

**Zakri Bin Ghazalli**  
Deputy Dean of Research and Postgraduate Studies,  
Acting Head of Master Programme,  
Human Engineering Focus Group,  
Faculty of Mechanical Engineering,  
Universiti Malaysia Pahang,  
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## Education

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|--|-----------|
| Okayama University, Okayama-City, Japan  | 2008-2011 |
| <i>Doctor of Philosophy in Engineering</i> , Major in Division of Industrial Innovation Sciences             |           |
| <b>Thesis Title:</b> Development of intelligent evaluation system for product end-of-life selection strategy |           |
| Universiti Sains Malaysia, Pulau Pinang, Malaysia  | 2000-2005 |
| <i>Master of Science</i> , Major in Mechanical Engineering   |           |
| <b>Thesis Title</b> – Development of Design Evaluation System for Assembly                                   |           |
| Kyushu Institute of Technology, Kitakyushu-City, Japan   | 1993-1997 |
| <i>Bachelor of Engineering</i> , Major in Mechanical Engineering   |           |
| <b>Thesis Title</b> – Investigation of CFRP Fracture during rotation   |           |

## Areas of Interest

1. Design for Manufacture and Assembly
2. Eco Design
3. Sport Engineering
4. Ergonomics
5. Manufacturing System
6. Human Engineering

## Experience

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|--|----------------------|
| 1. Hamada Heavy Industry, Silicon Wafer Division, Kumamoto, Japan  | Apr 1997 - Sept 1997 |
| <b>Trainee Technical Development Engineer</b>  |                      |
| Underwent on the on-job-training as a technical development engineer                                     |                      |
| 2. Hamadatec Sdn Bhd, Kulim Hi-Tec Park, Kulim, Kedah, Malaysia  | Oct 1997 - Oct 2000  |
| <b>Technical Development Engineer</b>  |                      |
| In charge on the reclaimed wafer mounting, polishing and demounting process.                             |                      |
| Scope of work:   |                      |
| <ul style="list-style-type: none"><li>• Documentation of the customer processing specification</li></ul> |                      |

- Improve quality of the reclaimed wafer
  - Reducing the cost of reclaimed wafer at the above-mentioned process margin without sacrificing the quality
  - Provide a technical report to the customer
3. Kolej Universiti Teknikal Kebangsaan Malaysia (now Universiti Teknikal Malaysia Melaka) Jun 2003 - Jun 2004  
**Research Assistant**  
 Scope of work:
- Study of product design methodology using the DFMA, and TRIZ method
  - Document a report of DFMA and TRIZ
4. Universiti Malaysia Pahang Jun 2004 – Jun 2005  
**Tutor**  
 Scope of work:
- Teaching and Learning of Diploma subjects
  - Academic advisors of diploma students
  - Supervising the Final year project of the diploma students
5. Universiti Malaysia Pahang Jun 2005 – Sept 2012  
**Lecturer**  
 Scope of work:
- Teaching and Learning of Bachelor degree subjects
  - Academic advisors of Bachelor degree students
  - Supervising the Final year project of the Bachelor degree students
  - Coordinator for Industrial internship of the faculty
  - Applying grant for research activities
  - Publish papers on the basis of the research outcomes
6. Universiti Malaysia Pahang Sept 2012 – present  
**Senior Lecturer**  
 Scope of work:
- Teaching and Learning of Bachelor degree subjects
  - Academic advisors of Bachelor degree students
  - Supervising the Final year project of the Bachelor degree students
  - Coordinator for Industrial internship of the faculty
  - Applying grant for research activities
  - Publish papers on the basis of the research outcomes

### **Additional Skills**

1. Innovation – research and apply new technologies and methods to solve and improve the problems in the areas of DFMA, Eco Design, Sport Engineering, Ergonomics and Manufacturing System
2. Management – Head of Master Programme in the scope of:
  - a. Design and planning the curriculum of master by coursework (MME).
  - b. Promoting the master coursework courses to National and private universities, and industries
  - c. Monitor the MME operation in the terms of courses delivery, student performance
3. Planning – Courses long-term forecasting for growth and improvement.
- Technical expertise – in-depth knowledge of diverse aspects of mechanical engineering, recognized as an expert in product design and human factors.

Client relations – maintain focus on client needs and expectations, follow-up to ensure satisfaction and improve products and services.

## Researcher ID

Google Scholar: <https://scholar.google.com/citations?user=whqV9Z0AAAAJ&hl=en>

ORCID: [orcid.org/0000-0001-5220-3529](https://orcid.org/0000-0001-5220-3529)

Scopus Author ID: 26423715200

ResearcherID: B-1779-2016

## Supervision

### PROGRAM : DOCTOR OF PHILOSOPHY DEGREE

YEAR : 2016

<u>Title</u>	<u>Student's Name</u>	<u>Start Date</u>	<u>End Date</u>	<u>Status</u>	<u>Type</u>
Enhanced Driver Seating Comfort In A Small Size Car Through Digital Human Modelling (DHM) And Pressure Mapping Method	Hamizatun Mohd Fazi	29/02/2016	-	Active	Co Supervisor

YEAR : 2015

<u>Title</u>	<u>Student's Name</u>	<u>Start Date</u>	<u>End Date</u>	<u>Status</u>	<u>Type</u>
Automotive Assembly Line Workers Ergonomic Risk Assessment	Fazilah Abdul Aziz	11/05/2015	-	Active	Main Supervisor

### PROGRAM : MASTER BY RESEARCH

YEAR : 2014

<u>Title</u>	<u>Student's Name</u>	<u>Start Date</u>	<u>End Date</u>	<u>Status</u>	<u>Type</u>
Enhanced Driver Seating Comfort In A Small Size Car Through Digital Human Modelling (Dhm) And Pressure Mapping Method	Nur Syazwani Bt Mohd Noor	27/10/2014	-	Active	Main Supervisor
Development An Olympic Scale Of Recurve Bow And Archery For Local Junior Athletes Under 15 And 17 (U-15 And U-17)	Farah Ayuni Binti Fauzi	08/09/2014	-	Active	Main Supervisor



## Research

<u>Title &amp; Project ID</u>	<u>Role</u>	<u>Start Date</u>	<u>End Date</u>	<u>Status</u>
Development of knowledge based ergonomics assessment system at workplace in automotive assembly plan (RDU160390)	Leader	25/06/2016	24/06/2018	On-going
Develop The Body Balance to Prevent the Musculoskeletal Disorder (MSD) Using Wearable Sensors System (Rdu160389)	Member	25/06/2016	24/06/2018	On-going
Development of native application with cloud integration for the measurement of GFR glomerular filtration rate (GFR) for kidney function analysis (RDU160398)	Member	25/06/2016	24/06/2018	On-going
Ergonomics Study On Musculoskeletal Disorders (Msd) Related Problems Among Workers In Electronics Assembly Line (Rdu160386)	Member	25/06/2016	24/06/2018	On-going
Characterization Of Microstructure And Properties Of Nickel Aluminium Bronze (NAB) Using Degassing Method (Rdu160378)	Member	25/06/2016	24/06/2018	On-going
Normative Anthropometric Measures And Static Grip Strength Of Population Of Pahang: Utilization For Hand-Held Product design (RDU160345)	Member	25/05/2016	24/05/2018	On-going
Development of the Integrated Eco-design Decision-making Framework for Sustainable Product Design (RDU160361)	Member	25/05/2016	24/05/2018	On-going
Embedded Ergonomic in Design for Assembly of Automotive Body Sub-Components(RDU160305)	Member	5/4/2016	4/4/2018	On-going
Investigation of thixo forming process to enhance mechanical properties for automotive components production (RDU160311)	Member	5/4/2016	4/4/2018	On-going
Modelling of incretin mechanism in glucose-insulin control system (RDU150119)	Member	2/11/2015	1/11/2017	On-going
Development of equal channel angular pressing die for bulk nanostructured metal processing for automotive application (RDU150385)	Member	1/10/2015	30/09/2017	On-going
Development and Characterization of Transformation Induced Plasticity for Fe-Ni Alloy Steels Fabricated by metal Injection Molding (RDU150337)	Member	25/06/2015	24/06/2017	On-going
Development an Olympic Scale of Recurve Bow and Archery for Local Junior Athletes under 15 and 17 (U-15 and U-17) (GRS150310)	Leader	15/03/2015	14/03/2017	On-going

<b><u>Title &amp; Project ID</u></b>	<b><u>Role</u></b>	<b><u>Start Date</u></b>	<b><u>End Date</u></b>	<b><u>Status</u></b>
Pemindahan Teknologi Sistem Kawalan, Rekabentuk Percetakan Plastik dan Pengurusan Kejuruteraan Dalam Industri Plastik (RDU141011)	Member	1/9/2014	31/08/2016	On-going
Enhanced Driver Seating Comfort In A Small Size Car Through Digital Human Modelling(DHM)And Pressure Mapping Method (RDU140104)	Leader	1/7/2014	30/06/2017	On-going
Development an Olympic Scale of Recurve Bow and Archery For Local Junior Athletes Under 15 and 17 (U-15 and U-17) (RDU140502)	Leader	2/6/2014	1/6/2016	Finished
To Enhance Graphite Nodularity Of Modified Ductile Ni-Resist Using Direct Insertion Of Alloying Elements During Casting (RDU130145)	Member	1/12/2013	30/11/2015	Finished
Development and Analysis of Bow and Arrow for Malaysian Athlete (RDU1303108)	Member	1/12/2013	30/11/2015	Finished
Modelling of Vehicle Seat for Human Comfort of a Small Size Passenger Car (K-Car) (RDU1303107)	Member	1/12/2013	30/11/2015	Finished
Modeling and Optimization of Automotive Manufacturing Layout to Enhance Productivity (RDU1303113)	Member	1/12/2013	30/11/2015	Finished
Development and Characteristics of Waste Cooking Oil as Bio -lubricant and Nano-Lubricant at High Temperature (RDU130129)	Member	1/12/2013	30/11/2015	On-going
Three-Dimensional (3D) Modelling of Human Airway Fluid Structure Interaction (FSI) Technique (RDU1303110)	Member	1/12/2013	30/11/2015	Finished
Characteristiction of Engine Oil with Nano Particle as an Additives (RDU130393)	Member	25/11/2013	24/11/2015	Finished
Development of a Design Evaluation System Software for Home Appliances Remanufacturing (RDU080502)	Leader/Member	1/7/2008	31/12/2009	Complete
Design and Development of The Multi Purpose Polymer Floor Tile to Meet The Performance Needs of Athletes (RDU070345)	Member	9/1/2007	31/08/2008	Complete
Development Of CAM Manufacturing Machine (RDU070307)	Member	4/1/2007	30/03/2008	Complete

## Publications

- Aziz, F. A., Ghazalli, Z., Mohamed, N. M. Z. N., & Isfar, A. (2017). A Future Framework of Knowledge-Based Ergonomics Assessment System at Workplace in Automotive Assembly Plant. *Advances in Social & Occupational Ergonomics*, 93-105.
- Fauzi, F.A., Taha, Z., Ghazalli, Z., Siregar, J.P., Ahmad, Z., Kadirgama, K., Johari, N.H. and Mohamed, D., 2017. Analysis of an Olympic Scale of a Recurve Bow Riser on the Basis of Malaysian Under 15 and Under 17 Archers. *Advances in Human Factors in Sports and Outdoor Recreation*, pp.131-140.
- Noor.N.S.M , Ghazalli.Z , Mamat.R , Kadirgama.K , Sani.M.S.M , Ahmad.Z, J. N. H. (2016). The Enhancement Of Driver Seat Comfort For Small Size Car: A Preliminary Study. *Malaysian Journal of Public Health Medicine*, (Special Volume 1), 108-114.
- F.A. Fauzi, Z. Ghazalli, J.P. Siregar, Z. Taha, K. Kadirgama, N. H. J. (2015). The Investigation of Mechanical Properties on Natural Fiber Composites for Recurve Bow Material Selection. *Advances in Environmental Biology*, 9(25), 27-31.
- F. A. Fauzi, Z. Ghazalli, J. P. S. (2015). Effect of various fiber content of kenaf fiber on mechanical properties of the composites. In *International Conference of Mechanical Engineering Research 2015*.
- Ghazalli, Z., Taha, Z., Kadirgama, K. , Siregar, J.P. , Ahmad, Z. , and Johari, N. H. (2014, February). Investigating The Aiming And Shooting Point Of The Junior Archers. In *Movement, Health & Exercise (MoHE) Conference 2014* (p. 46). Sport Divisions (Higher Education Sector), Ministry of Education Malaysia.
- Ghazalli, Z., & Murata, A. (2011). Development of an AHP–CBR evaluation system for remanufacturing: end-of-life selection strategy. *International Journal of Sustainable Engineering*, 4(01), 2-15.
- Ghazalli, Z., & Murata, A. (2011). An integrated TSP-GA with EOL cost model for selecting the best EOL option. *International Journal of Industrial Engineering Computations*, 2(4), 775-792.

## Affiliations

1. Graduate member of Board of Engineer Malaysia, Member
2. Institute of Mechanical Engineers, Member
3. Majlis Rekabentuk Malaysia, Member
4. Human Factor and Ergonomic Malaysia (HFEM), Member

## Training

Training name	Date from	Date to
Public lecture of Prof.Koichi Tsuchiya	29/01/2016	29/01/2016
Majlis amanat tahunan naib canselor2016	17/02/2016	17/02/2016
Workshop: publishing book through ump publication office	07/04/2016	07/04/2016
Mesyuarat fakulti bil.1/2016	24/06/2016	24/06/2016
Majlis amanat tahunan naib canselor2015	25/02/2015	25/02/2015
Bengkel dokumenpermohonan profesional engineer(pe)	05/03/2015	05/03/2015
Bengkel perancangan Strategik pengajiansiswazah	07/02/2014	09/02/2014
Kursus leadership and management training	26/02/2014	27/02/2014
Majlis amanat tahunan naib canselor2014	19/02/2014	19/02/2014
Awareness of obe & eac	10/04/2014	10/04/2014

## Honors

<u>TitleExhibition</u>	<u>Exhibition</u>	<u>Level</u>	<u>AwardWinning/Medal</u>
UMP Genetic Algorithms Software for Machining of Blow Mould	<b>MTE 2009</b>	<b>National</b>	Bronze
A New Machining Mould Algorithm based on Response Ant Colony(RACA)	<b>ITEX 2009</b>	<b>International</b>	Silver
Support Vector Machine Learning Method to Predict Recycling Strategy for Electronic Equipments	<b>PECPTA 2009</b>	<b>National</b>	Participatory Certificate

## TEACHING

YEAR : 2016

<u>Semester</u>	<u>Subject Code</u>	<u>Subject</u>	<u>CrH</u>	<u>Total Of Student</u>
	16171/IJA BMM4022	Project Management	2	100
	15162/IJA BMM4813	Ergonomics	3	33
	15162/IJA BMM4022	Project Management	2	133

YEAR : 2015

<u>Semester</u>	<u>Subject Code</u>	<u>Subject</u>	<u>CrH</u>	<u>Total Of Student</u>	
	15161/MCF	MME6134	Advanced Manufacturing	4	17
	15161/MCF	MME6144	Advanced Material	4	17
	15161/MCF	MME6123	Efficient Energy Utilization	3	22
	15161/MCF	MME6153	Environmental & Regulatory Issues	3	22
	15161/MCF	MME6213	Industrial Management System	3	17
	15161/MCF	MME6143	Mechanical Engineering Design	3	22
	15161/MCF	MME6133	Numerical Method	3	22
	15161/MCF	MME6184	Optimization Techniques	4	17
	15161/MCF	MME6010	Project Dissertation	10	1
	15161/MCF	MME6113	Research Methodology	3	22
	15161/IJA	BMM1021	Occupational Safety & Health	1	1
	15161/IJA	BMM4022	Project Management	2	105
	14152/MCF	MKM2316	Dissertation	6	5
	14152/MCF	MKM1443	Industrial Management System	3	5
	14152/MCF	MKM1143	Research Methodology	3	6
	14152/MCF	MME6113	Research Methodology	3	18
	14152/IJA	BMM4022	Project Management	2	131

YEAR : 2014

<u>Semester</u>	<u>Subject Code</u>	<u>Subject</u>	<u>CrH</u>	<u>Total Of Student</u>	
	14151/IJA	BMM4022	Project Management	2	119
	14151/MCF	MKM1233	Advanced Manufacturing	3	11
	14151/MCF	MKM1253	Advanced Numerical Analysis	3	11
	14151/MCF	MKM2316	Dissertation	6	6
	14151/MCF	MKM2263	Environment & Regulatory Issues	3	11
	14151/MCF	MKM1443	Industrial Management System	3	6
	14151/MCF	MKM1133	Instrumentation & Control System	3	11
	14151/MCF	MKM1433	Optimization Techniques	3	6
	13142/IJA	BMM4022	Project Management	2	55
	13142/MCF	MKM1143	Research Methodology	3	11
	13142/DWI	BHA1133	Dynamics	3	15



**YEAR : 2013**

<u>Semester</u>	<u>Subject Code</u>	<u>Subject</u>	<u>CrH</u>	<u>Total Of Student</u>
13141/IJA	BMM3633	Industrial Engineering	3	28
13141/IJA	BMM1021	Occupational Safety & Health	1	148
13141/IJA	BMM4022	Project Management	2	36
13141/MCF	MKM1233	Advanced Manufacturing	3	6
13141/MCF	MKM1253	Advanced Numerical Analysis	3	6
13141/MCF	MKM1113	Advanced Thermodynamics	3	6
13141/MCF	MKM2263	Environment & Regulatory Issues	3	6
13141/MCF	MKM1133	Instrumentation & Control System	3	6
12132/IJA	BMM3633	Industrial Engineering	3	47
12132/IJA	BMM1021	Occupational Safety & Health	1	71
12132/DIP	DMM3011	Occupational Safety & Health	1	101

**YEAR : 2012**

<u>Semester</u>	<u>Subject Code</u>	<u>Subject</u>	<u>CrH</u>	<u>Total Of Student</u>
12131/DIP	DMM2633	Manufacturing Technology	3	103
12131/IJA	BMM3633	Industrial Engineering	3	56
12131/IJA	BMM3611	Manufacturing Processes Lab	1	5
12131/IJA	BMF4753	Quality Engineering	3	2
12131/IJA	BMI4733	Quality Engineering	3	26

**YEAR : 2008**

<u>Semester</u>	<u>Subject Code</u>	<u>Subject</u>	<u>CrH</u>	<u>Total Of Student</u>
08091/DIP	DMM3999	Industrial Training	9	5
08091/DIP	DMM3933	Industrial Training Report	3	5
08091/IJA	BMF4723	Design For Manufacture & Assembly	3	60
08091/IJA	BMM4999	Industrial Training	9	27
08091/IJA	BMM4993	Industrial Training Report	3	27

**YEAR : 2007**

<u>Semester</u>	<u>Subject Code</u>	<u>Subject</u>	<u>CrH</u>	<u>Total Of Student</u>
07082/DIP	DMM3999	Industrial Training	9	48
07082/DIP	DMM3933	Industrial Training Report	3	48
07082/IJA	BMM4996	Industrial Training	12	3
07082/IJA	BMM4999	Industrial Training	9	159
07082/IJA	BMM4993	Industrial Training Report	3	159
07081/DIP	DMM3999	Industrial Training	9	11
07081/DIP	DMM3933	Industrial Training Report	3	11
07081/IJA	BMF4723	Design For Manufacture & Assembly	3	60
07081/IJA	BMM4996	Industrial Training	12	7

**YEAR : 2006**

<u>Semester</u>	<u>Subject Code</u>	<u>Subject</u>	<u>CrH</u>	<u>Total Of Student</u>
06072/IJA	BMM3663	Cae & Failure Analysis	3	28
06072/IJA	BMF4723	Design For Manufacture & Assembly	3	31
06071/IJA	BMM2613	Computer Aided Design	3	25
06071/IJA	BMF4723	Design For Manufacture & Assembly	3	57

**YEAR : 2005**

<u>Semester</u>	<u>Subject Code</u>	<u>Subject</u>	<u>CrH</u>	<u>Total Of Student</u>
05062/DIP	DMM1512	<b>Computer Aided Design</b>	2	53
05061/IJA	BMM1313	<b>Computer Programming</b>	3	55
05061/DIP	DMM1222	<b>Chemistry</b>	2	54

**YEAR : 2004**

<u>Semester</u>	<u>Subject Code</u>	<u>Subject</u>	<u>CrH</u>	<u>Total Of Student</u>
04052/DIP	DMM1142	<b>Engineering Mathematics 2</b>	2	56
04052/DIP	DMM2632	<b>Industrial Design</b>	2	36
04051/DIP	DMM1132	<b>Engineering Mathematics 1</b>	2	62

**Certification:** I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

Name: Zakri Bin Ghazalli

Date: 14 December 2016