



Abschlussvortrag Masterarbeit Athira Mavoomkuttathil Sivachandran

„Different Stages of Maturity Detection of Oyster Mushrooms from Images Using Machine Learning“

Gourmet mushrooms are seen in the wild and cultivated indoors in a controlled environment, and their maturity identification is labour-intensive. Oyster mushrooms are one of them. Manually looking at the mushrooms for maturity detection is impossible throughout the year in central Europe. Oyster mushrooms are grown inside the grow chambers in a controlled environment with attached cameras. Images collected from the growth chamber are used to detect the oyster mushrooms' maturity. By conducting a literature review, machine learning methodology is adapted to find the solution to this problem. YOLO version 8 is adapted for detecting the maturity of the mushrooms. The images of oyster mushrooms were not available. Hence they were created by annotating them using a web-based annotation tool. The oyster mushroom images were categorized into three classes not matured, matured and overdue. These images are trained and tested on a laboratory platform and also Raspberry Pi to incorporate IoT.

Betreuer der Arbeit: Prof. Dr. Benjamin Leiding, Prof. Dr. Jörg P. Müller (Institut für Informatik)

Datum: Donnerstag, 31. August 2023, 11:00 Uhr

Ort: Online-Meeting über BBB

Link: <https://webconf.tu-clausthal.de/rooms/lam-jf1-xrv-9qg/join>