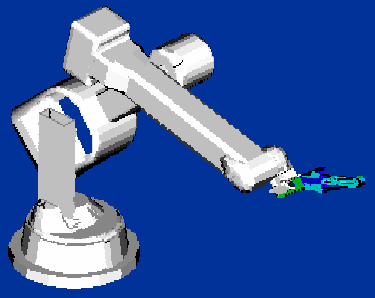
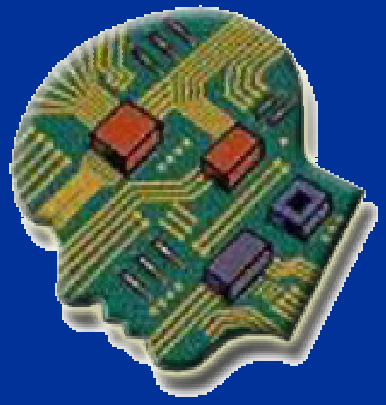
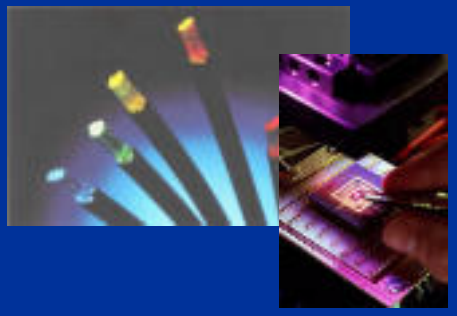
Technical Activities around the Globe

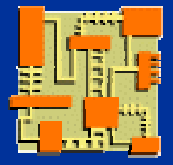
IES Field of Interest

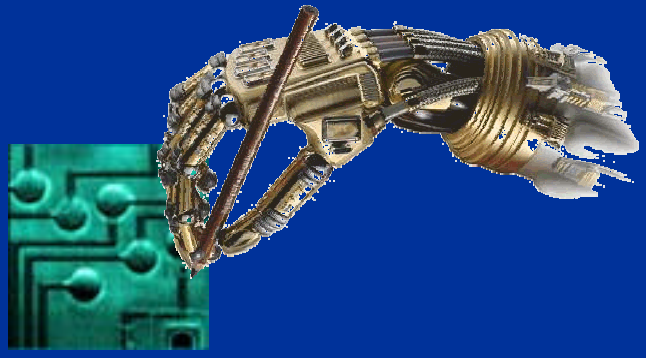
The theory and applications of electronics, control, communications, instrumentation and computational intelligence to industrial and manufacturing systems and processes







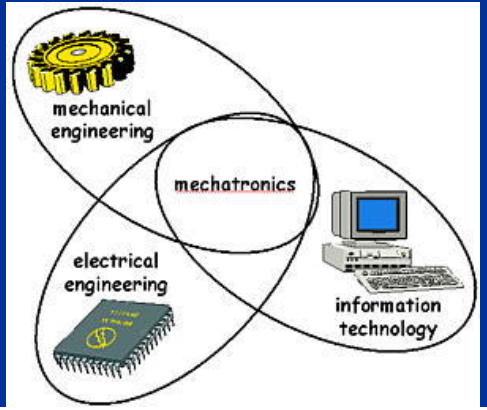




IES and New Technologies

IES has had a remarkable aptitude for identifying promising emerging technologies and has focused its technical activities on them

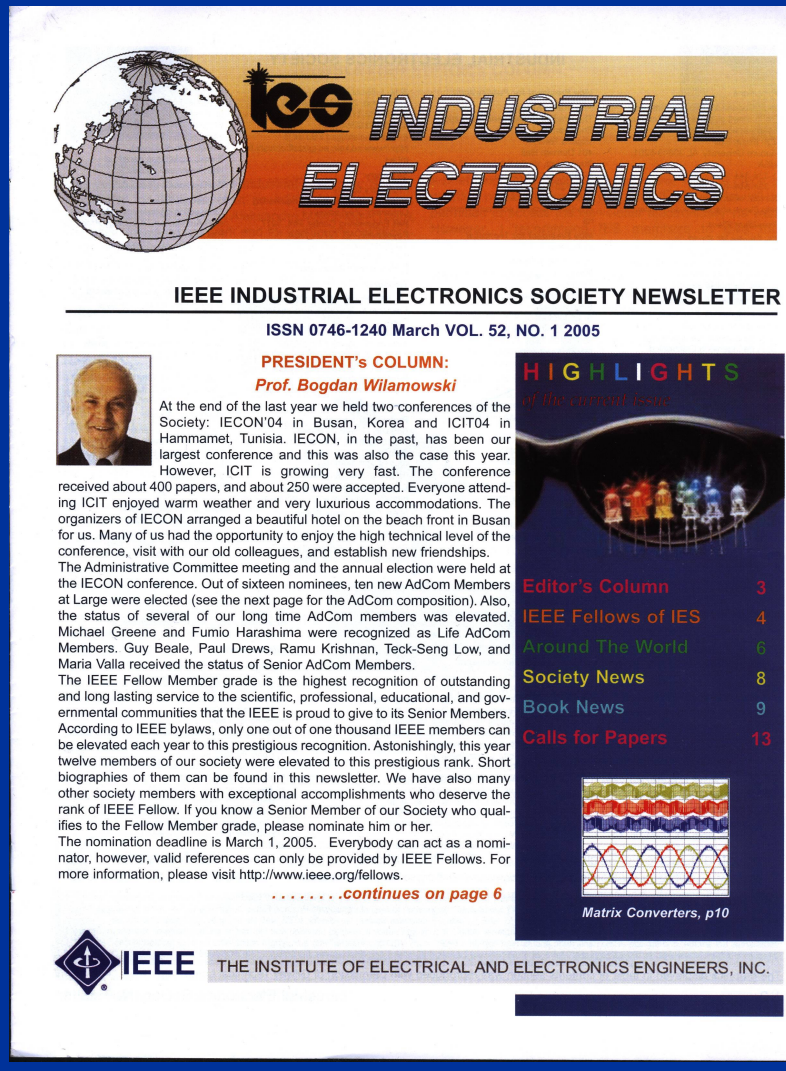
- **Microprocessors in 1970's**
- **Robotics in 1980's**
- **Mechatronics and Factory Automation in early 1990's**
- **Industrial Information Technology in late 1990's**



IES Membership Publications

- Newsletter
- IEEE Transactions on Industrial Electronics
- IEEE Transactions on Industrial Informatics

IES Newsletter



IEEE INDUSTRIAL ELECTRONICS SOCIETY NEWSLETTER

ISSN 0746-1240 March VOL. 52, NO. 1 2005

PRESIDENT's COLUMN:

Prof. Bogdan Wilamowski

At the end of the last year we held two conferences of the Society: IECON'04 in Busan, Korea and ICIT04 in Hammamet, Tunisia. IECON, in the past, has been our largest conference and this was also the case this year. However, ICIT is growing very fast. The conference received about 400 papers, and about 250 were accepted. Everyone attending ICIT enjoyed warm weather and very luxurious accommodations. The organizers of IECON arranged a beautiful hotel on the beach front in Busan for us. Many of us had the opportunity to enjoy the high technical level of the conference, visit with our old colleagues, and establish new friendships.

The Administrative Committee meeting and the annual election were held at the IECON conference. Out of sixteen nominees, ten new AdCom Members at Large were elected (see the next page for the AdCom composition). Also, the status of several of our long time AdCom members was elevated. Michael Greene and Fumio Harashima were recognized as Life AdCom Members. Guy Beale, Paul Drews, Ramu Krishnan, Teck-Seng Low, and Maria Valla received the status of Senior AdCom Members.

The IEEE Fellow Member grade is the highest recognition of outstanding and long lasting service to the scientific, professional, educational, and governmental communities that the IEEE is proud to give to its Senior Members. According to IEEE bylaws, only one out of one thousand IEEE members can be elevated each year to this prestigious recognition. Astonishingly, this year twelve members of our society were elevated to this prestigious rank. Short biographies of them can be found in this newsletter. We have also many other society members with exceptional accomplishments who deserve the rank of IEEE Fellow. If you know a Senior Member of our Society who qualifies to the Fellow Member grade, please nominate him or her.

The nomination deadline is March 1, 2005. Everybody can act as a nominator, however, valid references can only be provided by IEEE Fellows. For more information, please visit http://www.ieee.org/fellows.

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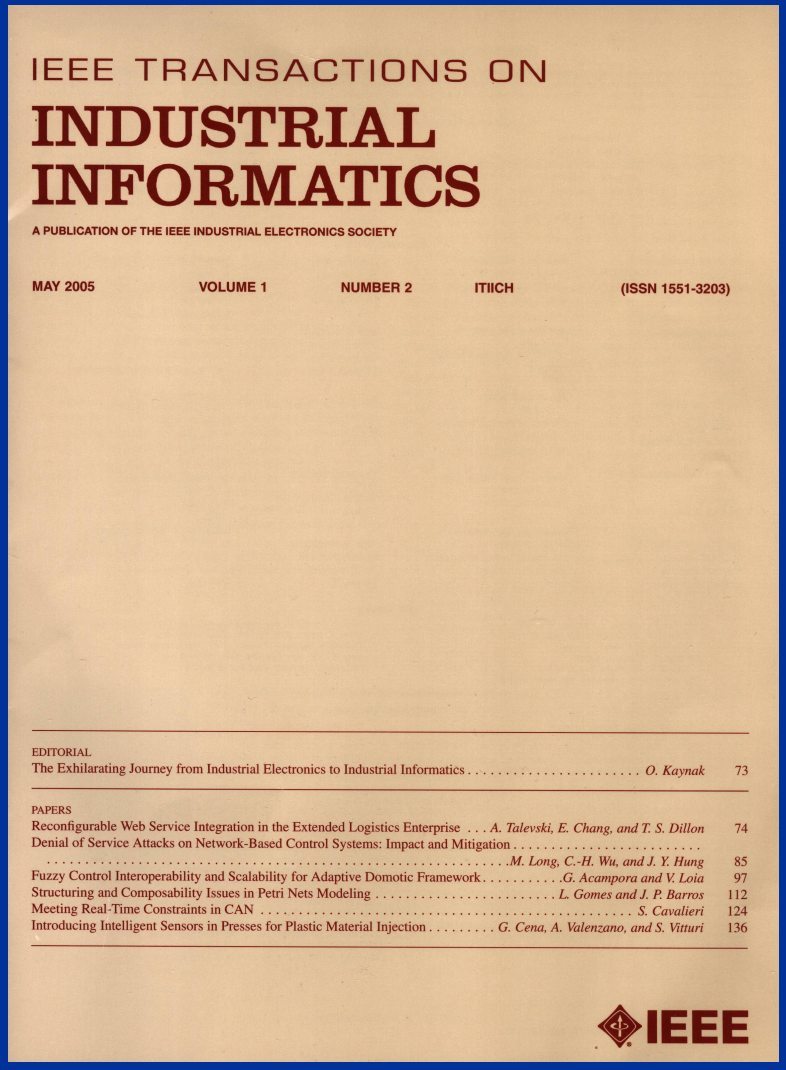
IEEE THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, INC.

IEEE Transactions of Industrial Informatics



IEEE TRANSACTIONS ON

INDUSTRIAL INFORMATICS

A PUBLICATION OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY

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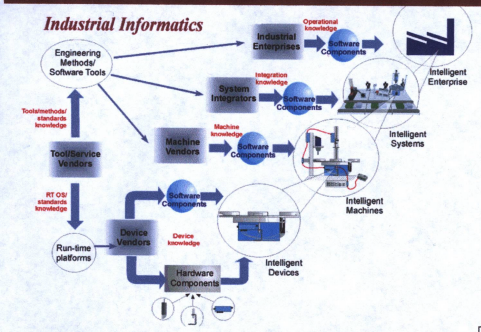
Call for Papers

The IEEE Industrial Electronics Society announces a new journal that focuses on knowledge-based factory automation as a means to enhance industrial fabrication and manufacturing processes. This embraces a collection of techniques that use information analysis, manipulation, and distribution to achieve higher efficiency, effectiveness, reliability, and/or security within the industrial environment. The scope of the Transaction includes reporting, defining, providing a forum for discourse, and informing its readers about the latest developments in intelligent and computer control systems, robotics, factory communications and automation, flexible manufacturing, vision systems, and data acquisition and signal processing.



As industrial systems become more intelligent, automated, and distributed, and as monitoring and control shift toward utilizing the Internet as a ubiquitous communications medium, the vision of dynamic, agile, and reconfigurable enterprise structures has become a reality. The development, management, control, and operation of these new generations of industrial environments are multidisciplinary tasks that require the collaboration of industry and academic practitioners and researchers. Authors are encouraged to emphasize in their submissions:

- Novel contributions to the solutions of using rich information content in industrial applications such as for design, planning or supervision
- Present yet unsolved problems related to the use of information content in industrial applications and give possible solutions to these
- Dissemination of information about successful industrial-strength practical applications of novel theories and technologies
- Theories and models for demonstrating the correctness, safety, security, and/or performance of an industrial system

Original manuscripts should be formatted per the instructions found at *http://www.ewh.ieee.org/soc/ies/tii/index.html*. All submissions are processed electronically (refer to website for details). Contact the Editor-in-Chief, Dr. Okyay Kaynak at *o.kaynak@ieee.org* for additional information.

The IEEE Transactions on Industrial Informatics is sponsored by the IEEE Industrial Electronics Society, with technical co-sponsorship from the Computer Society, Industry Applications Society, Robotics and Automation Society, and Systems, Man, and Cybernetics Society.

- Collaborative / open systems
- Flexible factory automation
- Autonomous e-services
- Multi-agent computing
- Privacy, security, and trust
- Intelligent production/process control
- Mechatronics
- Embedded systems
- Heterogeneous interoperability
- Java and Jini in industrial environments
- Building automation
- Power generation and distribution
- e-Logistics
- Authorization and authentication
- Methodologies and tools
- Process models
- Fault-tolerant systems
- Automotive systems
- Internet-based monitoring and control
- Real-time control software for processes
- Wireless sensors and actuators
- Systems interoperability
- Human/machine interfaces
- Virtual reality / enhanced reality
- Sensor fusion

IEEE Transactions of Industrial Informatics

- Knowledge-based Factory Automation
  - Enhance industrial fabrication and manufacturing processes
  - Information analysis, manipulation, and distribution
    - Achieve higher efficiency, effectiveness, reliablity, and/or security
  - Scope includes reporting, defining, providing a forum for discourse, and informing
    - Latest developments in intelligent and computer control systems, robotics, factory communications and automation, flexible manufacturing, vision systems, and data acquisition and signal processing

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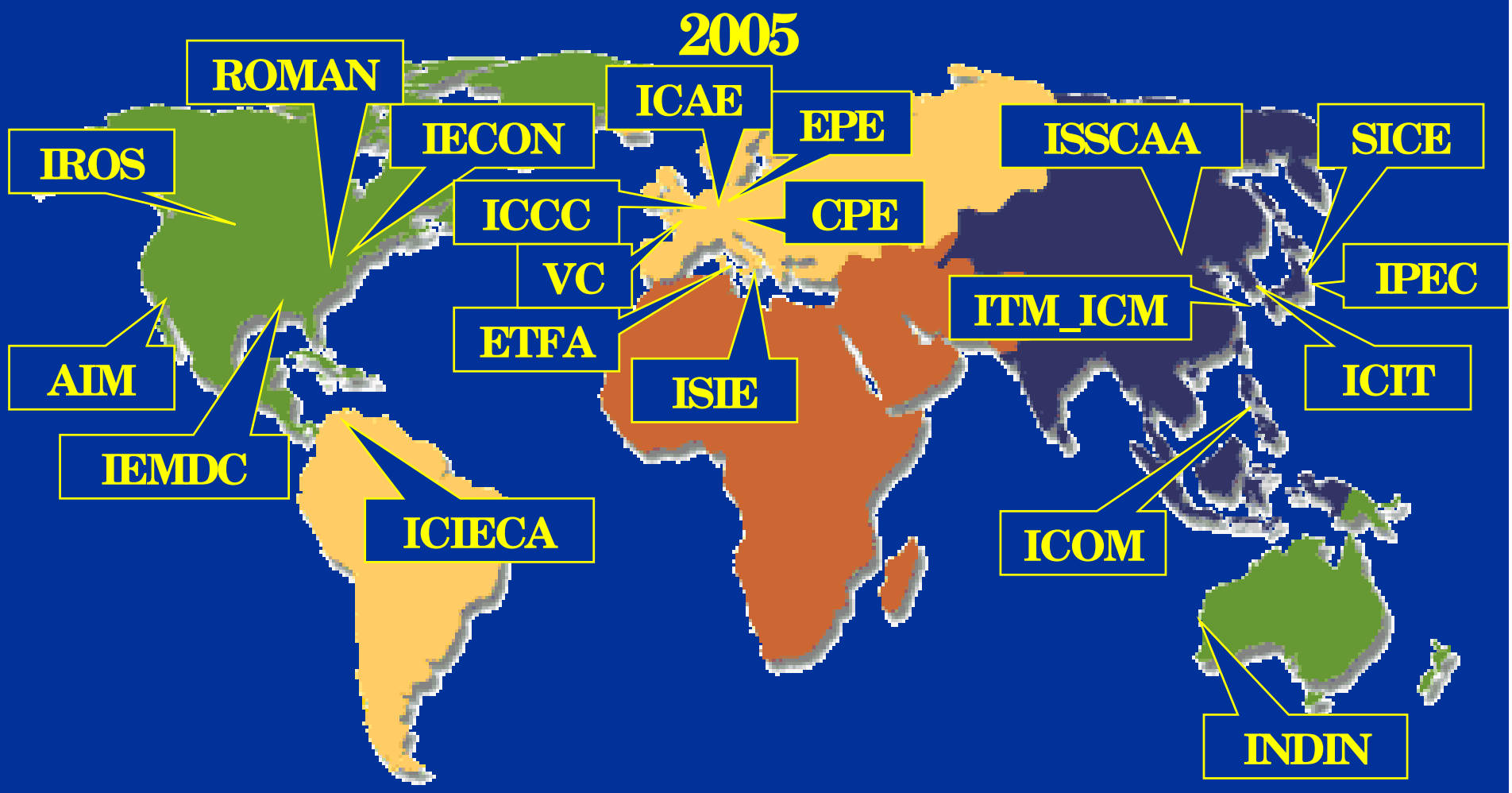
- Business Intelligence
- Industrial Agents
- Intelligent Systems, Decision Systems, Sensors and Sensor Networks, Robotics, Space Robotics
- Advanced Control
- Factory Communications
- Network-centric Manufacturing
- Network Safety
- Web Technologies and Semantics
- Media Technology
- Bioinformatics
- Power Electronics and Power Systems

IES Chapters -2005

- 34 Chapters
  - 27 are Joint Chapters

IES Conferences and Workshops are Global



Call for Volunteers

IES is the most internationalized society in IEEE

REGION	ADCOM	OFFICERS
NORTH AMERICA	8	6
EUROPE	6	4
ASIA	4	2
SOUTH AMERICA	1	-
AFRICA	1	-
AUSTRALIA	1	-

Come and Join Us!!!