TEERAPOT WESSAPAN, Ph.D.

Associate Professor

รองศาสตราจารย์ ดร.ธีรพจน์ เวศพันธุ์

Department of Mechanical Engineering, Rajamangala University of Technology Thanyaburi 39 Moo 1, Klong 6, Khlong Luang Pathum Thani 12110 Thailand E-mail: teerapot_w@rmutt.ac.th

EDUCATION

Ph.D. (Engineering), Thammasat University, THAILAND, 2011

M.Eng. (Mechanical Engineering), Kasetsart University, THAILAND, 2005

B.Eng. (Mechanical Engineering), Srinakharinwirot University, THAILAND, 2002

PROFESSIONAL EXPERIENCE

2002 to 2003	Engineer, Cal-Comp Electronics (Thailand) Public Co. Ltd.

2005 to 2020 Lecturer, School of Engineering and

School of Aviation, Eastern Asia University.

2020 to present Lecturer, Department of Mechanical Engineering,

Faculty of Engineering, Rajamangala University of Technology Thanyaburi.

ADMINISTRATIVE EXPERIENCE

2006 to 2008	Head of Department of Mechanical Engineering, Eastern Asia University
2010 to 2011	Head of Department of Mechanical Engineering, Eastern Asia University
2017 to 2020	Editor-in-Chief, EAU Heritage Journal: Science and Technology.
2024 to present	Deputy Head of Academic Affairs, Department of Mechanical Engineering, Rajamangala University of Technology Thanyaburi (RMUTT)

COURSES TAUGHT

Engineering Mechanics, Heat Transfer, Computer-Aided Mechanical Engineering Design, Design of Thermal System, English for Engineering, Mechanical Engineering Laboratory, Research Methodology, Mechanical Engineering Project, Machine Design, Engineering Drawing, Introduction to Microwave Heating, Engineering Seminar.

HONORS AND AWARDS

-Gold Medal, Semi-Automatic Natural Fiber Extraction Machine for Textile Applications, The 35th International Invention, Innovation and Technology Exhibition (ITEX 2024), 16-18 May 2024. (รางวัล เหรียญทอง-การประกวดสิ่งประดิษฐ์และนวัตกรรมนานาชาติ ณ กรุงกัวลาลัมเปอร์ สหพันธรัฐมาเลเชีย)

- -Gold Medal, Household Paddy Dehumidifier, The 35th International Invention, Innovation and Technology Exhibition (ITEX 2024), 16-18 May 2024. (รางวัลเหรียญทอง-การประกวดสิ่งประดิษฐ์และนวัตกรรมนานาชาติ ณ กรุงกัวลาลัมเปอร์ สหพันธรัฐมาเลเซีย)
- -Honorary Mention Award, Waste Compression Machine, RMUTT Research and Innovation Fair for Sustainable Change 2024, 16-17 July 2024. (รางวัลประกาศเกียรติคุณ-มหกรรมวิจัยและนวัตกรรม มทร.ธัญบุรี)
- -Honorary Mention Award, Frontier Research on the Application of Electromagnetic Waves in Medical Engineering: Transport Phenomena and Tissue Injury, Fundamental Fund Research Awards 2024, 16-17 July 2024. (รางวัลชมเชย-มหกรรมวิจัยและนวัตกรรม มทร.ทัญปรี)
- -Popular Vote Award for the project "Waste 2 Energy Plus", an innovative solution utilizing municipal waste to produce high-efficiency solid fuel. The award was received at the 2nd New Generation Energy Researchers Research Project Competition, organized by the Energy Policy and Planning Office (EPPO), Ministry of Energy, on January 13-14, 2024.
- -Outstanding Paper Award, Effect of Large Blood Vessel on the Efficacy of High-Intensity Ultrasound Cancer Therapy, 37th Conference of Mechanical Engineering Network of Thailand– ME-NeTT. (รางวัล บทความระดับดีมาก) (2023)
- -Silver Medal, Semi-Automatic Natural Fiber Extraction Machine for Textile Applications. 42nd THE 16th International Warsaw Invention Show (IWIS 2022), 17-19 October 2022. (รางวัลเหรียญเงิน-การประกวด สิ่งประดิษฐ์และนวัตกรรมนานาชาติ ณ กรุงวอร์ซอ สาธารณรัฐโปแลนด์)
- -Silver Medal, Household Paddy Dehumidifier. Taiwan Innotech Expo 2022 (TIE 2022), 13-15 October 2022. (รางวัลเหรียญเงิน-การประกวคสิ่งประดิษฐ์และนวัตกรรมนานาชาติ เมืองไทเป ได้หวัน)
- -Bronze Medal, Multipurpose UV Sterilizer Cabinet for Public Places. 46th INOVA Croatia International Invention Show, Osijek, Croatia, 12-15 October 2022. (รางวัลเหรียญทองแดง-การประกวดสิ่งประดิษฐ์ และนวัตกรรมนานาชาติ เมืองออสซิเจล สาธารณรัฐโครเอเชีย)
- -Best Presenter Award for being a Distinguished Presenter at the TRF-OHEC Annual Congress 2018 (TOAC 2018) (รางวัลผู้เสนอผลงานวิจัยดีเยี่ยม-การประชุมนักวิจัยรุ่นใหม่พบเมธิวิจัยอาวุโส). (2018)
- -Honorable Mention Award, 31st Conference of Mechanical Engineering Network of Thailand– ME-NeTT. (รางวัลบทความชมเชย) (2017)
- -Silver Medal, Thailand Research Expo, August 9, 2023. Awarded for the project "Semi-Automatic Natural Fiber Separation Machine".
- -Silver Medal, Thailand Research Expo, August 9, 2023. Awarded for the project "Small-scale Grain Moisture Reducer for Farmers".
- -The Outstanding Staff Award, Eastern Asia University (รางวัลมณีนพรัตน์ บุคลากรดีเค่นรางวัลเชิดชูเกียรติ มหาวิทยาลัยอีสเทิร์น เอเชีย). (2016)
- -Bronze Medal & Special Prize, Computer Simulation Based on FEM of Laser-induced Thermotherapy in Human Layered Skin-Tissue. 44th International Exhibition of Inventions of Geneva, Geneva, Swiss Confederation, 13-17 April 2016. (รางวัลเหรียญทองแดง-การประกวดสิ่งประดิษฐ์และนวัตกรรมนานาชาติ สมาพันธรัฐสวิส) (2016)
- -Excellent Distinction Research Award 2015, Analysis of Specific Absorption Rate and Heat Transfer in Human Eye Subjected to Electromagnetic Field (Theory and Applications), National Research Council of Thailand (NRCT) (รางวัลผลงานวิจัยระดับดีมาก สาขาวิทยาศาสตร์กายภาพและคณิตศาสตร์ สภาวิจัยแห่งชาติ ประจำปี 2558) (2015)
- -Distinguished Thesis Awards, National Research Council of Thailand (NRCT) (รางวัลวิทยานิพนธ์สาขาวิทยาศาสตร์ กายภาพและคณิตศาสตร์ สภาวิจัยแห่งชาติ ประจำปี 2557) (2014)
- -Silver Medal, Simulated Software for Predicting Specific Absorption Rate and Heat Transfer in Human Head Subjected to Mobile Phone Radiation. 42nd International Exhibition of Inventions of Geneva, Geneva, Swiss Confederation, 2-6 April 2014. (Silver Medal) (รางวัลเหรียญเงิน-การประกวดสิ่งประดิษฐ์และนวัตกรรม นานาชาติ สมาพันธรัฐสาวิส) (2014)
- -The Outstanding Staff Award, Eastern Asia University (รางวัลมณีนพรัตน์ บุคลากรดีเด่นด้านวิจัย มหาวิทยาลัยอีสเทิร์น เอเชีย). (2014)

- -Best Presenter Award for being a Distinguished Presenter at the 2nd Thailand National Research University Summit (รางวัลผู้เสนอผลงานวิจัยดีมาก-การประชุมสุดขอดมหาวิทยาลัยวิจัยแห่งชาติ). (2013)
- -Special Prize from Korea Invention Promotion Association; KIPA, Thialand Inventor's Day. (2013)
- -Out Standing Staff Award for New Researcher, Year 2012, Association of Private Higher Education Institutions of Thailand (รางวัลบุคลากรดีเด่น-สมาคมสถาบันอุดมศึกษาเอกชนแห่งประเทศไทย). (2012)
- -Distinguished Research Award, Office of the National Research Council of Thailand (รางวัลผลงานวิจัยระดับ ดี-สภาวิจัยแห่งชาติ). (2011)
- -Outstanding Paper Award, the 23rd Conference of the Mechanical Engineering Network of Thailand (รางวัลบทความคีเด่น-ที่ประชุมเครื่อง่ายวิศวกรรมเครื่องกลแห่งประเทศไทย ครั้งที่ 23). (2009)

BOOK CHAPTER

-Wessapan, T., & Rattanadecho, P. (2014). Effects of electromagnetic fields on specific absorption rate and heat transfer in the human eye, In E.Y.K. Ng, U.R. Acharya, R.M. Rangayyan & J.S. Suri (Eds.), Ophthalmology Imaging and Applications. (pp. 425-445). Boca Raton, Florida: CRC Press, Taylor & Francis Group.

RESEARCH PUBLICATIONS

Refereed international journals

- Wessapan, T. and Rattanadecho, P. "Thermal effects of metal implants embedded in different layers of human tissues exposed to electromagnetic fields". Case Studies in Thermal Engineering, Vol 53, p.103771, 2024, Scopus, Q1: Impact Factor 6.8
- Wessapan, T., Rattanadecho, P., Somsuk, N., Yamfang, M., Guptasa, M. and Montienthong, P. "Thermal effects of electromagnetic energy on skin in contact with metal: A numerical analysis". Energies, Vol 16, p. 5925, 2023, Scopus, Q1: Impact Factor 3.2
- 3. Wessapan, T. and Rattanadecho, P. "Flow and heat transfer through a porous tumor during high-intensity focused ultrasound". International Journal of Heat and Mass Transfer, Vol 216, p. 124501, 2023, Scopus, Q1: Impact Factor 5.2
- 4. Aksornkitti, S., Rattanadecho, P. and Wessapan, T. "Experimental study of heat transfer and water infiltration in two-layered granular packed bed". Science & Technology Asia, Vol 27, 2022.
- 5. Aksornkitti, S., Rattanadecho, P. and Wessapan, T. "Numerical investigation of heat transfer and water infiltration characteristics within two-dimensional granular

- packed beds". Case Studies in Thermal Engineering, Vol 28, p. 101417, 2021, Scopus, Q1: Impact Factor 6.8
- 6. Bhargava, D., Rattanadecho, P. and Wessapan, T. "The effect of metal objects on the SAR and temperature increase in the human head exposed to dipole antenna (Numerical analysis)". Case Studies in Thermal Engineering, Vol 22, p. 100789, 2020, Scopus, Q1: Impact Factor 6.8
- 7. Wessapan, T. and Rattanadecho, P. "Acoustic streaming effect on flow and heat transfer in porous tissue during exposure to focused ultrasound". Case Studies in Thermal Engineering, Vol 21, p. 100670, 2020, Scopus, Q1: Impact Factor 6.8
- 8. Bhargava, D., Leeprechanon, N., Rattanadecho, P. and Wessapan, T. "Specific absorption rate and temperature elevation in the human head due to overexposure to mobile phone radiation with different usage patterns". International Journal of Heat and Mass Transfer, Vol 130, pp. 1178–1188, 2019, Scopus, Q1: Impact Factor 5.2
- 9. Wongchadakul, P., Rattanadecho, P. and Wessapan, T. "Simulation of temperature distribution in different human skin types exposed to laser irradiation with different wavelengths and laser irradiation intensities". Songklanakarin Journal of Science and Technology, Vol 41(3), pp. 529–538, 2019: Impact Factor 0.47
- 10. Wongchadakul, P., Rattanadecho, P. and Wessapan, T. "Implementation of a thermomechanical model to simulate laser heating in shrinkage tissue (effects of wavelength, laser irradiation intensity, and irradiation beam area)". International Journal of Thermal Sciences, Vol 134, pp. 321–336, 2018, Scopus, Q1: Impact Factor 3.98
- 11. Wessapan, T. and Rattanadecho, P. "Temperature induced in human organs due to near-field and far-field electromagnetic exposure effects". International Journal of Heat and Mass Transfer, Vol 119, pp. 65–76, 2018, Scopus, Q1: Impact Factor 5.2
- 12. Wessapan, T. and Rattanadecho, P. "Temperature induced in the testicular and related tissues due to electromagnetic fields exposure at 900 MHz and 1800 MHz". International Journal of Heat and Mass Transfer, Vol 102, pp. 1130–1140, 2016, Scopus, Q1: Impact Factor 5.2
- 13. Wessapan, T. and Rattanadecho, P. "Flow and heat transfer in biological tissue due to electromagnetic near-field exposure effects". International Journal of Heat and Mass Transfer, Vol 97, pp. 174–184, 2016, Scopus, Q1: Impact Factor 5.2
- 14. Wessapan, T., Rattanadecho, P. and Wongchadakul, P. "Effect of the body position on natural convection within the anterior chamber of the human eye during exposure

- to electromagnetic fields". Numerical Heat Transfer, Part A Vol 69 (9), pp. 1014-1028, 2016, Scopus, Q1: Impact Factor 3.22
- 15. Wessapan, T. and Rattanadecho, P. "Heat Transfer Analysis of the Human Eye during Exposure to Sauna Therapy". Numerical Heat Transfer, Part A Vol 68 (5), pp. 566-582, 2015, Scopus, Q1: Impact Factor 3.22
- 16. Wessapan, T. and Rattanadecho, P. "Influence of Ambient Temperature on Heat Transfer in the Human Eye during Exposure to Electromagnetic Fields at 900 MHz". International Journal of Heat and Mass Transfer, Vol 70, pp. 378-388, 2014, Scopus, Q1: Impact Factor 5.2
- 17. Wessapan, T. and Rattanadecho, P. "Aqueous Humor Natural Convection of the Human Eye induced by Electromagnetic Fields: In the Supine Position". Journal of Medical and Bio Engineering, Vol 3(4), pp. 251-258, 2014.
- 18. Wessapan, T. and Rattanadecho, P. "Specific Absorption Rate and Temperature Increase in Human Eyes due to Electromagnetic Fields Exposure at Different Frequencies". International Journal of Heat and Mass Transfer, 64, pp. 426–435, 2013, Scopus, Q1: Impact Factor 5.2
- 19. Siriwitpreecha A., Rattanadecho, P. and Wessapan, T. "The Influence of Wave Propagation Mode on Specific Absorption Rate and Heat Transfer in Human Body Exposed to Electromagnetic Wave". International Journal of Heat and Mass Transfer, Vol 65, pp. 423-434, 2013, Scopus, Q1: Impact Factor 5.2
- 20. Wessapan, T. Srisawatdhisukul, S. and Rattanadecho, P. "Specific Absorption Rate and Temperature Distributions in Human Head Subjected to Mobile Phone Radiation at Different Frequencies". International Journal of Heat and Mass Transfer, 55, pp. 347–359, 2012, Scopus, Q1: Impact Factor 5.2
- 21. Wessapan, T. and Rattanadecho, P."Numerical Analysis of Specific Absorption Rate and Heat Transfer in Human Head Subjected to Mobile Phone Radiation". ASME Journal of Heat Transfer, Vol 134(12), p. 121101, 2012, Scopus, Q1: Impact Factor 1.957
- 22. Wessapan, T. and Rattanadecho, P. "Specific Absorption Rate and Temperature Increase in Human Eye Subjected to Electromagnetic Fields at 900 MHz". ASME Journal of Heat Transfer, Vol 134(9), p. 091101, 2012, Scopus, Q1: Impact Factor 1.957

- 23. Somsuk, N. Wessapan, T. and Teekasap, S. "Design and Development of a Rotary Airlock Valve for using in Continuous Pyrolysis Process to Improve Performance". Advanced Materials Research, 383-390, pp. 7148–7154: 2012
- 24. Wessapan, T, Srisawatdhisukul, S., and Rattanadecho, P. "Numerical Analysis of Specific Absorption Rate and Heat Transfer in the Human Body Exposed to Leakage Microwave Power at 915 MHz and 2,450 MHz". ASME Journal of Heat Transfer, Vol 133(5), p.051101, 2011, Scopus, Q1: Impact factor 1.957
- 25. Wessapan, T, Srisawatdhisukul, S., and Rattanadecho, P. "The Effects of Dielectric Shield on Specific Absorption Rate and Heat Transfer in The Human Body Exposed to Leakage Microwave energy" International Communications in Heat and Mass Transfer, 38, pp.255-262, 2011, Scopus, Q1: Impact Factor 5.683
- 26. Keangin P., Wessapan, T. and Rattanadecho, P." An Analysis of Heat Transfer in Liver Tissue During Microwave Ablation Using Single and Double Slot Antenna ". International Communications in Heat and Mass Transfer, 38, pp.757-766, 2011, Scopus, Q1: Impact Factor 5.683
- 27. Keangin P., Wessapan, T. and Rattanadecho, P. "Analysis of Heat Transfer in Deformed Liver Cancer Modeling Treated Using a Microwave Coaxial Antenna". Applied Thermal Engineering, 31(16), pp. 3243–3254, 2011, Scopus, Q1: Impact Factor 5.376

National journals

- 1. Tanongpheang, W., Ketmuni, M., Wessapan, T., Jantong, M., Muanmuang, A., and Kaeowpratthana, T., "Acceptance of Innovative Briquette Systems for Producing High-efficiency Solid Fuels from Municipal Waste at Tha Wung Subdistrict Administrative." Journal of Liberal Arts, RMUTT, Vol. 5 (1), 2024, pp. 54-68.
- Santiviboon, P., and Wessapan, T., "Conceptual Design of an Aircraft's Disassembled Unit Load Device (LD3)." EAU Heritage Journal: Science and Technology, Vol. 12 (1), 2018, pp. 83-95.
- 3. Nontasud, K., and Wessapan, T., "A Prediction Model of Electricity Consumption as Applied to Development Planning of Chiang Mai International Airport." EAU Heritage Journal: Science and Technology, Vol. 11 (3), 2017, pp. 124-136.
- 4. Aumnuaiworachai, K., and Wessapan, T., "The Influence of Safety Climate on Atrisk Behavior of Employee's Work at Chiang Mai International Airport." EAU Heritage Journal: Science and Technology, Vol. 11 (3), 2017, pp. 99-111.

- 5. Attanawanich, P., and Wessapan, T., "Factors Relating Job Performance of Air Traffic Controller: A Case Study of Aerodrome Control Tower." EAU Heritage Journal Social Science and Humanities, Vol. 9 (1) 2019, pp. 129-140.
- 6. Chinwipat, W., and Wessapan, T., "A Development Plan for Aerodrome Safety Inspectors of The Civil Aviation Authority of Thailand." EAU Heritage Journal Social Science and Humanities, Vol. 9 (1) 2019, pp. 120-128.
- 7. Bunlertpornpisut, R., and Wessapan, T., "A Service Quality Improvement Plan of Air Cargo at Chiang Mai International Airport." EAU Heritage Journal Social Science and Humanities, Vol. 9 (1) 2019, pp. 141-149.
- 8. Sumaman, S., and Wessapan, T., "Environment Factors Affecting Work Efficiency of Screening Officer: A Case Study of Don Mueang International Airport." EAU Heritage Journal Social Science and Humanities, Vol. 9 (2) 2019.
- 9. Chuaprang, N., and Wessapan, T., "Factors Concerning The Success of Knowledge Management of The Royal Thai Air Force's Air Traffic Controllers." EAU Heritage Journal: Science and Technology, Vol. 11 (1), 2017, pp. 101-111.
- 10. Charoenvanich, K., and Wessapan, T., "Factors Affecting the Selection of Flight Operation Officer of Thai Lion Air." EAU Heritage Journal: Science and Technology, Vol. 11 (1), 2017, pp. 112-123.
- 11. Chinchantra, S., and Wessapan, T., "Factors Affecting Decision Making on the Flight Training School Choice of Pilot Trainees in Thailand." EAU Heritage Journal: Science and Technology, Vol. 9 (3), 2015, pp. 35-46.
- 12. Wessapan, T., "Simulation of Heat Transfer in Human Body." Journal of Research Unit on Science, Technology and Environment for Learning, Vol. 1(2), 2010, pp. 118-121.
- 13. Seneewong, S., Wessapan, T., Chaktranond, C., and Rattanadecho, P., "A Study of Microwave Heating of Liquid Layer by Using a Rectangular Wave Guide (MODE TE10) Through Three dimensional Simulation." Journal of the Faculty Senate, the Academic Division, Vol. 7, 2009, pp. 210-219.
- 14. Wessapan, T., Thongsuwan, T., Namhomchan, T. Kongtawee, P., and Bannop, S., "Experimental Assessment of Double Propeller Wind Turbine." EAU Heritage, Vol. 1(2), 2006, pp. 76-80.

Proceedings

- Savatdipap, P., Wessapan, T., Yamfang, M., and Rattanadecho, P., 2024 "Radiofrequency-Induced Heating Effects on Tissue Connected to Orthopedic Screw Implants," *In Proc. Conf. The 37th Conference of The Mechanical Engineering Network of Thailand*, 16-19 July 2024, Pathum Thani, Thailand, pp. 1192-1200.
- Boonwan, C., Yamfang, M., Premjai, N., Salittanawat, P., Chanpeng, W., Pramot, P., Choicharoen, K., Wessapan, T., Hachanont, P., Chuwong, K., Premjai, N., Timpitak, S., Guptasa, M., and Pruengam, P., 2024, "Study the amount of electrical energy consumption of a 12,000 BTU inverter split-type air conditioner," *In Proc. Conf. The 37th Conference of The Mechanical Engineering Network of Thailand*, 16-19 July 2024, Pathum Thani, Thailand, pp. 1010-1018.
- Hachanont, P., Salittanawat, P., Prathumnopparat, P., Limpiteprakan, T., Thongwik, S., Yamfang, M., Guptasa, M., Pramot, P., Lakreang, S., Chuwong, K., Klajui, C., Choicharoen, K., Prasertpong, P., Timpitak, S., Premjai, N., Wessapan, T., Janthong, M., and Chanpeng, W., 2024, "Performance of motorcycles converted to electric motorcycles," *In Proc. Conf. The 37th Conference of The Mechanical Engineering Network of Thailand*, 16-19 July 2024, Pathum Thani, Thailand, pp. 238-243.
- 4. Wessapan, T., Premjai, N., Timpitak, S., Guptasa, M., and Rattanadecho, P., 2023, "Effect of large blood vessel on the efficacy of high-intensity ultrasound cancer therapy," *In Proc. Conf. The 37th Conference of The Mechanical Engineering Network of Thailand*, 25-28 July 2023, Songkhla, Thailand, pp. 437-448.
- 5. Premjai, N., Boonwan, C., Timpitak, S., Yamfang, M., Pramot, P., Choicharoen, K., Wessapan, T., Hachanon, P., and Guptasa, M., 2023, "Study of heat transfer in seedling soil with hot water from a solar water heating system," *In Proc. Conf. The 37st Conference of The Mechanical Engineering Network of Thailand*, 25-28 July 2023, Songkhla, Thailand, pp. 847-854.
- 6. Guptasa, M., Premjai, N., Timpitak, S., Yamfang, M., Pramot, P., Choicharoen, K., Wessapan, T., Salittanawat, P., and Boonwan, C., 2023, "The application of asymmetric compound parabolic concentrator with compound parabolic concentrator for solar radiation to produce hot water to increase the soil temperature for seedlings," *In Proc. Conf. The 37st Conference of The Mechanical Engineering Network of Thailand*, 25-28 July 2023, Songkhla, Thailand, pp. 890-896.

- 7. Huangsuwan, S., Wessapan, T. (2019). Functional Competency of Don Mueang International Airport Airside Operations Department Officer. *In Proc. Conf. Green ASIA and Sustainability Forum 2019*, Bangkok, Thailand, pp. 428-440.
- 8. Thaitrong, W., Wessapan, T. (2019). Development of Key Performance Indicator for Flight Operation Officers of Low-cost airline. *In Proc. Conf. Green ASIA and Sustainability Forum 2019*, Bangkok, Thailand, pp. 416-427.
- 9. Panyathanakhun, A., Wessapan, T. (2019). Factors affecting employee retention in general aviation: A case study of non-schedule air service. *In Proc. Conf. Green ASIA and Sustainability Forum 2019*, Bangkok, Thailand, pp. 441-449.
- 10. Wessapan, T., Rattanadecho, P., 2017, "Temperature Increase in Human Organs Due to Over-Exposure to Electromagnetic Radiations from Mobile Devices and Base Stations: A Comparison Study," *In Proc. Conf. The 31st Conference of The Mechanical Engineering Network of Thailand*, 4-7 July 2017, Nakhonnayok, Thailand, pp. 629-637.
- 11. Wessapan, T., 2017, "An Effect of Physical Properties on Temperature Increase of Material Induced by Exposure to Focused Ultrasonic Energy," *In Proc. Conf. Asian Conference on Engineering and Natural Sciences* 2017, 19-21 January 2017, Hokkaido, Japan. pp. 237-268.
- 12. Promjan, R., Wessapan, T., 2016, "A Study on the Impacts of Flight Operations at the Samui Airport on People's Way of Life," *In Proc. Conf. Green ASIA and Sustainability Forum 2016*, 18 June 2016, Bangkok, Thailand, pp. 512-524.
- 13. Bundit, P., Wessapan, T., 2016, "A Study of Guidelines for Development of Facilities and Services for Passengers at Samui International Airport," *In Proc. Conf. Green ASIA and Sustainability Forum 2016*, 18 June 2016, Bangkok, Thailand, pp. 454-468.
- Surarat, S., Wessapan, T., 2016, "Factors Contributing to Errors in Checking-in by Ground Service Agent: A case study of Bangkok Airways," *In Proc. Conf. Green ASIA and Sustainability Forum 2016*, 18 June 2016, Bangkok, Thailand, pp. 525-536.
- 15. Wessapan, T., 2016, "Effect of Electromagnetic Radiation Emitted by Portable Device on the Thermo-Physiological Responses of the Men Work in Sitting Position," *In Proc. Conf. Asian Conference on Engineering and Natural Sciences* 2016, 1-3 February 2016, Fukuoka, Japan, pp. 409-420.

- 16. Kawilawes, P., Wessapan, T., 2015, "A Competency Development Plan of the Royal Thai Air Force's Air Traffic Controllers," *In Proc. Conf. Green ASIA and Sustainability Forum 2015*, 20 June 2015, Bangkok, Thailand.
- 17. Wessapan, T., 2014, "Simulation of Heat Transfer in the Human Breast under Laser Ablation," *In Proc. Conf. Engineering and Applied Sciences 2014*, 17-19 December 2014, Tokyo, Japan.
- 18. Wessapan, T., 2013, "Heat Transfer Analysis of Human Skin during Subjected to Cold Therapy," *In Proc. Conf. Engineering and Applied Science 2013*, 6-8 November 2013, Osaka, Japan.
- 19. Wessapan, T., Borirak, T., 2012, "Design and Fabricate a Continuous Pork Roaster using Infrared Heating," *In Proc. Conf. Frontiers of Mechanical Engineering, Materials and Energy (ICFMEME 2012)*, 20-21 Dec. 2012, Beijing, China.
- 20. Wessapan, T., Borirak, T., 2011, "Experimental Study on Waste Heat Recovery from the Pyrolysis Stack using Heat Pipe," *In Proc. Conf. Communication Engineering and Networks (ICCEN 2011)*, 25-27 Nov. 2011, Hong Kong, pp. 382-386.
- 21. Wessapan, T., Borirak, T., 2010, "An Experimental Study on Banana Drying using a Combined Rejected Heat from Split-type Air Conditioner and Solar Energy," *In Proc. Conf. Mechanical and Aerospace Engineering (ICMAE 2010)*, 26-28 Nov. 2010, Kuala Lumpur, Malaysia, pp. 382-386.
- 22. Wessapan, T., Somsuk, N., Borirak, T., 2010, "Design and Development of a Compact Screw-Press Biomass Briquetting Machine for Productivity Improvement and Cost Reduction," *In Proc. Conf.* 1st *TSME International Conference on Mechanical Engineering (ICoME 2010)*, 20-22 Oct. 2010, Ubon Ratchathani, Thailand.
- 23. Wessapan, T., Somsuk, N., Borirak, T., Teekasap, S., 2010, "A Development of a Portable Air Conditioning-Heat Pump Unit using Helical Coil Heat Exchanger," *In Proc. Conf. Computer Engineering and Technology (ICCET 2010)*, 16-18 Apr. 2010, Chengdu, China, pp. 186-190.
- 24. Somsuk, N., Wessapan, T., Suttisong, S., Hussaro, K., Teekasap, S., 2009, "Development of a Heat Exchanger Used With Pyrolysis Oven in Wood Vinegar Production," *In Proc. Conf. Sixth International New Exploratory Technologies Conference (NEXT 2009)*, 12-14 Oct. 2009, Shanghai, China, pp. 258-262.

- 25. Srisawatdhisukul, S., Wessapan, T., Rattanadecho, P., 2009, "Numerical Simulation of Electric Field and Temperature Distribution in Human Body," *In Proc. Conf. The* 23rd Mechanical Engineering Network of Thailand, 4-7 Nov 2009, Chiangmai, Thailand.
- 26. Keangin P., Wessapan, T. and Rattanadecho, P., 2009, "Computer Simulation of Liver Cancer Cells Modeling Treated by Using Microwave Coaxial Antenna," *In Proc. Conf. The 23rd Mechanical Engineering Network of Thailand*, 4-7 Nov 2009, Chiangmai, Thailand.
- 27. Wessapan, T., Suttisong, S., Somsuk, N., Hussaro, K., Teekasap, S., 2008, "A Development of Pyrolysis Oven for Wood Vinegar Production," *In Proc. Conf. The Third GMSARN International Conference (GMSARN 2008)*, 12-14 Nov. 2008, Kunming, China.
- 28. Somsuk, N., Wessapan, T., Teekasap, S., 2008, "Conversion of conventional commercialized window type air conditioning unit into a portable air conditioning—heat pump unit," *In IEEE Proc. Conf. Sustainable Energy Technology (ICSET2008)*, 24–27 Nov. 2008, Singapore, pp.796–800.
- 29. Wessapan, T., Borirak, T., 2008, "Comparative Testing of Lawnmower's Engine Performance Using Benzene and Gasohol as Fuel," *In Proc. Conf. E-Net2008*, 14-16 May 2008, Nakhon Pathom, Thailand.