



PERSONAL DETAILS

- 1. NAME** : **Warmadewanthi**
- 2. HOME ADDRESS** : Jl. Wiguna Tengah XI/1 Surabaya - 60294, INDONESIA
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 warmaputu@gmail.com
- 3. PRESENT POSITION** : **Head of Centre of Research for Infrastructure and Sustainable Environment, ITS**
- 4. DATE OF BIRTH** : February, 12, 1975
- 5. NATIONALITY** : Indonesian
- 6. MARITAL STATUS** : Married
- 7. EXPERTISE AND INTEREST** : Solid waste management and technology
Wastewater treatment and separation process
Water Resources Management

ACADEMIC AND PROFESSIONALISM

- 1. ACADEMIC QUALIFICATIONS** :
- 2005 - 2009 Doctor of Philosophy (Chemical Engineering), National Taiwan University of Science and Technology (NTUST)
Focus: Study Recovery and Separation of Ammonium and Phosphate from Semiconductor Wastewater. **Promotor:** Prof. J.C.Liu
- 2001 - 2003 Master of Engineering (Environmental Engineering), Bandung Institute of Technology (ITB), Indonesia
Focus: Design and Evaluation of Landfill Mining and Reclamation **Promotor:** Prof. Dr. Ir. Endri Damanhuri
- 1993-1998 Environmental Engineer, Institut Teknologi Sepuluh Nopember (ITS)
Focus: Enhancing Composting Process by Addition of Oxygen **Promotor:** Ir. Sony Soenarsono, MS

2. SUMMARY OF WORK EXPERIENCE

- As an Associate Professor, she has a higher degree of experience in training and research activities; coupled with experience in the senior institutional level as the Secretary of Department of Environmental Engineering, Head of Department of Environmental Engineering, Vice Dean of Civil Engineering, and Planning Faculty of ITS from 2016-2017, and Dean of Faculty of Civil, Environmental and Geo-Engineering during 2017-2019, and from 2020-now the position as a Head of Research Centre for Infrastructure and Sustainable Environment, ITS.
- For research capability, she has many research collaborations for solid waste and wastewater treatment and management. She has participated in the **ORVA2D** research programme (Mathieu Durand), funded by **AFD research**, and participated in the closing ORVA2D international conference in Paris in 2017.

- For the collaboration with IRD, she has participated in the **international workshop on SWM organised by the JEAI “Recycurbs-Viet”** (Sylvie Fanchette) Hanoi in 2018
- In recent, she also has the collaboration with **UN-ESCAP**, the Institute of Global Environmental Strategies (**IGES**) Japan; **Leeds University** for Closing the Loop of Plastic Waste in South East Asia (Surabaya Chapter); collaboration for Networking of Solid Waste Recycling with **Herriot Watt University UK**; collaboration for e-learning module of the waste bank with Institute of Global Environmental Strategies (**IGES**) Japan; and with National Taiwan University of Science and Technology (**NTUST**) Taiwan for recycling of industrial waste and circular economy.

3. National and International Research for Solid Waste Management (3 years)

2022	1. Co-PI and Leader for Indonesia PI for Building a local sustainable supply chain network for recyclable materials for medium-sized cities in Southeast Asia (Indonesia). Funding by: Royal Society of Edinburgh (RSE) the UK with Herriot Watt University, UK.
	2. Researcher for Research Collaboration with Package Heroes Finland with the topic : Reduce-replace-recycle possibilities in Surabaya. Funding from Package Heroes
	3. PI for developing of e-learning module of the waste ban. Funding by IGES Japan.
	4. PI for Development of IT System to Enhance the Recycling of Solid Waste in Medium City (Case Study: Kediri City). Funding from Directorate Research and Community Services of ITS
2021	1. Local Partner for ESCAP and IGES Japan for Closing the Loop of Plastic Waste for Surabaya City. Funded by ESCAP
	2. Director of Science and Technology Innovative Centre for Circular Economy and Green Innovative Resources 2021-2024. Funded by the Ministry of Science and Technology of Taiwan with the National Taiwan University of Science and Technology.
	3. PI for Research on the effectiveness of waste bank to reduce, reuse, and recycling of valuable waste. Funded by from Directorate Research and Community Services of ITS
2020	1. Local Partner for ESCAP and IGES Japan for Closing the Loop of Plastic Waste for Surabaya City. Funded by ESCAP.
	2. PI for Research on The Material Flow Analysis of Valuable Waste in Waste Bank (Case Study: Surabaya and Denpasar) Funded by : Directorate Research and Community Services of ITS.
2019	1. Study Distribution and Impact of Macro and Micro Plastic on the Aquatic Biota in Brantas River. Funded by: Ministry of Education, Research and Technology of RI
	2. Recovery of Leachate by Struvite Precipitation. Funded by: Ministry of Education, Research and Technology of RI
2018	1. Recovery of Wastewater from Fertilizer Industry by Struvite Precipitation. Funded by: Ministry of Education, Research and Technology of RI
	2. Development of Prototype of Plug Flow Bioreactor for Water Hyacinth Treatment. Funded by: Ministry of Education, Research and Technology of RI
	3. Collaboration with IRD, in the international workshop on SWM organised by the JEAI “Recycurbs-Viet” (Sylvie Fanchette) Hanoi

4. PUBLICATIONS related to Solid Waste (2019-2022)

1. Wulandari, D., Warmadewanthi, I., Pandebesie, E. S., Cahyadi, M. N., Anityasari, M., Dwipayanti, N. M. U., Purnama, I. G. H., Addinsyah, A. 2020. Environmental impact of recycling plastic from waste banks in Surabaya, Indonesia. Proceeding 1st International Conference of Innovation on Science and Technology for Sustainable development (ICISTSD) 2020, 1, 1-8.
2. Warmadewanthi, I.D.A.A., Zulkarnain, M.A., Ikhlas, N., Kurniawan, S.B. and Abdullah, S.R.S., 2021. Struvite precipitation as pretreatment method of mature landfill leachate. Bioresource Technology Reports, 15, p.100792.
3. Warmadewanthi, I.D.A.A., Chrystiadini, G., Kurniawan, S.B. and Abdullah, S.R.S., 2021. Impact of degraded solid waste utilization as a daily cover for landfill on the formation of methane and leachate. Bioresource Technology Reports, 15, p.100797.
4. Susianti, B., Warmadewanthi, I.D.A.A. and Tangahu, B.V., 2022. Characterization and experimental evaluation of cow dung biochar+ dolomite for heavy metal immobilization in solid waste from silica sand purification. Bioresource Technology Reports, p.101102.
5. Susianti, B., Warmadewanthi, I. and Tangahu, B.V., 2022. Characterization of Post-Mining Soil and Solid Waste from Silica Sand Purification. Journal of Ecological Engineering, 23(8), pp.277-289.
6. Pandebesie, E.S., Warmadewanthi, I., Wilujeng, S.A. and Simamora, M.S., 2022. Changes of Nitrogen and Organic Compound During Co-Composting of Disposable Diaper and Vegetable Wastes on Aerobic Process. Journal of Ecological Engineering, 23(4).
7. Pandebesie, E. S., Indrihastuti, I., Wilujeng, S. A., Warmadewanthi, I. 2019. Factors influencing community participation in the management of household electronic waste in WDisest Surabaya, Indonesia. Environmental Science and Pollution Research, 26, 27930-27939.
8. Lestari, P., Trihadiningrum, Y. and Warmadewanthi, I.D.A.A., 2022. Simulated degradation of low-density polyethylene and polypropylene due to ultraviolet radiation and water velocity in the aquatic environment. Journal of Environmental Chemical Engineering, 10(3), p.107553.
9. Kesauliya, O. M. C., Warmadewanthi, I. 2020. The Effort to Increase Waste Reduction Through the Development of Waste Banks in South Surabaya. IOP Conference Series: Earth and Environmental Science, 506, 012008.
10. Addinsyah, A., Warmadewanthi, I. 2020. Material Flow Analysis of Plastic Waste and Paper Waste from Waste Banks in Surabaya. American Journal of Environmental Protection, 9, 97-101.
11. Lestari, P., Trihadiningrum, Y., Firdaus, M., Warmadewanthi, I. 2021. Microplastic pollution in Surabaya river water and aquatic biota, Indonesia. IOP conference series: materials science and engineering, 1143, 012054.
12. Warmadewanthi, I., Wulandari, D., Cahyadi, M. N., Pandebesie, E. S., Anityasari, M., Dwipayanti, N. M. U., Purnama, I. G. H., Nisaa, A. F. 2021. Socio-economic impacts of the COVID-19 pandemic on waste bank closed-loop system in Surabaya, Indonesia. Waste Management & Research, 39, 1039-1047.

5 WORKS EXPERIENCES for Solid Waste Management (3 years)

2022	1. Leader for Master Plan of Solid Waste Management for Gresik County. Funding: City Planning of Gresik Country East Java Province
	2. Technical Expert for Solid Waste Management in Surabaya City. Funding: Surabaya City Government
2021	1. Member expert for Environmental Engineering for Feasibility Study Application of

	<p>Incinerator for Solid Waste in East and South Jakarta Area. Funded by China Harbour Engineering Co.Ltd.</p> <p>2. Local Partner for ESCAP and IGES Japan for Closing the Loop of Plastic Waste for Surabaya City. Funded by ESCAP</p> <p>3. Technical expert for Solid Waste Management in Surabaya City for MUSREMBANG (City Planning). Funded by: Surabaya City Government</p> <p>4. Technical Expert for Waste to Energy of Surabaya City. (2015-2021). Funded by: Surabaya City Government</p>
2020	<p>1. Team Leader, for Master Plan of Refused Derived Fuel and Solid Waste Management for Tuban County. Funded by Local Government.</p> <p>2. Team Leader for Study of Strategic and Policy of Solid Waste Management in Sidoarjo County. Funded by Local Government</p> <p>3. Team Leader of Master Plan of Solid Waste Management for North of Gresik. Funded by Local Government</p>