Major economic and technical challenges are expected to impede the continued scaling of semiconductor devices. This has resulted in the search for alternate mechanical, biological/biochemical, nanoscale electronic, asynchronous and quantum computing, and sensor technologies. As the underlying nanotechnologies continue to evolve in the labs, it has become imperative to translate the potential of the basic building blocks (analogous to the transistor) emerging from these labs into information systems. JETC provides comprehensive coverage of innovative work in the specification, design analysis, simulation, verification, testing, and evaluation of computing systems constructed out of emerging technologies and advanced semiconductors. Also of interest are innovations in system design for green and sustainable computing, and computing-driven solutions to emerging areas in biotechnology.