



## Advanced Technologies in Intelligent Computer System Architecture

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### Message from the Guest Editors

Intelligent computer systems are increasingly gaining traction thanks to the improvements in the underlying machine intelligence theory and applications. This is also driving intelligence into embedded devices, which are expected to implement complex decision logics, with or without the support of remote networked servers, and possibly coordinate information from multiple sources to achieve a correct understanding of the environment they are operating in.

Topics of interest include, but are not limited to:

- Hardware architectures and accelerators for intelligent embedded and cyberphysical systems;
- Compiler-based techniques for enforcing extrafunctional properties;
- Approximate computing and mixed-precision techniques;
- Low-power embedded systems architectures for AI and machine learning applications;
- Embedded systems compiler/runtime frameworks to support AI and machine learning applications;
- Programmability of self-driving cars and other safety-critical intelligent computer systems;
- Models and learning discretization for low-end microcontrollers;
- Performance/memory tradeoffs and optimizations;
- Hardware/software co-design and platform-based design.

