Automated design of robust digital controllers

Fact Sheet

Project Information

Grant agreement ID: FMBI950031

Project closed

Start date
1 April 1996

End date
31 March 1998

Funded under
Specific research and technological development programme in the field of the training and mobility of researchers, 1994-1998

Total cost
No data

EU contribution
No data

Coordinated by
INSTITUT NATIONAL POLYTECHNIQUE DE GRENOBLE
France

Objective

Certain processes in today's industrial applications require more sophisticated control techniques than traditional analogue controllers can provide. Additionally parameter uncertainties of the processes are to be respected.
Robust digital controllers are able to comply with these demands. Yet, current design procedures are time-intensive and unsuitable for application in industry.

The purpose of the project is to provide a more user-friendly design procedure for robust digital controllers in order to render their outstanding features more accessible for industrial applications. The theoretical aspect of the project consists of the optimisation of t different design steps (from identification to real-time control) of robust digital controllers. A qualified state-of-the-art analysis including several international benchmark competitions and real-time experiments yield useful information for significant improvement of the controller synthesis steps. Based on these results more efficient algorithms are to be developed.
The practical part of the project includes the implementation of the algorithms in a software programme and their validation in experiments in order to prepare their introduction in industry.

Fields of science (EuroSciVoc)

natural sciences > computer and information sciences > **software**

Programme(s)

FP4-TMR - Specific research and technological development programme in the field of the training and mobility of researchers, 1994-1998

Topic(s)

0302 - Post-doctoral research training grants

TI07 - Automation, Computer Hardware, Robotics

Call for proposal

Data not available

Funding Scheme

RGI - Research grants (individual fellowships)

Coordinator

INSTITUT NATIONAL POLYTECHNIQUE DE GRENOBLE

EU contribution

No data

Total cost

No data

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Participants (1)

Not available

Germany

EU contribution

No data

Address

Total cost

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