

Title:

Attacks to Discrete-event Systems

Presenter:

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Abstract:

We consider a supervisory control problem for discrete-event systems, in which an attacker corrupts the symbols that are observed by the supervisor. We show that existence of a supervisor enforcing a specification language, in the presence of attacks, is completely characterized by controllability (in the usual sense) and observability (in a new appropriately defined sense) of the specification. The new notion of observability takes into account the attacker's ability to alter the symbols received by the attacker.