



# The Spanish university network of web-based laboratories for control engineering education: The AutomatLabs project

## Špansko univerzitetno omrežje internetno osnovanih laboratorijev za pouk nadzornega inženiringa: projekt AutomatLabs

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### Povzetek

Na predstavitvi bom opisal špansko meduniverzitetno izkušnjo, znano pod imenom 'Projekt AutomatLabs'. Glavni cilj projekta je oblikovanje, razvoj in uporaba omrežja virtualnih in oddaljenih laboratorijev za poučevanje/učenje nadzornega inženiringa preko spleta. Metodologija, ki smo jo uporabili pri razvoju AutomatLabs je upoštevala: a) tehnične podrobnosti, potrebne za preoblikovanje vseh tradicionalnih kontrolnih laboratorijev v virtualni/oddaljen, spletni laboratorij in b) vse vidike, ki so se navezovali na vključevanje spletnih laboratorijev v orodje, ki ponuja podporo akademskemu načrtovanju, temelječem na učnih ciljih. Na predstavitvi bo prav tako prikazan demo - opis treh eksperimentalnih sistemov v Automatlabs.

### Abstract

In the lecture, we will describe the Spanish inter university experience, known as "the AutomatLabs project" whose main objective is the design, development and exploitation of a network of virtual and remote laboratories for the teaching/learning of control engineering across Internet. The methodology employed in the development of AutomatLabs has considered: a) the technical details necessary to transform any traditional control laboratory in a virtual/remote web-based one, and b) all the aspects related to the integration of the web-based laboratories in a tool that gives support to the academic planning based on pedagogic goals. Also the lecture presents a demo/description of three experimentation systems presented in Automatlabs.