CYBER SECURITY COOPERATIVE RESEARCH CENTRE

SCReeD Dataset Declaration Form

Dataset name:* ECU-IoHT

Dataset version:* 1.0

Dataset URL:* https://github.com/CSCRC-SCREED/ECU-IoHT

Creation date:* 28/7/2020

Last update:* 31/1/2021

Author(s):* Mohiuddin Ahmed, Surender Byreddy, Anush Nutakki, Leslie Sikos & Paul Haskell-Dowland

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Keywords:* Cyberattacks, Healthcare, Testbed, Intrusion detection, Dataset

Description/background:* Cyberattacks on the Internet of Health Things (IoHT) are increasingly prevalent, emphasizing the need for effective countermeasures. The development of the ECU-IoHT dataset addresses the critical shortage of publicly available data on IoHT cyberattacks, which is often due to privacy concerns. This dataset, created within an IoHT environment, simulates various attacks to expose multiple vulnerabilities. It serves as a resource for the healthcare security community to analyze attack behaviors and develop more robust countermeasures. Unique in its domain, the ECU-IoHT dataset enables the evaluation of different anomaly detection algorithms, revealing that nearest neighbor-based methods surpass clustering, statistical, and kernel-based approaches in identifying cyberattacks.

Dataset funding: N/A

Attribute details:* No. | Time | Source | Destination | Protocol | Length | Info | Type | Type of attack

Intended target (if specified): N/A

Format:* Microsoft Excel spreadsheet

License:* Open Access

Standard compliance: N/A

Type:* XLSX

Size:* 5.2 MB

Availability: Public

Data status: Available

Data provenance:* Purpose and Usage

Source computing infrastructure:* Testbed

Accompanying program(s)/script(s): N/A

Software installer or VM for replication: N/A

Generated or captured via:* Software

Category/categories:* Packet capture

Published in: Science Direct Ad Hoc Networks

Open research question(s) (if any): N/A

Potential use case(s) or application area(s): Health

Data access control:* Global access

Data retention period:* N/A

Data validation/checksum:* e9c962fefd4df45fc43bcb43c802c675

GDPR compliance:* Yes

Consent: Yes

Ethics approval: N/A

Ethics considerations: N/A

☒ I confirm that I have read, understood, and agreed to the submission guidelines, policies, and submission declaration.

☒ I confirm that the contributors of the dataset have no conflict of interest to declare.

☒ I agree to take public responsibility for my dataset's contents.

Signature on behalf of Corresponding Author Date: 15/3/2024

(signed on behalf of all contributors)