

## **IFIP WORKING GROUP 10.5**

### **REPORT OF ACTIVITIES JULY 2002 - FEBRUARY 2003**

#### **1. Sponsored events**

DIPES'2002 – Workshop on Distributed and Parallel Embedded Systems, sponsored by the WG and organized by SIG-ES, was held in August 2002, as a special track of the IFIP World Congress in Montreal, Canada.

Next sponsored events will be:

- VLSI-SoC'03 – 12th International Conference on Very Large Scale Integration, which is the flagship event of WG 10.5, to be held in Darmstadt, Germany, from December 1<sup>st</sup> to 3<sup>rd</sup> 2003; and
- CHARME'2003 – 12th Advanced Research Working Conference on Correct Hardware Design and Verification Methods, which is organized by SIG-CHARME, to be held in L'Aquila, Italy, from October 21<sup>st</sup> to 24<sup>th</sup> 2003.

#### **2. In-cooperation events**

FDL'2002 - Forum on Design Languages, was held in Marseille, France, from September 23<sup>rd</sup> to 27<sup>th</sup> 2002. It has been organized by ECSI and co-sponsored by WG 10.5. Papers have been published on a CD-ROM.

SBCCI'2002 - Symposium on Integrated Circuits and Systems Design, was held in Porto Alegre, Brazil, from September 9<sup>th</sup> to 13<sup>th</sup> 2002. It has been sponsored by SBC – Brazilian Computer Society and SBMICRO – Brazilian Microelectronics Society and co-sponsored by WG 10.5. The proceedings have been published by IEEE Computer Society Press.

IP-BASED DESIGN, the International Workshop on IP-based SoC Design, has been held in Grenoble, France, from October 30<sup>th</sup> to 31<sup>th</sup> 2002. It has been organized by INPG and Design & Reuse and co-sponsored by WG 10.5. Proceedings have been published by the local organizers and distributed to the participants.

All these events have been co-sponsored by Working Group 10.5 without financial involvement.

Next in-cooperation events in 2003 will be DATE (Munich, Germany, March 3<sup>rd</sup> to 7<sup>th</sup>), ACSD – Intl. Conf. on Application of Concurrency to System Design (Guimarães, Portugal, June 18<sup>th</sup> to 20<sup>th</sup>), FDL (Frankfurt, Germany, September 23<sup>rd</sup> to 26<sup>th</sup>), and SBCCI (São Paulo, Brazil, September 8<sup>th</sup> to 11<sup>th</sup>).

### **3. Meetings**

Meetings have not been held in the time frame of this report.

Next meetings are scheduled for Munich, in March 2003, during the DATE conference, and for Anaheim, in June 2003, during the DAC conference.

### **4. Special Interest Groups**

The creation of a Special Interest Group on "Embedded Systems" (SIG-ES) has been approved after consideration on previous regular meetings and subsequent electronic discussion. It will be responsible for the organization of the DIPES conference ("Distributed and Parallel Embedded Systems"). The creation of SIG-ES has been submitted to TC10 for consideration. The SIG chair is Bernd Kleinjohann, from C-Lab, Germany. Although formally attached to WG 10.5, SIG-ES will be jointly sponsored by Working Groups 10.3 and 10.4.

### **5. Changes of membership**

There are no changes in membership to report.

### **6. Aims and scope**

The next WG meeting shall approve its new Aims and Scope. The new proposal for the Aims is as follows:

Electronic system design demands a tight integration on a very large profile of knowledge and skills ranging from system architecture to semiconductor physics.

Functionality of complex embedded or stand-alone systems, to be applied in areas such as general-purpose computing, telecommunications, automotive, entertainment, and multimedia, may be realized by various combinations of analog and digital hardware and software parts.

Systems can be implemented by single or multiple integrated circuits that can be either of special purpose, programmable or reconfigurable.

The working group aims at providing a forum amongst creative experts to explore problem areas and solutions for the design of such complex electronic systems and also disseminating the solutions to a broader industrial and educational sphere.

A proposal for the Scope resulted from a survey on research interests of the WG members and includes following topics:

VLSI Systems and Applications

System Design Methods

Embedded Systems

Reconfigurable Computing

Modeling and Specification  
Design Validation  
Formal Methods in Design  
Synthesis  
Design Environments  
Physical Design  
Test and Testability  
Power-aware Design  
Analog and Mixed-Signal Systems  
Fundamental CAD Algorithms

## **7. New activities**

A Working Group PhD forum will be organized for the first time at the next VLSI-SoC conference in Darmstadt, Germany, in December 2003. Funds are being requested from TC 10 and IFIP to support participation of PhD students from all continents.

WG members expressed interest in educational activities and on curricula development. A small Workshop on Education will be held during the next regular meeting in Munich, in March 2003, with 3 presentations. This activity shall be followed by subsequent ones, in future meetings.

## **8. Officers**

Officers have not changed in this period. Chair is Flávio R. Wagner (UFRGS, Brazil). Three vice-chairs represent the three continents – Nikil Dutt (Irvine, USA), Masaharu Imai (Osaka University, Japan), and Eugenio Villar (Univ. of Cantabria, Spain).

## **9. Home-page**

The WG 10.5 home-page is located at  
<http://www.inf.ufrgs.br/ifip10-5/real-index.html>