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### Academic Qualification

Ph. D., Advanced Manufacturing Engineering, Brunel University, 2013.

Diplom-Ingenieur (FH), Mechatronics and Microsystems Engineering, Hochschule Heilbronn, Heilbronn, Germany, October 2006.

### Brief Profile

Saiful is currently a tutor in Faculty of Mechanical Engineering at University Malaysia Pahang, Malaysia.

Saiful earned his Dipl.-Ing.(FH) in mechatronics and microsystems engineering from Heilbronn University, Germany and completed his 4 years Ph.D course in advanced manufacturing with specialisation in adaptive machining from Brunel University, UK. His industrial experience includes (1) one year experience as process engineer at Infineon Technology (M) Sdn. Bhd. (2) six months internship at Audi AG, Neckarsulm (3) six months internship at Robert Bosch GmbH, Reutlingen (4) three years as researcher for EU FP7 funded project-ConTemp and (5) two years experience as teaching assistant in School of Engineering and Design, Brunel University, UK.

Engagement with the society is manifested by his appointment as social worker at Brunel University Disability and Dyslexia Service Office since 2009. He is also the former president of Malaysian-German Students' Society (2005-2006).

### Working Experiences / Appointment

**Senior Lecturer**, Mechanical Engineering Faculty, Universiti Malaysia Pahang, 2013- now

**Courses:** BMM2433: Electric and Electronics Technology  
DMM3663: CNC Technology

**Tutor**, Mechanical Engineering Faculty, Universiti Malaysia Pahang, 2013

**Courses:** BMM2433: Electric and Electronics Technology  
BMM3531: Thermodynamics Laboratory

**Researcher**, The Self-Learning Control of Tool Temperature in Cutting Processes (ConTemp EU FP7), 2009- 2012

**Teaching Assistant**, Brunel University, 2011- 2013

**Courses:** DM2319: Dynamics, Mechanisms and Stress Analysis

**Lab Demonstrator**, Brunel University, 2011- 2013

**Courses:** DM2319: Dynamics, Mechanisms and Stress Analysis,  
DM3601: Computer Based Design Methods

**Social Worker, February 2009 to present**

Brunel University Disability and Dyslexia Service Office

**Test Process Engineer, March 2007 to March 2008**

Infineon Technologies (M) Sdn. Bhd., Malacca, Malaysia

**Industrial Internship, September 2004 to March 2005**

Audi AG, Neckarsulm, Germany

## **Industrial Internship, February 2003 to July 2003**

Robert Bosch GmbH, Reutlingen, Germany

### **Expert Area**

Metal Cutting  
Adaptive Control  
Heat Transfer and Fluid Dynamics Analysis

### **Research Interest**

Metal Cutting  
Control System  
Design Optimisation  
Heat Transfer and Fluid Dynamics Analysis  
Advanced Manufacturing Process

### **Research Project / Grant**

EU FP7 Research Fund (FP7-NMP-2008-SMALL-2-228585): Self-learning control of tool temperature in cutting processes (ConTemp)

### **Professional Qualification / Membership / Affiliation / Experience**

N/A

### **Teaching Experience**

**Teaching Assistant**, Brunel University, 2011- 2013

**Courses:** DM2319: Dynamics, Mechanisms and Stress Analysis

**Tutor**, Universiti Pendidikan Sultan Idris, 2013

**Course:** Mod Pendidikan Jarak Jauh (PPG-PJJ)

**Tutor**, Mechanical Engineering Faculty, Universiti Malaysia Pahang, 2013

**Courses:** BMM2433: Electric and Electronics Technology  
BMM3531: Thermodynamics Laboratory

**Senior Lecturer**, Mechanical Engineering Faculty, Universiti Malaysia Pahang, 2013- now

**Courses:** BMM2433: Electric and Electronics Technology  
DMM3663: CNC Technology

### **Post Graduate Supervision**

**Co-supervisor:** Sanjay Suresh Babu. MSc. Dissertation: "Modelling of the tool life for the indirect cooling cutting tool in machining of difficult-to-cut materials". Brunel University, UK (2012).

### **Degree / Final Year Supervision**

1. NURUL UZRAN BIN NADZAR(MB11133), "Design, Fabricate and Assembly of an Automatic Laser Welding Machine" Sept. 2013

2. SHARWESSWARAN A/L KALITHEVAN (MB11225), "Static Analysis of a Robotic Laser Welding Machine" Sept. 2013

3. Jolhi bin Brahim (MA11006), "Development of a PC-Based Control System for an Automated Laser Welding machine" Sept. 2013

4. Sitti Suhailah binti Ab Rahman (MC10003), "Modal Analysis of a Robotic Laser Welding Machine" Sept. 2013

#### List of Publications

Wardle, F., Minton, T., **Ghani, S.**, Fürstmann, P., Roeder, M., Richarz, S. and Sammler, F., (2013) "Artificial Neural Networks for Controlling the Temperature of Internally Cooled Turning Tools," *Modern Mechanical Engineering*, Vol. 3 No. 2A, pp. 1-10.

Ferri, C., Minton, T., **Ghani, S.B.C.** and Cheng, K. (2013) "Internally-cooled tools and cutting temperature in contamination-free machining", *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*,

Sun, X., Bateman, R., Cheng, K., **Che Ghani, S.** (2011), "Design and analysis of an internally cooled smart cutting tool for dry cutting", *Part B Journal Engineering Manufacture*, Proc. IMechE Vol. 225

Wang, C., **Bin Che Ghani, S.**, Cheng, K., Rakowski, R., (2011), "Adaptive smart machining based on using constant cutting force and a smart cutting tool", *Part B Journal Engineering Manufacture*, Proc. IMechE Vol. 226

**Che Ghani, S.**, Cheng, K., Sun, X., Bateman, R., (2011) "Optimizing heat transfer rate in an internally cooled cutting tool: FE- based design analysis and experimental study", *Key Engineering Materials*, vol. 496, pp. 188-193.

#### List of Books

N/A

#### List of Research / Project

EU FP7 Research Fund (FP7-NMP-2008-SMALL-2-228585): Self-learning control of tool temperature in cutting processes (ConTemp)

#### Awards / Research / Achievements

Brunel Bursary, 2012- 2013 (Brunel University)

3<sup>rd</sup> Best Abstract in ResCon'12 (Brunel University)

Brunel Vice Chancellor Travel Award (2011)

UMP Scholarship (2009-2012)

JPA Scholarship (1999- 2006)

#### Patents

N/A

#### List of Course / Conference Attended

**Che Ghani, S.**, Cheng K., Sun X., Bateman, R. (September 2011) "Optimizing heat transfer rate in an internally cooled cutting tool: FE- based design analysis and experimental study", ICPM 2011, Liverpool

**Che Ghani, S.**, Cheng, K., Sun, X., Bateman, R. (November 2011) "Modelling and analysis of the temperature distribution of a micro-channel internally cooled smart cutting tool in machining AlSi7", 4M Conference, Stuttgart.

**Che Ghani, S.**, Cheng, K., Minton, T., Bateman, R. (June 2013) "Adaptive machining of titanium, steel and aluminium with internally cooled smart cutting", FAIM2013, Porto.