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Education

- 2022.02–2024.02 **Masters of Mechanical Engineering,**
Korea Advanced Institute of Science and Technology.
Advisor: Prof. Jung-Chul Lee
- 2020.08–2020.09 **Summer School Programs,**
Asia University Taiwan.
- 2017.07–2021.07 **Bachelor of Biomedical Engineering,**
Bandung Institute of Technology.

Research Area

- MEMS/NEMS
- Fabrication and chemical functionalization of microchannel resonators for sensor applications
- Development of mechanical resonator optical measurement setups
- Microfluidics and microfabrication techniques

Publications

1. **Rafita Erli Adhawiyah**, Jungchul Lee. “Enhancing Sensitivity and Selectivity: Morphological Modification and Chemical Functionalization within Confined Structures” *International Journal of Precision Engineering and Manufacturing* 25, 878-895 (2024). DOI:10.1007/s12541-023-00935-z
2. Juhee Ko, Ben Fredj Nada, **Rafita Erli Adhawiyah**, Jungchul Lee. “Nozzle-based Precision Patterning with Micro/nano-fluidics Integrated Cantilevers” *Journal of Mechanical Science and Technology* 37, 26 (2023). DOI:10.1007/s12206-023-0130-5
3. Anshori Isa, Vincent Lukito, **Rafita Erli Adhawiyah**, Delpita Putri, Suksmandhira Harimurti, Tati Latifah Erawati Rajab, Arfat Pradana et al. “Versatile and Low-Cost Fabrication of Modular Lock-and-Key Microfluidics for Integrated Connector Mixer Using a Stereolithography 3D Printing” *Micromachines* 13, 8,(2022). DOI:10.3390/mi13081197
4. Yosephine M, **Rafita Erli Adhawiyah**, Kurniawan, Y. S., Anshori, I., Umitaibatin, R., Faturrahman, V., Langelo, R. E., Adiprawita, W., Usman, H. A., Husain, O. “Comparative Study of Convolutional Neural Network Architecture in Lym-

phoma Detection” *Proceedings of the 4th International Conference on Life Sciences and Biotechnology* (2022).

Patents

1. Fabrication Method of Submillimeter Fluid Platform Three-Dimensional (3D) Print Based” (2021, written in Bahasa Indonesia)

Conferences

- May. 2023 (Poster) **The 18th International Conference on Nano/Micro Engineering and Molecular Systems – 2023**, Jeju
Rafita Erli Adhawiyah, Juhee Ko, Jungchul Lee,
-Electroless Gold Deposition and 4-Mercaptopyridine Modification onto the Solid Cantilever for Mercury Ion Detection
- March. 2023 (Poster) **The 25th Korea Microelctromechnaical Systems Conference**, Jeju
Rafita Erli Adhawiyah, Jungchul Lee,
-Mercury Ion Detection using 4-Mercaptopyridine-functionalized Gold Film by Electroless Deposition Method
- May. 2021 (Oral) **International Symposium on Electronics and Smart Devices (ISESD) - IEEE**, Bandung
Rafita Erli Adhawiyah, Isa Ansori, Delpita Putri
-Low-cost 3D Printed Sub-mm Fluidic Platform for Flow Cell Application