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**Software Security:** An Effective Security Requirements Engineering Framework for Cyber-Physical Systems.

**SUMMARY**

Problem Statement

Today, Cyber-Physical Systems (CPSs) are gaining priority over other systems. The heterogeneity of these systems increases the importance of security. Currently existing security requirements frameworks do not fulfil the needs of CPS security requirements. Several models for secure software engineering processes have been proposed, but they are limited to software. Therefore, to support the processes of security requirements, we need a security requirements framework for CPSs.

Proposed Solution

The most significant contribution of this paper is to propose a security requirements engineering framework for CPSs that overcomes the issue of security requirements elicitation for heterogeneous CPS components. We have proposed, applied, and assessed an incremental

security requirements evolution approach, which configures the heterogeneous nature of components and their threats in order to generate a secure system.

Results

The proposed framework supports the elicitation of security requirements while considering sensor, receiver protocol, network channel issues, along with software aspects.

**CRITIQUE**

Overall, my opinion about the paper is positive. The authors have put forth and clearly explained their proposed security requirements engineering framework for CPSs.

An aspect I liked about the proposal is the in-depth explanation of how to apply this framework by means of a workflow of ideas that need to be followed. I also noted how a comparative study of the authors’ proposed security requirements engineering framework and other existing software security frameworks showed that none of the software security frameworks could implement all the essential activities for the development of secure CPS.

**SYNTHESIS**

In my opinion, the next step the authors can take is to find and develop frameworks for more and more CPS, including CCTV surveillance systems, identification software and so on.

**BIBLIOGRAPHY**

Shafiq ur Rehman and Volker Gruhn