

# IEEE TRANSACTIONS ON SYSTEMS, MAN, AND CYBERNETICS

## PART A: SYSTEMS AND HUMANS

A PUBLICATION OF THE IEEE SYSTEMS, MAN, AND CYBERNETICS SOCIETY

SEPTEMBER 2010

VOLUME 40

NUMBER 5

ITSHFX

(ISSN 1083-4427)

### SPECIAL ISSUE ON MODEL-BASED DIAGNOSTICS

#### GUEST EDITORIAL

Special Issue on Model-Based Diagnostics . . . . . *P. Struss, G. Provan, J. de Kleer, and G. Biswas* 870

#### SPECIAL ISSUE PAPERS

Probabilistic Model-Based Diagnosis: An Electrical Power System Case Study . . . . .  
*O. J. Mengshoel, M. Chavira, K. Cascio, S. Poll, A. Darwiche, and S. Uckun* 874

Robust Fault Diagnosis for Atmospheric Reentry Vehicles: A Case Study . . . . .  
*A. Falcoz, D. Henry, and A. Zolghadri* 886

Fault Diagnosis Using a Timed Discrete-Event Approach Based on Interval Observers: Application to Sewer Networks  
*J. Meseguer, V. Puig, and T. Escobet* 900

A Comprehensive Diagnosis Methodology for Complex Hybrid Systems: A Case Study on Spacecraft Power Distribution  
 Systems . . . . .  
*M. J. Daigle, I. Roychoudhury, G. Biswas, X. D. Koutsoukos, A. Patterson-Hine, and S. Poll* 917

Pervasive Diagnosis . . . . .  
*L. Kuhn, B. Price, M. Do, J. Liu, R. Zhou, T. Schmidt, and J. de Kleer* 932

Intrinsic Hurdles in Applying Automated Diagnosis and Recovery to Spacecraft . . . . .  
*J. Kurien and M. D. R-Moreno* 945

#### REGULAR ISSUE PAPERS

A Benchmark Diagnostic Model Generation System . . . . .  
*J. Wang and G. Provan* 959

An Emotional Model for a Guide Robot . . . . .  
*M. Álvarez, R. Galán, F. Matía, D. Rodríguez-Losada, and A. Jiménez* 982

Attentional-Resource Effectiveness Measures in Monitoring and Detection Tasks in Nuclear Power Plants . . . . .  
*J. S. Ha and P. H. Seong* 993

Knowledge-Discounted Event Detection in Sports Video . . . . .  
*D. W. Tjondronegoro and Y.-P. P. Chen* 1009

Automatic Modeling for Performance Evaluation of Inventory and Outbound Distribution . . . . .  
*G. A. de Albuquerque, Jr., P. R. M. Maciel, R. M. F. Lima, and A. Zimmermann* 1025

Extending the Adaptability of Reference Models . . . . .  
*I. Reinhartz-Berger, P. Soffer, and A. Sturm* 1045

Game-Theoretic Validation and Analysis of Air Combat Simulation Models . . . . .  
*J. Poropudas and K. Virtanen* 1057

Integrating Ontologies Based on P2P Mappings . . . . .  
*H. C. de Souza, Jr., A. M. de C. Moura, and M. C. Cavalcanti* 1071

An Efficient P2P Content Distribution System Based on Altruistic Demand and Recoding Dissemination . . . . .  
*J.-S. Li and C.-H. Chao* 1083

Uncertainty Evaluation Through Mapping Identification in Intensive Dynamic Simulations . . . . .  
*Y. Wan, S. Roy, and B. Lesieutre* 1094

Using the Analytic Hierarchy Process to Examine Judgment Consistency in a Complex Multiattribute Task . . . . .  
*J. Jin, L. Rothrock, P. L. McDermott, and M. Barnes* 1105

请阅后放回: (Contents Continued on Page 869)

排架号 E225 处



CORRESPONDENCE

Optimal Pricing and Stocking Decisions for Newsvendor Problem With Value-at-Risk Consideration . . . . . C.-H. Chiu and T.-M. Choi 1116

Fuzzy Multiple Criteria Hierarchical Group Decision-Making Based on Interval Type-2 Fuzzy Sets . . . . . S.-M. Chen and L.-W. Lee 1120