



CONTACT DETAILS

Name : **Nur Farah Hafizah Bt. Mukhtar**
Current Address : No. 49 Jalan Cendana 18, Taman Rinting, 81750 Masai, Johor
Mobile No. : +60 11 1101 9195
Email : farah6699@gmail.com

PERSONAL PARTICULARS

Date of Birth : 14th May 1987
Gender : Female
Marital Status : Married
Nationality : Malaysian
Languages : Malay and English

STRENGTH

I can be good assets to any organisation if I be given the opportunity to become one of the employees. The experienced of doing Ph. D research and the exposures of managing a project of getting six sigma green belt projects giving me sufficient skilled to work under pressure. And thus equipped me to be an excellent educator and an independent researcher.

PUBLICATION AND CONFERENCE PROCEEDINGS

- 1) Mukhtar N. F. H., and Brousseau E. B., 2014, "Study of Silicon Tip Wear during AFM Probe-Based Machining of Single Crystal Copper", ICOMM 2014, No. 60.
- 2) Alraziqi Z. N. F., Mukhtar N. F. H. and Brousseau E. B., "Comparison of Two AFM Probe Inspection Techniques for Three-Dimensional Tip Characterisation, EUSPEN 2016.
- 3) Presentation and Poster Cardiff School of Engineering 2016: Alraziqi Z. N. R., Mukhtar N. F. H. and Brousseau E. B., 2016, "Comparison of Two AFM Probe Inspection Techniques for Three Dimensional Tip Characterization"

EDUCATION BACKGROUND

- 1) Qualification** : **Ph. D in Nanotechnology**
- Field of Study : Machining and measurement in nanotechnology
- Institute/University : Cardiff University, South Glamorgan, Wales, UK
- Grade : Complete
- Graduation Date : July 2017
- Research Title** : **Characterisation of Tip Wear during AFM Probe-Based Nanomachining**

Abstract of Research / Project : i) To investigate experimentally the influence of different process parameters, namely the tip material, the machining direction and the applied load on the wear of AFM tips.

ii) To investigate the accuracy and the reliability of different in-situ techniques for characterising the apex geometry of the AFM tips.

Abstract of Research / Project :

Implementing the AFM probe-based machining process on a single crystal copper workpiece at selected values of applied normal loads, machining distances and for different machining directions. In particular, the reliability and practical suitability aspects between 3D in-situ measurement techniques, namely ultra-sharp tip scan and reverse imaging approach were assessed and discussed. For each set of experiments, different qualitative and quantitative wear metrics were observed and analysed.

2) Qualification : **Bachelor of Engineering Technology(Hons). In Quality Engineering**
Field of Study : Quality Engineering
Institute/University : University Kuala Lumpur Malaysian of Industrial Technology (UniKL-MITEC)
Grade : 1st Class Degree
CGPA : 3.80
Graduation Date : June 2011

Degree's Project Title : **Improving the Process Stability of Pulley and Armature Assemely using Poka Yoke System.**

Area of Research / Project : Improving workstation (D9 M2) and the process of measuring gap between pulley and armature and improvement of shims insertion method.

Abstract of Research / Project :

The process improvement of the pulley and armature assembly using Poka Yoke System are using systematically quality improvement tools and method due to identify the root and related causes as well as use for problem solving methods to enhance the profitability and reduce the cost by reduction of 40% defect due to reliance on human factor on critical processes at D9 M2 workstation and reduce operator on wrong shim's size combination and inconsistent hand force for measurement of height between pulley and armature.

LEAN SIX SIGMA GREEN BELT PROJECT CUM INDUSTRIAL TRAINING PROJECT

Industrial Training Project Title :

Six Sigma Green Belt Project - Reduction of Dirt Defect Rate at Top Coat Process in Paint Shop.

Location : Hicom Automotive Manufacturer (Malaysia) Sdn. Bhd at Pekan Pahang

Business Case:

Mercedes Benz dirt and fiber defect is the biggest issue at paint shop which contributes highest defect rate average at FQGA is 14 DPU (Defect Per Unit) (Jan – Dec 2010). The paint shop department attempt to reduce the defect rate from 25 DPU to 23 DPU. This project is about to support the paint shop department effort to reduce the defect rate particularly to dirt and fiber defect.

Opportunity Statement:

The highest type of defect rate is the dirt and fiber defect which consist of foreign material (dirt), oven dirt, black dirt, fiber, small dirt and dirt base. Current total defect rate average 25 DPU and dirt contribute 14 DPU (Jan – Dec 2010).Therefore by reducing dirt defects will help to reduce total defect rate.

Goal Statement:

Reducing current dirt and fibre defect rate for Mercedes Benz at top coat process in paint shop department from the result at FQGA is 14 DPU (Jan – Dec 2010) to 13 DPU by April 2011. The target setting is from 14 DPU to 13 DPU (1 DPU Different) due to limitation of time.

- Project Scope** : Reducing Mercedes Benz dirt defect rate at top coat process in paint shop department. Project is focus on base coat section.
- Project Duration** : 16 Weeks (Jan 2011 – April 2011)
- Project Sponsor** : Mr. Abdul Rashid Bin Musa (CEO of Hicom Automotive Manufacturer (M) Sdn Bhd)

- 2) Qualification** : **Diploma of Production Engineering**
- Field of Study : Production Engineering
- Major : Production Engineering
- Institute/University : University Kuala Lumpur Malaysian of Malaysian Spanish Institute
- Grade : 1st Class Diploma
- CGPA : 3.87

Graduation Date : June 2008

Diploma's Project Title : Process of Mass Production Drawing Aid Kit.

Area of Research / Project : Process of mass production drawing aid kit by turret punch and fibre material.

Abstract of Research / Project : The process of mass production drawing aid kit project by turret punch and fibre as the product's material. Total Quality Management and Production Planning Control elements were employed to optimise the production output.

SHORTHAND / COMPUTER SOFTWARE SKILLS

- 1) Microsoft Office; Word, Excel, Publication
- 2) Statistical software; SPSS and Minitab
- 3) Matlab software
- 4) XEI software for Atomic Force Microscope instrument
- 5) Image processing software; Image J, Gwydion

WORKING EXPERIENCED

- 1) Company Name** : **Samtec Asia Pacific**

Position Title : Process Engineer

Position Level : Staff

Specialization : Electronic Components

Industry : Manufacturing

Duration : 3 Months (June 2011 – August 2011)

Monthly Salary : RM 2400.00

Job Scope :

- Assessing processes for their relevance, and assessing the adequacy of engineering equipment;
- Designing, installing and commissioning new production units, monitoring modifications and upgrades, and troubleshooting existing processes;
- Conducting process development experiments to scale in a laboratory;
- Preparing reports, flow diagrams and charts;
- Managing the cost and time constraints of projects;
- Selecting, managing and working with sub-contractors;
- Working closely with chemical engineers to monitor and improve the efficiency, output and safety of a plant;
- Ensuring the process works at the optimum level, to the right rate and quality of output, in order to meet supply needs
- Making observations and taking measurements directly, as well as collecting and interpreting data from the other technical and operating staff involved;
- Assuming responsibility for environmental monitoring and ongoing performance of processes and process plant;
- Ensuring that all aspects of an operation or process meet specified regulations.

2) Company Name : Material Resources Sdn. Bhd

Position Title : Coordinator

Position Level : Staff

Specialization : Valve Servicing and Equipment Installation

Industry : Oil and Gas

Duration : 2 Months (May 2007 – June 2007)

Monthly Salary : RM 500.00

3) Company : OGP Technical Services Sdn. Bhd

Position Level : Human Resource Secretary
Department : Human Resource Department
Designation : Secretary of Human Resource Manager
Duration : 3 Months (December 2004 - February 2005)
Monthly Salary : RM 300.00

ADDITIONAL INFO

TRAINING EXPERIENCE:

- 1) **Company** : **Hicom Automotive Manufactures (Malaysia) Sdn. Bhd**
Department : Quality Management
Date Join : January 2011
Designation : Project Six Sigma (Green Belt) Team Leader
- 2) **Company** : **Material Resources Sdn. Bhd**
Department : Valve Servicing and Equipment Installation
Date Join : December 2007
Designation : Coordinator

AWARDS

1. Chancellor Award, Best Outstanding Degree Student Year 2011
2. Dean's Award, Semester 1 to 5, July 2008 - July 2010
3. Special Award for Year 2009
4. Dean's Award, Semester 1 to 5, July 2005 - July 2008

ACHIEVEMENT

1. President Club of Elite Club of July 2010
2. Student Representative Council for 2008-2009

REFERENCES

- 1) Name : Dr. Emmanuel B. Brosseau
Relationship : PhD Supervisor
Position : Senior Lecturer of Cardiff University
Tel : +44 (0) 7961047885
Email : BrosseauE@cardiff.ac.uk
- 2) Name : Proffesor Dato, Dr. Khairanum binti Subari
Relationship : Former dean of UniKL Mitec
Position : Deputy President Student Development & Campus Lifestyle University Kuala Lumpur
Tel : +6 (0) 321754000 / +6 (0) 321754141
Email : khairanum@unikl.edu.my
- 3) Name : Mr. Ajini Bin Jawahir
Relationship : Superior Samtec Asia Pacific
Position : Plant Manager
Tel : +6 (0) 72338807
Email : ajinijawahir@samtec.com