

## Technology Trends of Dependability in the Recent Decade

### Abstract:

This presentation introduces technology trends in dependability in the recent decade and the author's approach. In 1996, occurrence of terrestrial soft error by cosmic rays was predicted with the integration of the semiconductor along with Moore's Law. And the prediction became the reality now. The authors established on-chip redundancy, which has redundant cores within one chip in 2000's when multi-core processors which have plural processor cores within one chip appear as a result of development of high-density integration by the Moore's Law. The technology includes self-checking techniques and optimal time diversity method proposed to maximize fault detection and recovery coverage at the middle of 1990's.