

Sponsored by:



IEEE Industrial Electronics Society (IES)

Tech. Co-Sponsored by:



UNIVERSIDADE
DE VIGO



The Society of Instrument
and Control Engineers (SICE)



Departamento de Tecnología Electrónica

Universidad de Vigo

Phone: +34 986 812 094 Fax: +34 986 811 987

isie07@dte.uvigo.es

www.dte.uvigo.es/isie2007/

Symposium secretariat

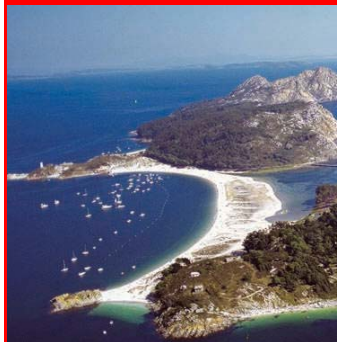
Ábaco Comunicación

Phone: +34 986 226 331 Fax: +34 986 221 809

E-mail: acisie07@dte.uvigo.es

ISIE 2007

IEEE International Symposium on Industrial Electronics



Call for Papers



Centro Cultural & Centro Social
Caixanova

Vigo

Spain

June 4-7
2007

The IEEE International Symposium on Industrial Electronics – ISIE is one of the major conferences organized by the IEEE Industrial Electronics Society. ISIE'2006, held in Montréal, received more than 800 submissions from countries all over the world. The purpose of the symposium is to provide a forum for presentation and discussion of the state-of-the-art of Industrial Electronics and related areas. ISIE 2007 will be held in Vigo, Spain, from June 4 to 7, 2007. It will consist of plenary sessions, regular sessions, special sessions and tutorials. Topics within the scope of the symposium include but are not limited to:

TPC 1 – Control Systems & Applications (Chairs: Hideki Hashimoto, Mo-Yuen Chow, A.Scottedward Hodel)

Advanced control and measurement – Computer and microprocessor-based control – Specific control hardware and software – Estimation and identification techniques – Industrial applications of neural networks – Fuzzy algorithms – Evolutionary computing – Nonlinear and adaptive control – Optimal and robust control – Intelligent control – Motion control – Process control – Remote control techniques – Automotive, marine and aero-space control – Control in medicine and biology – Other control applications.

TPC 2 – Power Electronics (Chairs: Francisco Azcondo, Mariusz Malinowski)

Power electronics devices – Power electronics converters, modulation and control techniques – Digital control of power electronics – Modelling and simulation – Power Electronics Building Blocks (PEBB) – Flexible AC Transmission Systems / Energy Storage Systems (FACTS/ESS) – High Voltage DC transmission lines (HVDC) – UPS, power filters and VAR compensators – Automotive applications – Power electronics for renewable energy systems – Electronic ballast – Power electronics for power management – Power electronics and power quality.

TPC 3 – Electrical Machines & Drives (Chairs: Manuel P. Donsión, Mario Pacas)

Special machines, servos and actuators – AC motor drives, reluctance, SR drives and special drives – Drive control issues, observers and sensorless methods – Drive applications – Modelling and simulation – Thermal, acoustic noise and vibration – Measurements and testing – Monitoring and diagnosis – Linear drives and magnetic levitation – Inductive energy transfer.

TPC 4 – Sensors, Actuators & System Integration (Chairs: Carlos Couto, Seiji Hata)

Intelligent sensors and actuators – Multisensor fusion – Microsensors and microactuators – Micro/nano technology – Electronic instrumentation – Micro-electro-mechanical systems (MEMS) – Systems on Chip (SoC) – RF systems integration – Integrated optics and related technologies.

TPC 5 – Signal & Image Processing (Chairs: Rokuya Ishii, Terry Martin)

Digital signal processing techniques – DSP implementations – Sensor arrays and multichannel processing – Speech processing – Image processing – Computer vision – Virtual reality systems – Real-time multimedia applications – Remote sensing.

TPC 6 – Industrial Informatics (Chairs: Armando W. Colombo, Josep M. Fuertes)

Factory and process automation – Distributed collaborative systems – Service-oriented architectures and systems – Industrial agent systems: methods, tools and applications – Security & safety applications – Intelligent supervision, self-diagnostics, -tuning and -repair – Products and manufacturing systems – Flexible manufacturing systems – Human-machine interfaces – Embedded systems, middleware and integration with the IT-world – Industrial communication systems – Mobile and wireless systems – Remote diagnosis and monitoring – Infrastructures for industrial informatics – Real-time computer and information systems – Industrial applications of internet technologies – Networked control systems.

TPC 7 – Mechatronics & Robotics (Chairs: Karel Jezernik, Ren C. Luo)

Mechatronics systems – Intelligent systems – Complex electro-mechanical systems – Agent-based control – Intelligent actuators – Industrial, service and biomedical robots – Autonomous mobile robots – Humanoid robots – Multi-robot teams – Human-robot interface – Vision-based robots.

Submission of Papers:

The working language of the conference is English. Submit the full paper using the following layout: limitation to 6 full pages, including paper title, authors and affiliations, figures and references (maximum size 2MB). Authors are requested to prepare the manuscripts in the IEEE two-column format, using the template available in the ISIE Website and to translate it to IEEE Xplore® compliant PDF, using the IEEE PDF eXpress™ facility. No other format in the submission and in the final version can be accepted.

The Proceedings of ISIE 2007 will be included in the IEEE Xplore database and indexed by EI Compendex.

For further information, see the website:

<http://www.dte.uvigo.es/isie2007>

Author's Schedule:

Deadline for Submission of Full Papers	December 1 st , 2006
Notification of Acceptance	February 2 nd , 2007
Deadline for Submission of Final Manuscripts	March 9 th , 2007

Honorary Chair
Fernando Aldana, Spain

General Chairs
Juan J. Rodríguez-Andina, Spain
Leopoldo García Franquelo, Spain

Technical Program & Finance Chairs
José Fariña, Spain
John Y. Hung, USA

Special Sessions Chairs
María I. Valla, Argentina
Luis Gomes, Portugal

Tutorials Chairs
Teresa Riesgo, Spain
Marco Liserre, Italy

Information Technology Chairs
Andrés A. Nogueiras, Spain
Aleksander Malinowski, USA

Steering Committee
J. David Irwin, USA
Paul Drews, Germany
Charles W. Einolf, USA
Hiromasa Haneda, Japan
Fumio Harashima, Japan
Joachim Holtz, Germany
Takamasa Hori, Japan
James C. Hung, USA
Okyay Kaynak, Turkey
Marian P. Kazmierkowski, Poland
H. Troy Nagle, USA
Kouhei Ohnishi, Japan
Javier Uceda, Spain
Bogdan M. Wilamowski, USA

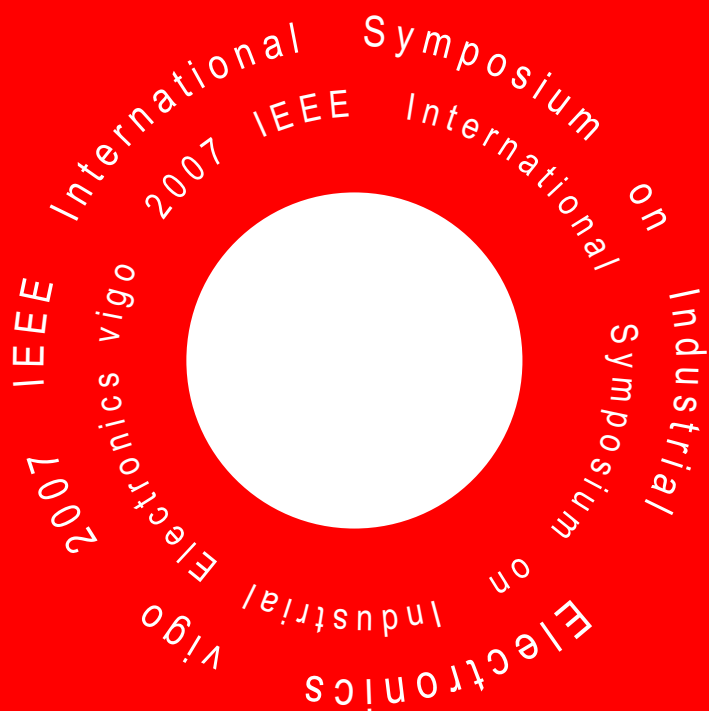
International Publicity
Jaime Arau, Mexico
Seta O. Bogosyan, USA
Gérard-André Capolino, France
Carlo Cecati, Italy
Kamal Al Haddad, Canada
Kim F. Man, Hong Kong
Jing Bing Zhang, Singapore

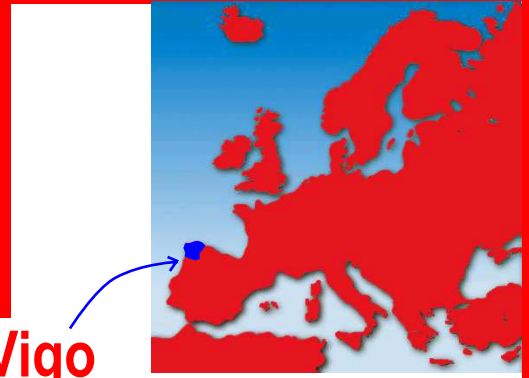
Student Activities Chairs
Jesús Doval-Gandoy, Spain
Mariusz Malinowski, Poland

Publication Chair
María D. Valdés, Spain

Registration Chair
María J. Moure, Spain

Local Committee
Alfonso Lago (Chair)
Lucía Costas
Elena Lago
Óscar López
Carlos Martínez-Peñalver
Vicente Pastoriza





Vigo



Vigo is located in Galicia, in the North-west of Spain. It has a wonderful location, it sets up a complete network of cultural sites and tourist resources that will make this city more pleasant and more attractive for visitors. To the West of Vigo lies the Atlantic Ocean. The southernmost of Galicia's rias, the Ria of Vigo is extensive and fertile. This city enjoys marvellous beaches of white fine sand, transparent seas, mild temperatures and incredible nature reserves. This natural environment contrasts with a population of 400,000 inhabitants. It is a modern attractive city with broad cultural, artistic and gastronomic supplies.

It is well-known because of its seafood and fish that are tasted by the most particular palates.

Vigo is a cosmopolitan and historic city with a civilisation origin, Celtic and Romanic; with romanic churches, aristocratic country houses, modernistic buildings and contemporaneous Galician artistic sculptures.

Vigo is a world to be discovered.

v

i

g

o