

Dr. Thana Radpukdee

Department of Industrial Engineering, Faculty of Engineering,
Khon Kaen University, Khon Kaen 40002, Thailand
Tel.: 043-202-097 Mobile phone: 081-262-4949
Email: thanar@gmail.com, rthana@kku.ac.th

EDUCATION

2005 – 2008 Khon Kaen University, Khon Kaen, Thailand

Ph.D. in Mechanical Engineering

Dissertation topic: Control and Optimal Operation of an Engine-Powertrain (An Electronic Drive-by-Wire System)

2002 – 2004 Khon Kaen University, Khon Kaen, Thailand

M.Eng. in Mechanical Engineering

Thesis topic: Vibration Analysis of a 2-pocket Hydrostatic Journal Bearing

1997 – 2001 Khon Kaen University, Khon Kaen, Thailand

B.Eng. in Mechanical Engineering

Project topic: Analysis of Stresses in Machine Parts by Using Finite Element Method

RESEARCH FUNDING SOURCES

2012 – 2014 Asian Transportation Research Society

2015 – Present Betagro Pub Co., Ltd

2014 – Present Electricity Generating Authority of Thailand

2015 – Present Agricultural Research Development Agency Public Organization

2012 – Present Thailand Research Fund (The Royal Golden Jubilee Ph.D. Program Scholarship and Betagro Pub Co., Ltd)

2016 – Present Energy Policy and Planning Office

RESEARCH TOPICS

Variable Structure Control, Engine-Powertrain Control, Fluid Power System and Control, Heating ventilating and air conditioning system, Computation Fluid Dynamic, Energy Conservation in Building and Industry

SELECTED PUBLICATIONS

Peer-Reviewed Journals

1. Thana Radpukdee and Piyoros Jirawattana. Uncertainty learning and compensation : An application to pressure tracking of and electro-hydraulic proportional relief valve. Control Engineering Practice, 17 (2),2009, pp291-301. (ISI)
2. Tossaporn Chamsai, Piyoros Jirawattana and Thana Radpukdee. Sliding Mode Control with PID Tuning Technique: An Application to a DC Servo Motor Position Tracking Control. Energy Research Journal, 1 (2): 55-61, 2010

3. R. Santivarakorn, T. Radpukdee. Multi Sliding Mode Control with Residual Error Estimation for a Counter Flow Rotary Dryer. *Advanced Science Letters*, Volume 19, Number 11, November 2013 , pp. 3263-3271(9). (Scopus)
4. T Upachaban, R Santivarakorn, T Radpukdee. Sliding Mode Control with Uncertainty Estimation for an Evaporative Cooling System in a Poultry House. *Advanced Science Letters*, Volume 19, Number 11, November 2013 , pp. 3315-3319 (Scopus)
5. T Chamsai, T Radpukdee, P Jirawattana. Improving Spark Ignition Engine by Low-Pass Filter of Sliding Mode Control with Adaptive PID Tuning. *Advanced Science Letters*, Volume 19, Number 11, November 2013 , pp.3206-3212(7) (Scopus)
6. K Senawong, S Bureerat, T Radpukdee. Energy Saving for an Evaporative Air-Conditioning System in a Poultry House by a Season Mode Controller. *Advanced Science Letters*, Volume 19, Number 11, November 2013, pp. 3280-3284(5). (Scopus)
7. K Khongsatit, S Winitchai, T Radpukdee. Hybrid Ventilation Management Technique for an Evaporative Cooling System in Poultry House. *Advanced Science Letters*, Volume 19, Number 11, November 2013 , pp. 3275-3279(5). (Scopus)
8. Tossaporn Chamsai, Piyoros Jirawattana, and Thana Radpukdee. Robust Adaptive PID Controller for a Class of Uncertain Nonlinear Systems: An Application for Speed Tracking Control of an SI Engine. *Mathematical Problems in Engineering* Volume 2015, Article ID 510738, 12 pages. (ISI)
9. Anuwit Sonsiri and Thana Radpukdee. Effect of Biogas Volume Flow Rate and Burner Temperature on Moisture Content of Organic Fertilizer in a Rotary Drying Process. *Advanced Materials Research* Vol. 1105 (2015) pp 305-310. (Scopus)
10. Atthapol Seedam, Thaned Satiennam, Thana Radpukdee, Wichuda Satiennam. Development of an onboard system to measure the on-road driving pattern for developing motorcycle driving cycle in Khon Kaen city, Thailand. *IATSS Research* 39 (2015) 79–85. (Scopus)
11. Kritsadang Senawong, Sorayute Winitchai and Thana Radpukdee. Humidity and temperature control in an evaporative cooling system of a poultry house. *KKU ENGINEERING JOURNAL*.January-March 2012; 39(1): 95-111 (TCI)
12. A. Seedam, P. Jaisuk, P. Jirawattana, T. Radpukdee, "Engine Map and Optimal Operation Path Construction for an Engine-CVT Powertrain System", *Applied Mechanics and Materials*, Vol. 564, pp. 42-47, 2014 (Scopus)

Conference Proceedings

1. Thana Radpukdee and Piyoros Jirawattana. Uncertainty Estimation and Exponential Interpolation in a Boundary layer for Sliding Mode Control with Stability Analysis. *Technology and Innovation for Sustainable Development Conference (TISD2008)* Faculty of Engineering, Khon Kaen University, Thailand, January 2008.
2. Thana Radpukdee and Piyoros Jirawattana. Exponential Interpolation in Boundary Layer for Sliding Mode Control. *Technology and Innovation for Sustainable Development Conference (TISD2006)* Faculty of Engineering, Khon Kaen University, Thailand 25-27 January 2006.

3. Thana Radpukdee and Piyoros Jirawattana. Design of an EngineLoad Simulator. Proceeding of IMECE 2005, ASME paper 2005-80126, 2005 ASME International Mechanical Engineering Congress and Exposition, Orlando, FL, USA, 2005.
4. Piyoros Jirawattana and Thana Radpukdee. Vibration Analysis of a 2-Pocket Capillary Control Hydrostatic Journal Bearing. SAE paper 2004-01-0402, 2004 SAE World Congress, Detroit, MI, USA, 2004.
5. Kritsadang Senawong, Thana Radpukdee, and Ratchapol Suntivarakorn 2010. Mathematical Modeling of an Evaporative Air-conditioning System and Cooling Loads in a Poultry House for Sliding Mode Control Analysis. The First TSME International Conference on Mechanical Engineering. Ubon Ratchathani, 20 - 22 October, 2010.
6. Atthapol Seedam, Watcharain Saengsuwan, Thaned Satiennam and Thana Radpukdee 2010. Development of Speed-Time Data Logger for Analysis of Motorcycle Driving Behavior. The First TSME International Conference on Mechanical Engineering. Ubon Ratchathani, 20-22 October, 2010
7. Pornsiri Khamla, Thana Radpukdee and Thaned Satiennam 2010. Driving Cycle Generation for Emissions and Fuel Consumption Assessment of the Motorcycles in Khon kaen City. The First TSME International Conference on Mechanical Engineering. Ubon Ratchathani, 20-22 October, 2010.
8. Piyanath Jaisuk and Thana Radpukdee 2012. Testing Performance and Exhaust Gas Emission for Engine by Using Oil Blending with Fuel Additives. The 4th KKU International Engineering Conference. Khon Kaen, 10-12 May.
9. Atthapol Seedam, Thaned Satiennam and Thana Radpukdee. A Development of Motorcycle Onboard System Measuring Driving Pattern and Exhaust Emissions. 4th ATRANS SYMPOSIUM STUDENT CHAPTER SESSION AUGUST 26- 27, 2011 BANGKOK THAILAND

TECHNICAL PROFICIENTCY

- Profi-bus DP/PA, Actuators and Sensors Interface
- Process Control System
- Heat Recovery Steam Generator (HRSG)
- Ventilation in livestock

TEACHING

Undergraduate courses: Engineering Materials, Industrial Instrument and Automation, Engineering Workshop Practice, Mechanic of Solid, CAD/CAM for Industrial Engineering

Graduate courses: Applied Nonlinear Control

LEADERSHIP

2008 – 2011 Assistant Dean of Student Development, Faculty of Engineering, Khon Kaen University

2012 – 2014 Assistant Dean of Planning Affairs, Faculty of Engineering, Khon Kaen University

2014 – 2016 Assistant Dean of Finance and Human Resource, Faculty of Engineering, Khon
Kaen University

2013 – 2015 Consultant, Industry/University Cooperative Research Center in HDD Component