

Experiences Using Ada in a Real-time and Distributed Laboratory

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Real-Time
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Software Development
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Abstract:

This paper reviews our experience in the laboratory of two courses in the Control Engineering Curriculum at the Politechnical University of Valencia: Real-time systems and Distributed Control systems. These courses, in a Control Engineering curriculum, require the development of industrial prototypes to validate different aspects of the system development: control algorithms, real-time software design, external devices integration, distributed control, etc. To accomplish these objectives a robot guidance experience has been selected. In this paper, we describe the experience in the design and implementation of a virtual and real environment developed in Ada to complete the student laboratory activities. The system is complex enough to allow the students to analyze, design and implement a complete prototype.