

SELECTED RECENT PUBLICATIONS

J. Xu, “Effectively Handling Primary and Backup Overruns and Underruns in a Real-Time Embedded System That Tolerates Permanent Hardware and Software Failures,” *46th Annual Conference of the IEEE Industrial Electronics Society (IES) (IEEE IECON 2020)*, Singapore, Oct. 18-Oct. 21, 2020.

J. Xu, “A Software Architecture for Handling Complex Critical Section Constraints on Multiprocessors in a Fault-Tolerant Real-Time Embedded System,” *32nd International Conference on Computer Applications in Industry and Engineering*, San Diego, USA, Sep. 30-Oct. 2, 2019.

J. Xu, “Handling process overruns and underruns on multiprocessors in a fault-tolerant real-time embedded systems,” *14th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, Oulu, Finland, July 2-4, 2018.

J. Xu, “Efficiently handling process overruns and underruns on multiprocessors in real-time embedded systems,” *13th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, Cleveland, Ohio, U.S.A., August 6-9, 2017.

J. Xu, “A method for handling process overruns and underruns on multiprocessors in real-time embedded systems,” *12th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, Auckland, New Zealand, August 29-31, 2016.

L. Niu, and J. Xu, “Improving schedulability and energy efficiency for window-constrained real-time systems with reliability requirement,” *Journal of Systems Architecture*, Vol. 61, Issues 5-6, May-June 2015.

J. Xu, “Efficiently handling process overruns and underruns in real-time embedded systems,” *11th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, Boston, USA, August 2-4, 2015.

J. Xu, “A method for handling process overruns and underruns in real-time embedded systems,” *10th IEEE/ASME International Conference on Mecha-*

tronic and Embedded Systems and Applications, Senigallia, Italy, on September 10-12, 2014.

J. Xu, "Handling overruns and underruns of real-time processes with precedence and exclusion relations using a pre-run-time schedule," *9th ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications*, Portland, Oregon, August 4-7, 2013.

L. Niu, J. Xu, "Improving the schedulability and energy efficiency for weakly hard real-time embedded systems," *31st IEEE Int. Performance Computing and Communications Conference (IPCCC 2012)*, Austin, Texas, Dec. 1-3, 2012.

J. Xu, "A method for simultaneously satisfying important constraints and dependencies for many different types of processes in embedded real-time systems," *7th ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications*, Washington DC, August 28-31, 2011.

J. Xu, "A method for adjusting the periods of periodic processes to reduce the least common multiple of the period lengths in real-time embedded systems" *6th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, Qingdao, China, July 15-18, 2010.

J. Xu, "Pre-run-time scheduling of asynchronous and periodic processes with offsets, release times, deadlines, precedence and exclusion relations," *5th ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications*, San Diego, USA, Aug. 30 - Sep. 2, 2009. This paper received the *Best Paper Award* from the American Society of Mechanical Engineers, Design Engineering Division, Mechatronic and Embedded Systems and Applications Committee, at the *5th ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications (MESA09)*.

PROFESSIONAL SERVICE

Service on International Conference Committees:

Symposium Co-Chair, *Electronic Systems on Chip and Embedded Systems 1 Symposium* at the *46th Annual Conference of the IEEE Industrial Electronics Society (IES) (IEEE IECON 2020)*, Singapore, Oct. 18-Oct. 21, 2020.

Symposium Chair, *Embedded System Infrastructure and Theory Symposium* at the *12th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, Auckland, New Zealand, August 29-31, 2016.

Symposium Chair, *Embedded System Infrastructure and Theory Symposium* at the *11th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, Boston, USA, August 2-4, 2015.

Symposium Chair, *Embedded System Infrastructure and Theory Symposium* at the *10th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, Senigallia, Italy, on September 10-12, 2014.

Symposium Chair, *Embedded System Infrastructure and Theory Symposium* at the *9th ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications*, Portland, Oregon, August 4-7, 2013.

Symposium Chair, *Embedded System Infrastructure and Theory Symposium* at the *8th ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications*, Suzhou, China, July 8-10, 2012.

Symposium Chair, *Embedded System Infrastructure and Theory Symposium* at the *7th ASME/IEEE International Conference on Mechatronic and Embedded Systems and Applications*, Washington DC, August 29-31, 2011.

Symposium Chair, *Development, Verification, Debug Tools for Mechatronic and Embedded Systems Symposium* at the *6th IEEE/ASME International Conference on Mechatronic and Embedded Systems and Applications*, Qingdao, China, July 15-18, 2010.

Program Committee Member, *8th ACIS International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing (SNPD2007)*, Qingdao, China, July 30 - August 2007.

Grant Awarding Agencies and Journals for which I have served as a referee:

National Science Foundation, Washington, D.C.

National Sciences and Engineering Research Council of Canada.

Department of National Defense, Research and Development, Ottawa.

IEEE Transactions on Software Engineering

IEEE Transactions on Computers

IEEE Transactions on Parallel and Distributed Systems

Real-Time Systems

Distributed Computing

The Computer Journal

Journal of Systems Integration