

RAFI AKBAR FIRDAUS, S.T.

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EDUCATION

RESUME WORDED UNIVERSITY

Sumatera Institute of Technology

Bachelor of Engineering

South Lampung
Aug 2019 - Jan 2024

Major in Materials engineering

Cumulative GPA: 3.42/4.00 GPA

Final Research: Recycling of Lithium Iron Phosphate Battery Waste Using Hydrometallurgical Process with Methanesulfonic Acid

Related Coursework : Mineral Processing, Material Defects and Failures, Corrosion Control Technique, Welding Technique, Material Selection and Planning, Extraction Metallurgy.

WORK EXPERIENCE

RESUME WORDED

Badan Riset Dan Inovasi Nasional (BRIN)

Tanjung Bintang, South Lampung
Mar 2023 – Jan 2024

Research Student

- Extraction of Lithium, Aluminum, Phosphate, and Iron from used Lithium Iron phosphate (LFP) batteries using a methanesulfonic acid solution.
- Studying the effect of methanesulfonic acid concentration and ethanol on recovery results Lithium and Iron .
- Studying the effect of time on the yield of lithium and iron using methanesulfonic acid and ethanol.
- Developing new effective and environmentally friendly methods for separating LFP cathodes, one of which involves using sodium hydroxide.
- Hydrometallurgy, Mineral Processing, Material Characterization, Laboratory Techniques.

PT. Semen Padang

Indarung Padang, West Sumatera
Jun 2022 – Aug 2022

Maintenance - Internship

- Maximized quality control inspections using Non-Destructive Testing (NDT) methods to identify and rectify potential failures.
- Studying GMAW/MIG and GTAW/TIG welding of plate fabrication.
- Evaluating the repair of roller tyre welding hardening at Indarung 5 Plant.
- Assessing daily, weekly, and monthly operational plans.

Institute of Technology Sumatera

South Lampung
Aug 2022- Nov 2022

Assistant Laboratory Material Engineer – Cold Rolling

- Prepared and sized metal sheets/strips for cold rolling experiments.
- Conducted measurements and inspections of rolled products for dimensional accuracy and surface quality.
- Performed mechanical tests on cold-rolled specimens for strength assessment.
- Prepared samples for metallographic analysis through cutting, grinding, and polishing.

Angkringan S.T

South Lampung
Aug 2021 - Jan 2022

Owner Restaurant

- Planning, organizing, and managing daily activities at the street food stall to ensure smooth operations.
- Selecting and managing suppliers to obtain high-quality raw materials, including coffee, food, and other beverages..
- Ensuring that the street food stall complies with all health and safety regulations, as well as local business regulations.

ORGANIZATIONS & EVENT EXPERIENCE

Himpunan Mahasiswa Teknik Material (HMMT)

Des 2020 - Mar 2023

Head Division of Extra Campus

- Leader for 4 Members
- Reviewing and Approving Planned Work Programs
- Responsible for and Providing Knowledge to Members About Work Plans

- Monitoring All Activities, Monthly Work Orders, and Budget Availability

Work Programs

- Material Engineering Webinar Series
- Inter-campus “Temu Ramah” within the Indonesian Material Engineering Association
- Rapid Response Disaster Aid Movement

UKM Lancang Kuning Riau

Des 2020 - Jun 2021

Head Division of Membership

Responsible for leading and supervising team members in overseeing both new and existing members, including report generation. Organizing and conducting new member orientation events as a form of introduction. Developing plans and strategies for recruiting new potential members. Coordinating with other divisions to support and ensure the integrity of well-planned event

ITERA Entrepreneur Training (IENTERA)

Aug 2021 - Des 2021

Sponsorship Division Staff

This division involves a series of tasks focused on seeking, maintaining, and optimizing partnerships with sponsors.

- Preparing compelling and relevant sponsorship proposals.
- Drafting partnership contracts and ensuring the fulfillment of rights and obligations for both parties.
- Providing quality customer service to sponsors.

ADDITIONAL

- **Technical Skills:** SolidWorks, Autocad, OriginLab, Highscore
- **Ms. Office:** Advanced on Ms. Word, Ms. Excel, and Ms. Power Point
- **Soft Skills:** Leadership, Discipline, Team Work and Communication