# AI-Driven Security Policy Framework for IoT Systems

**Tanu Srivastava**
IBM India Private Limited, India

## Abstract:

The growing number of Internet of Things (IoT) devices has enabled an extensive and varied network of interconnected devices, generating more vulnerability on cybersecurity and privacy. Traditional, rigid security policies no longer suffice for environments that shift and change quickly and unpredictably. The current work presents an artificial intelligence driven security policy framework, using machine-learning-based approaches to detect abnormalities, predict threats, and deploy adaptive security controls autonomously. The framework promotes continual monitoring, intelligent threat processing and decreased manual intervention aligned with regulations. The proposed model, by combining AI with policy governance, promotes trust, stability, and scalability for IoT domains, such as smart cities as well as healthcare and industrial settings.

## Keywords:

Artificial Intelligence, Anomaly detection, Deep Learning, Internet of Things, Machine Learning, Network, Intrusion Detection System.