

Master Thesis

Development of a Data Management System for E-waste Streams in Ghana

Background

The „Deutsche Gesellschaft für Internationale Zusammenarbeit“ (GIZ) has been collaborating with the German Caritas Association on projects that focus on enabling sustainable e-waste management in Ghana for several years. One of their current e-waste campaigns aims at collecting obsolete electrical and electronic devices at decentralized collection points located in the Greater Accra region and Tamale.

Research Challenge

Currently, the Caritas headquarter coordinating the campaign neither has a structured overview about the amount of e-waste collected at the collection points nor about the technical specificities of the handed-in devices. Keeping the records would improve safety and plays a central role for selecting (future) collection sites.

Additionally, tracking the e-waste flows after their point of collection would contribute to proper monitoring and enhance environmentally safe treatment.

Thus, the research challenge is to develop and implement a data management system for e-waste streams occurring within the GIZ/Caritas e-waste collection campaign.

Your Tasks

- Interviewing the persons in charge at GIZ and Caritas to identify their specific needs and potential starting points
- Processing the data sets provided by the project partners
- Develop and implement a data management and tracking system

Requirements

- You have a background in computer science or industrial/environmental/ecological engineering
- You have experience in managing large data sets
- You bring excellent analytical skills and enjoy working on complex issues
- You are used to organizing yourself and working in a solution-oriented manner
- You enjoy working in a multi-cultural team
- You are business fluent in German and have a very good command of English

Please send your application, covering a short motivation letter, your CV and a transcript of records, to vanessa.heinrich@tum.de until **04.11.2022** the latest.

In case of any further questions, please use the contact information provided below.

Contact

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