

# ARTES++ Travel Report to PRDC'06

The 12th IEEE Pacific Rim Symposium on Dependable Computing, December 18-20<sup>th</sup>

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## 1 PRDC

PRDC 2006 is the twelfth in this series of symposia started in 1989 that are devoted to dependable and fault tolerant computing. PRDC is now recognized as the main regular event of the Pacific area that is covering the many dimensions of dependability and fault tolerance, encompassing fundamental theoretical approaches, practical experimental projects, and commercial components and systems. As applications of computing systems have permeated in every aspects of daily life, the dependability of computing system has become increasingly critical. This symposium provides a forum for countries around the Pacific Rim and other areas of the world to exchange ideas for improving the dependability of computing systems. (The above passage has been copied from the PRDC 2006 website)

This year's symposium was held at and organised by the University of California, Riverside. The city is located on the west coast of USA; a 1 hour drive from Los Angeles.

## 2 Contribution and Topics

My contribution to this conference was a short paper titled *Implementation Results of a Configurable Membership Protocol for Active Safety Systems*. This gave me the opportunity to give a short presentation (10mins) and to put up a poster presentation. Due to the absence of some other presenters, there was plenty of time for discussions and questions.

At the conference there were researchers from several well-known groups that presented their results. Of main interest to me was the research done on the consensus problem (Andre Schiper et al. working at EPFL in Lausanne, Switzerland) and failure detection (Antonio Fernandez, Sergio Arevalo et al. working at Univ. Rey Juan Carlos in Madrid, Spain). Both these research topics are in the context of asynchronous systems with communication networks with a mixed topology and where communication links may suffer failures. I have previously read some of the work from the different groups and have been inspired by the work. The general research task of writing well specified and understandable work is of course in common. The general layout of the research, e.g. what aspects of a problem are important, how a proof is formulated, how an algorithm is presented, thoroughness etc., is important to learn and take inspiration from and can also be used in my own work. It is always an experience to listen to presentations where both the work being described and the presentations themselves are of high quality.

The membership problem, which I study, is a subset of the consensus problem. Further, the environment for which my work is targeted is "nicer" in that it is basically synchronous and static. Also real-time properties are achievable in this environment and are of importance for the envisaged application; distributed real-time control systems.

## 3 Relevance and Conclusion

The topic of this conference (and the PRDC series) seems to be correct and right for my own research interests. The quality of the other contributions is generally very high. PRDC'06 accepted 42 regular papers and 20 short papers out of the total 117 submissions with about 35% and 17% acceptance rate for full papers and short papers respectively. The conclusion is thus that this conference would be the relevant forum to publish research work at, again in the future.

However, submitting short papers do not directly bring me closer to attaining my PhD. The return for submitting a full paper is much greater in the eyes of the follow-up group. Despite this, it has been a good experience to visit the PRDC-06 conference.