

## Report for Completed Event

The 15<sup>th</sup> IEEE International Conference on Emerging Technologies and Factory Automation (ETFA 2010), was held in Bilbao (Spain), 13-16 September 2010. This edition has been organized by the University of the Basque Country (UPV/EHU) in collaboration with the Euskoiker Foundation. Around 293 (over 250 registered) participants enjoyed the attractive technical and social programs.

### *Organization:*

#### Honorary Co-Chairs

Iñaki Goirizelaia	<i>President of the University, EHU/UPV</i>
Iñaki Azkuna	<i>The Mayor of Bilbao City</i>
James C. Hung	<i>University of Tennessee, USA</i>

#### General Co-chairs

Marga Marcos	University of Basque Country, Spain
Richard Zurawski	ISA Group, USA

#### Organizing Co-chairs

J. David Irwin	<i>Auburn University, USA</i>
T. Martin	<i>University of Arkansas, USA</i>

#### Program Committee Co-chairs

A. Grau	Univ. Poli. de Catalonia, Spain
I. Sarachaga	Univ. of Basque Country, Spain

#### Work-in-Progress Co-chairs

E. Estévez	<i>Univ of Basque Country, Spain</i>
A. Fay	<i>Helmut-Schmidt University, Germany</i>

#### Special Sessions Co-chairs

J. Gialelis	Univ of Patras, Greece
E. Portillo	Univ. of Basque Country, Spain

#### Finance Co-chairs

F. Pérez	<i>Univ. of Basque Country, Spain</i>
T. Martin	<i>University of Arkansas, USA</i>

## Conference Structure:

**Conference:** September 13- 15, 2010

**Green Industry Day:** September 16, 2010, Bizkaia Technology Park.

**Workshop Day:** September 16, 2010

On Monday 13<sup>th</sup>, at the **Guggenheim Museum**, the keynotes were related to Art and Engineering: while on Tuesday 14<sup>th</sup> and Wednesday 15<sup>th</sup>, the keynotes were related to technical topics.

Related to sessions, 110 regular papers were presented in 36 sessions organized in 7 technical tracks and 44 Special Sessions papers in 10 sessions, while 82 Work-in-Progress papers were summarized in five minutes in 6 sessions and posted on boards for further discussion during the coffee break. There have been 384 submissions from different countries all over the world. All these submissions were thoroughly reviewed; 310 reviewers have participated in ETFA2010 review process. The Track Co-chairs have asked at least three reviews for every paper, not only for regular papers but also for special sessions and Work-in-Progress papers that have been reviewed within the relevant main Track in order to assure a rigorous review process. As result, 119 regular papers, 45 Special Sessions papers and 87 Work-in-Progress papers have been accepted from 174, 77 and 133 submissions, respectively.

On September 16<sup>th</sup>, the Green Industry Day focused on latest advances in the "**green energy**" technologies (solar, wind and ocean energies) and on the electric car. In the afternoon, the 40 participants travelled to Bizkaia Technology Park where they visited Robotiker-Tecnalia and Ingeteam.

Moreover, 2 interesting **workshops** were held on September 16<sup>th</sup>: "*Real-Time Ethernet Solutions*" and "IEC-61499 standard status and current activities within the IEC SC65B WG15".

In relation with **social program**, on Monday 13<sup>th</sup>, after the keynotes, a private guided visit to the Guggenheim Museum was held, in which not only the museum construction was explained, but also the exhibition dedicated to the work of Anish Kapoor. In the evening, the Welcome Reception took place at the Bilbao City Hall. The Mayor of Bilbao received the ETFA2010 participants with a typical Basque dance "auresku" that is danced as a reverence, and the light dinner provided a delightful atmosphere to chat.

On Tuesday 14<sup>th</sup>, the **Conference banquet** was held in the "*Sociedad Bilbaina*". The reception cocktail was harmonized with a traditional Basque percussion instrument "*txalaparta*" and at the end of the excellent dinner, the two IES paper awards ("*James C. Hung Best Paper Award for Factory Automation*" and "*Fumio Harashima Best Paper Award for Emerging Technologies*") were presented, as well as recognition certificates for all the people involved in ETFA 2010. Closing the banquet, the invitation to next conference, ETFA 2011, to be held in Toulouse was presented by Zubir Mammeri.

## Conference Keynote Presentations:

### Monday, September 13, 2010 - Guggenheim Museum

- |  |   |
|--|---|
| Luis Basañez   | <i>University of Catalonia (UPC), Spain</i> |
| <i>"Picasso's Guernica: genesis, development, structure and interpretation of a masterpiece"</i> |   |
| Manuel Silva   | <i>University of Zaragoza, Spain</i>        |
| <i>"Towards the formalization of an engineering language: technical drawing at renaissance"</i>  |   |

### Tuesday, September 14, 2010

- |   |  |
|---|--|
| Alberto Sangiovanni-Vincentelli                               | <i>University of California at Berkeley, USA</i> |
| <i>" Distributed System Design: A Nightmare 'in fieri' "</i>  |  |
| Gareth Johnston   | <i>ABB Limited, UK</i>                           |
| <i>"Wireless instrument networks today and in the future"</i> |  |

### Organizing Co-chairs

- |   |                      |
|---|----------------------|
| Françoise Simonot-Lion  | <i>INRIA, France</i> |
| <i>"Automotive embedded systems - the emergence of standards"</i> |                      |

## Conference Technical Program:

**Monday, September 13, 2010** – 13 technical sessions, plus 2 keynote sessions

**Tuesday, September 14, 2010** – 18 technical sessions, plus 2 keynote sessions

**Wednesday, September 15, 2010** – 12 technical sessions, plus 1 keynote

## Green Industry Day, Bizkaia Technology Park – Program:

### Presentations

- |   |                               |
|---|-------------------------------|
| Alberto Peña.   | <i>Tecnalia</i>               |
| <i>"Electric Vehicle and Renewable Energy: The Optimal Combination"</i> |                               |
| José Luis Villate   | <i>Tecnalia</i>               |
| <i>" The role of research in strategic ocean energy development "</i>   |                               |
| Jose Ignacio Llorente   | <i>Gamesa</i>                 |
| <i>"Wind Power Generation"</i>  |                               |
| Eduardo Fernández Camacho   | <i>Universidad de Sevilla</i> |
| <i>Control of Solar Energy Systems</i>                                  |                               |

### Technical Visits

Visit to ROBOTIKER-Tecnalia Technology Centre

Visit to Ingeteam

## Workshop Day:

### Workshop #1: Real-Time Ethernet Solutions

Hans Dermot Doran.	<i>Institute of Embedded Systems, Zurich University of Applied Sciences, Switzerland</i>
Max Felser	<i>Laboratory of industrial Networks, Bern University of Applied Sciences, Burgdorf, Switzerland</i>
Gunnar Prytz	<i>Manager Network Technologies group, ABB Corporate Research, Norway</i>

### Workshop #2: IEC-61499 standard status and current activities within the IEC SC65B WG15 (IEC-61499 Maintenance Team)

Alois Zoitl	<i>Vienna University of Technology</i>
Martijn Rooker	<i>Profactor GmbH</i>
Antonio Valentini	<i>O3neida Europe</i>

## Special Events:

### Official meeting of IEC SC 65B WG15 ( IEC-61499 Maintenance Team )

Alois Zoitl	<i>Vienna University of Technology</i>
Martijn Rooker	<i>Profactor GmbH</i>
Antonio Valentini	<i>O3neida Europe</i>
James Christiansen	<i>Holobloc Inc. – USA, WG15 Convenor</i>

## Submission Statistics:

### Submissions

<b>Regular Papers: 174</b>	<b>Total Submissions: 384</b>
<b>Special Session Papers: 77</b>	<b>Accepted Papers: 260</b>
<b>Work-in-Progress Papers: 133</b>	<b>Acceptance Ratio: 68%</b>



## Papers by Country

Country	# submitted	# accepted
Argentina	2	2
Australia	2	2
Austria	17	11
Belgium	3	2
Brazil	18	8
Canada	2	2
China	1	1
Colombia	2	2
Czech Republic	17	7
Denmark	1	1
Egypt	3	2
Finland	9	4
France	15	12
Germany	75	54
Greece	7	5
India	2	0
Iran	2	1
Italy	29	23
Japan	2	2
South Korea	6	2
Morocco	1	1
Netherlands	7	4
New Zealand	1	1
Norway	3	1
Poland	3	2
Portugal	22	16
Romania	2	2
Serbia	2	1
Singapore	6	4
Slovak Republic	2	0
Slovenia	2	1
South Korea	1	1
Spain	91	62
Sweden	12	10
Switzerland	4	2
Taiwan	1	1
Turkey	2	2
United Kingdom	5	3
USA	2	1

## Financial Outcome

The conference will have a surplus. Details will be provided in the Final Financial Report

Submitted by:

**Marga Marcos and Richard Zurawski**

ETFA 2010 General Co-Chairs