SUKARNUR CHE ABDULLAH

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BORN

18th Jannuary 1976
Jerantut, Pahang Malaysia.

OBJECTIVE

Teaching and research as a platform where experience and educational qualifications would be fully utilized in search of excellence. Major expertises are Tactile Sensor, Vision Sensor and Robotics Sensation. Areas of expertise in engineering field include CAD/CAM, Computer Integrated Manufacturing (CIM), Concurrent Engineering, Manufacturing Processes, Production Technology and Materials Processes.

STRENGHTS

- Have had 2 years experienced exposure in a multi-national manufacturing company ; Panasonic (M) Sdn. Bhd.
- Experienced as a Quality Engineer dealing with private and public corporations in the manufacturing and industrial engineering filed.
- Have Degree in Engineering at Saga University Japan, Master of Sciences Manufacturing System UPM, Malaysia and Doctor of Information Science from Nagoya University, Japan.
- Strong knowledge of Japanese daily life and working culture, whereas has total 6 years working experience in Japanese firms.
- Ability to communicate, read and write in Japanese, whereas has total 7 years study in Japan.

COMPUTER SKILLS

- Programming Languages: C++, OpenCV
- Unigraphic
- CATIA

EDUCATION

NAGOYA UNIVERSITY, AICHI, JAPAN
Doctor of Information Science (2012)

UNIVERSITI PUTRA, MALAYSIA
Master of Sciences Manufacturing System Engineering (2005)

SAGA UNIVERSITY, SAGA, JAPAN
Bachelor of Engineering in Mechanical Engineering (2000)

UNIVERSITI MALAYA, MALAYSIA
Certificate to enter Japan University in Sciences Engineering (1996)

PROFESIONAL QUALIFICATION

Member, I.E.M (Institution of Engineers Malaysia), (G34028)
Member, B.E.M (Board of Engineers Malaysia), (38932A)
Member, IEEE RAS Malaysia Chapter, (1-3521846786)

EXPERIENCE

WORKING EXPERIENCE

FKM, UiTM

2013 Head Centre of Studies, Mechatronics, Instrumentation And Control
Faculty of Mechanical Engineering
University Technology MARA

2012 Deputy Head Centre of Studies, Manufacturing, Design & Innovation
Faculty of Mechanical Engineering
University Technology MARA

2006-2009 Head of Program Off Campus
Faculty of Mechanical Engineering
University Technology MARA

2005 Automation Laboratory Manager

2004 Lecturing for Degree and Diploma students in the following subjects: Manufacturing Technology, Manufacturing Process, Automation, Dynamics And Plant Engineering.
Actively involved in IRDC Research Work and Degree Students Projects.

NATIONAL PANASONIC (M) SDN BHD, BATU BERENDAM, MELAKA

2002 Quality Assurance Engineer (May 2000 – April 2002)

As position QA Engineer, have had 2 years experience in perform and verify work effecting quality (quality system of production). The main responsibility and authority QA Engineer (job experience) are:
Assist Quality Management Representative (QMR) to establish, practice and maintain the Quality System (QS) in conjunction with the MS ISO 9002 requirement, to conduct, perform and monitor Quality System activities.

RESEARCH

RIF, RMI, UiTM
- Design and Fabricate a Binocular Eye System and Development of Program Modules for Humanoid Robot Vision Sensor System. September 2012 (RM32,000)
- Investigate chip formation, growth and material deformation mechanism in micromachining AISI D2. August 2012 (RM32,000)

MINISTRY OF SCIENCE TECHNOLOGY AND INNOVATION MALAYSIA (MOSTI)-e-Science Fund
- **Process optimization of stamping die using Response Surface Methodology Method**

Grant Value – RM165,000
MOSTI Technical Evaluation

INSTITUTE OF RESEARCH DEVELOPMENT AND CORPORATE (IRDC)
- Designing and Machining CNG-DI Engine Valve Using Reverse Engineering Method
- Development of The Pick-and- Place Robotics Chucking System

DESERTATION (Master of Sciences Manufacturing System Engineering, Universiti Putra, Malaysia)
- Design Of Manufacturing Floor Layout For Production Performance

FINAL YEAR PROJECT (Bachelor of Engineering in Mechanical Engineering, Saga University, Saga, Japan)

- Development of High Efficiency Grinding Method for Ultra Precision Ceramics Balls, (Si^3N^4, AlO^3 – TiC, Al^2O^3)

PAPER PUBLISHED

Journal Papers

1. Masahiro Ohka, Akihiro Tsunogai, Takashi Kayaba, **Sukarnur Che Abdullah**, Hanafiah Yussof, *Advanced Design of Columnar-conical Feeler-Type Optical Three-Axis Tactile Sensor*, Procedia Computer Science, Volume 42, 2014, Pages 17-24, 2014.

2. Mohd Amiruddin Fikri, **Sukarnur Che Abdullah**, M. Hanif M. Ramli, *Arm Exoskeleton for Rehabilitation Following Stroke by Learning Algorithm Prediction*, Procedia Computer Science, Volume 42, 2014, Pages 357-364, 2014.

3. Ikai, T., Ohka, M., Kamiya, S., Yussof, H., **Abdullah, S.C**., *Evaluation of finger direction recognition method for behavior control of robot*, International Journal on Smart Sensing and Intelligent Systems, 6 (5), pp. 2308-2333, 2013.

4. **Sukarnur Che Abdullah**, Masahiro Ohka, Yusuke Dosho, Takuya Ikai, Hanafiah Yussof, "*Geometrical Data Extraction Using Interaction Between Objects and Robotic Fingers Equipped with Three-axis Tactile Sensors*", Journal Procedia Engineering, Volume 41, Pages 1379-1388, 2012.

5. M. Ohka, **Sukarnur Che Abdullah**, J. Wada and H. B. Yussof, "*Two-hand-arm Manipulation Based on Tri-axial Tactile Data*", International Journal of Social Robotics, Vol. 4, pp. 97-105, 2012.

6. **Sukarnur Che Abdullah**, Takuya Ikai, Yusuke Dosho, Hanafiah Bin Yussof, and Masahiro Ohka, "*Edge Extraction Using Image And Three-Axis Tactile Data",* International Journal On Smart Sensing And Intelligent Systems Vol. 4, No. 3, pp. 508-526, September 2011.

7. **S. C. Abdullah**, Jiro Wada, Masahiro Ohka and Hanafiah Yussof, "*Object Exploration Using a Three-Axis Tactile Sensing Information"*, Journal of Computer Science 7 (4), pp. 499-504, 2011.

Book Chapters

1. Helmi Bin Rashid, Abdul Rahman Omar, **Sukarnur Bin Che Abdullah**, Ismail Nasiruddin Bin Ahmad, Roseleena Binte Jaafar, Roseleena Binte Jaafar, Shamsury Bin Ab Karim, Roseleena Binte Jaafar, Muhammad Izzat Nor Bin Ma'arof, *Motorcycling: Awkward Posture Is the Best Posture!*, AHFE Conference 2014, 9781495120985, 2014.

2. Shamsury Bin Ab Karim, Abdul Rahman Omar, Helmi Bin Rashid, **Sukarnur Bin Che Abdullah**, Ismail Nasiruddin Bin Ahmad, Muhammad Izzat Nor Bin Ma'arof, *The*

Motorcycle: A Human Operator Influenced Workstation, CRC Press Taylor & Francis Group, 9781138026353, 2014.

3. Helmi Bin Rashid, Abdul Rahman Omar, **Sukarnur Bin Che Abdullah**, Roseleena Binte Jaafar, Roseleena Binte Jaafar, Roseleena Binte Jaafar, Muhammad Izzat Nor Bin Ma'arof, *Evolution of a New Adjustable Motorcycle Test Rig for Measuring Motorcyclist Fatigue during Prolonged Riding*, AHFE Conference 2014, 9781495120985, 2014.

4. Helmi Bin Rashid, Abdul Rahman Omar, **Sukarnur Bin Che Abdullah**, Ismail Nasiruddin Bin Ahmad, Shamsury Bin Ab Karim, Muhammad Izzat Nor Bin Ma'arof, *Motorcyclist muscle fatigue index: An effort to help reduce motorcycle accidents*, CRC Press Taylor & Francis Group, 9781138026353, 2014.

5. Masahiro Ohka, Hanafiah Yussof and **Sukarnur Abdullah**, "*Object-Handling Tasks Based on Active Tactile and Slippage Sensations*", In Chapter of Book "Robot Arms" by INTECH, Editor: Satoru Goto, pp. 137-156, 2011.

6. Masahiro Ohka, Hanafiah Yussof and **Sukarnur Che Abdullah**, "*Three-Axis Tactile Sensor*", In Chapter of Book "*Introduction to Modern Robotics II*" by iConcept Press Ltd., Editor Daisuke Chugo and Sho Yokota, ISBN 978-14610986-9-0, 2011.

Conference Papers

International

1. Masahiro Ohka, Akihiro Tsunogai, Takashi Kayaba, , **Sukarnur Che Abdullah**, Hanafiah Yussof, *All-in-type Optical Three-axis Tactile Sensor*, ROMA2014, IEEE RAS Malaysia Chapter, 2014.

2. Fikri, Mohd Amiruddin, Abdullah, **Abdullah**,**Sukarnur Che,** Tan, Mohd Adam, *Evaluation of hand direction for stroke patient based on 3R under-actuated robot manipulator*, Micro-NanoMechatronics and Human Science (MHS), 2014 International Symposium on, DOI: 10.1109/MHS.2014.7006075, Publication Year: 2014 , Page(s): 1-6

3. **Abdullah, Sukarnur Che**, Ohka, Masahiro, Mahmud, Jamaluddin , Jusoh, M.Azzeim M. ; Saedon, Juri, *Multi geometrical image processing based on active vision agent*, Micro-NanoMechatronics and Human Science (MHS), 2014 International Symposium on, DOI: 10.1109/MHS.2014.7006115 Publication Year: 2014 , Page(s): 1- 5.

4. **Sukarnur Che Abdullah**, Masahiro Ohka, Yusuke Dosho, Takuya Ikai, Hanafiah Yussof, "*Geometrical Data Extraction Using Interaction Between Objects and Robotic Fingers Equipped with Three-axis Tactile Sensors*", International Symposium on Robotics and Intelligent Sensors, September 4-6, Kuching, Sarawak, Malaysia, 2012.

5. **Sukarnur Che Abdullah**, Takuya Ikai, Yusuke Dosho, Hanafiah Bin Yussof and Masahiro Ohka, "*Correction of Image Data Using Three-Axis Tactile Sensing*", Proceeding of 2011 IEEE International Conference on Robotics and Biomimetics (IEEE-ROBIO 2011), Phuket, Thailand, December 7-11, 2011.

6. Hanafiah Yussof, **Sukarnur Che Abdullah**, Jiro Wada, Masahiro Ohka, *"Grasping Strategy of Two Robot Arms Based on Tactile and Slippage Sensation of Optical Three-Axis Tactile Sensor System"*, 2011 International Symposium on Micro-Nano Mechatronics and Human Science (MHS2011 & Micro-Nano Global COE, Nagoya, Japan, 6-9 Nov. 2011.

7. **Sukarnur Che Abdullah**, Masahiro Ohka and Hanafiah Yussof, "*Geometrical Data Acquisition Based on Interaction Between Object and Active Tactile Sensor",* Proceeding of International Conference of advanced Mechanical Engineering (ICAME2010), Shah Alam Malaysia, December 2-5, 2010.

8. Masahiro Ohka, **Sukarnur Che Abdullah**, Hanafiah Bin Yussof, "*A Basic Study on Artificial Tactile Affordance*", Proceeding of International Conference of advanced Mechanical Engineering (ICAME2010), Shah Alam Malaysia, December 2-5, 2010.

9. Mohammad Azzeim Mat Jusoh, **Sukarnur Che Abdullah** and Alias Mohd Saman, "*Prototype Development of an Automotive Part Based On Reverse Engineering 3D Cad Data"*, Proceeding of World Engineering Congress 2010, Conference on Engineering and Technology Education, Sarawak Malaysia, August 2-5, 2010.

10. Mohammad Azzeim Mat Jusoh, Mohamed Tarmizi Ahmad, Abd Rahim Abu Talib, **Sukarnur Che Abdullah** and Mohd Suhairil Meon, "*The Design Process of a Motorcycle Cover Using CAD and CAE Tools",* Proceeding of World Engineering Congress 2010, Conference on Engineering and Technology Education, Sarawak Malaysia, August 2-5, 2010.

11. **Sukarnur Che Abdullah**, Jiro Wada, Hanafiah Yussof, and Masahiro Ohka, *"Object Exploration Algorithm Based on Three-axis Tactile Data"* (Invited Paper), Fourth Asia International Conference on Mathematical/Analytical Modelling and Computer Simulation, p158-163, Kota Kinabalu Malaysia, May 26-28, 2010.

12. Hanafiah Yussof, **Sukarnur Che Abdullah** and Masahiro Ohka, "*Development of Optical Three-Axis Tactile Sensor and its Application to Robotic Hand for Dexterous Manipulation Tasks"* (Invited Paper), Fourth Asia International Conference on Mathematical/Analytical Modelling and Computer Simulation, p624-629, Kota Kinabalu Malaysia, May 26-28, 2010.

13. **Sukarnur Che Abdullah**, Jiro Wada, Hanafiah Yussof, and Masahiro Ohka, "*Shape Exploration Using a Robotic Finger Equipped With an Optical Three-Axis Tactile Sensor",* Proceedings of the 2010 International Symposium on Robotics and Intelligent Sensors (IRIS2010), p355-359, Nagoya Japan, March 8-11, 2010.

14. Hanafiah Yussof, **Sukarnur Che Abdullah** and Masahiro Ohka, "*Motion Planning and Collision Avoidance Strategy by Contact Interaction in Humanoid Robot Navigation",*

Proceeding of the 9th International Symposium on Robot Control (SYROCO'09), p253-258, Gifu Japan, September 9-12, 2009.

15. **Sukarnur Che Abdullah**, W. Emri W. Abdul Rahaman, Masahiro Ohka and Hanafiah Yussof, *The Conceptual Design of Single Stroke Stamping Die For Optimisation of Stamping Die Using Response Surface Methodology,* Proceeding of International Conference of advanced Mechanical Engineering (ICAME2009), Shah Alam Malaysia, June 24-25, 2009

16. A.R. Ismail, **S.C. Abdullah**, A.H. A. A. Manap, K.Sopian, M. M. Tahir, I.M.S. Usman, D.A.Wahab, *DFM and DFA Approach in Designing Pressure Vessel,* Proceeding of The 7th WSEAS International Conference on System Science And Simulation In Engineering, Italy, November 21-23, 2008.

17. Ahmad Rasdan Ismail, **Sukarnur Che Abdullah**, *Reverse engineering method in redesigning a direct injection piston compressing natural gas using scanning technique,* Proceeding of The 7th WSEAS International Conference on System Science And Simulation In Engineering, Italy, November 21-23, 2008.

18. Ahmad Rasdan Ismail, **Sukarnur Che Abdullah**, Juri Saedon, Wan Emri Wan Abdul Rahaman, *Automotive Part Prototype Development Using Reverse Engineering Technology*, Proceeding of International Conference on Mechanical and Manufacturing (ICME2008).

19. **Sukarnur Che Abdullah**, A. Rasdan Ismail, M. Aizuddin Tajul Lile, *The Effect of Injection Pressure and Cavity Fills Time on The Internal and ExternalQuality of Die Casting Product*, Proceeding of The Regional Conference in Advanced Processes and System in Manufacturing (EM3ARC) 2007@ Advanced Processes and System in Manufacturing (APSIM) 2007.

20. A. R. Ismail, D. A. Wahab, **S. C. Abdullah**, M. N. A. Rahman, B. M. Deros, H. Mokhta, *DFA Approach in weight Measuring Jig Design for Malaysian Semiconductor Industry,* Proceeding of The Regional Conference in Advanced Processes and System in Manufacturing (EM3ARC) 2007@ Advanced Processes and System in Manufacturing (APSIM) 2007.

21. Ahmad Rasdan Ismail, Mohd Nizam Ab Rahman, Yeo Chia Soon and **Sukarnur Che Abdullah**, *Modeling And Fabrication Of CAMPRO Proton Piston Head Using The Reverse Engineering Method*, Proceeding of The 1st Regional Conference On Vehicle Engineering and Technology 2006 (RIVET2006), 23rd – 25th May 2006, PWTC, Kuala Lumpur, Malaysia.

National

1. 土性勇介，**Sukarnur Che Abdullah**, Hanafiah Yussof, 大岡昌博, 視覚と触覚の融合による幾何データの計測,第 29 回日本ロボット学会学術講演会，RSJ2011 3H2-4，平成 23 年 9 月 7 日～9 日(発表：9 月 9 日)，芝浦工大

2. 猪飼拓哉，土性勇介，**Sukarnur Che Abddullah**，大岡昌博, 視覚と触覚を通じた指示によるロボットの行動制御, 第 29 回日本ロボット学会学術講演会, RSJ20113H2-5，平成 23 年 9 月 7 日～9 日(発表：9 月 9 日)，芝浦工大

3. 角皆明宏，和田次郎，大岡昌博，**Sukarnur Che Abdullah**，Hanafiah Bin Yussof, 三軸触覚データに誘発される双腕ロボットの行動, 第28回日本ロボット学会学術講演会，RSJ2010AC2O1-06，平成22年9月22日～24日(発表：9月23日).

4. 遠藤大介，大岡昌博, **Sukarnur Che Abdullah**, Hanafiah Bin Yussof, 三軸触覚センサ搭載ロボットによる積み木作業, 第 28 回日本ロボット学会学術講演会，RSJ2010AC2O1-07，平成 22 年 9 月 22 日～24 日(発表：9 月 23 日).

5. Juri Saedon, **Sukarnur Che Abdullah**, A Rasdan Ismail and Mohd Azman Yahaya, *Product Development Using Reverse Engineering,* Proceeding of National Conference on Design & Concurrent Engineering 2006, (DECON 2006), 9 & 10 August 2006, Century Mahkota Hotel,, Malacca, Malaysia.

6. **Sukarnur C. A,** J. Mahmud, *Design Of Manufacturing Floor Layout For Production Performance*, Proceeding of National Conference On Advances In Mechanical Engineering 2005, UiTM.

7. A. Rasdan Ismail, M. Faizal Malek, **Sukarnur C. A.**, *The Modeling And Machining TNB Power Generator Compressor Blade Using Reverse Engineering Method,* Proceeding of National Conference On Advances In Mechanical Engineering 2005, UiTM.

Research Report

1. **Sukarnur Che Abdullah**, J. Saedon and A.R. Ismail, *Designing and Machining CNG-DI Engine Valve Using Reverse Engineering Method*, IRDC UiTM, 2008.
2. Jaffar, R. Jaafar and **Sukarnur Che Abdullah**, *Development of The Pick-and- Place Robotics Chucking System*, IRDC UiTM, 2007.

Thesis

1. **Sukarnur Che Abdullah**, *Hand-Arm Robot Manipulation Using Image and Tri-axial Tactile Data*, Ph.D thesis, Nagoya University, Japan, 2012.

2. **Sukarnur Che Abdullah**, *Design of Manufacturing Floor Layout for Production Performance,* MSc. thesis, UPM, 2005.

INNOVATION AWARDS

Azli Abdul Razak, **Sukarnur Che Abdullah**, *Novel Grading System for Fresh Fruit Bunch (FFB) of Oil Palm Using Injected Force Device*, Certificate IID UiTM, 2008.

STUDENTS DEGREE THESIS (not update)

1. Azhari Kamis, *Development of Novel Compessor Spring in Automotive Supension System*.

2. Noriman Shah Uthman, *New Concept of Artificial Lift System in Oil and Gas Company.*

3. Abdul Hadi Abdullah, *Designing and Fabrication of Fuse Pad Lead Stamping Die*, 2008.

4. Mohd Helmi Yaakub, *Fabrition and Analysis of Stamping Die for Automotive Component*, 2008
5. Shahril Ahmad, *Case Study on Standard Operation Procedure of stamping Process in Mechanical Engineering Laboratory*, 2007.

6. Ahmad Zuhairy Muhammad, *Development Of Conceptual Design Of Stamping Die Based On Single Stroke Stamping Process,* 2007.

7. Muhammad Aizuddin Bin Tajul Lile, *The Effect Of Injection Pressure And Cavity Fills Time On The Internal And External Quality Of Die Casting Produc",* 2006.

8. Norazlina Abdul Rahman, *A Study of 3D Data Collection Free Form Surface of the Automottive Engine Parts Using Reverse Engineering*, 2005.

9. Rohayu Awang, *Development CAD Data Through Reverse Engineering*, 2005.

10. Abdul Aziz Jalaluddin, *Fabrication of reverse Engineering Automotive Parts using Rapid Prototypin*", 2005.

11. Shaikhah Mahyuddin, *Measurement of 3D Profile With 3D Scanning Reverse Engineering*, 2005.

REFERRER

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