Simulation and Prototyping Environments for Mobile / Wireless Research

July 13th and 14th / UMIC Research Centre / RWTH Aachen

During the last 5 years the mobile/wireless networking research community has witnessed a vast improvement in the design and availability of tools to evaluate architectures and algorithms for mobile communication systems. On the one hand this relates to network simulations, where entirely new tools (like ns-3) have been released while existing ones have been continuously improved regarding model availability, parallelization and emulation capabilities. On the other hand, more and more prototyping platforms are available which allow the real-world evaluation of new approaches not only in the domain of sensor networks (where test networks like TWIST are available), but also for more advanced concepts like MANETS, VANETS, mesh and LTE networks (by means of prototyping platforms like WARP, GNU radio, CALradio or OPENAIRinterface.org).

While this diversity is quite beneficial for the research community in general, it is increasingly difficult to choose the appropriate tool for an evaluation study in the domain of wireless/mobile networks. Apart from the basic requirement of being aware of a tool, its capabilities and its availability are crucial factors that determine the choice. The objective of this workshop is to provide an overview of this highly dynamic field. We intend to bring together stakeholders from telecom operators, manufacturers, standardization and academia to discuss the state-of-the-art, usability and availability of simulations and prototyping environments.

Contributions of particular interest include, but are not limited to

- General simulation / prototyping tools for mobile/wireless networks
- Specialized simulation models / frameworks (link/system/protocol level)
- Scalability of simulation models and parallel network simulation
- Emulation tools/models and hybrid simulation
- Software for prototyping environments
- Recent research results either from novel simulation models or from prototyping environments emphasizing the value of the tool
- Demonstrations of simulation and prototyping tools

The open workshop will take place on July 14th at the UMIC Research Centre of RWTH Aachen University. In the afternoon of July 13th the UMIC Research Centre organizes a day of the open house where all participants are invited as well. Please inform the workshop organizers about your planned contribution by **May 31st**. The number of contributions is limited and assigned on a first come first served basis. The workshop program will be published by **June 15th**. To attend the workshop, please register by email before **June 30th**. For further questions, do not hesitate to contact the organizers:

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