# SELECTED RECENT PUBLICATIONS

L. Diana, J. Xu, L. Fanucci, 'Oil Spill Identification from SAR Images for Low Power Embedded Systems Using CNN," *Remote Sensing*, September 21, 2021.

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 Mechatronic 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*