

IWAN PRASETIYO



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Research Group
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EDUCATION

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|------------|--|-------------|
| PhD | University of Southampton, Institute of Sound and Vibration Research (ISVR), UK | (2008-2013) |
| MSc | Institut Teknologi Bandung, Engineering Physics (Teknik Fisika)
Instrumentation and control | (2004-2006) |
| BS | Institut Teknologi Bandung, Engineering Physics (Teknik Fisika) | (1998-2002) |

AWARDS

EPIC Best Presenter Award, Joint Conference of the 6th International Energi Conference
ASTECHNOVA and the 3rd Engineering Physics International Conference (EPIC) 2021

Asahi Glass Foundation, overseas research 2020

RESEARCH EXPERIENCE

I received various research grants from ITB, RISTEK/DIKTI (Indonesia government) and overseas foundation from 2013 to 2024 related with material acoustics, sound perception and noise control in general. The grant is nominally ranging from USD 4500 – USD 9900/ year/research.

TEACHING EXPERIENCE

Institut Teknologi Bandung, Indonesia
Associate Professor, Engineering Physics

2013-present

- Acoustics, room acoustics, wave phenomena, Noise control, Modelling and Simulation in Physics for undergraduate and graduate programs
- Developed quizzes, exams, and homework
- Revised the syllabus to meet accreditation standards
- Coordinated grading and labs with a team of 4 teaching assistants

PROFESSIONAL EXPERIENCE (SELECTED)

Consultant

- Noise mapping at Gajah Baru Platform and Anoa Platform Premier Oil Natuna Sea B.V (2022)
- Railway noise: Pengukuran Kekasaran Rel pada Lintasan Kereta MRT-Jakarta (2022)
- Noise survey at FPSO Premier Oil Natuna Sea B.V (2021)
- Environmental noise study, Jabiru Data Center Project (2021)
- Railway noise measurement, MRT Jakarta (2020)
- Noise study, Genting Oil Kasuri PTE. LTD.(2020)
- F00Z Acoustic Consultant PT Google Indonesia (2019)
- Predictive Noise and Vibration Study, Eni Mexico Area 1 Development Project (2019)
- Various projects of room sound insulation improvement, and room acoustic measurements (2013-2018)

Trainer

- Hearing conservation program, Harbour Energy (2023)
- Occupational Noise Exposure, Balai Keselamatan Kerja Bandung (2022)
- Engineering Noise Control, Program Development Course, The 6th ANOH Conference in conjunction with The 7th IIHA Connect, Bali (2022)
- Hearing conservation program and noise control, PT. Pertamina Hulu Mahakam (PHM) (2018)
- Sound Power Level measurement and analysis PT. Astra Honda Motor (2016)
- Product Sound Quality PT. Astra Honda Motor (2013)

I have also been invited as a speaker in noise control topics by various events conducted by government bodies and industries.

PUBLICATIONS

Books

Sudarsono, A.S, Prasetyo, I, Mandasari, M.I, Sarwojo, J, "Eksperimen Akutik untuk Praktisi" ISBN 978-623-297-182-0, ITB Press

Putra, A., Prasetyo, I., Selamat, Z., "Green Acoustic Absorber from Pineapple Leaf Fibers", Book Chapter in Green Energy and Technology (2020) Pages 143-165, ISSN: 18653529, DOI: 10.1007/978-981-15-1416-6_8, Publisher: Springer

Journal Publications

Rino A, Prasetyo I, Adhika DR, Sunendar B, Putra A. Development of porous composite ceramic with sugarcane fiber filler for sound absorber materials. *Building Acoustics*. 2024;31(1):3-13.

Prasetyo, I, Sihar, I., Sarwono, J., Sudarsono, A.S., "Natural ventilation system with thin microperforated panel (MPP) component for wideband sound insulation" *Applied Acoustics*, Volume 210, 2023

Gunawan, Prasetyo, I., Yulianto, B., Putra, A., Irianto, "Investigation on Minute Holes of Woven Fabrics for Wide-Band Micro-Perforated Sound Absorbers", *Building*, 13(663), 2023

Prasetyo, I., Sihar, I., Sudarsono, A.S., "Sound absorption characteristics of thin parallel microperforated panel (MPP) for random incidence field", *Applied Acoustics*, Volume 201, 2022

Prasetyo, I., Sihar, I., Brahmana, F., Gunawan,," Enhancing nonwoven fabric material sound absorption using embedded labyrinthine rigid structures", *Applied Acoustics*, Volume 195, 2022

Prasetyo, I., Anwar, K., Brahmana, F., Sakagami, K. "Development of stackable subwavelength sound absorber based on coiled-up system", *Applied Acoustics*, Volume 195, 2022

Prasetyo, I., Sihar, I., Sudarsono, A.S., "Realization of a thin and broadband Microperforated panel (MPP) sound absorber" *Applied Acoustics* Volume 183, 2021

Putra, A., Jamil, M. H., Prasetyo, I., Ismail, R., and Kassim, D. H., "Effect of Fabric Layer on Sound Absorption of Micro-Perforated Panel" *International Journal on Engineering Applications*, Vol. 8, No. 2, 2020, pp. 41-46,

Adhika, D.R., Prasetyo, I., Noeriman, A., Widayani, N.H., " Sound Absorption Characteristics of Pineapple Leaf/Epoxy Composite" *Archives of Acoustics* – Volume 45, Number 2, 2020.

Prasetyo, I.*, Muqowi, E., Putra, A., Novenbrianty, M., Desendra, G., Adhika, D.R., "Modelling sound absorption of tunable double layer woven fabrics" *Applied Acoustics* Volume 157, 1 January 2020

Prasetyo, I.*, Wongso, E.N., Sarwono, J., "Developing sub-wavelength sound absorber based on coiled up tube resonator", *Journal of Engineering and Technological Sciences*, Vol. 51, Issue 3, 2019, Pp. 323-336

Mosa, A.I., Putra, A.*, Ramlan, R., Prasetyo, I., Esraa, A.-A., "Theoretical model of absorption coefficient of an inhomogeneous MPP absorber with multi-cavity depths", *Applied Acoustics* Volume 146, March 2019, Pages 409-419

Putra, A.*, Or, K.H., Selamat, M.Z., Nor, M.J.M., Hassan, M.H., Prasetyo, I., "Sound absorption of extracted pineapple-leaf fibres", *Applied Acoustics* Volume 136, July 2018, Pages 9-15

Prasetyo, I.*, Desendra, G.a, Hermanto, M.N.a, Adhika, D.R., "On woven fabric sound absorption prediction", *Archives of Acoustics* Volume 43, Issue 4, 2018, Pages 707-715

Conference Papers (Selected)

Sihar, I., Prasetyo, I. Sudarsono, A.S, "The acoustic performance of natural ventilation with thin MPP absorbers", 24th ICA conference, Gyeongju, Korea (2022)

Prasetyo, I., Gunawan, and Adhika, D.R., "Sound absorption performance of nonwoven fabrics". *Journal of Physics: Conference Series*, 2021. 1896(1): p. 012008.

Gunawan, Prasetyo, I., Adhika, D.R., Brahmana, F., and Yuliarto, B., "Sound absorption behavior of woven fabrics as micro perforated panel absorber". *Journal of Physics: Conference Series*, 2021. 1896(1): p. 012003.

Hartati, T.N., Pangihutan, G.S., Prasetyo, I., Sugeng Joko Sarwono, R., Sabdono, A.S., Zakri, K.W., "Noise reduction of air conditioning electric railway cabin", 2nd Engineering Physics International Conference (EPIC) 2018, AIP Conference Proceedings Volume 2088

PROFESSIONAL TRAINING

- Workshop on Acoustics Technology for Industry and Professionals by AAVI Indonesia (2019)
- FESM consultancy skills seminars, ISVR UK (2009)

PROFESSIONAL AFFILIATIONS

The Institution of Engineers Indonesia, 2020-Present

- Active member

Indonesia Acoustic and Vibration Association, 2020-Present

- Active member

PROFESSIONAL SERVICE

Symposium Co-Organizer

Engineering Physics Conference (EPIC) 2016

Peer-Reviewed Articles for:

- Journal of Building Engineering
- Journal of Material and Design
- Applied Acoustics
- Journal of Engineering and Technological Sciences

LANGUAGES

Indonesia: Native language

English: Good command of both written and spoken