Process Modelling, Identification, and Control 2

J. Mikleš, M. Fikar, Slovak University of Technology in Bratislava

The book deals with mathematical modelling of sampled data systems, design of simple PID controllers, identification of processes, optimal, predictive, and adaptive process control. The intended audience of this book includes graduate students but can also be of interest to practising engineers or applied scientists that are interested in modelling, identification, and process control.

ISBN 80-227-2132-8, 260 pages

CONTENS:

Discrete-Time Process Models

Input-Output Models, State-Space Models, Properties of Discrete-Time Systems, Discrete-Time Feedback System

Process Identification

Identification from Step Responses, Recursive Least Squares Method, IDTOOL-MATLAB Toolbox

Simple Controllers

PID Controller, Practical Aspects

Optimal Process Control

Principle of Minimum, Dynamic Programming, State Feedback with Observer and Polynomial Pole Placement, Parametrisation of Stabilising Controllers, Observer LQ Control – State-Space and Polynomial Interpretation, LQG Control – State-Space and Polynomial Interpretation, H_2 Optimal Control

Predictive Control

Derivation and Implementation of Predictive Control, Stability Results, Tuning

Adaptive Control

Discrete, and Continuous-Time Self-Tuning Control, SISO, and MIMO Case

The examples in the book are freely accessible in the Internet at the address:
www.kirp.chtf.stuba.sk/~fikar/research/other/index.htm

ORDER FORM is available in the Internet at the address:
http://www.kirp.chtf.stuba.sk/book/
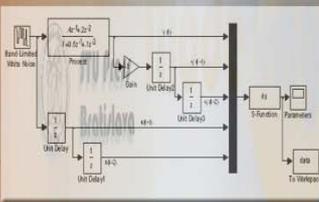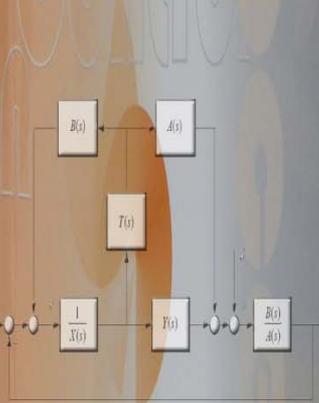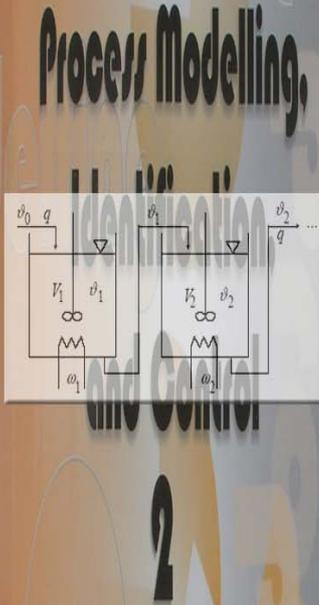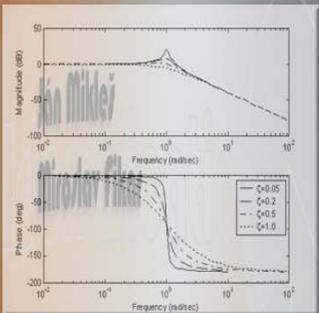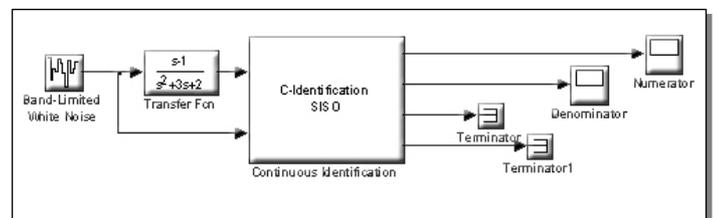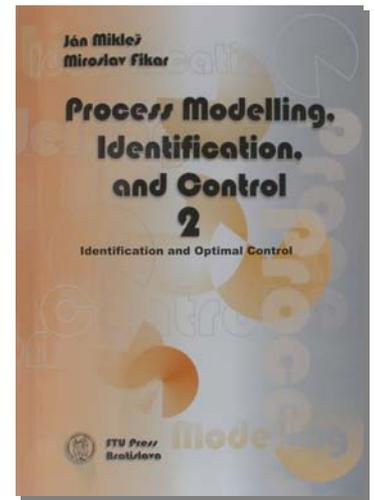
Order Form

I would like to order the book **Process Modelling, Identification, and Control.** STU Press, Bratislava:

Item	Price	Quantity	Total
Volume 1 (slovak, PDF)[*]	50,- Sk		
Volume 1 (english)	250,- Sk		
Volume 2 (slovak)	250,- Sk		
Volume 2 (english)	800,- Sk		
Total			

* Note that the Volume 1 in slovak is out of print and is available only in PDF.

The price indicated does not include postage. Exchange rate is approximately 39 Sk = 1 Euro.

Please fill-in the following information:

Surname:	
Name:	
Address:	
E-mail:	
(IČO, DIČ)*:	

* only for Slovak and Czech Republic