Preface to the

First Workshop on Industrial Automation Tool Integration for Engineering Project Automation (iATPA 2011)

held in conjunction with the

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http://cdl.ifs.tuwien.ac.at/iatpa2011

Modern real-world and large-scale industrial systems engineering projects involve the cooperation of a wide range of engineering systems and tools that use different technical platforms and heterogeneous data models. The engineering of e.g., power plants or car manufactures requires coordinated information exchange between different engineering disciplines (e.g., process, mechanical, electrical, and software engineering), which is complex and hard to achieve using traditional systems engineering techniques. Well-established software engineering methods and approaches (e.g., iterative development processes, issue tracking systems) could provide additional value to systems engineering projects, but require careful integration and seamless collaboration with other engineering fields to achieve industrial acceptance.

Today's system integration technologies are suitable to bridge most of the technical and semantic gaps between these automation systems engineering tools. However, error-prone and time-consuming human work (e.g., manually copying information from one to another tool) is needed to handle integration concerns at the interfaces of different engineering disciplines as each of them has their specific engineering tools and engineering systems. Therefore the definition, enactment, and monitoring of automated engineering processes crossing several interfaces is hard to define and establish.

The goal of the workshop is the investigation of methods and techniques for the automation support of automation systems engineering processes to improve the effectiveness and efficiency of engineering projects.