# IEEE 14th International Symposium on Embedded Multicore/Many-core Systems-on-Chip (MCSoC-2021)

*Singapore University of Technology and Design, Singapore*
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## Special Session on Quantum Computation & Simulation

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We are in the midst of an information revolution that attempts to extend classical information processing to quantum information processing. Quantum information processing promises an increase in computational power. The wonderful progress in quantum information science in recent years has continued to push for the demand for robust quantum operations and controllable quantum systems in order to realize scalable quantum computation in near-term quantum computation. Concomitantly, there has also been a push to translate quantum information technology into engineering devices and realize other quantum devices in the next ten years.

Quantum computers expected to outperform classical computers for simulating challenging many-body problems. Quantum simulators or emulators provide knobs that can be used to adjust quantum systems and study regimes that are not always accessible with classical computers. An example of such uses include the development of new materials by simulating structures of materials. Quantum simulation is also useful for predicting properties of quantum many-body systems with strong correlations.

We dedicate this session to recent developments as well as state-of-art techniques in quantum computation and simulation. Topics of interest include, but they are not limited to:

- Fault-tolerant or noise-resistant quantum computation
- Quantum simulation with cavity QED or circuit QED
- Quantum computation with cavity QED or circuit QED
- Quantum correlations and machine learning
- Quantum cryptography

**Important Dates**
Abstract submission: May 25, 2021
Full paper submission: May 31, 2021
Acceptance notification: July 20, 2021
Camera-ready paper: August 10, 2021

**Submission**
Please submit your paper via the IEEE14th MCSoC 2021 submission site http://mcsoc-forum.org/2020/submission/.