2. 英文部份

(KEY WORDS)：Automated Optical Inspection; Segmentation; Time Sequential Deep learning; AI anomaly detection

At present, abnormal fabric on knitting machine and the detection of defects in woven fabric is based on visual inspection. There will be some defects on knitted fabric while producing progress. We plan to propose a defect detection method by AOI technique with images collected on spot. Once our model detect defect, it will stop the machine and request fixing. We plan to build our detection model based on segmentation and time sequential with only good product dataset. We will verify that our model works to detect defects on knitted fabric. In the woven defect, in order to reduce the burden of second rejudgment, we plan to use machine learning model to classify defective and non-defective images. Training AI defect identification model by multi-class classification can make the inspector quickly confirm the defect types and reduce the time spent by the inspector.