



Report of Activities

Period: January 2007 – November 2007

1. Editorial Board Members of the IEEE IES Transaction on Industrial Informatics

- **W. Colombo**, Associated Editor of the IEEE Transaction on Industrial Informatics.
- **J. Lastra**, Associated Editor of the IEEE Transaction on Industrial Informatics.
- **Vogel-Heuser**, Associated Editor of the IEEE Transaction on Industrial Informatics.
- **L. Camarinha-Matos**, Associated Editor of the IEEE Transaction on Industrial Informatics.
- **Pham**, Associated Editor of the IEEE Transaction on Industrial Informatics.

2. Contribution to the IES Newsletter/Magazine

- M. Ulieru, "Five Years of Industrial Informatics: Towards Holistic Industrial Ecosystems", IEEE-*Industrial Electronics Society Magazine*, Vol. 1, n° 3 (Fall 2007) - pp. 39-40.

3. Organization of Activities within IEEE IES Events

- IEEE International Symposium of Symposium on Industrial Electronics (ISIE'07)
 - TPC Industrial Informatics (organization and chairing – A.W. Colombo).
 - Special session on Evolvable Production Systems (EPS) (organization and chairing – J. Barata).
- 5th IEEE International Conference on Industrial Informatics (INDIN'07)
 - A.W. Colombo and M. Ulieru – Members on the International Advisory Board;
 - Track on Service-Oriented Architectures (organization and chairing – J. Lastra);
 - Special Sessions organizing Co-chair (A.W. Colombo);
 - Tutorials Co-Chair (M. Ulieru);
 - Track on Embedded and Networked Control in Collaborative Manufacturing (organization and chairing – L. Ferrarini);
 - M. Ulieru, "Engineering Industrial Ecosystems in a Networked World", Keynote speech;
- 12th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA'07)
 - Track on Automated Manufacturing Systems and Enterprise Integration (organization and chairing – J. Lastra).
- IEEE 2nd International Symposium on Industrial Embedded Systems (SIES'07)
 - Program Committee Co-Chairs – J. Barata;



- Member of the Industry Liaison Committee – A.W. Colombo.
- Others related conferences and workshops
 - L. Camarinha-Matos - Conference Technical Chair of the 8th IFIP Working Conference on Virtual Enterprises (PRO-VE'07) (sponsored by IFIP, of which IEEE is a member);
 - M. Ulieru - Steering Committee Member for the IEEE IES “Emulating the Mind” Workshop, 2007 (also Appointed Liaison between ENF 2007 and Cognitive Computing 2007 – to foster cross-fertilization between the two emerging research communities – ongoing);
 - M. Ulieru - Chair and Organizer of the International Workshop on eNetworks Cyberengineering: Infrastructures for Cyberphysical Ecosystems at the IEEE Systems Man and Cybernetics Conference 2007.
 - M. Ulieru - Industry Track Co-Chair at the IEEE BIONETICS Conference 2007;
 - Several member of the TC - Chairing of conference sessions and panel discussions.

4. Activities for generating cross-cutting activities with other groups

- M. Ulieru is liaising between the Technical Committee on Industrial Agents and the Foundation for Intelligent Physical Agents (FIPA) to enable development of FIPA standards for networked embedded control systems and other emerging technologies as well as the deployment of the FIPA standards in the manufacturing industry;
- Joint activities with the IES Technical Committee on Industrial Informatics, sub-committee on “Ontologies for Industrial Informatics”.
- J. Barata and P. Leitão are starting the approaching to the sub-committee on “Emergence and Complexity in Industrial Informatics” of the IES Technical Committee on Industrial Informatics.
- M. Ulieru - Invited Member (advising on Industrial Informatics) on the Scientific Advisory Board, Science and Engineering Research Council (SERC), Agency for Science, Technology and Research (A*STAR) of Singapore, (2007-2009).

5. Review / Evaluation of papers submitted to IES-organized Events

- Revision of articles presented to IES conferences, namely IECON'07, ISIE'07, INDIN'07 and ETFA'07;
- Revision of articles presented to IES Transactions, namely Transactions on Industrial Informatics and Transactions on Industrial Electronics.

6. Re-organization of the Technical Committee

- Extension of the Technical Committee with new experts;
- Extension of the number of technical areas covered by the Technical Committee (initiated in June 2006). Currently, the Technical Committee has a matrix structure, with 6 Core Technologies and 4 Key Application Sectors. The Core Technologies are:

- Intelligent Components and Systems Architecture: J. Lastra (Tampere University of Technology);
- Intelligent Supervision: J. Barata (Universidade Nova de Lisboa);
- Web-Technology and Service-Oriented Architectures: F. Jammes (Schneider Electric);
- Methodologies and Tools: L. Ferrarini (Politecnico di Milano);
- Wireless Communication Networks: C. Cardeira (Instituto Superior Técnico);
- Control of Collaborative Systems: P. Leitão (Polytechnic Institute of Bragança).

The Key Application Sectors are:

- Collaborative Networks : L. Camarinha-Matos (UNINOVA);
- Infrastructure (Manufacturing): J. Agirre Ibarbia (Fundación Fatronik) and R. Harrison (Loughborough University);
- Infrastructure (Transport): M. Höpf (Manufacturing Engineering & Automation FhG-IPA);
- Infrastructure (Process): F. Maturana (Rockwell Automation) and P. Vrba (Rockwell Automation).

Additionally, the Technical Committee has the other following sub-committees:

- Review for Conferences and Transactions: B. Vogel-Heuser (Bergische University of Wuppertal) and D. Pham (Cardiff University);
- Emerging Technologies Task Force: M. Uliuru;
- WebPage: P. Leitão (Polytechnic Institute of Bragança).

7. Webpage management

Maintenance and update of the Webpage (the Webpage of the Technical Committee is available at: <http://www.tcia.ipb.pt/>). The responsible for the maintenance and administration of the webpage is P. Leitao.





The Technical Committee Webpage has a link to the IES Webpage and information about the TC, namely its mission, the list of members, sub-committees, reports and dissemination and useful links.

8. Preliminary Plan of Activities for 2008

- Organization of a general meeting with the participation of all Co-chairs that will take place at one IES conference;
- Organization of activities, namely tracks and special sessions, in the IES Conferences;
- Participation in the activities IES Conferences, such as membership of technical program committees and revision of papers;
- Edition of a book presenting the state of the art and a R&D roadmap about the theme of this committee (initiative already started);
- Awards for the best papers presented in special sessions organized by the Technical Committee in IES conferences.

9. Financial Aspects

- IES had allocated 3000 USD to the TConIA for the period of 2007;
- 2500 USD have been allocated as travel support for co-chairs and highly active members to attend the Technical Committee meetings. This amount of money has still to be paid.
- 500 USD have been allocated to support the setup and maintenance of our WebPage;
- A new budget for 2008 and the corresponding allocation was already asked to IES.

Dr.-Ing. Armando Walter Colombo (*Technical Committee Chair*)
Prof. Paulo Leitao