

November 2007 Editorial

The November 2007 issue of the journal has a focus on diverse aspects of industrial controls and factory automation. The topics covered include soft synchronization of image acquisition and event triggers in network-connected machine vision systems; performance evaluation of an application layer protocol running over COTS devices based on IEEE 802.15.4 and IEEE 802.11 wireless communication standards; robust H_{∞} control of a class of uncertain nonlinear networked control systems; design of a robust controller for a non-linear system that can be represented or approximated in a non-affine form; and a novel robot controller architecture implementing various complex control algorithms for improved high-speed performance.

Thirty papers have been published in 2007 in four issues, consuming all pages budgeted for the year. That includes six papers in a special section dedicated to wireless technologies in factory and industrial automation. This section presented cutting edge research results with potential for a tangible impact on industrial applications. A number of special sections have been scheduled for publication in 2008 and 2009, including sections on network-based control and systems, communication in automation, formal methods for embedded systems design, in-vehicle embedded systems, embedded systems security, and real-time systems.

The journal has embarked on a program of publishing research survey papers to provide a comprehensive overview of the emerging areas of technology and to serve as a major source of references to cover the most important research developments and results. The aim of this program is to help practitioners and researchers navigate in the fast accumulating body of knowledge and look for important and emerging trends. The first invited paper on wireless technology in factory and industrial automation is scheduled for publication in the May 2008 issue, to be followed by research surveys on Platform Based Design of embedded and wireless systems, real-time Ethernet, security in embedded systems, and integration issues in industrial automated systems to mention some.

The IEEE Transactions on Industrial Informatics has been selected into the Thomson Scientific database. It is covered in the following products: Science Citation Index Expanded, ISI Alerting Services, and Current Contents/Engineering, Computing & Technology. The coverage starts with Vol. 1.

The ever increasing level of submissions is a proof that the IEEE Transactions on Industrial Informatics has established itself as a premier research journal in its field. To encourage exchange of ideas between industry and academia, a new category of submissions has been envisioned to commence in 2008 to report on significant technical innovations, underpinned by solid theoretical foundations, with a clear potential for stimulating research efforts of academia and industrial research establishments.

I would like to take an opportunity of this message to thank all Associate Editors who have done a superb job in ensuring technical quality of the material published. At the

time of writing this message, in 2007, over 260 reviewers offered their time and talent providing authors with ample feedback to help them improve their submissions. Their contribution is greatly appreciated.

Publishing IEEE Transactions is a complicated process which requires dedication. On behalf of the executive of the Industrial Electronics Society and the journal's subscribers and readers, I would like to express my gratitude to all individuals involved in this process, and in particular to Martin J. Morahan, Managing Editor, IEEE Periodicals, and Farah Pedley, Associate Editor, IEEE Transactions and Journals, who are responsible for the IEEE Transactions on Industrial Informatics, who have provided a generous assistance to the Editor in Chief and abundant support for the journal in 2007.

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