CALL FOR PAPER

OPEN INVITED TRACK

ON

Recent Methodologies for Reliability Design and Resilient Control of Intelligent

Mechatronic Systems

(Submission Code **6mwsh**)

Deadline: October 31, 2019 https://www.ifac2020.org/

Description

The main focus of this Open Invited Track (OIT) will be on the new techniques in reliability modeling, reliability analysis, reliability design, fault and failure detection, signal processing, and resilient control of Intelligent Mechatronic Systems (IMS).

Potential topics, but are NOT limited to,

- Reliability modeling and identification
- Robust control and filtering issues in IMS
- Intelligent decisions throughout lifecycle
- Failure analysis and prediction methods
- Fault diagnosis and fault tolerant control
- Health monitoring of IMS
- Risk analysis and management
- Architectural framework of reliability design
- Intelligent and remote fault detection
- Non-fragile and resilient control design
- Artificial intelligence application in IMS
- Design Optimization Using reliability and maintenance Techniques
- Recent developments on model based and data-driven techniques in IMS
- Information constraints for IMS
- Soft computing methods for fault detection and isolation (FDI) of IMS
- Soft computing methods for fault tolerant control (FTC) of IMS
- Soft computing methods in instrumentation and signal processing of IMS
- Few-shot learning, including One- and Zero-learning, methodologists in IMS
- Big data solutions with complex system applications;
- Application studies

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