

**Fakulti Kejuruteraan Mekanikal
Universiti Teknologi Malaysia
81310 Skudai, Johor**

Personal Profile

JAFRI MOHD ROHANI

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Current Position : Principal Quality Engineering Consultant/Trainer/Facilitator

Qualification

- :
1. M.Sc (Industrial & Systems Engineering)
(Ohio University, USA, 1995)
 2. B.Sc (Hons) (Industrial Engineering) (New
Mexico State University, USA, 1988)
 3. B.Sc (Hons) (Mathematical Statistics) (New
Mexico State University, USA, 1988)

M.Sc Thesis

: “ *The Development and Analysis of Quality Control
Adjustment Schemes For Process Regulation*” (Ohio
University, USA, 1995)

**Professional
Membership/
Certification**

- :
1. Licensed Methods-Time Measurement (MTM-1)
Blue Card Grade A, Certified and Approved by
MTM Assoc. Ltd.
 2. Member, American Society of Quality (ASQ, USA)
 3. Member, Malaysian Ergonomic Society

Presentations/Publications

- :
1. “*Process Mean Shift in Plastic Injection Moulding
Process*”, Presented at First Regional Symposium
On Quality and Automation, May 4-5, 2000, USM
Penang
 2. “*Quality Improvement in an Injection Moulding
Company by Using Process Failure Mode Effect
Analysis(PFMEA)*”, Presented at First Regional
Symposium On Quality and Automation, May 4-5,
2000, USM Penang
 3. “ *A Design of Experiments(DOE) Approach of
Manufacturing Process for an Injection Moulded
Part*”, Presented at International Conference on

- Advanced Manufacturing Technology, August 16-17, 2000, Johor Bahru
4. "*Characterisation of a Solder Paste Printing Process Using Taguchi Method*" Presented at International Conference on Advanced Manufacturing Technology, August 16-17, 2000, Johor Bahru
 5. "*Web-Based Statistical Process Control (SPC): A Proposal*", Presented at International Conference on Advanced Manufacturing Technology, August 16-17, 2000, Johor Bahru
 6. "*Productivity Improvement in an U-shaped Manual Assembly Cell*", Published at Jurnal Teknologi UTM, Jun 2000
 7. "*Characterisation of a wave soldering process using Taguchi Method*", Published at Jurnal Mekanikal UTM, December, 2000
 8. "*Applikasi Mesin FMEA (Failure Mode and Effect Analysis: Kajian Kes di Kilang Keluli*", Published at Journal Teknologi UTM, Jun., 2001
 9. "*Peningkatan Kualiti dan Produktiviti di Kilang Keluli Menggunakan Kaedah SPC (Statistical Process Control)*", Published at Journal Teknologi UTM, Jun., 2001
 10. "*The development and analysis of quality control adjustment schemes for process regulation*", M.Sc. Thesis, Ohio University, USA, 1995
 11. "*Quality Function Deployment on product development*", presented at National Design Seminar, Johor Bahru, Jan, 2001
 12. "*GDT: A Designer "unutilized" tool*", presented at National Design Seminar, Jan, 2001
 13. "*Application of QFD in developing OSH training package*", Asia-Pacific International Conference, 2001, Kuala Lumpur
 14. "*A development of integrating Total Safety Management (TSM) and Total Quality Management (TQM)*", presented at NIOSH 4th., 2001, Kuala Lumpur
 15. "*Application of QFD in office chair design*", Malaysian Ergonomic Conference, 2001, Intel, Penang.
 16. "*Total safety management (TSM) in high-rise construction industries*", presented at NIOSH 4th. 2001, Kuala Lumpur
 17. "*A continuous teaching improvement plan by using QFD based on student's perspective*", presented at UTM konvention, 2001, Johor Bahru

18. *"Reducing Maintenance Costs by Using SPC Tools"*, Persidangan 1st.Kebangsaan Keushawanan dan Perniagaan Kecil, 2001, Langkawi
19. *"Improving quality with basic Statistical Process Control (SPC) Tools: A Case study"*, Jurnal Teknologi, UTM, Dis., 2001
20. *"Peningkatan kualiti rekabentuk kerusi sekolah rendah dengan mengintergrasikan Kaedah QFD dan Kejuruteraan Nilai"*, Jurnal Teknologi, UTM, Dis.,2001
21. *"Integrating QFD and Cost Worth Analysis in maintenance environment"*, 3rd. Malaysian Ergonomic Conference, June, 2002, Johor Bahru
22. *"A development of integrating Total Safety Management (TSM) and Total Quality Management (TQM)"*, paper selected for publications in Bulletin NIOSH, April, 2002
23. *"Total safety management (TSM) in high-rise construction industries"*, paper selected for publications in Bulletin NIOSH, Dec. 2001
24. *"Ketepatan kaedah pengkosan berasaskan aktiviti (ABC) berbanding kaedah pengkosan tradisional dalam pengkosan produk: Pemangkin kepada program 6-sigma"*, Jurnal Teknologi, UTM, Dis.,2002
25. *"Meningkatkan daya saing industri kecil dan sederhana melalui aplikasi kaedah integrasi pembangunan fungsi kualiti dan analisis nilai produk"*, Persidangan 2nd.Kebangsaan Keushawanan dan Perniagaan Kecil, 2002, Langkawi
26. *"Pengurusan berdasarkan aktiviti: satu penyelesaian efektif kepada usaha pengurangan kos dan dan peningkatan prestasi kewangan syarikat IKS di Malaysia"*, Persidangan 2nd.Kebangsaan Keushawanan dan Perniagaan Kecil, 2002, Langkawi
27. *"Simulating an integrated ABC and Six Sigma: A tutorial"*, paper presented at 19th. International conference on CAD/CAM, Robotics, and Factories of the Future, 22-24 July, 2003, Kuala Lumpur
28. *"Quality improvement using Six-Sigma Methodology"*,paper presented at 19th. International conference on CAD/CAM, Robotics, and Factories of the Future, 22-24 July, 2003, Kuala Lumpur.
29. *"Quality assessment of hollow prototypes model in fused deposition modeling"*, paper presented at 19th. International conference on CAD/CAM, Robotics, and Factories of the Future, 22-24 July,

2003, Kuala Lumpur.

30. “A plastic injection molding process characterization using experimental design technique: A case study”, paper accepted for publication, Journal Teknologi UTM, December, 2003

Research

- :
1. Co-Principal Researcher, A development of internet-Based Statistical Process Control, completed, year 2001. Amount awarded: RM 20,000 from UTM (Vot #: :71708)
 2. Principal Researcher, An integration of lean manufacturing and six sigma for small and medium size industries, completed 2003. Amount awarded: RM 20,000 from UTM (Vot #: 71870)
 3. Researcher, An application of DOE in Selective Laser Sentering in Rapid Prototyping Procces, completed 2004 Amount awarded: RM 14,000 from UTM (Vot #: :71892)
 4. Principal Investigator, A Practical methodology to the use of Advanced Statistical Quality Improvement Techniques(ASQIT) for small and medium size industries (SMI), completed 2005. Amount awarded: RM 139,600 from Kementerian Sains dan Teknologi (IRPA Vot #: 74067)
 5. Researcher , Development of an automotive seat for ride comfort, funded from Kementerian Sains dan Teknologi(IRPA Vot#: 74067)
 6. Researcher, An application of DOE in Selective Laser Sentering in Rapid Prototyping Procces, completed 2004 Amount awarded: RM 14,000 from UTM (Vot #: :71892)

**Professional
Experience/
Major
Achievements**

: QUALITY AND STATISTICAL ENGR. LECTURER

Production and Industrial Engineering Department
Universiti Teknologi Malaysia
January 1991 to present

- Developed and lectured the course in Advanced Quality Engineering (Design of Experiments, Quality Function Deployment, FMEAs, etc)for the department
- Supervised the Master and B.Eng thesis students (Program Perdana) and SPACE students in the areas of design of Experiments (DOE), Total Productive Maintenance (TPM), Failure Mode effect Analysis (FMEA), Quality Function Deployment (QFD), Statistical Process Control (SPC), other advanced quality engineering tools(Six Sigma Improvement Methodology)
- Obtained a Teaching Effectiveness Rating (TER) of 4.59 out of 5.00, above Faculty average (4.36) and University average (4.25). (TER is a computerised evaluation made by students at the end of each semester)

TRAINER/FACILITATOR

- Trained 25 employees (managers, engineers and supervisors) of VACUUMSCHMELZE (M) Sdn. Bhd(in-house training)., Pontian, Johor on 2-day short course on Geometric Dimensioning and Tolerancing(GDT), October, 2000.
- Trained 25 employees (managers, engineers) of PCA Technology (M) Sdn. Bhd(in-house training)., Tampoi, Johor on 2-day short course on Design of Experiment(DOE), 23rd. August & 6th. September, 2003.

Conducted half-a-day Technical Talk On Integration of Quality Function Deployment(QFD) and Value Engineering(managers, engineers) for Sapura Technical Center, Seksyen 13, Kawasan Perindustrian Bangi, Bandar Baru Bangi, Selangor On 28 March, 2003

- Regular Facilitator for 2-day Module Quantitative Methods II For Certificate Quality Engineer(CQE) Programme organized by UTM-BATC:
On 17 & 18 January, 2004 (Kuala Lumpur)
On 7 & 8 February, 2004 (Penang),
On 18 & 19 December, 2004(Kuala Lumpur)

Conducted 3-day Module Statistical Process Control Programme for Puspatri, Pasir Gudang On 31st March, 1-2 April, 2004

Conducted 1-day Module Failure Mode Effect Analysis(FMEA) Awareness Programme for Puspatri, Pasir Gudang On 14 April, 2004

Conducted 3-day Module Six Sigma Improvement Methodology and Tools Programme(in-house training for managers, engineers) for Energizer (M) Sdn. Bhd, Tampoi, Johor On 8-10 September, 2004 Together with National Productivity Corporation

Conducted 3-day Module Six Sigma Improvement Methodology and Tools Programme(in-house training for branch managers, executives) for Bank Simpanan Nasional Headquarters On 12-14 October, 2004 Together with National Productivity Corporation.

Conducted 2-day Workshop Failure Mode Effect Analysis (FMEA) (in-house training for managers, engineers)for Malaysia Airport Berhad, Sepang
On 1-2 June, 2005 (First Batch)
On 24-25 July, 2005 (Second Batch)

Conducted 5-day Module Six Sigma: Green Belt Training (in-house training for executives) for Tractors Malaysia Sdn. Bhd., Puchong, Selangor Together with National Productivity Corporation.
On 19 – 20 July , 2006 (First Batch)
On 9 – 10 August, 2006 (Second Batch)

PROCESS ENGINEER

TEXAS Instrument (M) Sdn Bhd, Kuala Lumpur
July, 1990 – Jan, 1991

- Initiated and Developed Yield Improvement Program for Thermostat and Motor Control Related Product
- Diagnosed and Troubleshoot any process, machine/equipment related problem including jigs/fixture design
- Developed and prepared tool and equipment capacity planning for manufacturing forecast
- Lead a team in process/product in quality, productivity and cost improvement.

INDUSTRIAL ENGINEER

Astec (M) Sdn Bhd, Kuantan, Pahang

Nov, 1988 – July, 1990

- Design and Developed Process Assembly Charts For New Product “ Switching Power Supplies”
- Developed and prepared new line planning and set-up including facilities planning
- Developed time standard, line balancing, line layout for new product introductions
- Incharged on machine capacity analysis, facilities Planning & Jigs/Fixture Design

Specialization in Training & Performance Improvement Consultancy include:

- Mastering TQM Tools & techniques : 7QC Tools, 7 Management & Planning Tools, Statistical Process Control (SPC), Total Productive Maintenance (TPM), Creative Problem Solving Process & Applications
- Advanced Quality Engineering Tools, include Design of Experiments (Classical & Taguchi Methods), FMEA, Quality Function Deployment (QFD)
- Statistical Process Control for Short Run
- Measurement System Analysis (Gage R & R)
- Applied Statistic for Process Understanding
- Methods of Cost Reductions
- Lean Manufacturing
- Six-Sigma Tools and Applications
- Multiple Regression Analysis
- Statistical Data Analysis

For more information on Project-Based, Training and Performance Improvement Programs and Consulting, please contact **Jafri Mohd Rohani** at

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