

NGERNG, Joshua Yong Chang

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I am a fresh graduate from Xiamen University Malaysia with a Bachelor's degree in New Energy Science and Engineering. Having a passion for exploring new possibilities for the future energy production through material science, I aspire to leverage my knowledge and skills to achieve your company goals. I am a diligent worker in accomplishing given tasks and an active team player. My interest towards a circular economy model drives me in contributing towards a more efficient and sustainable future.

Work Experience

JingAo Solar Co. Ltd. , Sept 2020 – Jan 2021

Penang, Malaysia

Intern in Production Department

- Monitoring and routine quality assurance of silicon wafers to ensure smooth solar cell production (Texturing, Diffusion, Laser and Etching processes)
- Detect and resolve abnormalities during production with supervisor and colleague.
- Conduct IVOC test to identify the electrical properties of silicon wafers after diffusion process
- Conduct electroluminescence (EL) and photoluminescence (PL) imaging to determine defects in final product
- Conduct Zeta test to ensure even and right slope gradient on pyramidal structure on surface of silicon wafers after texturing process.
- Programming in VBA to facilitate data organization for quality assurance of silicon wafers and automate IVOC test reports.

Relevant Skills

- Material Science
 - Versed with the semiconductor physic principles behind solar cells and LEDs
 - Familiar on production processes to achieve the desired electrical properties in a solar cell
- Electrical circuits
 - Proficient in the theoretical calculation of voltage and current in DC and AC circuits
 - Keen execution of soldering techniques for wires and circuit boards
- Excel (VBA)
 - Construct excel with macros to keep track of quality production output
 - Automate table and graphs for reporting of complicated large data
- AutoCAD
 - Construct 3D model and supplement engineering drawing of 3D model with its related components
- Program C
 - Design functional codes to create simple applications such as calculator and calendar
- Microsoft Office
 - Proficient in Microsoft Word, PowerPoint and Excel for documentation and reporting

Education

42KL Piscine programme, September 2022

Kuala Lumpur, Malaysia

- Rigorous training in C (basic string operations, memory allocation, file manipulation)
- Worked with others to complete various projects.

Xiamen University Malaysia (XMUM), April 2022

Sepang, Malaysia

Bachelor degree in New Energy Science and Engineering

- Written dissertation on “Vertical farm, a potential asset to ensuring food security in Malaysia”
- Team member of logistic department for Xiamen Malaysia Christian Fellowship, 2019 – 2020
- Social media team in media management for Xiamen Malaysia Community Service Project

UCSI College, November 2017

Kuala Lumpur, Malaysia

A levels - 1A in Physics 3A in Economics, Mathematics and Further Mathematics*

Language Proficiency

Professional, English (Proficient in speaking and writing)

Native, Chinese (Proficient in speaking and writing (Mother language))

Conversational (Able to communicate verbally and simple writing)

Reference

Dr Tan Swee Tiam

Associate Professor, Department of New Energy Science & Engineering,
Assistant Dean (Research and Industrial Collaboration), School of Energy and Chemical Engineering,
Director, Kelip-kelip! Center of Excellence for Light Enabling Technologies
Faculty of Engineering, Xiamen University Malaysia.

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Dr. Chong Su Sin (张素馨)

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