

Dwinanri EGYNA

Energy Science and Engineering | Graduate Student

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 Yokohama, Japan  Indonesian

I am currently a doctoral student at Tokyo Institute of Technology majoring in Energy Science and Engineering. My research topic is related to the efficiency improvement of solar cell through semiconductor material engineering. I am very passionate about renewable energy and sustainable development both from engineering and policy point of view. My first love in engineering is semiconductor material and fabrication technology. My passion outside engineering is history and anthropology. I am also part of the Tokyo Tech Academy for Leadership graduate program in which the curriculum does not only focus on science but also interpersonal and innovation skills. Prior to graduate school, I worked in an engineering consultant company in Indonesia. During that time, I also did a research period at Tokyo Institute of Technology. I am confident in my communication skill, both oral and written, especially in relation to my work and passion. I am known to go above and beyond my responsibility to reach a mutual goal.

ACADEMIC EXPERIENCE

Now September 2020	Energy Science and Engineering Tokyo Institute of Technology, TOKYO, JP Electrical and Electronic Engineering Department <ul style="list-style-type: none">> Research Topic : Development of Wide Band Gap Cu(In,Ga)S₂ Solar Cell> Supervisor : Yamada Akira
August 2020 September 2018	Energy Science and Engineering Tokyo Institute of Technology, TOKYO, JP Electrical and Electronic Engineering Department (M.Eng) <ul style="list-style-type: none">> Research Topic : Study of n-type Layers Materials for Wide Bandgap Cu(In,Ga)S₂ Solar Cells (2 Publication)> Supervisor : Yamada Akira
March 2018 September 2017	Research Student Tokyo Institute of Technology, TOKYO, JP Electrical and Electronic Engineering Department <ul style="list-style-type: none">> Supervisor : Yamada Akira
February 2017 September 2012	Electrical Engineering Universitas Indonesia, DEPOK, ID Electrical Engineering Department (B.Eng) <ul style="list-style-type: none">> Research Topic : Optimization of Single-Graded Flat-Band Cu(In,Ga)Se₂ (CIGS) Solar Cell by d_{min} Variation Through SCAPS Simulation Software (2 Publications)> Supervisor : Nji Raden Poespawati
August 2016 September 2015	Research Student Tokyo Institute of Technology, TOKYO, JP Electrical and Electronic Engineering Department <ul style="list-style-type: none">> Supervisor : Yamada Akira

PUBLICATIONS

- 2019 The 29th International Photovoltaic Science and Engineering Conference (PVSEC29)
- 2019 The Japan Society of Applied Physics (JSAP) 80th Spring Meeting (*Conference Proceeding*)
- 2018 Pemodelan dan Simulasi Fenomena Transient : Penerapan ATP/EMTP dalam Evaluasi Gangguan dan Kerusakan Sistem/Peralatan (*Book*)
- 2017 International Conference on Telecommunication and Communicating Engineering 2017 (*Conference Proceeding*)
- 2017 Bachelor Thesis at Universitas Indonesia
- 2016 26th International Photovoltaic Science and Engineering Conference (PVSEC-26)
- 2016 The Japan Society of Applied Physics (JSAP) 77th Autumn Meeting (*Conference Proceeding*)
- 2016 The 13th 175 Symposium Meeting (*Conference Proceeding*)

PROFESSIONAL EXPERIENCE

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|------------------------------|---|
| August 2018
February 2017 | Electrical Engineer PT. Elemmelindo Multicipta Aria, JAKARTA, ID <ul style="list-style-type: none">> Power grid disturbances analysis using ATP/EMTP> Power system studies including load flow and short circuit analysis using ETAP> Protection system study and load-shedding scheme using ETAP> Engineering software training (ATP/EMTP) in protection system application> Transient phenomenon modeling and analysis using ATP/EMTP> Project management (project cost, scheduling)> Project planning (timeline, S-curve, budgeting) using Ms. Project> Project administration (proposal, technical reports, meetings) |
| September 2015
July 2015 | Technical Staff Wakatombi-Jambi PV Power Plant Project, JAKARTA, ID <ul style="list-style-type: none">> Raw data organisation> Inter-division data coordination> Data analysis> Technical report drafting |
| July 2015
June 2015 | R&D Intern PT LG Electronics Indonesia, CIKARANG, ID <ul style="list-style-type: none">> Device electromagnetic compatibility> Quality check and quality assurance> Production process |

TECHNICAL SKILLS

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| Software | ETAP, SCAPS, PC1D, ISIS Protheus, Simulink, MATLAB |
| Fabrication | Molecular-beam Epitaxy (MBE), Chemical Bath Deposition (CBD), Metal-oxide Chemical Vapour Deposition (MOCVD), Evaporation, Rapid Thermal Processing |
| Characterisation | Scanning Electron Microscope (EDS), Atomic Force Microscope (AFM), Scanning Electron Microscope (SEM), Energy-dispersive X-ray spectroscopy (EDS), X-ray diffraction (XRD) |
| Supporting | Data compilation, data analysis, technical writing, design thinking, presentation design, public speaking |

LANGUAGE SKILL

Indonesian	● ● ● ● ●
English	● ● ● ● ○
Japanese	● ○ ○ ○ ○

STRENGTH

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| <ul style="list-style-type: none">> Fast-learner> High-curiosity> Problem-solver | <ul style="list-style-type: none">> Cooperative> Broad-minded> Systematic |
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ASSISTANTSHIP AND COMMITTEE

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|-------------|--|
| 2020 | Teaching Assistant for Online Education Development Office at Tokyo Institute of Technology |
| 2018-2020 | Research Assistant for Yamada Laboratory at Tokyo Institute of Technology |
| 2019 | Teaching Assistant for the Energy Science and Engineering Program at Tokyo Institute of Technology |
| 2018 | Teaching Assistant for the Global Scientists and Engineers Course at Tokyo Institute of Technology |
| 2017 - 2018 | Board Member of the Indonesian Students Union at Tokyo Institute of Technology |
| 2014 - 2016 | Laboratory Assistant for the Electronics Laboratory at Universitas Indonesia |
| 2013 - 2015 | Board Member of the Electrical Engineering Student Council at Universitas Indonesia |

HONORS AND AWARDS

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| 2020 | Tokyo Tech Tsubame Scholarship (Doctoral Student at Tokyo Institute of Technology) |
| 2017 | Japan International Cooperation Agency (Research Student at Tokyo Institute of Technology) |
| 2015 | Japan Student Service Organisation (Research Student at Tokyo Institute of Technology) |