"2nd ARTIST2 SouthAmerican School for Embedded Systems"
Summary report

Jean-Marie Farines
Local Chair
Universidade Federal de Santa Catarina
farines@das.ufsc.br

Sergio Yovine
General Chair
VERIMAG-CNRS
Sergio.Yovine@imag.fr

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Venue. The School took place August 25-29, 2008 at the Department of Automation Systems (DAS) of Universidade Federal de Santa Catarina (UFSC), Florianópolis, Brazil.

Local organization. Participants and lecturers were housed together in two conveniently located hotels. A bus transported people to and from UFSC twice a day. There was a social dinner at a typical restaurant. The last day there was a visit of UFSC laboratories and a demo of an autonomous small vehicle performing an automated parking maneuver at the DAS control engineering laboratory. The organization favored establishing a friendly environment which greatly helped having a very lively school.

Lectures. The program consisted in 3 daily 2-hour long courses by Nicolas Halbwachs (VERIMAG-CNRS), Peter Marwedel (University of Dortmund), and Lothar Thiele (ETH, Zurich). The courses were interactive, and generated interesting discussions during coffee breaks and lunches in restaurants nearby. Courses were tape recorded. Videos should become available through the ARTIST2 web site as soon as the digitalization process would be completed.

Poster sessions. There were daily short (20 minutes) poster presentations by South American PhD and Master students. A total of 14 posters were presented. These were followed by discussions about research directions on embedded systems in South America, where connections with related work in Europe were pointed out to motivate forging new cooperations. The poster exhibition and short presentations were very important to spawn interactions between participants and lecturers.

Participants. There were a total of 119 registered participants, from which 88 were selected, and 79 regularly assisted to School lectures. 30% were PhD students, 35% were Master students, and the 30% were Faculty members, and the remaining 5% were Research Engineers from academia and industry, and undergraduate students. The scientific level of PhD and Master students was recognized to be very good (many of them have already published scientific papers in conferences of the filed).

Financial support. Besides ARTIST financial support to cover lecturers' travel and local expenses, organization costs and coffee breaks were fully covered by UFSC.

Concluding remarks. Clearly, this second edition achieved the desired goal of the School of forging and fostering scientific and academic cooperations in embedded systems between Europe and South America.

During the school, several meetings of ongoing research projects took place, such as the TAPIOCA project on timing analysis and implementation of critical embedded software on complex architecture, and the HIDROMONITOR project on sensor networks for monitoring natural water quality.

Other spontaneous meetings were organized with the aim of exploring prospective collaborations in topics of mutual interest. There have been contacts concerning the formal verification of timing properties of UAVs between UFSC (Bra.), IME (Bra.), UADE (Arg.) and VERIMAG (Fra.). Prof. Lothar Thiele had intense discussions and meetings with professors of DAS-UFSC (Bra.) on issues related to combine control with real-time processing. He had a longer visit to the LISHA laboratory of INE-UFSC (Bra.), including discussion on software generation for embedded systems and recent developments in sensor networks. He also participated to a group meeting with several colleagues at UFSC that are interested in the area of sensor networks, and presented his group's current research activities at ETH.

The poster session is considered to be a very important aspect of the event which serves to help graduate students to gain confidence in their work as they become active participants. There are plans to formalize this session as a WIP workshop associated with the School to attract further participants.

To conclude, participants, lecturers and organizers agree that the School must be continued, together with the alternating organization between Argentina and Brazil, with a clear vote to hold the 3rd edition in Buenos Aires.