Machine Learning Approaches in Plasma State Recognition
An Overview of the STARE project - Feda Almuhisen

Motivations:

Develop an AI-based tool for identifying different plasma states in real time from visible camera videos in Tokamak.

Results:

Build a tool for data annotation based on K-means clustering.

This approach has grouped images from camera videos into distinct clusters, each corresponding to a unique plasma state, validated based on magnetic configuration diagnostic.

Challenges:

The need for expert evaluation for validating clustering results and enhancing accuracy.