PANEL: Key Challenges for the Next Generation of Computing Systems Taming the Data Deluge

The exponential growth in IT made possible through Moore's law for several decades has been surpassed by the demand for computing. Future high performance computing (HPC) systems are considered an area also relevant for traditional safety-critical embedded systems like automotive and aerospace. HPC could also benefit from experiences in embedded computing in terms of fault-tolerant run-time environment (RTE) architectures with high degree of reliability and dependability. The panel objective is to explore interdisciplinary technologies cutting across multi-core computing systems, dependable computing and high performance computing. The panel brings together industry and academia from so far fragmented domains such as real-time embedded system engineering and HPC architectures.