

“DEEP LEARNING ANOMALY DETECTION FOR IOT DEVICE WITH APPLICATION IN SMART LOGISTIC.”

ABSTRACT

Logistics is the overall process of managing how resources are acquired, stored, and transported to their final destination. IoT devices connected with cyber-physical infrastructure systems grow at increasing rate. This constitute significant device management and security challenges to current IoT networks. These challenges, and data-based methods rooted in deep learning. The integrated DL based anomaly detection as a service into the 3GPP mobile cellular IoT devices. This motivated by the upcoming surge of 5G IoT connectivity in industrial environments.

The architecture is based on anomaly detection modules both at IoT devices and mobile core network. To integrate, demonstrate and evaluate a test bed that implements the above service in the real-world deployment integrated within the 3GPP narrow band IoT mobile operator network.

The real-world deployment and evaluation of a novel anomaly detection architecture for IoT networks tailored for the Smart Logistics use case. The demonstrate and quantify major system-design trade-offs between responsiveness and accuracy with respect to the position within the Cellular IoT network where anomaly detection is per formed. Through real-world deployment study, emphasize that auto encoders represent a suitable choice for ML anomaly detection at the edge.

VARUNKUMAR M 1GV18CS076