

SURYA DEWI PUSPITASARI

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PROFILE

PhD candidate in Civil and Environmental Engineering with a specialization in life-cycle management of civil infrastructure, winter maintenance strategies, and bridge management system. Experienced in data analysis using Python, R, and MATLAB, with hands-on knowledge of infrastructure inspection, winter maintenance operation, and sustainability assessment. International academic and project experience across Norway, Japan, Sweden, and Indonesia.

RESEARCH INTERESTS

Life-cycle management of civil infrastructures, sustainable construction materials, sustainability analysis, life-cycle assessment, winter maintenance strategies

EDUCATION BACKGROUND

Master of Engineering and Policy for Sustainable Environment

Hokkaido University /Sapporo, Japan

Thesis: "Optimization of Life-Cycle Management of Port Mooring Facilities"

Bachelor of Civil and Environmental Engineering

Universitas Gadjah Mada /Yogyakarta, Indonesia

Thesis: "Earthquake Safety Analysis on Bugis Traditional House"

RELEVANT SKILLS, TOOLS, AND EXPERIENCE

Courses: structural design for sustainable environment, life cycle structures, lifetime engineering for civil infrastructure, principles of sustainable development for engineers, risk assessment and management, applied statistics for PhD in civil and transport engineering, life cycle assessment and environmental systems analysis, and advances in environmental life cycle modelling.

Data analysis: Microsoft excel, python, MATLAB, and R.

Structural analysis and drawing: SAP2000 and AutoCAD 2D.

Graphic design and video editing: Canva, CapCut, and Adobe Premiere

Languages: English fluent, Norwegian beginner, Japanese beginner, Bahasa Indonesia and Javanese native.

Others: field works; research and data analysis; team works, communication and technical writing.

PUBLICATIONS AND CONFERENCES

Journal Publications

- 1) Fansuri, M. H., Chang, M., Saputra, P. D., Purwanti, N., Laksmi, A. A., Harahap, S., and **Puspitasari, S. D.**, "Effects of Various Factors on Behaviors of Piles and Foundation Soils due to Seismic Shaking," *Solid Earth Sciences*, vol. 7, 2022, pp. 252-267.
- 2) **Puspitasari, S. D.**, Siswosukarto, S., Harahap, S., and Astuti, P., "Behavior and Resistance Analysis of Bugis Traditional House to Seismic Load (in Indonesian)," *Jurnal Teknik Sipil*, vol.16, no. 4, 2022, pp. 280-288.
- 3) Astuti, P., Kurnianto, R., and **Puspitasari, S. D.**, "Utilization of Building Information Modeling (BIM) in Earthquake Loading Steel Structure Design (in Indonesian)," *Jurnal Teknik Sipil*, vol.17, no. 2, 2023, pp. 84-94.

Conference Papers/Proceedings

- 1) **Puspitasari, S. D.**, Miao, P., Laksmi, A. A., Fansuri, M. H., Praditasari, W. A. S., "Deterioration models for predicting RC Structures of Port Mooring Facilities Condition: A Review," in Tobing, S., and Indianto, M. A. (eds) *Proceedings of the 18th International Conference on Quality in Research. QiR 2023*. AIP Conference Proceedings, vol. 3215, 2024.
- 2) **Puspitasari, S. D.**, Elviranda, L., Yulistian, M. B., Ningtyas, R. A., Harahap, S., Handayani, O. T., and Astuti, P., "Application of Permeable Pavement in Urban Roads as an Alternative Flooding Reduction in Jakarta – A Review," in Muntohar, A. S., Astuti, P., Hairani, A., Yang, I-Tung, Yamamoto, D., Zin, N. S. M. (eds) *Proceedings of the 2nd International Symposium on Civil, Environmental, and Infrastructure Engineering. ISCEIE 2022*. AIP Conference Proceedings, vol. 2846, 2023, pp. 030001-1 – 030001-9.
- 3) **Puspitasari, S. D.**, Harahap, S., and Suyanto, I. R., "Bridge Inspection Implementations and maintenance planning – A Comparative Analysis of a Few Distinctive Countries," in: Kurniawan, Y. I., Fadli, A., Saputro, D. N., Hardini, P., Aditama, M. R., Sofiana, A., and Sibarani, A. A. (eds) *Proceedings of the 3rd International Conference on Engineering, Technology and Innovative Researches. ICETIR 2021*. AIP Conference Proceedings, vol. 2482, 2023, pp. 050007-1 – 050007-8, AIP Publishing, New York.
- 4) **Puspitasari, S. D.**, Harahap, S., and Astuti, P., "A Critical Review of Bridge Management System in Indonesia," in: Kristiawan, S. A., Gan, B. S., Shahin, M., Sharma, A. (eds) *Proceedings of the 5th International Conference on Rehabilitation and Maintenance in Civil Engineering. ICRMCE 2021*. Lecture Notes in Civil Engineering, vol. 225, 2023, pp. 381 – 390, Springer, Singapore.

- 5) Bannai, R., **Puspitasari, S. D.**, Yokota, H., Kato, E., Kawabata, Y., “Evaluation of Sustainability Indicators in Maintenance Management of Port Mooring Facilities,” in Chen, A., Ruan, X., and Frangopol, D. M. (eds) Proceedings of the 7th International Symposium on Life-Cycle Civil Engineering. IALCCE 2020. Life-Cycle Civil Engineering: Innovation, Theory, and Practice, vol. 1, 2020, pp. 465 – 470, Taylor & Francis Group, London.

(Unpublished)

- 1) Kawabata, Y., **Puspitasari, S. D.**, Kato, E., Tanaka, Y., Yokota, H., “Optimization of Maintenance Strategy of Port Mooring Facilities in terms of Cost, Benefit and Carbon Dioxide Emissions,” Proceedings of 75th Japan Society of Civil Engineers (JSCE) Annual Meeting 2020, V-73, Japan.
- 2) **Puspitasari, S. D.**, Kawabata, Y., Yokota, H., “Optimization of Life-Cycle Management on Port Mooring Facilities,” Proceedings of JSCE 21st International Summer Symposium 2019, CS2-13, Japan.