Toward a New Framework for Dependable Systems

**Goal**

Theory for analysis, design and control of the Discrete Event Systems (DES) and Hybrid systems are developed. Furthermore, some developed ideas are exploited for design of the dependable systems.

**Problem**

An approach with DES model is promising one that is expected to play an important role in developing the dependable complex systems.

**Strategy**

Communication system, automation, transportation system, man-machine system and embedded system are addressed from viewpoint of DES. Some important problems related with these systems are solved.

**Activity Plan**

Organizing annual workshops (twice/year), proposal for organized session in the SICE Annual Conference and SSI are our main activities.

**Overview**

Modeling and Analysis for DES, Hybrid Systems

Design, Planning, and Control

Evaluation, Diagnosis, and Verification

**Keywords**

Methodology: modeling, supervisory control, scheduling, diagnosis, verification, decentralized system

Application: communication system, automation, transportation system, man-machine system, embedded system