



IFAC

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FAULT DETECTION, SUPERVISION AND SAFETY FOR TECHNICAL PROCESSES 2000

*A Proceedings volume from the 4th IFAC Symposium
Budapest, Hungary, 14 - 16 June 2000*

Edited by

A. M. EDELMAYER

Co-edited by
Cs. BÁNYÁSZ

Volume 1



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PREFACE

SAFEPROCESS is a triennial symposium series of IFAC, the International Federation of Automatic Control, covering the area of fault detection, supervision and safety for technical processes. Following the successful previous meetings in Baden-Baden, Germany (1991), Helsinki, Finland (1994) and Kingston-Upon-Hull, United Kingdom (1997), it was the privilege of the Hungarian National Member Organization (NMO) of IFAC to host the 4th meeting of this symposium series in Budapest, Hungary, between June 14 and 16, 2000.

The theme of the SAFEPROCESS 2000 symposium was reliability, availability and safety of technical processes and their control systems. These qualities are emphasized during all phases of design and at start-up, normal system operation, maintenance and repair. Reliability, availability and safety imply the continuous monitoring of the whole process, including the sensors, actuators and control equipment, both in open and closed-loop operation, and also human factors of the operation. Fault tolerant control and concepts of reconfigurability of the systems play an increasing role in the discussions. The wide range of different issues to be considered implies that many papers are interdisciplinary in their approach.

The Budapest symposium had a distinctive character. It lent a special significance to this meeting that it took place at the turn of the millennium. This certainly inspired the experts, coming together from all corners of the world (altogether from 28 countries), to take a critical look at the evolution of the field during the century ending now, and to chart its future development for the one to start. SAFEPROCESS 2000 provided an important forum for assessing how research in this field of systems science has affected practical engineering and what needs to be done for it to really penetrate our everyday life.

The 36 technical sessions of the program were compiled from 217 carefully selected invited and regular papers, in 5 parallel sessions. These comprised 6 plenary overviews covering the fields of diagnosis in process control and automotive engineering, state-of-the-art reviews and surveys, contributed papers describing the latest results, and 9 specially organized invited sessions striking a good balance between application and theory.

We feel certain that the SAFEPROCESS 2000 symposium proved useful and rewarding to all participants.

András Edelmayer
Editor

Csilla Bányász
Co-Editor

CONTENTS

VOLUME 1

PLENARY PAPERS

Fault-Tolerant Drive-by-Wire Systems — Concepts and Realizations — <i>R. Isermann, R. Schwarz, S. Stölzl</i>	1
Current Developments in the Theory of FDI <i>P. M. Frank, S.X. Ding, B. Köppen-Seliger</i>	17
Diagnosis of Quantised Systems <i>J. Lunze</i>	29
What is Fault-Tolerant Control? <i>M. Blanke, C. W. Frei, F. Kraus, R.J. Patton, M. Staroswiecki</i>	41
All Linear Methods are Equal - and Extendible to Nonlinearities <i>J. Gertler</i>	53
Model Based Fault Detection: The Optimal Past, The Robust Present and a Few Thoughts on the Future <i>R. S. Mangoubi, A. M. Edelmayer</i>	65

INVITED PAPERS

AUTOMOTIVE SYSTEMS DIAGNOSTICS

Organizers: G. Rizzoni and A. Soliman

Misfiring Detection in 8 Cylinders Turbo Engine <i>N. Montibelli, M. Ruggeri, C. Siviero, C. Barberio</i>	77
Model Based Diagnosis of Sensor Faults for ESP-Systems <i>E. L. Ding, H. Fennel, S. X. Ding</i>	83
Qualitative Model-Based Fault Detection of a Fuel Injection System <i>D. Förstner, J. Lunze</i>	89
Model Based Tire Pressure Diagnosis <i>A. Maisch, U. Kiencke</i>	95
A Design Methodology of Diagnostic Systems for the Automotive Industry <i>L. Magni, M. Ravara, C. Rossi, R. Scattolini</i>	107
A Prediction System for the Reliability Improvement of the Vehicle-Follower Control on the Automated Highway <i>S. Attouche, S. Hayat, M. Staroswiecki</i>	113
Fault Detection of a Solenoid Valve for Hydraulic Systems in Vehicles <i>O. Moseler, H. Straky</i>	119
Estimation Problems in Engine Control and Diagnosis <i>G. Rizzoni, Y-W. Kim, A. Soliman</i>	125
A Possibilistic Approach to Causal Diagnosis for Engine Dyno Test Benches <i>O. De Mouzon, D. Dubois, H. Prade, S. Boverie</i>	133

Confidence Level Analysis for On-Board Estimation of SI Engine Catalytic Converter Efficiency <i>I. Arsie, G. Flauti, C. Pianese, G. Rizzo, C. Barberio, R. Flora, G. Serra, C. Siviero</i>	139
Evaluation of Test Quantities for Leakage Diagnosis in the Air Path of an Automotive Engine <i>M. Nyberg</i>	145

DIAGNOSIS USING INTERVAL AND INTEGRAL APPROACHES

Organizer: J. Ragot

Bounding Approach to the Diagnosis of Uncertain Static Systems <i>S. Ploix, O. Adrot, J. Ragot</i>	151
Robust Fault Detection: Active Versus Passive Approaches <i>V. Puig, J. Quevedo, S. Tornil</i>	157
Fault Detection and Isolation in the Monitoring of Inequality Constraints <i>M. Staroswiecki, D. Guerchouh</i>	165
Interval Model-Based Fault Detection Using Multiple Sliding Time Windows <i>J. Armengol, J. Vehí, L. Travé-Massuyes, M. Á. Sainz</i>	171
Interval-Based Diagnosis of an Anaerobic Digester Pilot Plant <i>J. P. Steyer, J. Harmand, V. Alcaraz-González</i>	177

NEURAL NETWORKS IN FAULT DETECTION AND ISOLATION SYSTEMS

Organizers: J. Korbicz and K. Patan

Fault Detection and Isolation in Robotic Systems via Artificial Neural Networks <i>M. H. Terra, R. Tinós</i>	183
Application of Dynamic Neural Networks in an Industrial Plant <i>K. Patan, J. Korbicz</i>	189
Fault Diagnosis of an Industrial Plant at Different Operating Points Using Neural Networks <i>S. Simani</i>	195
A Reliability-Based Failure Management Application Using Intelligent Hybrid Systems <i>J. Aguilar, M. Cerrada, K. Morillo</i>	201
Application of Perceptron Neural Networks for Fault Detection <i>A. Jankowska, M. Bartyś</i>	207

OBSERVER-BASED FAULT DETECTION IN NONLINEAR SYSTEMS

Organizer: M. Kinnaert

A Geometric Approach to Nonlinear Fault Detection and Isolation <i>C. De Persis, A. Isidori</i>	213
On High Gain Observer Based Robust Fault Detection in Nonlinear Systems <i>G. Besançon</i>	219
On-Line Fault Detection and Isolation for a Hydraulic Process. An Observer-Based Approach <i>H. Hammouri, S. Othman, P. Kabore</i>	225
A Fault Detection Observer Method for Nonlinear Systems <i>D. N. Shields, S. Ashton</i>	231
On the Equivalence Between Observer-Based and Parity Space Approaches for F.D.I in Non-Linear Systems <i>V. Cocquempot, C. Christophe</i>	237

DETECTION FILTERS

Organizer: A. Edelmayer

Steady State Observer for Fault Detection of Hereditary Systems with Weak Dynamics <i>P. Zítek, T. Vyhlídal</i>	243
A Geometric Approach to Fault Detection and Isolation for Bilinear Systems: Application to Heat Exchangers <i>P. Kabore, H. Hammouri, M. Kinnaert</i>	249
A New Optimization Approach to the Design of Fault Detection Filters <i>S. X. Ding, E. L. Ding, T. Jeinsch</i>	255
Standard $\mathcal{H}_\infty$ Filtering Formulation of Robust Fault Detection <i>J. Chen, R. J. Patton</i>	261
Optimal Fault Estimation <i>H. Niemann, A. Saberi, A. A. Stoorvogel, P. Sannuti</i>	267
Application of an $\mathcal{H}_\infty$ Based FDI and Control Scheme for the Three Tank System <i>J. Stoustrup, H. Niemann</i>	273

PRINCIPLES OF DIAGNOSIS

Organizer: J. Lunze

AI and Automatic Control Approaches of Model-Based Diagnosis: Links and Underlying Hypotheses <i>M-O. Cordier, P. Dague, M. Dumas, F. Lévy, J. Montmain, M. Staroswiecki, L. Travé-Massuyès</i>	279
Diagnosis Based on Symbolic Dynamical Models <i>J. Lunze, J. Schröder</i>	285
Alarm Driven Monitoring Based on Chronicles <i>M-O. Cordier, C. Dousson</i>	291
Structural Analysis of System Reconfigurability <i>A.-L. Gehin, M. Assas, M. Staroswiecki</i>	297

ADVANCED METHODS OF FDI, SUPERVISION AND CONTROL OF HIGH RELIABILITY SYSTEMS

Organizer: A. Edelmayer

Soft Computing Approaches to Fault Diagnosis for Dynamic Systems: A Survey <i>R. J. Patton, F. J. Uppal, C. J. Lopez-Toribio</i>	303
From Control to Supervision <i>M. Staroswiecki, A.-L. Gehin</i>	317
Scaled H_∞ Filtering for Sensitivity Optimization of Detection Filters <i>A. M. Edelmayer, J. Bokor</i>	329

RESEARCH OF QUANTITATIVE AND QUALITATIVE FDI METHODS BASED ON DATA FROM LUBLIN SUGAR FACTORY

Organizer: M. Syfert

Diagnostics of Evaporator in a Sugar Factory Based on Fuzzy Models <i>M. Syfert, J. Nowak</i>	337
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Fault Detection Based on Fuzzy Neural Networks - Application to Sugar Factory Evaporator <i>J. M. Kościelny, A. Ostasz, P. Wasiewicz</i>	343
Diagnosis of Sugar Factory Processes Using GMDH Neural Networks <i>J. Korbicz, J. Kuś</i>	349
Parametric and Neural Network Models for Fault Detection and Isolation of Industrial Process Sub-Modules <i>A. Janczak</i>	355
Miscellaneous Neural Networks Applied to Fault Detection and Isolation of an Evaporation Station <i>T. Marcu, L. Mirea, L. Ferariu, P. M. Frank</i>	359
Application of B-Spline Neuro-Fuzzy Networks to Identification, Fault Detection and Isolation <i>F. J. Uppal, R. J. Patton</i>	365

VOLUME 2

TECHNICAL PAPERS

OBSERVER-BASED APPROACHES TO FDI

An Alternative Observer-Based Approach to Robust Fault Detection <i>D. W. Gu, F. W. Poon</i>	371
Robust Fault Detection and Isolation via Unknown Input Observers <i>S. Barbulea, A. Serbanescu, P. Arsene, I. Fagarasan</i>	377
Fault Detection Filter Design by System Inversion: Application to Systems with Time Delay <i>C. E. Vera-Rojas</i>	381
Fault Detection and Isolation Filter Design by Inversion: The Case of Linear Systems <i>F. Szigeti, A. Ríos, R. Tarantino</i>	387

NEURAL NETWORKS

Classification of Faults in Uncertain Regions Using Counter-Propagation Neural Network <i>L. Kovács, G. Terstyánszky</i>	393
Diagnosing Priori Unknown Faults by Radial Basis Function Neural Network <i>I. Dalmi, L. Kovács, I. Loránt, G. Terstyánszky</i>	399
Diagnostic Decision Using Recurrent Neural Networks <i>M. Alexandru, C. Combastel, S. Gentil</i>	405
Architecture and Selected Algorithms of a Process Condition Monitoring Microsystem <i>U. Marschner, I. Jossa, G. Elender, T. Herrmann, W.-J. Fischer</i>	411
Fuzzy and Genetic Approach to Diagnosis of Power Transformers <i>P. S. Szczepaniak</i>	417
Model and Signal Based Fault Detection for On/Off Solenoid Valves <i>T. Brune, R. Isermann</i>	423
Nonlinear Fault Detection by a Bank of Neural Estimators <i>A. Alessandri, M. Delia, G. Graffione, T. Parisini</i>	429
A General Approach for Diagnostic Problems Solving by Abduction <i>V. Arton, D. Arton</i>	435

Linear Classification of Faults in Steady-State <i>T. W. Rauber, L. Gomes, A. S. Steiger Garção</i>	441
Assessment and Identification of Undesired States in Chemical Semibatch Reactors Using Neural Networks <i>G. Hessel, H. Kryk, W. Schmitt, T. Seiler, F.-P. Weiss, G. Deerberg, J. Neumann</i>	447
Detection of Ill Separable Faults <i>J. Bila, L. Koran, R. Mankova</i>	451
Fault Diagnosis System Using Neural Networks Models <i>F. J. García, A. J. García, J. Candau, J. R. Perán</i>	457
Fault Detection and Isolation in a Non-Linear Plant via Neural Networks <i>M. J. Fuente, S. Saludes</i>	463
Neural Ensembles for Event Identification <i>D. Roverso</i>	469
Monitoring and Supervision of an Electrical Welding Process Based on Noise Arc Signals and Neuro-Fuzzy Techniques <i>C. Miholca, D. Aiordachioaie, E. Ceanga, G. Vasiliu, N. Marasescu</i>	475
METHODOLOGY OF FAULT DIAGNOSIS	
Development of a Fuzzy-Based Diagnosis System for the Supervision of the Operation in Anaerobic Wastewater Treatment Plants <i>J. Rodríguez, A. Puñal, E. F. Carrasco, E. Roca, J. M. Lema</i>	481
Combining Qualitative & Quantitative Reasoning - A Hybrid Approach to Failure Diagnosis of Industrial Systems <i>M. Sampath, A. Godambe, E. Jackson, E. Mallow</i>	487
The Reduction of No Fault Found Incidents Using Weighted Posterior Knowledge Integration <i>S. Marriott, R. F. Harrison</i>	495
Fault Isolation Method Based on Time Sequences of Symptom Appearance <i>J. M. Kościelny, K. Zakroczymski</i>	499
A Combined Qualitative/Quantitative Approach for Fault Isolation in Continuous Dynamic Systems <i>E.-J. Manders, S. Narasimhan, G. Biswas, P. J. Mosterman</i>	505
FAULT DETECTION AND DIAGNOSIS	
Fault Diagnosis of a Simulated Model of an Industrial Gas Turbine Prototype Using Identification Techniques <i>R. J. Patton, S. Simani, S. Daley, A. Pike</i>	511
Fault Detection and Isolation Applied in a Manipulator Robot via Luenberger Observers <i>M. H. Terra, R. A. Mendes</i>	517
Real and Complex Stability Radii on the Analysis of Underactuated Manipulator Performance Controlled via LMI <i>M. H. Terra, T. L. S. Barbeiro</i>	523
Sensor Failure Detection of Air Quality Monitoring Network <i>M. F. Harkat, G. Mourot, J. Ragot</i>	529

Sensor Fault Diagnosis and Accommodation Based on Analytical Redundancy: Application to a Three-Tank System <i>D. Theilliol, J. C. Ponsart, H. Noura</i>	535
Fault Detection in Lightly Damped Systems Using Rational Orthonormal Functions <i>A. Soumelidis, Z. Szabó, J. Bokor</i>	541
Sensor Fault-Diagnosis in a Turbo-Charged Combustion Engine <i>S. Jakubek, H. P. Jörgl</i>	547
Estimation of Rotational States in Vehicle Rollover Using Accelerometers <i>R. Eger, U. Kiencke, A. Maisch</i>	553
System Identification: Resolving the Conflict Between Fault Detection and Control <i>F. N. Chowdhury</i>	559
Detection and Isolation of Manoeuvres in Kalman-Based Tracking Filter <i>Z. Kowalczyk, M. Sankowski</i>	565
Failure Prevention Based on Parameters Estimation and Prediction <i>O. V. Abramov, A. N. Rozenbaum, A. A. Suponya</i>	571
Finite Memory Observer for Input-Output Estimation. Application to Data Reconciliation and Diagnosis <i>J. Ragot, F. Kratz, D. Maquin</i>	575
Detection Signal Design for Failure Detection: A Linear Programming Approach <i>H. R. Scola, R. Nikoukhah, F. Delebecque</i>	581
Order of Residual Generators - Bounds and Algorithms <i>E. Frisk</i>	587
Fault Detection in the Presence of Modelling Errors <i>M. Žele, Đ. Juričič</i>	593
Control of Semi-Continuous Processes by Mass Resampling <i>A. Bettoni, E. B. Martin, A. J. Morris</i>	599
Residual Evaluation without Derivative Computation <i>P. Taillibert</i>	605
ROBUST FDI	
An Approach to the Robust Fault Detection Problem for Uncertain Systems with Time-Varying Parameters <i>N. Mechbal, H. Guillard, M. Vergé</i>	611
Criteria for Detectability and Strong Detectability of Faults in Linear Systems <i>M. Nyberg</i>	617
Design of Structured Residuals in Algebraic Dynamic Systems <i>M. Staroswiecki, G. Comtet-Varga</i>	623
Mixed Robust H_{∞} - Suboptimal Eigenstructure-Assignment Synthesis of Fault Diagnosis Observers <i>P. Suchomski, Z. Kowalczyk</i>	629
Design of Robust FDI Systems Using the Generalized Structured Singular Value <i>D. Henry, A. Zolghadri, M. Monsion</i>	635
Detection Filter Design for LPV Systems <i>G. Balas, J. Bokor</i>	641

APPLICATION OF FUZZY LOGIC TO FDI

Multi Model Based Fault Diagnosis of a Sugar Cane Crushing Process <i>S. Simani</i>	645
FTSM - Fast Takagi-Sugeno Fuzzy Modeling <i>M. Männle</i>	651
Knowledge-Based Fault Detection in Industrial Plants Supported by Rough-Fuzzy Learning <i>Q. Shen, A. Chouchoulas</i>	657
Fuzzy Evaluation of Residuals in FDI Methods <i>D. Maquin, J. Ragot</i>	663
Current Diagnostics of Power Boiler System with Use of Fuzzy Logic <i>J. M. Kościelny, M. Syfert</i>	669
A Fast and Efficient Method for Hypothesis Assessment Using Fuzzy Constraints <i>D. Szego, S. Baranyi, K. Tilly</i>	675

MONITORING AND PROCESS SUPERVISION

Execution Monitoring of Industrial Process Controllers: An Application of Ontological Control <i>M. Bjärelund, G. Fodor</i>	681
Towards an Integrated Supervision System for Industrial Wastewater Treatment: Application to the Metal Finishing Industry <i>G. Tapia Trejo, K. Szafnicki, J. Bourgois</i>	687
Supervisory Monitoring and Control for Manufacturing Processes <i>H. Méndez, D. Alligier, E. Zamaï, B. Descotes-Genon</i>	693
Plantwide Risk Management Using Distributed Objects <i>R. Sanz, M. Segarra, A. de Antonio, I. Alarcón, F. Matía, A. Jiménez</i>	699
Blind Source Separation: A Tool for System Monitoring and Fault Detection? <i>G. Gelle, J. Galy, G. Delaunay</i>	705

NONLINEAR OBSERVER-BASED FDI

Observer-Based Strategies for Fault Diagnosis in a Three-Tank System <i>M. Hou, R. J. Patton</i>	711
Design and Stability Analysis of a Fault Accommodation Scheme for a Class of Nonlinear Dynamical Systems <i>M. M. Polycarpou</i>	717
Fault Isolation of Nonlinear Uncertain Systems <i>M. M. Polycarpou, T. Parisini, X. Zhang</i>	723

RECONFIGURABLE AND SCALABLE SYSTEMS

On-Line Multiple-Model Based Adaptive Control Reconfiguration for a Class of Nonlinear Control Systems <i>Z. Yang, R. Izadi-Zamanabadi, M. Blanke</i>	729
CoCa - Object Architecture for Controller Reconfiguration <i>J. M. Perronne, M. Hassenforder</i>	735

Similarity Based System Reconfiguration in the Control System of an Experimental AGV <i>Sz. Kovács, G. Terstyánszky, L. T. Kóczy, D. Vadász</i>	741
Reconfiguration Against Major Actuator Failures <i>V. Dardinier-Marón, H. Noura, F. Hamelin</i>	747

VOLUME 3

HUMAN FACTORS OF SAFETY

Human Risk Assessment Method to Control Dynamic Situations <i>F. Vanderhaegen, P. Polet</i>	753
On-Line Damage Detection, Assessment and Accommodation in Civil Infrastructure Systems <i>M. A. Demetriou</i>	759
A Concept of Teaching Model-Based Condition Monitoring <i>A. Rakar, D. Juričić, S. Strmčnik</i>	765
Conceptual System Draft for Safeprocess: Relations and Definitions <i>D. van Schrick</i>	771

FAULT TOLERANT SYSTEMS DESIGN

Sensor Fault-Tolerant Control Method Applied to a Winding Machine <i>H. Noura, J.-C. Ponsart, D. Theilliol</i>	777
Fault Tolerance with Respect to Actuator Failures in LTI Systems <i>G. Hoblos, M. Staroswiecki, A. Aïrouche</i>	783
Sensor Fault Tolerant Control of Nonlinear Systems with Application to a Three-Tank-System <i>D. H. Zhou, G. Z. Wang, S. X. Ding</i>	789
Reconfigurable Control of Quantised Systems <i>J. Lunze, T. Steffen</i>	795
Control Design of an Industrial Equalization System - Handling System Constraints, Actuator Faults and Varying Operating Conditions <i>M. Devisscher, J. Harmand, J-P. Steyer, P. A. Vanrolleghem</i>	801
A Smart Actuator for Fault-Tolerant Control <i>D. Lee, G. Allan, H. A. Thompson, S. Bennett</i>	807
A Fault Tolerance System for Robotic Manipulators with Free-Swinging Joint Failures <i>R. Tinós, M. H. Terra, M. Bergerman</i>	813
On Reconfigurability <i>N. E. Wu, K. Zhou, G. Salomon</i>	819
A Decentralized Adaptive Approach to Fault Tolerant Flight Control <i>N. E. Wu, V. Nikulin, F. Heimes, V. Skormin</i>	825
Failure Propagation Analysis in a Real Time Environment <i>D. John, U. Kiencke, U. Bauer</i>	831

DESIGN FOR RELIABILITY AND SAFETY

Failure Detection and Isolation - Optimal Design of Instrumentation System <i>G. L. Gissinger, M. Luong, H.-F. Reynaud</i>	837
Combining Sensor Redundancy for Fault Detection in Navigation of an Autonomous Mobile Vehicle <i>P. Bikfalvi, I. Loránt</i>	843
Safety Analysis During the Control Architecture Design of Automated Systems <i>P. Meunier, B. Denis, J.-J. Lesage</i>	849
Optimal Sensor's Placement Under Constraints of Redundancy Degree and Cost <i>N. Héraud, E. H. Mazzour, Ch. Alberti</i>	855
Formal Verification: A Tool to Improve the Safety of Control Systems <i>O. Rossi, O. de Smet, S. Couffin, J.-J. Lesage, H. Papini, H. Guennec</i>	861
On Reliability of Redundancy Systems with Different Types of Failures <i>M. B. Rosenhaus, V. I. Zarudny</i>	867

CASE STUDIES AND IMPLEMENTATIONS

Analysis of a Failure Detection and Identification Scheme for the Eagle-Eye Unmanned Air Vehicle <i>C. Rago, R. K. Mehra</i>	873
Evaluating Some Gain Scheduling Strategies in Diagnosis of a Tank System <i>M. Klein, L. Nielsen</i>	879
Visual Lane and Obstruction Detection System for Commercial Vehicles <i>P. Gáspár, I. Szácsi, T. Bartha, I. Varga, J. Bokor, L. Palkovics, L. Gianone</i>	885
Pareto-Optimal Observers for Ship Propulsion Systems by Evolutionary Computation <i>Z. Kowalczyk, T. Białaszewski</i>	891
Signal Model Based Fault Diagnosis for Combustion Engines <i>M. Willimowski, F. Kimmich, R. Isermann</i>	897
Non-Linear Engineering Simulator of Coal Fired Steam Boiler Applied to Fault Detection of Optimum Combustion Control <i>P. Neuman, B. Sulc, P. Zítek, T. Dlouhý</i>	905
Seed Quality Assessment in an Industrial Fermentation Using MPCA <i>C. C. F. Cunha, J. Glassey, G. A. Montague, S. Albert, P. Mohan</i>	911
An Assessment of Fault Detection Methods for a Benchmark System <i>D. N. Shields, S. Du</i>	915
Leak Detection and Isolation for Transmission Pipelines via Nonlinear State Estimation <i>Z. Kowalczyk, K. Gunawickrama</i>	921
Application of Information System Theory for Actuators Diagnosis <i>J. M. Kościelny, M. Z. Bartys</i>	927
Observer Based Fault Detection and Isolation in Induction Machine Drive <i>N. Jerance, B. Raison, O. Sename</i>	933
Utilizing Backward Error Recovery to Achieve Fault Tolerance in a SIMD Supercomputer <i>T. Bartha</i>	939

FDI TO NONLINEAR SYSTEMS

Genetic Programming Based Observers for Nonlinear Systems <i>M. Witczak, J. Korbicz</i>	945
Fault Detection Through Dynamics Monitoring for Unmanned Underwater Vehicles <i>A. Alessandri, G. Bruzzone, M. Caccia, P. Coletta, G. Veruggio</i>	951
Residual Generator Design for Non-Linear, Polynomial Systems - A Gröbner Basis Approach <i>E. Frisk</i>	957
Fault Diagnosis and Remote Support System for the Variable Volume Pressure Filter <i>S-L. Jämsä-Jounela, T. Kuitunen, C. Quiroz, J. Kämpe</i>	963
Diagnosing Parametric Faults in Induction Motors with Nonlinear Parity Relations <i>J. Bouattour, J. Gertler, Y. Hu</i>	971
Structured Partial Principal Component Analysis: Extension to Polynomial Nonlinearities <i>J. Gertler, Y. Hu, Y. Huang, T. McAvoy</i>	977
A Misfire Detection Method Using Nonlinear Moving Polynomial Filtering <i>M. Lindemann, D. Filbert</i>	983
Fault Detection and Isolation in the Presence of Unmeasured Disturbance: Application to Binary Distillation Columns <i>F. Szigeti, A. Ríos-Bolívar, L. Rennola</i>	989
Robust Failure Detection and Isolation for Input-Output Non-Linear Systems <i>R. Linker, P. O. Gutman</i>	993

STATISTICAL APPROACHES TO FDI

Model Based Fault Diagnosis Using Structured Hypothesis Tests <i>M. Nyberg</i>	999
A Coherency Function Approach for Model-Free Fault Detection and Isolation <i>F. Previdi, T. Parisini</i>	1005
Canonical Correlation Analysis in Process Fault Detection <i>A. Simoglou, E. B. Martin, A. J. Morris</i>	1011
A Mixed Failure Isolation and Estimation Approach for Pollution Monitoring <i>G. Delmaire, M. Benjelloun</i>	1017
Fault Monitoring of Control Systems with Abrupt Changes <i>C. D. Charalambous, J. L. Hibey</i>	1023
Statistical Fault Isolation with PCA <i>G. Gómez, A. Lendasse</i>	1029

APPLICATION OF AI METHODS TO FDI

Analysis of Structural Properties of Thermodynamic Bond Graph Models <i>B. Ould Bouamama, F. Busson, G. Dauphin-Tanguy, M. Staroswiecki</i>	1035
Fault Isolation in Hybrid Systems Combining Model Based Diagnosis and Signal Processing <i>S. Narasimhan, F. Zhao, G. Biswas, E. Hung</i>	1041
Analysis of Temporal Properties of Fault Diagnosis by Petri Net <i>G. Z. Terstyánszky</i>	1047

Combining Symbolic Conflict Recognition with Markov Chains for Fault Identification <i>F. S. Smith, Q. Shen</i>	1053
Application of Parameter Estimation Techniques to a Smart Fuel Metering System <i>H. Benítez-Pérez, S. M. Hargrave, H. A. Thompson, P. J. Fleming</i>	1059
Fault Isolation in Object Oriented Control Systems <i>M. Larsson, I. Klein, D. Lawesson, U. Nilsson</i>	1065
Systematic Conflict Generation in Model-Based Diagnosis <i>A. Ligeza, B. Górný</i>	1071
Diagnosis of Discrete-Event Systems with Uncertain Observations <i>G. Lamperti, M. Zanella</i>	1077
Distributed Fault Diagnosis of the Tennessee Eastman Process Benchmark <i>J. Chen, J. Howell</i>	1083
Acquisition of Diagnostic Knowledge from Examples Corresponding to Complex Technical States <i>W. Moczulski</i>	1089
Intelligent Alert State Detection and Switching Order Generation at the 400/120 KV Substation of the Paks Nuclear Power Plant <i>J. Nacs, G. L. Kovács, G. Szederkényi</i>	1095

APPLICATION OF FDI TO INDUCTION MOTORS

Fault Diagnosis of an Induction Drive Using Residual Directional Properties <i>C. Combastel, S. Gentil, J. P. Rognon</i>	1101
Multiple-Model Fault-Tolerant Control of an Induction Motor in the Presence of Uncertainty <i>R. J. Patton, C. J. Lopez-Toribio</i>	1107
Model-Based Diagnosis of AC Motors <i>R. Aranz, L. J. de Miguel, E. Moya, J. R. Perán</i>	1113
On-Line Fault Detection of Inverter-Fed Induction Motors Using Advanced Signal Processing Techniques <i>A. Wolfram, R. Isermann</i>	1119
Fault Detection Using On-Line Wavelet Analysis: Application Induction Motor <i>S. Petropol, S. Lesecq, A. Barraud</i>	1125

MODELING METHODS TO FAULT DETECTION

Bounding Approach to Fault Detection of Uncertain Dynamic Systems <i>O. Adrot, D. Maquin, J. Ragot</i>	1131
Diagnosis of Transient Faults in Quantised Systems <i>F. Schiller, J. Schröder, J. Lunze</i>	1137
Fault Detection Using Interval Models <i>S. Tornil, T. Escobet, V. Puig</i>	1143
Rapid Model Selection and the Separability Index <i>S. L. Campbell, K. Horton, R. Nikoukhah, F. Delebecque</i>	1151
Fault Detection and Isolation of Structured Systems <i>C. Commault, J. M. Dion, O. Sename, R. Motyeian</i>	1157