



SALMAN ALFARISI

Research Associate

National Institute for Environmental Studies, Japan
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GLANCE OF SALMAN

He possesses significant research expertise in the field of systems design and sustainability concepts, as well as proficient analytical skills. The primary area of interest in his study lies in the sustainability concepts, including examination of environmental impact assessment, material flow analysis and shifting strategy to sustainability, such as product-service systems and value co-creation. He is presently leading the advancement of a novel framework of LCA to be a robust methodology of sustainability assessment tools, by accommodating the customer pattern behavior. He has authored over 20 scientific articles of worldwide scope and has presented his research at numerous conferences spanning both national and international. As well, he serves as a reviewer in multiple reputable journals.

FORMAL EDUCATION

Ph.D, Department of Mechanical system Engineering, Faculty of System Design, Tokyo Metropolitan University, Japan

Thesis: Unraveling the Rebound Effect for Sustainable Product-Service Systems

Supervisor: Prof. Dr. Eng. Yoshiki Shimomura

**Master of Engineering, Department of Industrial Engineering 2013-2015
Institute Technology of Sepuluh Nopember, Indonesia**

Thesis: "Integration of Material Flow Analysis, Life Cycle Assessment, And Life Cycle Costing to Evaluate the Industria Process"

Supervisor: Prof. Dr. Ir. Udisubakti Ciptomulyono, M.Eng. Sc.

**Bachelor of Engineering, Department of Industrial Engineering 2009-2013
University of Muhammadiyah Malang, Indonesia**

Supervisor: Prof. Dr. Ir. Ahmad Mubin, ST., MT.

GRANT	YEAR
Royal Society (UK) Mapping Global Flow Emission of Chemical and Plastic Industry	2024
Tokyo Human Resources Fund (THRF) Ph.D study at Tokyo Metropolitan University	2021
Scholarship from Minister of Education and Culture Master course, Sepuluh Nopember Institute of Technology, Surabaya	2013

PUBLICATION

- Alfarisi, S.,** Shimomura, Y., Masudin, I. 2024. Advancing Product Service Systems - Life Cycle Assessment: Robust Method for Sustainability Assessment. Cleaner Production Letters. 10.1016/j.clpl.2024.100081
- Masudin, I., **Alfarisi, S.,** Suhartin, E. et al. Hotspot Identification for Improving Cane-Sugar Sustainable Supply Chain Through the Integration of Life Cycle Assessment and Value Stream Mapping. Process Integration and Optimization for Sustainability 10.1007/s41660-025-00486-y
- Primadasa, R., Tauhida, D., Christata, B.R., Rozaq, I.A., **Alfarisi, S.,** Masudin, I. 2024. An investigation of the interrelationship among circular supply chain management indicators in small and medium enterprises. Supply Chain Analytics. 10.1016/j.sca.2024.100068
- Wang, H. Mitake, Y., Tsutsui, Y., **Alfarisi, S.,** Shimomura, Y. 2024. An upgradable product-service system design method based on kaos and time-axis. Journal of Advanced Mechanical Design, Systems and Manufacturing. 10.1299/jamdsm.2024jamdsm002
- Alfarisi, S.,** Mitake, Y., Tsutsui, Y., Wang, H., Shimomura, Y. 2023. SD-LCA Based Empirical Evaluation of Nurture's Influence on The PSS-Rebound Effect. 第33回設計工学・システム部門講演会(D&S2023)
- Alfarisi, S.,** Mitake, Y., Tsutsui, Y., Wang, H., Shimomura, Y. 2023. Bibliometric Analysis of a Product-Service System's Rebound Effect: Identification of a Potential Mitigation Strategy. Systems. DOI: 10.3390/systems11090452
- Alfarisi, S.,** Mitake, Y., Tsutsui, Y., Wang, H., Shimomura, Y. 2023. A conceptional structure for challenging the rebound effect of the product-service system. Procedia CIRP. DOI: 10.1016/j.procir.2023.01.009
- Wang, H. Mitake, Y., Tsutsui, Y., **Alfarisi, S.,** Shimomura, Y. 2023. A Vulnerability Assessment Framework for Product-Service Systems Based on Variation Mode and Effect Analysis. Sustainability. DOI: 10.3390/su15065092

- Wang, H. Mitake, Y., Tsutsui, Y., **Alfarisi, S.**, Shimomura, Y. 2023 A requirement analysis method for the design of the upgradable product-service system. Sustainability. DOI: 10.1016/j.procir.2023.01.006
- Alfarisi, S.**, Mitake, Y., Tsutsui, Y., Wang, H., Shimomura, Y. 2023. Nurture: A Novel Approach to PSS-Rebound Effect Identification. Sustainability. DOI: 10.3390/su15097359
- Wang, H. Mitake, Y., Tsutsui, Y., **Alfarisi, S.**, Shimomura, Y. 2022. A Taxonomy of Product-Service System Perturbations through a Systematic Literature Review. Journal of Risk and Financial Management. DOI: 10.3390/jrfm15100443
- Wang, H. Mitake, Y., Tsutsui, Y., **Alfarisi, S.**, Shimomura, Y. 2023. An ontology for the vulnerability of Product-Service System. Procedia CIRP. DOI: 10.1016/j.procir.2022.04.055
- Alfarisi, S.**, Shalihah, M., Mitake, Y., Tsutsui, Y., Wang, H., Shimomura, Y. 2022. A Sustainable Approach towards Disposable Face Mask Production Amidst Pandemic Outbreaks. Sustainability. DOI: 10.3390/su14073849
- Alfarisi, S.**, Mitake, Y., Tsutsui, Y., Wang, H., Shimomura, Y. 2022. A study of rebound effect on the product-service system: Why should it be a top priority?. Procedia CIRP. DOI: 10.1016/j.procir.2022.05.246
- Yutaka, I. Mitake, Y., Tsuji, S., **Alfarisi, S.**, Wang, H., Shimomura, Y. 2022. Extracting the relationship between product-service system features and their implementation barriers based on a literature review. Procedia CIRP. DOI: 10.1016/j.procir.2022.05.236
- Alfarisi, S.**, Mitake, Y., Tsutsui, Y., Wang, H., Shimomura, Y. 2021. Systemic rebound effect of product-service system implementation: An analysis using causal loop diagram. JSPE Autumn meeting Proceeding.
- Masumura, R., Tsutsui, Y., Yokoi, K., **Alfarisi, S.**, Wang, H., Shimomura, Y. 2022. 設計に創造性をもたらす概念産生過程の数理的考察. JSPE Autumn meeting Proceeding.
- Yamamoto, H., Tsutsui, Y., Mitake, Y., **Alfarisi, S.**, Wang, H., Shimomura, Y. 2021. A service structure modelling method for solving receive-provide conflicts in service offerings. iDECON JSME Proceeding.
- Yokoi, K., Tsutsui, Y., Mitake, Y., Muraoka, N., **Alfarisi, S.**, Wang, H., Shimomura, Y. 2021. A prescriptive model of the cognitive design process that promotes highly creative engineering design. iDECON JSME Proceeding.
- Masumura, R., Tsutsui, Y., Yokoi, K., **Alfarisi, S.**, Wang, H., Shimomura, Y. 2021. Concept production process model in creative design. ICPE Proceeding.
- Kawano, T., Tsutsui, Y., **Alfarisi, S.**, Wang, H., Shimomura, Y. 2021. A typology of design hypotheses to improve design quality. ICPE Proceeding.

- Mitake, Y., Tsutsui, Y., **Alfarisi, S.**, Shalihah, M., Shimomura, Y. 2021. A life cycle cost analysis method accelerating IoT implementation in SMEs. *Procedia CIRP*
- Alfarisi, S.**, Sutopo, W. 2019. Enhancement quality of sand casting manufacturing product using Taguchi method. *AIP Proceeding*. DOI: 10.1063/5.0000497
- Alfarisi, S.**, Sutopo, W. 2019. Life cycle energy and environmental impact assessment of CRIMSON sand casting on intake manifold production process. *AIP Proceeding*. DOI: 10.1063/5.0000498
- Sokhibi, A., **Alfarisi, S.**, Alifiana, MA. 2019. Ergonomics Analysis Of Public Seat In The Kudus Town Square. *IOP Proceeding*. DOI: 10.1088/1742-6596/1430/1/012001
- Laila, W., **Alfarisi, S.** 2019. The Role Of Internal R&D Efforts Toward Company's Absorptive Capacity. *IOP Proceeding*. DOI: 10.1088/1742-6596/1430/1/012042
- Alfarisi, S.**, Sokhibi, A., Alifiana, MA.. 2019. Cost of Quality Optimization in Sand Casting Operations. *IOP Proceeding*. DOI: 10.1088/1742-6596/1430/1/012044
- Mardiana, DP., **Alfarisi, S.** 2019. Supporting Factors to Improve the Lack during Lean Manufacturing Implementation. *IOP Proceeding*. DOI: 10.1088/1742-6596/1430/1/012043
- Alfarisi, S.**, Sutopo, W. 2019. Life Cycle Energy and Environmental Impact Assessment of CRIMSON Sand Casting on Intake Manifold Production Process. *AIP Proceeding*
- Alfarisi, S.**, Sutopo, W. 2019. Enhancement Quality of Sand Casting Manufacturing Product Using Taguchi Method.
- Alfarisi, S.**, Sutopo, W. 2019. Simulation of Green Operation Supply Chain in Waste of Plastic. *IOP Proceeding*. DOI: 10.1088/1757-899x/495/1/012080
- Gunawan, B., **Alfarisi, S.**, Satrio, G., et al. 2019. Simulation of MOS Sensor to Detect Meat Classification. *TELKOMNIKA*. DOI: 10.12928/telkomnika.v17i2.11787
- Alfarisi, S.**, Primadasa, R. 2018. Carbon Footprint and Life Cycle Assessment of PET Bottle Manufacturing Process. *ICCSET Proceeding*. DOI: 10.4108/eai.24-10-2018.2280596.
- Primadasa, R., **Alfarisi, S.** 2018. Lean Supply Chain Manufacturing (LSCM) Framework for Palm Oil Industry in Indonesia. *ICCSET Proceeding*. DOI: 10.4108/eai.24-10-2018.2280624.
- Supriyadi, **Alfarisi, S.**, Karno, R., Cahyadi, D. Queue Design of Bank Teller Service in Banten, Indonesia. *IOP Proceeding*. DOI: 10.4108/eai.24-10-

2018.2280631

- Alfarisi, S.,** Azwirman, Sabli T. Edy. 2017. The Influences of Intangible Benefit Towards Market Share of Manufacturing Company. *Advanced Science Letter*. American Scientific Publishers, 23 (9). DOI: 10.1166/asl.2017.9913
- Alfarisi, S.,** Cuptomulyono, U. 2015. Analyze The Environment and Economic Impact of Vegetable Tanning agents Selection. *International Journal of Advanced Engineering Management and Science* Vol. 2 (11) 1854-1856.
- Alfarisi, S.,** Sutono, S.B., Sutopo, W. Evaluate The Use of Tanning Agent in Leather Industry Using Material Flow Analysis, Life Cycle Assessment, and Fuzzy Multi-Attribute Decision Making (FMADM). *Proceeding of Annual Conference in Industrial and System Engineering*. DOI: 10.1063/1.5010670

Serve as Reviewer	Period
Expert Systems With Application Elsevier, Netherlands	2022-now
Aquaculture International Springer Nature, Netherlands	2023-now
World Development Sustainability (Elsevier) Elsevier, Netherland	2021-now
Chinese Journal of Population, Resources and Environment Elsevier, Netherlands	2023-now
Supply Chain Analytics Elsevier, Netherlands	2023-now
Sustainable Futures Elsevier, Netherlands	2023-now
World Development Sustainability Elsevier, Netherlands	2023-now

LATEST TRAININGS	YEAR
The Flexsim 3D Modelling Flexsim Singapore	2020
OpenLCA Greendelta, Germany	2020

LATEST PRESENTATION IN INTERNATIONAL CONFERENCES	YEAR
32nd CIRP DESIGN Conference Sydney, Australia	2023
11th International Conference on Through-life Engineering Services (TESConf 2022) Cranfield, United Kingdom	2022
32nd CIRP DESIGN Conference Paris, France	2022
Scholarship from Minister of Education and Culture Master course, Sepuluh Nopember Institute of Technology, Surabaya	2013