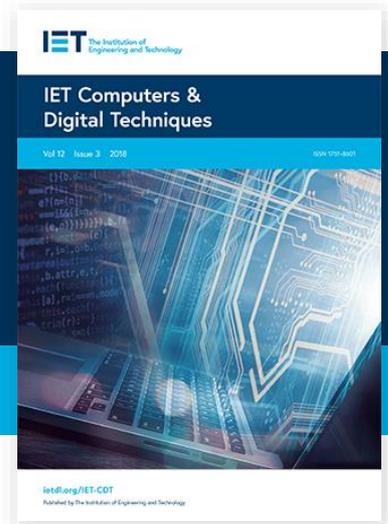# IET Computers & Digital Techniques

Call for Papers

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Special Issue on:

Application of Smart Embedded Systems and its Challenges

A Smart Embedded system comprises processors, memory, and several smart interfaces that have a dedicated function within an electrical, electronics, and mechanical design. Application of Smart embedded systems are generally found in consumer electronics, industrial structure, automation, medical and military applications, such as: advanced heating and air conditioning systems, modern aircraft, within telecommunications networks and networking machines.

The smart embedded built-in systems are self-sufficient and can manage electrical and communications systems when dealing with defense. Since smart embedded systems impart in various applications, the challenging characteristics include security risk, high power dissipation, inadequate functional safety, and increased cost demands more innovative solutions. The advent of heterogeneous multi-core architecture ensures to resolve the challenges through balanced performance and low power features for the secured, cost-effective smart embedded Systems. Hence, in the future, the development of smart embedded systems requires a technological solution, including; machine intelligence, information engineering models, and control activity, to integrate a variety of computing techniques to improve its application standard in the various smart system more interactively.

This Special Issue covers the full range of technologies, challenges, and state of the art models for smart embedded device design that includes software creation, system integration, architecture development, management, and monitoring.

Topics of interest include, but are not limited to:

- High performance smart embedded system architecture for telecommunication applications
- Application of machine intelligence in smart embedded system architectures for Advanced Heating, ventilation, and air conditioning systems applications
- Challenges and opportunities in the application of the smart embedded system
- Application of smart embedded system for System-on-Chip (SoC) architecture
- Application of smart embedded system in Multi-core and Many Core System-on-Chip (SoC) architecture real-time systems

- Smart embedded system in the operating system platform for learning on-chip
- Challenges in smart embedded system for Neuromorphic Computing Systems
- Challenges in smart embedded system for secured Computing
- Challenges in smart embedded system for Low-power Solutions
- Challenges in a smart embedded system for Energy-efficient Hardware
- Smart embedded systems in healthcare
- Smart embedded systems in wearables, smart grid, and robotics
- Smart embedded system core Mapping in Runtime Techniques

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