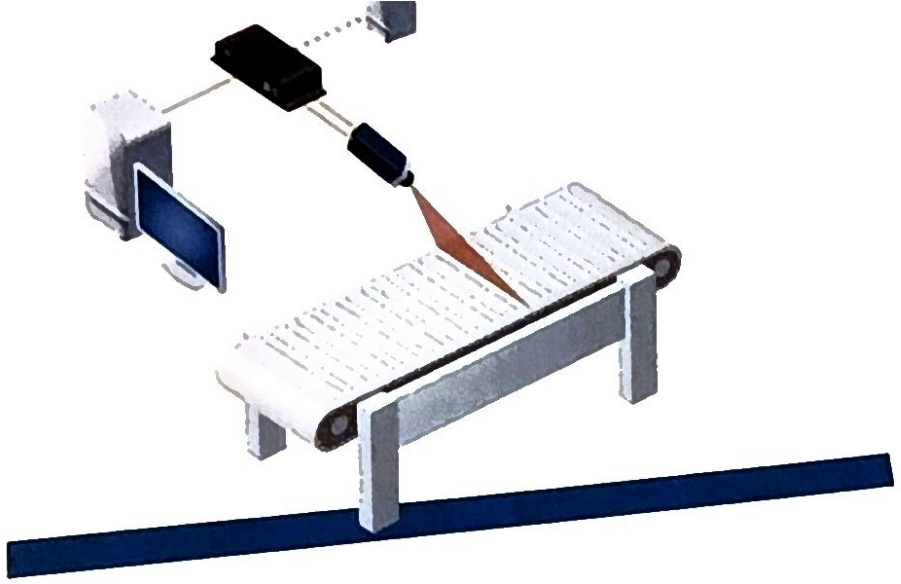

Technische Hochschule Ingolstadt

Tensorflow | PyTorch

Project Work (Training)

„Development of a CNN-Based Quality Control Model for Metal Casting“

Work Area:

In this project, a Convolutional Neural Network (CNN)-based artificial intelligence model will be developed to improve the quality control process in metal casting. The model will be trained using a specific metal casting dataset from Company and tested on the same dataset to optimize its performance for factory use. The project will focus on data preparation, designing and training the model without requiring any implementation for real-world deployment.

Tasks:

- *Preprocessing and analysis of the provided metal casting dataset.*
- *Development of a CNN-based model for defect detection and quality assessment.*
- *Training and optimization of the model using deep learning techniques..*
- *Evaluation of model performance based on accuracy, precision, and recall metrics*

Time Period: 2-3 Week
Location: Technische Hochschule Ingolstadt
Workplace: Ai-Motion Institute (K-Building)
Supervision: M.Sc. Emre Tsaliskan

Contact: emre.tsaliskan@thi.de