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Obispo del acueducto

Montserrat Torres-Sierra

Materials engineering, senior student

Education: Bachelor's degree in materials engineering , Instituto tecnológico de Morelia
GPA 3.6

Professional Experience

Thesis type degree project
Expected: February 2023

Instituto tecnológico de Morelia (ITM).

Development of a research work for on the characterization of the weld bead in copper sheets, using the TIG process:

- Characterization of copper from blast furnace plates.
- Fundamentals and practice in TIG welding process for non-ferrous materials.

Summer Intern
June 2023 - August 2023

Ternium Mexico Monterrey, Plant Juventud.

Development of a project aimed at the creation of a problem solver based on the Troubleshooting methodology for continuous galvanizing line welders.

Laboratory assistant
December 2022 - June 2023

Fusion and steelmaking laboratory, ITM.

Raw material and alloy charge calculations for the steelmaking process. Repair of EAF refractories and fabrication of pot lining for the steel. Coordination between the chemical analysis laboratory and the fusion and steelmaking laboratory.

Summer Intern
June 2022 - August 2022

Academic stay of the XXVII Summer of Scientific and Technological Research in the Pacific.

Manufacture of the pouring basin for the experimental ingots cast in the steelmaking laboratory. Basics and practice in cutting and welding processes (Cutting: Oxy-fuel, air-arc and plasma, welding: GMAW and GTAW).

Project Development

2023 TASM's Geodesic Dome Design Competition

Design of dome to scale with solidWorks, selection of material based on the specified characteristics for compatibility with the use of CES EduPack software, use of 3D printing, construction of silicone molds, use of fiberglass in the form of ROVING, project presentation and report..

2024 TMS Bladesmithing Competition

Design of Katana type saber with solidWorks, use of forging techniques to cut and shape the blade, implementation of heat treatments to modify the microstructure of the metal. Presentation of the result and elaboration of a technical report.

Extracurricular activities and volunteering

International Delegate.
September 2023

ACerS PCSA.

- Inspire the student community to take an interest in the world of ceramics.
- Member of recruitment and retention committee.

Board member, secretary.
January 2023-January 2024

WIE (Women in Engineering) Affinity Chapter

Encourage and support women and girls to pursue careers in engineering, mathematics, physics, science and related fields.

Active member.
January 2023

Welding student Chapter M3.

Development of courses and activities focused on cutting and welding processes.

Active member.
August 2020

AIST (Association for Iron and Steel Technology) Chapter.

Development of courses and activities focused on the steel industry.

Scholarships and awards

- Steel Intern Scholarship 2023.
- second place, acting as team leader in The Real Steel Marketing Video Contest. 2023.
- Participation in the in The steel challenge-17 for Students 2022, with certification in the use of an electric arc furnace simulator.
- Scholarship for participation as an attendee at CONAC 2021. Scholarship for participation as an attendee at Expo Acero 2022.

Soft skills

- Discipline.
- Effective communication.
- Team player.
- Leadership.
- Resilience.
- Time management.
- Project management.
- Perseverance.

Hard skills

- Intermediate SolidWorks .
- Intermediate Excel.
- Intermediate English.
- Intermediate CES EduPack.
- Office tools.

For more information
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access my LinkedIn profile

