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Fitri Yakub, PhD

https://www.researchgate.net/profile/Fitri_Yakub

Education

Oct 2012 – Sep 2015 **Tokyo Metropolitan University**
Doctor of Engineering, Human Mechatronics System
Tokyo, Japan

Oct 2007 – Mar 2010 **International Islamic University Malaysia**
Master of Science, Mechatronics Engineering
Kuala Lumpur, Malaysia

May 2002 – Apr 2006 **Universiti Teknologi Malaysia**
Bachelor of Engineering, Electrical - Electronic Engineering
Johor Bahru, Malaysia

Apr 1999 – Mar 2002 **Universiti Teknologi Malaysia**
Diploma of Engineering, Mechatronics Engineering
Kuala Lumpur, Malaysia

Research Experience

Oct 2015 – present **Researcher**
Malaysia-Japan International Institute of Technology (MJIIT), Mechanical Precision Engineering
Kuala Lumpur, Malaysia

Oct 2012 – Sep 2015 **Graduate Student**
Tokyo Metropolitan University, Department of Human Mechatronics Systems
Tokyo, Japan

Dec 2011 – present **Researcher**
Universiti Teknologi Malaysia, Malaysian - Japan International Institute of Technology (MJIIT)
Kuala Lumpur, Malaysia

Oct 2008 – Dec 2009 **Graduate Student**

International Islamic University Malaysia, Department of Mechatronics Engineering
Kuala Lumpur, Malaysia

Teaching Experience

Oct 2015 – present **Senior Lecturer**
Malaysia-Japan International Institute of Technology (MJIIT), Electronic Systems Engineering
Kuala Lumpur, Malaysia

Oct 2014 – Sept 2015 **Graduate Student/Teaching Assistant**
Tokyo Metropolitan University, Department of Human Mechatronics Systems
Tokyo, Japan

Oct 2011 – Sept 2012 **Tutor**
Malaysia-Japan International Institute of Technology (MJIIT), Electronic Systems Engineering
Kuala Lumpur, Malaysia

Jan 2010 – Sept 2011 **Tutor**
Universiti Teknologi Malaysia, College Science & Technology
Kuala Lumpur, Malaysia

Oct 2008 – Sept 2009 **Graduate Student/Teaching Assistant**
International Islamic University Malaysia, Department of Mechatronics Engineering
Kuala Lumpur, Malaysia

Dec 2006 – Aug 2007 **Tutor**
Universiti Teknologi Malaysia, Diploma Program
Kuala Lumpur, Malaysia

Awards & Grants

2000/2001 Award: Dean List

Sep 2013 Award: SICE 2013 Young Authors Awards for Practical Application Paper

Oct 2012 Scholarship: Asian Human Research Fund

Sep 2012 Award: JSST 2012 Student Presentation Award

Apr 2012 – Mac 2013 NAS Grant, Member

Nov 2015 – Nov 2015 Tier 1 Grant, Member

Skills & Activities

Skills	Mechatronics, Robotics, Control Systems, System Modeling, Electronic Engineering, Control Systems Engineering, Modeling and Simulation, Industrial Automation, Industrial Engineering, Control Theory, Advanced Control Theory, MATLAB Simulation, System Identification, Systems Dynamics, Controller Design, Actuators, Automation & Robotics, System Dynamics Modeling, Software Engineering, Automation, Systems Engineering, Optimal Estimation, Process Automation, Fault Diagnosis, Fuzzy Engineering, System Integration, Control and Instrumentation, Kalman Filtering, Model Predictive Control, Intelligent Control, Parameter Identification, Extended Kalman Filters, Systems Theory, Fuzzy Logic, Dynamic Systems, Controls, Autonomous Vehicles, Automotive, Robustness, Automotive Engineering
Languages	English, Malay, Basic Japanese
Scientific Memberships	Senior Member IEEE, Member SAE, Member IET, Member BEM, Member IEM
Research Interests	Advanced vehicle control, Vibration control, Motion control, Intelligent control, Automatic and robust control, Control theory & application

Publication Highlights

[authors]: *[title]*. [details]

Book Chapters

Fitri Yakub, Yasuchika Mori: *Exploting the Orthonormal Function Based on Model Predictive Control for Automotive Application*. AsiaSim 2014, Edited by Satoshi Tanaka, Kyoko Hasegawa, Rui Xu, Naohisa Sakamoto, Stephen John Turner, 10/2014: chapter Simulation of Instrumentation and Control Application: pages 278-290; Springer Berlin Heidelberg., ISBN: 978-3-662-45288-2.

Fitri Yakub, Ahmad Zahran, Yasuchika Mori: *Quiet Standing of Time-Delay Stability with Derivative Feedback Control*. The Malaysia-Japan Model on Technology Partnership, Edited by Khairuddin Ab. Hamid, Osamu Ono, Anas Muhamad Bostamam, Amy Poh Ai Ling, 11/2013: chapter Science and Technology: pages 59-70; Springer Japan., ISBN: 978-4-431-54438-8.

Fitri Yakub, Rini Akmeliawati, Aminudin Abu: *Practical Control Method for Two-Mass Rotary Point-To-Point Positioning Systems*. PID Controller Design Approaches - Theory, Tuning and Application to Frontier Areas, 03/2012; ISBN: 978-953-51-0405-6.

Journal Publications

Fitri Yakub, Yasuchika Mori: *Enhancing the stability of unmanned ground sport utility vehicles through coordinated control under mu-split and gust of wind*. Journal of Engineering Science & Technology: 11/2016; 11(10): Scopus, Accepted.

Fitri Yakub, Aminudin Abu, and Yasuchika Mori. *Enhancing yaw stability and maneuverability of heavy vehicle under inclement scenario on emergency thread avoidance maneuver.* Journal of Automobile Engineering, Part D, iMeche. Q3, IF=0.802. doi: 10.1177/0954407014566031. (2016.9). Accepted.

Fitri Yakub, Shihao Lee, and Yasuchika Mori: *Comparative study of LQR and MPC control method with disturbance observer for rollover prevention in inclement environments*. Journal of Mechanical Science and Technology: 8/2016; 8(3); Q3, IF=0.838, Accepted.

Fitri Yakub, Shamsul Sarip, Aminudin Abu, Yasuchika Mori: *Study of Model Predictive Control for Path Following Autonomous Ground Vehicle Control under Crosswind Effect*. Journal of Control Science and Engineering: 3/2016; ArticleID6752671; 18pages; Scopus.

Fitri Yakub, Yasuchika Mori: *Heavy Vehicle Stability and Rollover Prevention via Switching Model Predictive Control*. International journal of innovative computing, information & control: IJICIC 10/2015; 11(5):1751-1764. Scopus

Fitri Yakub, Yasuchika Mori: *Minimizing Tracking Error in Path Following Control of Autonomous Ground Vehicle*. ICIC Express Letters: 06/2015; 9(6):1-7. Scopus

Fitri Yakub, Yasuchika Mori: *Comparative study of autonomous path-following vehicle control via model predictive control and linear quadratic control*. Proceedings of the Institution of Mechanical Engineers Part D Journal of Automobile Engineering: 01/2015; 229(12). Q3, IF=0.638, DOI:10.1177/0954407014566031.

Fitri Yakub, Yasuchika Mori: *Enhancing Path Following Control Performance of Autonomous Ground Vehicle through Coordinated Approach under Disturbance Effect*. IEEJ Transactions on Electronics Information and Systems: 01/2015; 135(1):102-110. DOI:10.1541/ieejeiss.135.102. Scopus

Fitri Yakub, Yasuchika Mori: *Enhancing Rollover Prevention and Vehicle Stability of Heavy Vehicle under Disturbance Effect*. Applied Mechanics and Materials: 11/2014; 695:596-600. DOI:10.4028/www.scientific.net/AMM.695.596. Scopus

Fitri Yakub, Ahmad Zahran Md Khudzairi, Yasuchika Mori: *Recent trends for practical rehabilitation robotics, current challenges and the future*. International Journal of Rehabilitation Research: 03/2014; 37(1):9-21. Q3, IF=1.114, DOI:10.1097/MRR.0000000000000035.

Fitri Yakub, Akira Kojima, Yasuchika Mori: *Stability in time-delay systems: quiet standing case study*. Bulletin of Electrical Engineering and Informatics: 03/2013; 2(1):75-82.

Fitri Yakub, Abdul Qadir, B.A.Aminudin: *Comparative study on control method for two-mass systems*. Int. J. on Advanced Science Engineering Information Technology: 03/2012; 2(3):63-68. pp. 63-68.

Fitri Yakub, Andika Aji Wijaya, Mustafa Al-Ani: *Practical Control for Two-Mass Positioning Systems in Presence of Saturation*. 03/2012; 10(1):91-102. DOI:10.11591/telkomnika.v10i1.658. Scopus

Mohd Fitri Mohd Yakub, B. A. Aminudin: *Improved NCTF Control Method for a Two-Mass Rotary Positioning Systems*. Intelligent Control and Automation 06/2011; 2(4):351-363. DOI:10.4236/ica.2011.24040.

Conference Proceedings

Fitri Yakub, Yasuchika Mori: *Classical and intelligent based control method for positioning system.* CCC & SICE, Hangzhou, China, pp. 4239-4244. 07/2015.

Fitri Yakub, Yasuchika Mori: *Heavy Vehicle Stability and Rollover Prevention through Switching Model Predictive Control.* Asian Control Conference (ASCC), Sabah, Malaysia, pp. 1-6. 06/2015.

Fitri Yakub, Yasuchika Mori: *Autonomous ground vehicle of path following control through model predictive control with feed forward controller*. Proc. of 12th Int. Symp. on Advanced Vehicle Control (AVEC'14), Tokyo, Japan; 09/2014

Fitri Yakub, Yasuchika Mori: *Model Predictive Control Based on Kautz Function for Autonomous Ground Vehicle Path Following Control Application*. Proc. of SICE Annual Conf., Hokkaido, Japan; 09/2014.

Fitri Yakub, Yasuchika Mori: *Autonomous car in path following control under side wind effect by laguerre function*. Proc. of 6th IEEE Int. Conf. Robotics, Automation and Mechatronics (RAM2013), Manila, Philippines; 11/2013.

Lee Shihao, Fitri Yakub, Misawa Kasahara, Yasuchika Mori: *Rollover prevention with predictive control of differential braking and rear wheel steering*. Proc. of 6th IEEE Int. Conf. Robotics, Automation and Mechatronics (RAM2013), Manila, Philippines; 11/2013.

Fitri Yakub, Yasuchika Mori: *Intelligent Control Method for Two-Mass Rotary Positioning Systems*. SICE Annual Conference 2013, Nagoya, Japan; 09/2013.

Fitri Yakub: *Model Predictive Control for Car Vehicle Dynamics System – Comparative Study*. IEEE Int. Conf. on Information Science and Technology (ICIST 2013), Yangzhou, China; 03/2013.

Fitri Yakub, Yasuchika Mori: *Effects of roll dynamics for car stability control by laguerre functions*. Mechatronics and Automation (ICMA), 2013 IEEE International Conference on; 01/2013.

Fitri Yakub, Rini Akmeliawati: *Study review on nominal characteristic trajectory following controller for point-to-point positioning systems*. Proc. of 7th IEEE Conf. on Industrial Electronics and Applications (ICIEA), Singapore; 07/2012.

Mohd Fitri Mohd Yakub, Andika Aji Wijaya: *NCTF-EMRAN control method for a two-mass rotary positioning systems*. Proc. of 11th IEEE Control, Automation & Systems (ICCAS), Gyeonggi-do, Korea 10/2011.

Mohd Fitri Mohd Yakub, Rini Akmeliawati: *Performance improvement of improved practical control method for two-mass PTP positioning systems in the presence of actuator saturation*. Proc. of IEEE Applied Power Electronics Colloquium (IAPEC), Johor Bahru, Malaysia; 04/2011.

Mohd Fitri Mohd Yakub, Wahyudi Martono, Rini Akmeliawati: *Performance evaluation of improved practical control method for two-mass PTP positioning systems*. Proc. of IEEE Symposium on Industrial Electronics & Applications (ISIEA2010), Penang, Malaysia; 10/2010.

Mohd Fitri Mohd Yakub, Wahyudi Martono, Rini Akmeliawati: *Vibration control of two-mass rotary system using improved NCTF controller for positioning systems*. Proc. of IEEE Control and System Graduate Research Colloquium (ICSGRC2010), Shah Alam, Malaysia; 06/2010.

Fitri Yakub, Wahyudi, R. Akmeliawati, Andika A.Wijaya: *Improved NCTF Control Method for a Two Mass Point-To-Point Positioning System*. Proc. of the Int. Conf. on Intelligent and Advanced Systems (ICIAS2010), Kuala Lumpur, Malaysia; 06/2010.