2017	Completed
8 PGRS160385	Progressive Wear in Machining Cobalt Chromium Alloy using Cutting Inserts of Different Coating Materials under Different Cutting Conditions	01/10/2016	30/09/2018	Ongoing

Research Member

	Research ID	Research Title	Start Date	End Date	Status
1	UIC171003	Wrist Rehab Device	15/08/2017	14/08/2018	Ongoing
2	RDU160397	Thermal behavior studies of electrical machine for steer-by-wire automotive application	25/06/2016	24/06/2018	Ongoing
3	RDU160389	DEVELOP THE BODY BALANCE TO PREVENT THE MUSCULOSKELETAL DISORDER (MSD) USING WEARABLE SENSORS SYSTEM	25/06/2016	24/06/2018	Ongoing
4	RDU160138	Investigation on Electric Motor as an Actuator of Anti Skid Control System to Improve the Safety of Small Electric Vehicle	01/08/2016	31/07/2019	Ongoing
5	RDU151314	Investigation of The Rigidity of CoCrMo Cellular Structure Fabricated by Selective Laser Melting Process for Potential Dental Applications	01/01/2016	31/12/2018	Ongoing
6	RDU170372	SUPPRESSION OF CHATTER IN HIGH SPEED MILLING USING MICROCONTROLLER BASED SPEED CONTROLLER BY SPINDLE SPEED VARIATION METHOD	01/05/2017	01/05/2019	Ongoing
7	RDU160387	DEVELOPMENT OF 3D PRINTING MACHINE CONTROLLER USING THE PREDEFINED CLOSEST-DISTANCE VOLUME INTERPOLATOR SYSTEM	25/06/2016	24/06/2018	Ongoing
8	RDU160312	Investigation on Differential Braking Torque Controller to Improve the Stability of Small In-wheel Electric Vehicle	05/04/2016	04/04/2018	Ongoing
9	RDU160354	Characteristics Study of Co-30Cr-7Mo Dental Alloys Using Direct Metal Laser Melting process	25/05/2016	24/05/2018	Ongoing
10	RDU1703252	Performance study of organic based minimum quantity lubrication on machining difficult-to-cut material	30/06/2017	29/06/2019	Ongoing
11	RDU1603114	Surface Integrity of Al-Si/AlN MMC in End Milling Machining Process under Dry Cutting Condition	25/06/2016	24/06/2018	Ongoing
12	RDU160136	A Study of Progressive Damage Detection in Thinwalled Composite Structures using an Embedded Fiber Bragg Grating Acoustic Emission Hybrid System	01/08/2016	31/07/2019	Ongoing
13	RDU141004	Peningkatan Produktiviti Pengeluaran Baja Cecair Kilang IKS Melalui Penambahbaikan Sistem Operasi dan Pengurusan Bahan Mentah	15/02/2014	14/02/2016	Completed
14	RDU1403125	Development of a Solder ally (Sn-Cu-Ni) for Electrical Connection at Automotive Electronic Devices using Powder Metallurgy Method	15/11/2014	14/11/2016	Completed
15	RDU151411	Investigation the effect of Nanolubricant on Energy Saving in Automobile Air-conditioning System	01/12/2015	30/11/2017	Ongoing
16	RDU151404	Hydroxyapatite Coating on Laser Melted-CoCrMo Compact using various thicknesses of oxide interlayers for Biomedical Applications	01/12/2015	30/11/2017	Ongoing
17	RDU150337	Development and Characterization of Transformation Induced Plasticity for Fe-Ni Alloy Steels Fabricated by metal Injection Molding	25/06/2015	24/06/2017	Completed
18	RDU150385	Development of equal channel angular pressing die for bulk nanostructured metal processing for automotive application	01/10/2015	30/09/2017	Completed
19	RDU151311	Thermal Management of Vehicle Radiator by Nanofluids	01/01/2016	31/12/2018	Ongoing
20	RDU151403	Development of Regenerative Brake Timing Control to Improve the Braking Performance of Small Electric Vehicle	01/12/2015	30/11/2017	Ongoing
21	RDU150802	Development of Force and Temperature Controlled Friction Stir Welding Machine (FSW) For Dissimilar Metal Joining Application	01/12/2015	30/11/2017	Ongoing
22	RDU1403132	Development of Test Equipment to Study Tooth Bending Strength of Helical Gears in Automotive Transmission	25/11/2014	24/11/2016	Completed
23	RDU140354	Development of Titanium Manganese Alloys Foams for Biomedical Applications by Metal Injection Molding	25/04/2014	24/04/2016	Completed
24	RDU160398	Development of native application with cloud integration for the measurement of GFR glomerular filtration rate (GFR) for kidney function analysis	25/06/2016	24/06/2018	Ongoing
25	UIC161504	DIRECT METAL LASER SINTERING TECHNOLOGY FOR THE MANUFACTURE OF FULLY POROUS FUNCTIONALLY GRADED TITANIUM ALLOY FEMORAL STEMS	01/07/2016	30/06/2019	Ongoing
26	UIC150706	BIRD DETERRENT DEVICE - INTERNAL AND EXTERNAL	01/09/2015	01/06/2016	Completed

5.0 PUBLICATION

h-index: 8

i-10 index: 7

Harun, W.S.W., Kamariah, M.S.I.N., Muhamad, N., Ghani, S.A.C., Ahmad, F., Mohamed, Z.
A review of powder additive manufacturing processes for metallic biomaterials
(2018) Powder Technology, 327, pp. 128-151.
DOI: 10.1016/j.powtec.2017.12.058
DOCUMENT TYPE: Review
SOURCE: Scopus

Harun, W.S.W., Asri, R.I.M., Alias, J., Zulkifli, F.H., Kadirgama, K., Ghani, S.A.C., Shariffuddin, J.H.M.
A comprehensive review of hydroxyapatite-based coatings adhesion on metallic biomaterials
(2018) Ceramics International, 44 (2), pp. 1250-1268. Cited 1 time.
DOI: 10.1016/j.ceramint.2017.10.162
DOCUMENT TYPE: Review
SOURCE: Scopus

Ghani, S.A.C., Zakaria, M.H., Harun, W.S.W., Ghazalli, Z.
Progressive tool flank wear and surface roughness when turning AISI 1017 mild steel using reduced thickness inserts in finishing cutting conditions
(2017) AIP Conference Proceedings, 1901, art. no. 040003, .
DOI: 10.1063/1.5010492
DOCUMENT TYPE: Conference Paper
SOURCE: Scopus

Ghani, S.A.C., Mohamed, S.R., Harun, W.S.W., Noar, N.A.Z.M.
Physical evaluations of Co-Cr-Mo parts processed using different additive manufacturing techniques
(2017) AIP Conference Proceedings, 1901, art. no. 100001, .
DOI: 10.1063/1.5010523
DOCUMENT TYPE: Conference Paper
SOURCE: Scopus

Islam, N.K.M.S., Harun, W.S.W., Ghani, S.A.C., Omar, M.A., Ramli, M.H., Ismail, M.H.
Physical properties and microstructure study of stainless steel 316L alloy fabricated by selective laser melting
(2017) AIP Conference Proceedings, 1901, art. no. 100015, .
DOI: 10.1063/1.5010537
DOCUMENT TYPE: Conference Paper
SOURCE: Scopus

Hamidi, M.F.F.A., Harun, W.S.W., Khalil, N.Z., Ghani, S.A.C., Azir, M.Z.
Study of solvent debinding parameters for metal injection moulded 316L stainless steel
(2017) IOP Conference Series: Materials Science and Engineering, 257 (1), art. no. 012035, .
DOI: 10.1088/1757-899X/257/1/012035
DOCUMENT TYPE: Conference Paper
SOURCE: Scopus

Hamidi, M.F.F.A., Harun, W.S.W., Samykan, M., Ghani, S.A.C., Ghazalli, Z., Ahmad, F., Sulong, A.B.
A review of biocompatible metal injection moulding process parameters for biomedical applications
(2017) Materials Science and Engineering C, 78, pp. 1263-1276.
DOI: 10.1016/j.msec.2017.05.016
DOCUMENT TYPE: Review
SOURCE: Scopus

Asri, R.I.M., Harun, W.S.W., Samykan, M., Lah, N.A.C., Ghani, S.A.C., Tarlochan, F., Raza, M.R.

Corrosion and surface modification on biocompatible metals: A review

(2017) *Materials Science and Engineering C*, 77, pp. 1261-1274.

DOI: 10.1016/j.msec.2017.04.102

DOCUMENT TYPE: Review

SOURCE: Scopus

Manam, N.S., Harun, W.S.W., Shri, D.N.A., Ghani, S.A.C., Kurniawan, T., Ismail, M.H., Ibrahim, M.H.I.

Study of corrosion in biocompatible metals for implants: A review

(2017) *Journal of Alloys and Compounds*, 701, pp. 698-715.

DOI: 10.1016/j.jallcom.2017.01.196

DOCUMENT TYPE: Review

SOURCE: Scopus

Ghani, S.A.C., Zakaria, M.H., Harun, W.S.W., Zaulkafilai, Z.

Dimensional accuracy of internal cooling channel made by selective laser melting (SLM) and direct metal laser sintering (DMLS) processes in fabrication of internally cooled cutting tools

(2016) *MATEC Web of Conferences*, 90, art. no. 01058.

DOI: 10.1051/mateconf/20179001058

DOCUMENT TYPE: Conference Paper

SOURCE: Scopus

Ramachandran, K., Yeesvaran, B., Kadirgama, K., Ramasamy, D., Ghani, S.A.C., Anamalai, K.

State of art of cooling method for dry machining

(2016) *MATEC Web of Conferences*, 90, art. no. 01015, .

DOI: 10.1051/mateconf/20179001015

DOCUMENT TYPE: Conference Paper

SOURCE: Scopus

Asri, R.I.M., Harun, W.S.W., Hassan, M.A., Ghani, S.A.C., Buyong, Z.

A review of hydroxyapatite-based coating techniques: Sol-gel and electrochemical depositions on biocompatible metals

(2016) *Journal of the Mechanical Behavior of Biomedical Materials*, 57, pp. 95-108.

DOI: 10.1016/j.jmbbm.2015.11.031

DOCUMENT TYPE: Review

SOURCE: Scopus

Ghani, S.A.C., Harun, W.S.W., Rashid, F.F.A., Ibrahim, R.

Numerical analysis of internal flow embedded in a cutting tool

(2016) *ARPJ Journal of Engineering and Applied Sciences*, 11 (18), pp. 11009-11012.

DOCUMENT TYPE: Article

SOURCE: Scopus

Ab. Rashid, M.F.F., Wan Harun, W.S., Che Ghani, S.A.

Optimization of EDM small hole drilling process using Taguchi approach

(2016) *ARPJ Journal of Engineering and Applied Sciences*, 11 (4), pp. 2501-2504.

DOCUMENT TYPE: Article

SOURCE: Scopus

Abd Malek, N.M.S., Mohamed, S.R., Che Ghani, S.A., Wan Harun, W.S.

Critical evaluation on structural stiffness of porous cellular structure of cobalt chromium alloy

(2015) *IOP Conference Series: Materials Science and Engineering*, 100 (1), art. no. 012019, .

DOI: 10.1088/1757-899X/100/1/012019

DOCUMENT TYPE: Conference Paper

SOURCE: Scopus

Azidin, A., Taib, Z.A.M., Harun, W.S.W., Che Ghani, S.A., Faisae, M.F., Omar, M.A., Ramli, H.
Investigation of mechanical properties for open cellular structure CoCrMo alloy fabricated by selective laser melting process
(2015) IOP Conference Series: Materials Science and Engineering, 100 (1), art. no. 012033.
DOI: 10.1088/1757-899X/100/1/012033
DOCUMENT TYPE: Conference Paper
SOURCE: Scopus

Ferri, C., Minton, T., Ghani, S.B.C., Cheng, K.
Internally cooled tools and cutting temperature in contamination-free machining
(2014) Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 228 (1), pp. 135-145.
DOI: 10.1177/0954406213480312
DOCUMENT TYPE: Article
SOURCE: Scopus

Ferri, C., Minton, T., Bin Che Ghani, S., Cheng, K.
Efficiency in contamination-free machining using microfluidic structures
(2014) CIRP Journal of Manufacturing Science and Technology, 7 (2), pp. 97-105.
DOI: 10.1016/j.cirpj.2013.12.001
DOCUMENT TYPE: Article
SOURCE: Scopus

Ab Rashid, M.F.F., Harun, W.S.W., Ghani, S.A.C., Nik Mohamed, N.M.Z., Mohd Rose, A.N.
Optimization of multi-pass pocket milling parameter using ant colony optimization
(2014) Advanced Materials Research, 1043, pp. 65-70.
DOI: 10.4028/www.scientific.net/AMR.1043.65
DOCUMENT TYPE: Conference Paper
SOURCE: Scopus

Minton, T., Ghani, S., Sammler, F., Bateman, R., Fürstmann, P., Roeder, M.
Temperature of internally-cooled diamond-coated tools for dry-cutting titanium
(2013) International Journal of Machine Tools and Manufacture, 75, pp. 27-35.
DOI: 10.1016/j.ijmachtools.2013.08.006
DOCUMENT TYPE: Article
SOURCE: Scopus

Wang, C., Ghani, S.B.C., Cheng, K., Rakowski, R.
Adaptive smart machining based on using constant cutting force and a smart cutting tool
(2013) Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 227 (2), pp. 249-253.
DOI: 10.1177/0954405412466233
DOCUMENT TYPE: Article
SOURCE: Scopus

Sun, X., Bateman, R., Cheng, K., Ghani, S.C.
Design and analysis of an internally cooled smart cutting tool for dry cutting
(2012) Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 226 (4), pp. 585-591.
DOI: 10.1177/0954405411424670
DOCUMENT TYPE: Article
SOURCE: Scopus

Saiful, C.-G., Cheng, K., Sun, X., Bateman, R.

Optimizing heat transfer rate in an internally cooled cutting tool: FE-based design analysis and experimental study

(2012) Key Engineering Materials, 496, pp. 188-193.

DOI: 10.4028/www.scientific.net/KEM.496.188

DOCUMENT TYPE: Conference Paper

SOURCE: Scopus

6.0 CONSULTATION & TECHNICAL SERVICES

Year	C & T	Outcome
2017	Technical service to MRSM TAR, Pekan	Paid Consultation
	Module Development for BIM M&E	Paid Consultation
	Trainer for BIM TT (M&E)	Paid
	Technical Advisor for Innovation Team MRSM TAR, Pekan	Unpaid
	Improvement of Hydrodistillation System for Agarwood Oil Extraction	Grant/ Paid
	Commercialisation team for UMP Wrist Rehabilitation Device	Grant

7.0 RELEVANT ACHIEVEMENT/AWARD

Year	Awards
2017	<ul style="list-style-type: none"> • Cendekia Bitara Award for Qatar Research Fund International Grant • Anugerah Perkhidmatan Cemerlang UMP 2016 • Best paper award di International Innovation Technology Exhibition & Conference (iTec2017)
2016	<ul style="list-style-type: none"> • Silver Medal award in Seoul International Innovation Festival (SIIF 2016) for <i>Wrehab – Wrist Rehabilitation Device for Stroke Patients</i> • Gold Medal award in International Invention, Innovation & Technology Exhibition (ITEX 2016) for <i>Wrehab – A rehab Device to Assist Wrist Recovery of Traumatic Brain Injury Patient.</i> • Cendekia Bitara Award for Gold Medal at IENA 2015
	<ul style="list-style-type: none"> • Gold Medal Award IENA 2015 for “<i>Indirectly Cooled Smart Cutting Tool.</i>” • Silver Medal Award ITEX 2015 “<i>Internally Cooled Cutting Tool for Use in Sustainable Machining.</i>”
	<ul style="list-style-type: none"> • Best paper award at Engineering and Technology International Conference (ETIC 2015) in Bali Indonesia for paper “<i>Numerical Analysis of Internal Flow Embedded in a Cutting Tool</i>”
2014	<ul style="list-style-type: none"> • Cendekia Bitara Award for Journal Publication.
2013	<ul style="list-style-type: none"> • PhD award by Brunel University, UK for thesis <i>Design and Analysis of the Internally Cooled Smart Cutting Tools with the Applications to Adaptive Machining</i>
2012	<ul style="list-style-type: none"> • Third Prize for Extended Abstract Category in ResCon 2012, June 12 for <i>Internally Cooled Cutting Tool in Machining Difficult-to-Cut Materials</i>, Brunel University, United Kingdom.

8.0 RESEARCH INTERESTS

Intelligent Manufacturing, Sustainable Machining, Thermal Management

9.0 PATENT

Malaysian Patent Application No. PI 2015002900

Filing Date: 9 June 2016

Invention: DIRECT COOLING CUTTING TOOL

Inventors: Saiful Anwar Che Ghani, Wan Sharuzi Wan Harun, Idris Mat Sahat, Zulkifli Ahmad@Manap

Malaysian Patent Application No. PI 2016000445

Filing Date: 9 September 2016

Invention: A WEARABLE DEVICE FOR SELF-ASSESSMENT OF BODY POSTURE

Inventors: Zulkifli Ahmad@Manap, Saiful Anwar Che Ghani, Zakri Ghazali, Idris Mat Sahat

Malaysian Patent Application No. PI 2016000488

Filing Date: 16 September 2016

Invention: A WALKING DEVICE

Inventors: Idris Mat Sahat, Saiful Anwar Che Ghani, Zakri Ghazali, Zulkifli Ahmad@Manap

10.0 REFEREES

- a) Prof. Dr. Rizalman Mamat
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Universiti Malaysia Pahang
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- b) Ir. Dr. Hj Nik Zuki Nik Mohamed
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