

## Editorial

We release the third issue of the fifteenth volume of the **Journal of Information Organization** with the following papers.

In the opening paper, “**Modeling and Analysis of Multi-Core Processor Determinism for Real-Time Systems: Challenges and Solutions**,” the authors highlighted the challenges in modeling and analyzing timing behavior in multi-core processors, particularly focusing on shared resources like caches and buses. This work further explored methods to address these issues, including code transformations and compile-time techniques to mitigate timing unpredictability. This paper examines the complexity of ensuring timing predictability in multicore architectures for real-time applications.

In the second paper, “**Framework for Reliability Analysis of Context-Aware Systems Using Markov Decision Processes and Model Checking**,” the author introduced a framework for analysing and predicting the reliability of context-aware systems. This work highlighted practical applications in real-world settings, such as monitoring activities and delivering timely reminders to users.

In the last paper, “**Efficient Implementation and Evaluation of the Penalty Method for Alternative Route Generation in Road Networks**,” the authors studied the penalty method for generating alternative routes in road networks, which has historically been limited by its slow implementation. The authors achieved efficient real-time processing through parallelism and vectorisation. Finally, the authors confirmed the viability of the penalty method for interactive applications, offering structurally diverse routes compared to via-node approaches.

We hope that the published research in this issue marks a significant milestone.

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