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Chair: Isermann, Rolf Univ. of Tech. Darmstadt

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 Co-Chair: Jiang, Bin Nanjing Univ. of Aeronautics and Astronautics

Organizer: Cocquempot, Vincent LAGIS - LILLE 1 Univ.
 Organizer: Jiang, Bin Nanjing Univ. of Aeronautics and Astronautics

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Organizer: Edwards, Christopher Univ. of Leicester

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Co-Chair: Aaslund, Jan	Linköping Univ.	Benhadji Braiek, Naceur	Ec. Pol. de Tunisie
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Cocquemot, Vincent	LAGIS - LILLE 1 Univ.	Witczak, Marcin	Univ. of Zielona Gora
Bayart, Mireille	Univ. de Lille1, LAGIS	Korbicz, Jozef	Univ. of Zielona Gora
Lefebvre, Nicolas	PSA Peugeot-Citroën	WeC3	Sants
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Aaslund, Jan	Linköping Univ.	Pinto, José Carlos	Federal Univ. of Rio de Janeiro
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Fault Tolerant Control and Fault Detection/Isolation Design for LPV Systems (Invited Session)		Rodríguez, Javier	CARTIF Tech. Center
Chair: Theilliol, Didier	Univ. Henri Poincare, Nancy 1	de Miguel, L. Javier	Univ. of Valladolid
Co-Chair: Puig, Vicenc	Univ. Pol. de Catalunya	18:50-19:10	WeC3.5
Organizer: Theilliol, Didier	Univ. Henri Poincare, Nancy 1	<i>ARIMA Models for Data Consistency of Flowmeters in Water Distribution Networks</i> , pp. 480-485.	
Organizer: Puig, Vicenc	Univ. Pol. de Catalunya	Blanch, Jordi	Univ. Pol. de Catalunya
17:30-17:50	WeC2.1	Puig, Vicenc	Univ. Pol. de Catalunya
<i>Structured Infinitivity / H LPV Filters for Fault Diagnosis: Some New Results (I)</i> , pp. 420-425.		Saludes, Jordi	Univ. Pol. de Catalunya
Henry, David	Univ. Bordeaux I	Quevedo, Joseba	Tech. Univ. of Catalonia
Falcoz, Alexandre	Univ. of Bordeaux1, IMS Lab.	19:10-19:30	WeC3.6
Zolghadri, Ali	Univ. Bordeaux I	<i>A Fault Diagnosis Toolbox Applying Classification and Inference Methods</i> , pp. 486-491.	
17:50-18:10	WeC2.2	Clever, Sebastian	Tech. Univ. Darmstadt
<i>A Fault Detection Filter Design Method for Markov Jump Linear Parameter Varying Systems (I)</i> , pp. 426-431.		Muenchhof, Marco	Tech. Univ. Darmstadt
Gagliardi, Gianfranco	Univ. of Calabria	Müller, Daniel	Tech. Univ. Darmstadt
Casavola, Alessandro	Univ. Della Calabria	WeC4	Montjuic
Famularo, Domenico	Univ. degli Studi Mediterranea di Reggio Calabria	Fuzzy Systems (Regular Session)	
18:10-18:30	WeC2.3	Chair: Albertos, Pedro	Univ. Pol. de Valencia
<i>Robust Fault Detection for Linear Parameter-Varying Time-Delay</i>		Co-Chair: Maquin, Didier	Inst. National Pol. de Lorraine
		17:30-17:50	WeC4.1
		<i>State and Faults Estimation for T-S Models and Application to</i>	

<i>Fault Diagnosis</i> , pp. 492-497.			
Maha, Bouattour	Ec. Nationale des Ingénieurs de Sfax, Univ. de Picardie F	Zhang, Xiaodong	Wright State Univ.
Chadli, Mohammed	Univ. de Picardie-Jules Verne	Grube, Ryan	Wright State Univ.
El hajjaji, Ahmed	Univ. de Picardie-Jules Verne	Shin, Kwang-Keun	General Motors R&D
Chaabane, Mohamed	Univ. of Sfax	Salman, Mutasim	GM
17:50-18:10	WeC4.2	Conell, Robert	General Motors
<i>Fault Detection and Isolation Using Dynamic Co-Active Neuro-Fuzzy Systems</i> , pp. 498-503.			WeC5.6
Mirea, Letitia	Gh.Asachi Tech. Univ. of Iasi		
18:10-18:30	WeC4.3		
<i>Fault Diagnosis for Takagi-Sugeno Nonlinear Systems</i> , pp. 504-509.			
Ichalal, Dalil	CRAN (CENTRE DE RECHERCHE EN AUTOMATIQUE DE NANCY) Centre de Recherche en Automatique de Nancy		
Marx, Benoit	CRAN-INPL		
Ragot, Jose	Inst. National Pol. de Lorraine		
Maquin, Didier			
18:30-18:50	WeC4.4		
<i>Advanced Pattern Recognition Method for the Monitoring of Dynamic Systems</i> , pp. 510-515.			
Sayed Mouchaweh, Moamar	CRISTIC, URCA		
18:50-19:10	WeC4.5		
<i>Dynamic Fuzzy Pattern Matching for the Monitoring of Non Stationary Processes</i> , pp. 516-521.			
Hartert, Laurent	Univ. de Reims		
Sayed Mouchaweh, Moamar	CRISTIC, URCA		
Billaudel, Patrice	Univ. de Reims Champagne Ardenne		
19:10-19:30	WeC4.6		
<i>A Software Application for Possibilistic Fuzzy Diagnosis in Complex Systems</i> , pp. 522-527.			
Sala, Antonio	Univ. Pol. de Valencia		
Yago, Manuel	Univ. Pol. de Valencia		
Albertos, Pedro	Univ. Pol. de Valencia		
WeC5	Sarria		
Electrical Systems (Regular Session)			
Chair: Rizzoni, Giorgio	Ohio State Univ.		
Co-Chair: Sarrate, Ramon	Univ. Pol. de Catalunya		
17:30-17:50	WeC5.1		
<i>PEM Fuel Cell LPV Model-Based Fault Diagnosis Using Relative Fault Sensitivity Signature Approach in a PEM Fuel Cell</i> , pp. 528-533.			
De Lira, Salvador	UPC		
Puig, Vicenc	Univ. Pol. de Catalunya		
Quevedo, Joseba	Tech. Univ. of Catalonia		
17:50-18:10	WeC5.2		
<i>Fuel Cell System Diagnosis Based on a Causal Structural Model</i> , pp. 534-539.			
Rosich, Albert	Univ. Pol. de Catalunya		
Nejjari, Fatiha	Univ. Pol. de Catalunya		
Sarrate, Ramon	Univ. Pol. de Catalunya		
18:10-18:30	WeC5.3		
<i>Receding Horizon Observer Approach to Fault Detection in Electrical Transformers</i> , pp. 540-545.			
Alcorta-García, Efraín	Univ. Autonoma De Nuevo Leon		
Perez Rojas, Carlos	Univ. Michoacana de San Nicolas de Hidalgo		
Theilliol, Didier	Univ. Henri Poincare, Nancy 1		
Elizondo-Gonzalez, César	UANL		
18:30-18:50	WeC5.4		
<i>Fault Tolerant Task Re-Assignment in a Parallel-Inverters System</i> , pp. 546-551.			
Espinoza, Víctor Esteban	Univ. Autónoma de San Luis Potosí		
Verde, Cristina	Inst. de Ingenieria, UNAM		
Visairo, Nancy	Univ. Autónoma de San Luis Potosí, RFC: UAS230110SU8		
Cardenas, Victor	Univ. Autonoma De San Luis Potosi		
18:50-19:10	WeC5.5		
<i>Automotive Battery State-Of-Health Monitoring: A Parity Relation Based Approach</i> , pp. 552-557.			
Zhang, Xiaodong			
Wright State Univ.			
19:10-19:30	WeC5.6		
<i>Fractional Order Model Validation for the Lead-Acid Battery Resistance Estimation: Application to Cranking Capability</i> , pp. 558-563.			
Cugnet, Mikael	Bordeaux 1 Univ.		
Sabatier, Jocelyn	Univ. Bordeaux1		
ThPL	Barcelona A		
Airbus State of the Art and Practices on FDI and FTC (Plenary Session)			
Chair: Patton, Ron J.	Univ. of Hull		
08:45-09:45	ThPL.1		
<i>AIRBUS State of the Art and Practices on FDI and FTC</i> , pp. 564-572.			
Goupil, Philippe	AIRBUS France		
ThA1	Barcelona A		
Active Fault Diagnosis (Invited Session)			
Chair: Poulsen, Niels Kjørlstad	Tech. Univ. of Denmark		
Co-Chair: Niemann, Henrik	Tech. Univ. of Denmark		
Organizer: Niemann, Henrik	Tech. Univ. of Denmark		
10:00-10:20	ThA1.1		
<i>Active Incipient Fault Detection with Two Simultaneous Faults (I)</i> , pp. 573-578.			
Fair, Martene	North Carolina State Univ.		
Campbell, Stephen L	North Carolina State Univ.		
10:20-10:40	ThA1.2		
<i>A Feasible Design of Active Detector and Input Signal Generator (I)</i> , pp. 579-584.			
Puncochar, Ivo	Univ. of West Bohemia		
Simandl, Miroslav	Univ. of West Bohemia		
10:40-11:00	ThA1.3		
<i>Active Robust Fault Detection of Closed-Loop Systems: General Cost Case (I)</i> , pp. 585-590.			
Esna Ashari, Alireza	INRIA- Rocquencourt		
Nikoukhah, Ramine	INRIA		
Campbell, Steve	North Carolina State Univ.		
11:00-11:20	ThA1.4		
<i>An Observer Parameterization Approach to Active Fault Diagnosis with Applications to a Drag Racing Vehicle (I)</i> , pp. 591-596.			
Stoustrup, Jakob	Aalborg Univ.		
11:20-11:40	ThA1.5		
<i>Structural Analysis Extended with Active Fault Isolation - Methods and Algorithms (I)</i> , pp. 597-602.			
Gelso, Esteban R.	Univ. of Girona		
Blanke, Mogens	Tech. Univ. of Denmark		
11:40-12:00	ThA1.6		
<i>Active Fault Diagnosis - a Stochastic Approach (I)</i> , pp. 603-608.			
Poulsen, Niels Kjørlstad	Tech. Univ. of Denmark		
Niemann, Henrik	Tech. Univ. of Denmark		
ThA2	Barcelona C		
European Research in Aerospace FDI, FTC and HMS (Invited Session)			
Chair: Marcos, Andres	Deimos Space S.L.		
Co-Chair: Varga, A.	DLR Oberpfaffenhofen		
Organizer: Marcos, Andres	Deimos Space S.L.		
Organizer: Varga, A.	DLR Oberpfaffenhofen		
10:00-10:20	ThA2.1		
<i>Health Management Case Study for RLV (I)</i> , pp. 609-614.			
Sommer, Josef	company		
Belau, Wolfgang	EADS Astrium ST		
Penin, Luis F.	DEIMOS Space, S.L.		
Caramagno, Augusto	DEIMOS Engenharia		
Schwientek, Alexander O.	ASTRIUM GmbH		
10:20-10:40	ThA2.2		
<i>Fault Tolerant Control Strategy for an Unmanned Aerial Vehicle</i> , pp. 615-620.			
Bateman, Francois	Lab. des Sciences de		

	I'Information et des Systèmes United Arab Emirates Univ. Ouladsine, Mustapha Univ. d'aix marseille III	<i>Piecewise Affine System Approximation (I)</i> , pp. 680-685. Yang, Zhenyu Izadi-Zamanabadi, Roozbeh	Aalborg Univ. Aalborg Univ.
10:40-11:00	ThA2.3	10:40-11:00	ThA4.3
<i>Achievable Moments NDI-Based Fault Tolerant Thrust Vector Control of an Atmospheric Vehicle During Ascent (I)</i> , pp. 621-626.		<i>Control Reconfiguration Based on the Constrained LQ Algorithms</i> , pp. 686-691.	
Marcos, Andres Mostaza, David Penin, Luis F.	Deimos Space S.L. deimos space DEIMOS Space, S.L.	Krokavec, Dusan Filasova, Anna	Tech. Univ. of Kosice Tech. Univ. of Kosice
11:00-11:20	ThA2.4	11:00-11:20	ThA4.4
<i>Monitoring Actuator Failures for a Large Transport Aircraft - the Nominal Case (I)</i> , pp. 627-632.		<i>Optimal Reconfigurable Control Allocation Design Based on Reliability Analysis</i> , pp. 692-697.	
Varga, A.	DLR Oberpfaffenhofen	Theilliol, Didier Chamseddine, Abbas Zhang, Youmin Weber, Philippe	Univ. Henri Poincare, Nancy 1 CRAN - Nancy Univ. Concordia Univ. Nancy Univ. CNRS, (CRAN UMR 7039)
11:20-11:40	ThA2.5	11:20-11:40	ThA4.5
<i>Development of an FDI Filter for the Hopper RLV During Re-Entry (I)</i> , pp. 633-638.		<i>Output Feedback H2/Hinfinity Control of a Class of Discrete-Time Reconfigurable Control Systems</i> , pp. 698-703.	
Kerr, Murray Lawrence Marcos, Andres Penin, Luis F.	Deimos Space Deimos Space S.L. DEIMOS Space, S.L.	Aberkane, Samir	UHP, NANCY 1
11:40-12:00	ThA2.6	11:40-12:00	ThA4.6
<i>Nonlinear Geometric Approach-Based Filtering Methods for Aircraft Actuator FDI</i> , pp. 639-644.		<i>A Fault Tolerant Multisensor Switching Scheme for State Estimation</i> , pp. 704-709.	
Bonfe, Marcello Castaldi, Paolo	Univ. di Ferrara Univ. of Bologna - Aerospace Engineering Faculty	De Dona, Jose Adrian Zhuo, Xiang Wei Seron, Maria Olaru, Sorin	The Univ. of Newcastle Univ. of Newcastle, Australia The Univ. of Newcastle Supelec
Simani, Silvio Benini, Matteo	Univ. of Ferrara Univ. of Ferrara		
ThA3 Sants		ThA5 Sarria	
Analysis and Design of Alarm Systems (Invited Session)		Bond Graphs for Supervision System Design (Invited Session)	
Chair: Shah, Sirish	Univ. of Alberta	Chair: Ould Bouamama, Belkacem	Ec. Pol. de Lille
Co-Chair: Izadi, Iman	Matrikon Inc.	Co-Chair: Medjaher, Kamal	FEMTO-ST Inst. UMR CNRS 6174 - UFC / ENSMM / UTBM
Organizer: Shah, Sirish	Univ. of Alberta	Organizer: Ould Bouamama, Belkacem	Ec. Pol. de Lille
Organizer: Izadi, Iman	Matrikon Inc.		
10:00-10:20	ThA3.1	10:00-10:20	ThA5.1
<i>An Introduction to Alarm Analysis and Design (I)</i> , pp. 645-650.		<i>Multiple Fault Isolation to a Servo-Valve Controlled Motor Transmission System (I)</i> , pp. 710-715.	
Izadi, Iman	Matrikon Inc.	Ghoshal, Sanjoy K. Samanta, Subrata	Indian School of Mines Univ. Asansol Engineering Coll. West Bengal Univ. of Technology
Shah, Sirish	Univ. of Alberta		
Shook, David	Univ. of Alberta		
Chen, Tongwen	Univ. of Alberta		
10:40-11:00	ThA3.3	10:20-10:40	ThA5.2
<i>Optimal Alarm Design (I)</i> , pp. 651-656.		<i>Residual-Based Failure Prognostic in Dynamic Systems (I)</i> , pp. 716-721.	
Izadi, Iman	Matrikon Inc.	Medjaher, Kamal	FEMTO-ST Inst. UMR CNRS 6174 - UFC / ENSMM / UTBM
Shah, Sirish	Univ. of Alberta		
Shook, David	Univ. of Alberta		
Kondaveeti, Sandeep Reddy	Univ. of Alberta	Zerhouni, Nouredine	FEMTO-ST Inst. UMR CNRS 6174 - UFC / ENSMM / UTBM
Chen, Tongwen	Univ. of Alberta		
11:00-11:20	ThA3.4	10:40-11:00	ThA5.3
<i>Application of Multivariate Statistics for Efficient Alarm Generation (I)</i> , pp. 657-662.		<i>Comprehensive Diagnosis of Complex Electrical Power Distribution Systems (I)</i> , pp. 722-727.	
Kondaveeti, Sandeep Reddy	Univ. of Alberta	Roychoudhury, Indranil Daigle, Matthew	Vanderbilt Univ. Univ. of California, Santa Cruz, NASA Ames Res. Center
Shah, Sirish	Univ. of Alberta		
Izadi, Iman	Matrikon Inc.	Biswas, Gautam Koutsoukos, Xenofon Patterson-Hine, Ann Poll, Scott	Vanderbilt Univ. Vanderbilt Univ. NASA Ames Res. Center NASA Ames Res. Center
11:20-11:40	ThA3.5	11:00-11:20	ThA5.4
<i>Estimation of Alarm Deadbands (I)</i> , pp. 663-667.		<i>Structural Monitorability of Fuel Cell Stack System Based on Bond Graph Tool (I)</i> , pp. 728-733.	
Hugo, Alan	Valero Energy	Yang, Quan Aitouche, Abdel Ould Bouamama, Belkacem	Lab. LAGIS(UMR CNRS 8146) LAGIS/HEI Ec. Pol. de Lille
11:40-12:00	ThA3.6	ThSP1 Barcelona A	
<i>Intelligent Field Devices in Process Monitoring</i> , pp. 668-673.		Integrated Design of Control Structures and Embedded Diagnosis (Semi-Plenary Session)	
Huovinen, Mikko Tapani	Tampere Univ. of Tech.	Chair: Kinnaert, Michel	Univ. Libre de Bruxelles
Hietanen, Ville	Metso Automation		
Harju, Timo Tapio	Metso Automation Inc.	12:15-13:00	ThSP1.1
		<i>Integrated Design of Control Structures and Embedded Diagnosis</i> , pp. 734-745.	
		Ding, Steven X.	Univ. of Duisburg-Essen
10:20-10:40	ThA4.2		
<i>Design of Reconfigurable Nonlinear Control Using On-Line</i>			

ThSP2	Barcelona C	15:50-16:10	ThB2.5
Strategies and Techniques for Safety and Performance Monitoring on Railways (Semi-Plenary Session)		<i>Decentralized Fault Detection System Design for Large-Scale Interconnected Systems</i> , pp. 816-821.	
Chair: Isaksson, Alf J.	ABB AB	Li, Wei	Univ. of Duisburg-Essen
12:15-13:00	ThSP2.1	Gui, Weihua	Central South Univ.
<i>Strategies and Techniques for Safety and Performance Monitoring on Railways</i> , pp. 746-755.		Xie, Yongfang	Central South Univ.
Roberts, Clive	Univ. of Birmingham	Ding, Steven X.	Univ. of Duisburg-Essen
Goodall, R.M.	Loughborough Univ.		
ThB1	Barcelona A	16:10-16:30	ThB2.6
FDI in Linear Systems I (Regular Session)		<i>Observer Based Residual Generation and Evaluation of Networked Control Systems Subject to Random Packet Dropout</i> , pp. 822-827.	
Chair: Quevedo, Joseba	Tech. Univ. of Catalonia	Wang, Yongqiang	Tsinghua Univ.
Co-Chair: Armengol Llobet, Joaquim	Univ. de Girona	Ye, Hao	Tsinghua Univ.
14:30-14:50	ThB1.1	Ding, Steven X.	Univ. of Duisburg-Essen
<i>Robust Fault Detection Observer for LTI Systems with Additive Uncertainties</i> , pp. 756-761.		Wang, Guizeng	Tsinghua Univ.
Wei, Xiukun	Delft Univ. of Tech.	Wan, Yiming	Tsinghua Univ.
Verhaegen, Michel	Delft Univ. of Tech.		
14:50-15:10	ThB1.2	ThB3	Sants
<i>Mixed H2/Hinf Residual Generator Design Via Heuristic Kalman Algorithm</i> , pp. 762-767.		PCA-Based Methods (Regular Session)	
Toscano, Rosario	Univ. de Lyon	Chair: Qin, S. Joe	Univ. of Southern California
Lyonnet, Patrick	Univ. de Lyon	Co-Chair: Harkat, Mohamed-Faouzi	CRAN-ENSEM
15:10-15:30	ThB1.3	14:30-14:50	ThB3.1
<i>Robust Fault Detection and Isolation of Linear Systems with Distributed Delays</i> , pp. 768-773.		<i>Multiple Sensor Fault Detection and Isolation of an Air Quality Monitoring Network Using RBF-NLPCA Model</i> , pp. 828-833.	
Meskin, Nader	Concordia Univ.	Harkat, Mohamed-Faouzi	CRAN-ENSEM
Khorasani, Khashayar	Concordia Univ.	Mourot, Gilles	Inst. National Pol. De Lorraine
15:30-15:50	ThB1.4	Ragot, Jose	CRAN-INPL
<i>Fault Detection Based on Uncertain Switching Models with Bounded Parameters</i> , pp. 774-779.		14:50-15:10	ThB3.2
Adrot, Olivier	INPG - UJF - CNRS	<i>Fault Detection and Diagnosis Based on PCA and a New Contribution Plots</i> , pp. 834-839.	
Flaus, Jean-Marie	E.N.S.I.E.G.	Mnassri, Baligh	LSIS - Univ. Paul Cézanne (Aix-Marseille III)
15:50-16:10	ThB1.5	El Adel, El Mostafa	Univ. Aix-Marseille III
<i>New Results in Disturbance Decoupled Fault Reconstruction in Linear Uncertain Systems Using Two Sliding Mode Observers in Cascade</i> , pp. 780-785.		Ananou, Bouchra	LSIS
Ng, Kok Yew	Monash Univ.	Ouladsine, Mustapha	Univ. d'aix marseille III
Tan, Chee Pin	Monash Univ.	15:10-15:30	ThB3.3
16:10-16:30	ThB1.6	<i>Comparison of MPCAV, ARPCA, and BDPCA Fault Detection Performance in a Fed-Batch Penicillin Fermentation Process</i> , pp. 840-845.	
<i>Robust Observer Design: Logic-Dynamic Approach</i> , pp. 786-791.		Vanlaer, Jef	Katholieke Univ. Leuven
Zhirabok, Alexey N.	Far Eastern State Tech. Univ.	Gins, Geert	Katholieke Univ. Leuven
		Van Impe, Jan F.M.	Katholieke Univ. Leuven
ThB2	Barcelona C	15:30-15:50	ThB3.4
FDI in Networked Systems I (Regular Session)		<i>An Optimized Kernel Principal Component Analysis Algorithm for Fault Detection</i> , pp. 846-851.	
Chair: Sauter, Dominique D.J.	Univ. Henri Poincare, Nancy 1	Shi, Huaitao	Northeastern Univ.
Co-Chair: Patton, Ron J.	Univ. of Hull	Liu, Jianchang	P.o.box 134, Northeastern Univ.
14:30-14:50	ThB2.1	Yingwei, Zhang	P.o.box 131, Northeastern Univ.
<i>On Fault Detection Design for Networked Control Systems</i> , pp. 792-797.		15:50-16:10	ThB3.5
Li, Wei	Univ. of Duisburg-Essen	<i>New Fusion Architectures for Performance Enhancement of a PCA-Based Fault Diagnosis and Isolation System</i> , pp. 852-857.	
Ding, Steven X.	Univ. of Duisburg-Essen	Pirooz Azad, Sahar	Univ. of Tehran
14:50-15:10	ThB2.2	Bahrampour, Soheil	Univ. of Tehran
<i>On the Performance Analysis for Fault Detection in Networked Control Systems</i> , pp. 798-803.		Moshiri, Behzad	Univ. of Tehran
Al-Salami, Ibrahim	Univ. of Duisburg-Essen	Salahshoor, Karim	petroleum Univ. of Tech.
Ding, Steven X.	Univ. of Duisburg-Essen	16:10-16:30	ThB3.6
Zhang, Ping	Univ. of Duisburg-Essen	<i>Distributed Fault Detection and Isolation Algorithm Using Modified Gath-Geva Clustering Technique</i> , pp. 858-863.	
15:10-15:30	ThB2.3	Bahrampour, Soheil	Univ. of Tehran
<i>Design of Fault Isolation Filters under Intermittent Communication</i> , pp. 804-809.		Salahshoor, Karim	petroleum Univ. of Tech.
Sauter, Dominique D.J.	Univ. Henri Poincare, Nancy 1	Moshiri, Behzad	Univ. of Tehran
Yame, Joseph Julien	Univ. Henri Poincaré, Nancy 1		
Boukhobza, Taha	Univ. Henri Poincaré Nancy 1	ThB4	Montjuic
15:30-15:50	ThB2.4	Fault Tolerant Control I (Regular Session)	
<i>Extended Kalman Filter Taking Account of Extra Delays and Intermittent Data in Network Controlled Systems (I)</i> , pp. 810-815.		Chair: Blanke, Mogens	Tech. Univ. of Denmark
Lesecq, Suzanne	INPG/UJF/CNRS	Co-Chair: Wu, Neng Eva	Binghamton Univ.
Chabir, Karim	Ec. Nationale d'Ingénieur de Gabes and UHP, Nancy I, France, C	14:30-14:50	ThB4.1
Gentil, Sylviane	INPG	<i>Mixed Passive / Active Strategy for Fault Tolerant Control</i> , pp. 864-869.	
Sauter, Dominique D.J.	Univ. Henri Poincare, Nancy 1	Staroswiecki, Marcel	Univ. des Sciences et Tech. de Lille
		Berdjag, Denis	Ec. Normale Supérieure de CACHAN
		14:50-15:10	ThB4.2
		<i>Evaluation and Optimal Selection of Reliable Control Design</i>	

Specifications, pp. 870-875. Staroswiecki, Marcel	Univ. des Sciences et Tech. de Lille	Miranda, Moira	Univ. of Los Andes
Berdjag, Denis	Ec. Normale Supérieure de CACHAN	ThC1	Barcelona A
15:10-15:30	ThB4.3	FDI in Linear Systems II (Regular Session)	
<i>Model-Free Fault Tolerant Control Approach for Linear Parameter Varying Systems</i> , pp. 876-881.		Chair: Kinnaert, Michel	Univ. Libre de Bruxelles
Kulcsar, Balazs	Delft Univ. of Tech.	Co-Chair: Albertos, Pedro	Univ. Pol. de Valencia
Dong, Jianfei	Delft Univ. of Tech.	16:45-17:05	ThC1.1
Verhaegen, Michel	Delft Univ. of Tech.	<i>On Computing Achievable Fault Signatures</i> , pp. 935-940.	
15:30-15:50	ThB4.4	Varga, A.	DLR Oberpfaffenhofen
<i>On Active Fault Tolerant Control for a Class of Time-Delay Systems</i> , pp. 882-886.		17:05-17:25	ThC1.2
Dong, Quanchao	Shandong Univ. China	<i>An Approach to Data-Driven Adaptive Residual Generator Design and Implementation</i> , pp. 941-946.	
Zhong, Maiying	Shandong Univ.	Ding, Steven X.	Univ. of Duisburg-Essen
Ding, Steven X.	Univ. of Duisburg-Essen	Yin, Shen	Univ. of Duisburg-Essen
15:50-16:10	ThB4.5	Zhang, Ping	Univ. of Duisburg-Essen
<i>Anytime Algorithm for Parametric Faults Accommodation under Handling Quality Constraints</i> , pp. 887-892.		Ding, E.L.	Univ. of Applied Sciences Gelsenkirchen
Ciubotaru, Bogdan D.	Pol. Univ. of Bucharest	Naik, Amol	Univ. Duisburg-Essen, Campus Duisburg
Staroswiecki, Marcel	Univ. des Sciences et Tech. de Lille	17:25-17:45	ThC1.3
16:10-16:30	ThB4.6	<i>Adaptive Process Monitoring Based on Parity Space Methods</i> , pp. 947-952.	
<i>Fault-Tolerant 3D Mapping with Application to Orchard Robot</i> , pp. 893-898.		Yin, Shen	Univ. of Duisburg-Essen
Blas, Morten Rufus	Tech. Univ. of Denmark	Naik, Amol	Univ. Duisburg-Essen, Campus Duisburg
Blanke, Mogens	Tech. Univ. of Denmark	Ding, Steven X.	Univ. of Duisburg-Essen
Rusu, Radu Bogdan	Tech. Univ. Muenchen	17:45-18:05	ThC1.4
Beetz, Michael	Tech. Univ. Muenchen	<i>Unobservability Subspaces for Continuous-Time Markovian Jump Systems with Application to Fault Diagnosis</i> , pp. 953-958.	
ThB5	Sarria	Meskin, Nader	Concordia Univ.
Fault Detection and Isolation for Automotive Applications (Invited Session)		Khorasani, Khashayar	Concordia Univ.
Chair: Pisu, Pierluigi	Clemson Univ.	18:05-18:25	ThC1.5
Co-Chair: Soliman, Ahmed	UNC at Charlotte	<i>Observers Data Only Fault Detection</i> , pp. 959-964.	
Organizer: Pisu, Pierluigi	Clemson Univ.	Wahlberg, Bo	Royal Inst. of Tech. (KTH)
Organizer: Rizzoni, Giorgio	Ohio State Univ.	Carvalho Bittencourt, Andre	KTH
Organizer: Onori, Simona	The Ohio State Univ.	18:25-18:45	ThC1.6
Organizer: Soliman, Ahmed	UNC at Charlotte	<i>Active Fault Diagnosis for Systems with Reduced Model Information (I)</i> , pp. 965-970.	
14:30-14:50	ThB5.1	Niemann, Henrik	Tech. Univ. of Denmark
<i>Model-Based Fault Diagnosis of a Direct Injection Gasoline Engine with Homogeneous and Stratified Operation (I)</i> , pp. 899-904.		Poulsen, Niels Kjrlstad	Tech. Univ. of Denmark
Isermann, Rolf	Tech. Univ. Darmstadt	ThC2	Barcelona C
Leykauf, Michael	Tech. Univ. Darmstadt	FDI in Networked Systems II (Regular Session)	
14:50-15:10	ThB5.2	Chair: Aguilar-Martin, Josep	LAAS-CNRS
<i>Model Based Fault Detection and Isolation in Idle Speed Control of IC Engines (I)</i> , pp. 905-910.		Co-Chair: Gentil, Sylviane	INPG
Montes-Solano, Carlos	Clemson Univ.	16:45-17:05	ThC2.1
Alberto		<i>Hardware in the Loop Networked Diagnosis of a Quadrotor Drone (I)</i> , pp. 971-976.	
Pisu, Pierluigi	Clemson Univ.	Berbra, Cedric	CNRS-INPG-UJF
15:10-15:30	ThB5.3	Simon, Daniel	Inria Rhone-alpes
<i>A Methodology for Fault Diagnosis of Diesel NOx Aftertreatment Systems (I)</i> , pp. 911-916.		Gentil, Sylviane	INPG
Pezzini, Andrea	Ohio State Univ.	Lesecq, Suzanne	INPG/UJF/CNRS
Canova, Marcello	The Ohio State Univ.	17:05-17:25	ThC2.2
Onori, Simona	The Ohio State Univ.	<i>Necessary and Sufficient Conditions for Sensor Recovery in a Multisensor Control Scheme</i> , pp. 977-982.	
Rizzoni, Giorgio	Ohio State Univ.	Olaru, Sorin	Supelec
Soliman, Ahmed	UNC at Charlotte	Stoican, Florin	SUPELEC
15:30-15:50	ThB5.4	De Dona, Jose Adrian	The Univ. of Newcastle
<i>Indirect Vehicle Tire Monitoring with Wheel and Suspension Sensor (I)</i> , pp. 917-922.		Seron, Maria	The Univ. of Newcastle
Isermann, Rolf	Univ. of Tech. Darmstadt	17:25-17:45	ThC2.3
15:50-16:10	ThB5.5	<i>Diagnosing Hybrid Dynamical Systems</i> , pp. 983-988.	
<i>Model Based Strategy for Estimation of the Residual Life of Automotive Batteries (I)</i> , pp. 923-928.		Kan John, Priscilla	Australian National Univ. NICTA
Serrao, Lorenzo	Ohio State Univ.	Blackhall, Lachlan	The Australian National Univ.
Onori, Simona	The Ohio State Univ.	Grastien, Alban	NICTA
Rizzoni, Giorgio	Ohio State Univ.	17:45-18:05	ThC2.4
Guezennec, Yann	Ohio State Univ.	<i>Fault-Tolerant Synchronized Motion Control for Crane System Using Wireless Sensor Networks</i> , pp. 989-994.	
16:10-16:30	ThB5.6	Kim, Dong-gil	Kyungpook National Univ.
<i>Estimating the State of Distributed Dynamical Systems Based on Limited Measurements by Means of Cooperative Filtering with Application to Ad-Hoc Vehicle Networks (I)</i> , pp. 929-934.		Kang, KyungMin	Kyungpook National Univ.
Edelmayer, András	Hungarian Acad. of Sciences	Lee, Dongjik	Kyungpook National Univ.
		18:05-18:25	ThC2.5
		<i>WiNC - Advanced Experimentation Platform for Wireless Networked Control</i> , pp. 995-1000.	
		Chihaiia, Cristian I.	Univ. of Duisburg-Essen
		Bredtmann, Oliver	Univ. of Duisburg-Essen

Goldschmidt, Eberhard	Univ. of Duisburg-Essen	<i>Output Feedback Synthesis of Mixed H₂/H_∞ Infinite Fault-Tolerant Control</i> , pp. 1055-1060.	
Li, Wei	Univ. of Duisburg-Essen	Ye, Sijun	
Ding, Steven X.	Univ. of Duisburg-Essen	Zhang, Youmin	
Czylwik, Andreas	Univ. of Duisburg-Essen	Wang, Xinmin	
18:25-18:45	ThC2.6	Theilliol, Didier	
<i>Fault Consensus in a Network of Unmanned Vehicles</i> , pp. 1001-1006.		17:45-18:05	
Meskin, Nader	Concordia Univ.	<i>Fault-Tolerant Fuzzy Control System Design with Multiple Indices Constraints: The Actuator Faults Case</i> , pp. 1061-1066.	
Khorasani, Khashayar	Concordia Univ.	Han, Xiaodong	
Rabbath, Camille Alain	Defence Res. & Dev Canada	Zhang, Dengfeng	
ThC3			
PCA and Related Methods (Regular Session)			
Chair: Gertler, Janos J.	George Mason Univ.	Xie, Dexiao	
Co-Chair: Mujica, Luis Eduardo	Tecnical Univ. of Catalonia	Wang, Zhi-quan	
16:45-17:05	ThC3.1	18:05-18:25	
<i>Unified Analysis of Diagnosis Methods for Process Monitoring</i> , pp. 1007-1012.		<i>Fault Tolerant Control with PID's for a Gas Turbine</i> , pp. 1067-1072.	
Alcala, Carlos F.	Univ. of Southern California	Sanchez-parra, Marino	
Qin, S. Joe	Univ. of Southern California	Verde, Cristina	
17:05-17:25	ThC3.2	18:25-18:45	
<i>Plant Wide Fault Identification Using One-Class Support Vector Machines</i> , pp. 1013-1018.		<i>A Matlab/Simulink Multi-Agent Toolkit for Distributed Networked Fault Tolerant Control Systems</i> , pp. 1073-1078.	
Mahadevan, Sankar	Univ. of Alberta	Mendes, Mário J. G. C.	
Shah, Sirish	Univ. of Alberta	Santos, Bruno Miguel Salazar	
17:25-17:45	ThC3.3	dos	
<i>Reconstruction Based Fault Prognosis for Continuous Processes</i> , pp. 1019-1024.		Sa da Costa, Jose	
Li, Gang	Tsinghua Univ.	ThC5	
Qin, S. Joe	Univ. of Southern California	Automotive Systems (Regular Session)	
Ji, Yindong	Tsinghua Univ.	Chair: Isermann, Rolf	Univ. of Tech. Darmstadt
Zhou, Donghua	Tsinghua Univ.	Co-Chair: Rizzoni, Giorgio	Ohio State Univ.
17:45-18:05	ThC3.4	16:45-17:05	ThC5.1
<i>Multivariate Partial Least Square (MPLS) to Estimate Impact Localization in Structures</i> , pp. 1025-1030.		<i>Vehicle Fault Detection and Diagnosis Combining AANN and ANFIS</i> , pp. 1079-1084.	
Mujica, Luis Eduardo	Tecnical Univ. of Catalonia	Nieto, Juan Pablo	ITESM
Ruiz, Magda	Univ. of Girona	Garza-Castañón, Luis	ITESM Campus Monterrey
Berjaga, Xavier	Univ. de Girona	Rabhi, Abdelhamid	M.I.S (Modelisation, Information et Systèmes)
Rodellar, Jose	Tech. Univ. of Catalonia	El Hajjaji, Ahmed	Univ. de Picardie-Jules Verne
18:05-18:25	ThC3.5	Morales-Menendez, Ruben	Tecnologico de Monterrey, Campus Monterrey
<i>Sucker-Rod Pumping System Fault Detection and Isolation Method Using Bottom Hole Pressure Measurement</i> , pp. 1031-1036.		17:05-17:25	ThC5.2
Codas, Andrés	UFSC	<i>Operation Point Dependent Diagnosis - WAlt</i> , pp. 1085-1090.	
Ordonez, Bernardo	UFSC	Clever, Sebastian	Tech. Univ. Darmstadt
Moreno, Ubirajara F.	Federal Univ. of Santa Catarina	Muenchhof, Marco	Tech. Univ. Darmstadt
18:25-18:45	ThC3.6	17:25-17:45	ThC5.3
<i>Multi-Rate Moving Horizon Estimation with Erroneous Infrequent Measurements Recovery</i> , pp. 1037-1042.		<i>Fault-Tolerant Internal Model Control with Application to a Diesel Engine</i> , pp. 1091-1096.	
Scibilia, Francesco	NTNU	Hilsch, Michael	Robert Bosch GmbH
Hovd, Morten	Norwegian Univ. of Tech. and Science	Lunze, Jan	Ruhr-Univ. Bochum
		Nitsche, Rainer	Robert Bosch GmbH
ThC4		17:45-18:05	ThC5.4
Fault Tolerant Control II (Regular Session)		<i>Neural-Net Model Based Fault Diagnosis for Hydraulic Servo Axes</i> , pp. 1097-1102.	
Chair: Korbicz, Jozef	Univ. of Zielona Gora	Muenchhof, Marco	Tech. Univ. Darmstadt
Co-Chair: Verde, Cristina	Inst. de Ingenieria, UNAM	Clever, Sebastian	Tech. Univ. Darmstadt
16:45-17:05	ThC4.1	18:05-18:25	ThC5.5
<i>A Two-Level Approach to Fault-Tolerant Control of Distributed Systems Based on the Sliding Mode</i> , pp. 1043-1048.		<i>Actuator Fault-Tolerant Control for Vehicle Dynamics</i> , pp. 1103-1108.	
Patton, Ron J.	Univ. of Hull	Bosche, Jerome	Univ. of Picardie Jules Verne
Klinkhieo, Supat	Univ. of Hull	El hajjaji, Ahmed	Univ. de Picardie-Jules Verne
17:05-17:25	ThC4.2	Rabhi, Abdelhamid	M.I.S (Modelisation, Information et Systèmes)
<i>Dynamic Output Feedback Fault-Tolerant Control for Networked Control System with Random Delays</i> , pp. 1049-1054.		18:25-18:45	ThC5.6
Xie, Dexiao	Nanjing Univ. of Science and Tech.	<i>Design of Fuzzy Observers for Takagi-Sugeno Fuzzy Models for Fault Detection and Isolation</i> , pp. 1109-1114.	
Zhang, Dengfeng	Nanjing Univ. of Science and Tech.	Akhenak, Abdelkader	Essai Moteur Combustion
Han, Xiaodong	Nanjing Univ. of Science and Tech.	Chadli, Mohammed	Univ. de Picardie-Jules Verne
Huang, He	Nanjing Univ. of Science and Tech.	Ragot, Jose	CRAN-INPL
Wang, Zhi-quan	Nanjing Univ. of Sci. & Tech.	Maquin, Didier	Inst. National Pol. de Lorraine
17:25-17:45	ThC4.3	FrPL	
		Barcelona A	

Data-Driven Fault Detection and Diagnosis for Complex Industrial Processes (Plenary Session)

Chair: Quevedo, Joseba Tech. Univ. of Catalonia
 08:45-09:45 FrPL.1
Data-Driven Fault Detection and Diagnosis for Complex Industrial Processes, pp. 1115-1125.
 Qin, S. Joe Univ. of Southern California

FrA1 Recent Advances in Supervision of Technical Processes: Fuzzy Logic, Interval Models and Qualitative Methods (Invited Session)

Barcelona A
 Chair: Rakoto-Ravalontsalama, Naly Ec. des Mines de Nantes
 Co-Chair: Quevedo, Joseba Tech. Univ. of Catalonia
 Organizer: Quevedo, Joseba Tech. Univ. of Catalonia
 Organizer: Rakoto-Ravalontsalama, Naly Ec. des Mines de Nantes

10:00-10:40 FrA1.1
The Contribution of Interval-Based Models to Complex Systems Fault Detection Problems (I), pp. 1126-1131.
 Quevedo, Joseba Tech. Univ. of Catalonia
 Puig, Vicenc Univ. Pol. de Catalunya
 Escobet, Teresa Univ. Pol. de Catalunya
 Nejari, Fatiha Univ. Pol. de Catalunya
 Sarrate, Ramon Univ. Pol. de Catalunya
 Trave-Massuyes, Louise CNRS

10:40-11:00 FrA1.2
Contribution of Fuzzy Classification for the Diagnosis of Complex Systems (I), pp. 1132-1137.
 Isaza, Claudia Univ. de Antioquia
 Orantes Molina, Antonio Univ. Tecnologica de la Mixteca
 Kempowsky, Tatiana LAAS-CNRS
 Le Lann, Marie-Véronique Univ. de Toulouse

11:00-11:20 FrA1.3
Robust Fault Diagnosis of Non-Linear Systems Using Constraints Satisfaction, pp. 1138-1143.
 Puig, Vicenc Univ. Pol. de Catalunya
 Escobet, Teresa Univ. Pol. de Catalunya
 Ocampo-Martinez, Carlos Spanish National Res. Council (CSIC) - Tech. Univ.
 Tornil-Sin, Sebastian Tech. Univ. of Catalonia

11:20-11:40 FrA1.4
A Combined FCM-GA Approach to Supervise Industrial Process (I), pp. 1144-1149.
 Neves-Jr, Flávio UTFPR
 Arruda, L V R Federal Univ. of Tech. - Paraná
 Mendonça, Marcio Univ. Tecnologica Federal do Parana

FrA2 Safety-Critical Systems (Regular Session)

Barcelona C
 Chair: Ma, Jianping Univ. of Western Ontario
 Co-Chair: Bartys, Michal, Zbigniew Warsaw Univ. of Tech.

10:00-10:40 FrA2.1
Applications of Fault Diagnosis in Nuclear Power Plants: An Introductory Survey, pp. 1150-1161.
 Ma, Jianping Univ. of Western Ontario
 Jiang, Jin Univ. of Western Ontario

10:40-11:00 FrA2.2
Design and Implementation of an Improved and Reliable Pressurizer Controller at the Paks NPP, pp. 1162-1167.
 Bartha, Tamás Computer and Automation Res. Inst. (MTA SZTAKI)
 Fazekas, Csaba Computer and Automation Res. Inst.
 Varga, Istvan Computer and Automation Res. Inst. of S

11:00-11:20 FrA2.3
Efficient Fault Detection in Safety-Related Pneumatic Control by Conceptual Encapsulation, pp. 1168-1173.
 Barner, Andreas Festo AG & Co. KG
 Bredau, Jan Festo AG & Co. KG
 Schiller, Frank Tech. Univ. München

11:20-11:40 FrA2.4
Development and Application of a Data-Driven Fault Prediction Method to the Imperial Smelting Furnace Process, pp. 1174-1179.
 Jiang, Shaohua Central South Univ.
 Gui, Weihua Central South Univ.
 Ding, Steven X. Univ. of Duisburg-Essen
 Naik, Amol Univ. Duisburg-Essen, Campus Duisburg

11:40-12:00 FrA2.5
Neuro-Fuzzy Based Fault Diagnosis of a Steam Generator, pp. 1180-1185.
 Razavi Far, Roozbeh Amirkabir Univ.
 Davilu, Hadi Amirkabir Univ. of Technology (Tehran Polytechnic University)
 Palade, Vasile Oxford Univ.
 Lucas, Caro Prof.

FrA3 Fault Detection and Isolation Based on Set-Membership Techniques (Invited Session)

Sants
 Chair: Raissi, Tarek Univ. de Bordeaux
 Co-Chair: Puig, Vicenc Univ. Pol. de Catalunya
 Organizer: Raissi, Tarek Univ. de Bordeaux

10:00-10:20 FrA3.1
Fault-Detection Relying on Set-Membership Techniques for an Atomic Force Microscope (I), pp. 1186-1191.
 Reppa, Vasso Univ. OF PATRAS
 Tzes, Anthony Univ. of Patras

10:20-10:40 FrA3.2
A Set-Membership Fault Detection Test with Guaranteed Robustness to Parametric Uncertainties in Continuous Time Linear Dynamical Systems (I), pp. 1192-1197.
 Combastel, Christophe ENSEA
 Raka, Sid-Ahmed ENSEA

10:40-11:00 FrA3.3
Identification for Passive Robust Fault Detection of LPV Systems Using Zonotopes (I), pp. 1198-1203.
 Blesa, Joaquim Univ. Pol. de Catalunya (UPC)
 Puig, Vicenc Univ. Pol. de Catalunya
 Saludes, Jordi Univ. Pol. de Catalunya

11:00-11:20 FrA3.4
Nonlinear Set Observation for Consistency-Based Diagnosis Using Implicit Interval Methods (I), pp. 1204-1209.
 Wolff, Florian Univ. Karlsruhe (TH)
 Krebs, Volker G. Univ. Karlsruhe (TH)

11:20-11:40 FrA3.5
Set-Observer Design for Consistency Checks of Nonlinear Systems (I), pp. 1210-1215.
 Videau, Gaétan Univ. Bordeaux1
 Raissi, Tarek Univ. de Bordeaux
 Zolghadri, Ali Univ. Bordeaux I

FrA4 Fault Tolerant Actuators (Regular Session)

Montjuic
 Chair: From, Pli Johan Norwegian Univ. of Science and Tech.

Co-Chair: Dixon, Roger Loughborough Univ.
 10:00-10:20 FrA4.1
HRA - Intrinsically Fault Tolerant Actuation through High Redundancy, pp. 1216-1221.

Dixon, Roger Loughborough Univ.
 Steffen, Thomas Loughborough Univ.
 Davies, Jessica Loughborough Univ.
 Goodall, R.M. Loughborough Univ.
 Zolotas, Argýrios Loughborough Univ.
 Pearson, John BAE Systems
 Du, Xinli Aston Univ.

10:20-10:40 FrA4.2
Increasing Reliability by Means of Efficient Configurations for High Redundancy Actuators, pp. 1222-1227.
 Steffen, Thomas Loughborough Univ.
 Schiller, Frank Tech. Univ. München
 Blum, Michael Tech. Univ. München
 Dixon, Roger Loughborough Univ.

10:40-11:00 FrA4.3
Fault Detection in High Redundancy Actuation Using an Interacting Multiple-Model Approach, pp. 1228-1233.

Davies, Jessica Loughborough Univ.
Tsunashima, Hitoshi Nihon Univ.
Goodall, R.M. Loughborough Univ.
Dixon, Roger Loughborough Univ.
Steffen, Thomas Loughborough Univ.

11:00-11:20 FrA4.4
Optimal Passive Fault Tolerant Control of a High Redundancy Actuator, pp. 1234-1239.

Steffen, Thomas Loughborough Univ.
Michail, Konstantinos Loughborough Univ.
Dixon, Roger Loughborough Univ.
Zolotas, Argyrios Loughborough Univ.
Goodall, R.M. Loughborough Univ.

11:20-11:40 FrA4.5
Fault Tolerance of Parallel Manipulators with Passive Joints, pp. 1240-1245.

From, Pål Johan Norwegian Univ. of Science and Tech.
Gravdahl, Jan Tommy Norwegian Univ. of Science & Tech.

FrA5 Sarria
Chemical Processes (Regular Session)

Chair: Hangos, Katalin M. Computer & Automation Rsrch. Inst. of the Hungarian Acad. of Sciences
Co-Chair: Villez, Kris Univ. Laval

10:00-10:20 FrA5.1
Online Batch-End Quality Estimation: Does Laziness Pay Off?, pp. 1246-1251.

Gins, Geert Katholieke Univ. Leuven
Vanlaer, Jef Katholieke Univ. Leuven
Van Impe, Jan F.M. Katholieke Univ. Leuven

10:20-10:40 FrA5.2
Monitoring an Air Separation Process with Multiple Operating Modes, pp. 1252-1257.

Liu, Jialin Fortune Inst. of Tech.
Chen, Ding-Sou China Steel Corp.

10:40-11:00 FrA5.3
Monitoring of the Degree of Coking in H-Oil Plant, pp. 1258-1263.

Koscielny, Jan Warsaw Univ. of Tech.
Leszczyński, Marcin Warsaw Univ. of Tech.
Gasecki, Andrzej PKN Orlen S.A.
Syfert, Michał Warsaw Univ. of Tech.

11:00-11:20 FrA5.4
Fault Detection and Isolation from an Identified MIMO Takagi-Sugeno Model of a Bioreactor, pp. 1264-1269.

Chenikher, Salah LAGIS, Univ. des Sciences et Tech. de Lille
Cassar, J.P. Univ. des Sciences et Tech. de Lille

Pekpe, Komi Midzodzi LAGIS

11:20-11:40 FrA5.5
Parity Relations Based on Elimination Theory for Fault Detection in a Bioprocess, pp. 1270-1275.

Kabbaj, M. Nabil CNRS
Doncescu, Andrei Lab. of Architecture and Analysis of Systems CNRS
Aguilar-Martin, Josep LAAS-CNRS

11:40-12:00 FrA5.6
Qualitative Representation of Trends (QRT) As a Tool for Automated Data-Driven Monitoring of On-Line Sensors, pp. 1276-1281.

Villez, Kris Univ. Laval
Keser, Benjamin Univ. of Duisburg-Essen
Rieger, Leiv Univ. Laval

FrSP1 Barcelona A
Fault Detection and Isolation in Sewer Networks (Semi-Plenary Session)

Chair: Blanke, Mogens Tech. Univ. of Denmark
12:15-13:00 FrSP1.1

Fault Detection and Isolation in Sewer Networks, pp. 1282-1293.
Puig, Vicenc Univ. Pol. de Catalunya

FrSP2 Barcelona C
Fault Tolerant Actuators and Drives (Semi-Plenary Session)

Chair: Dixon, Roger Loughborough Univ.

12:15-13:00 FrSP2.1
Fault Tolerant Actuators and Drives - Structures, Fault Detection Principles and Applications, pp. 1294-1305.

Muenchhof, Marco Tech. Univ. Darmstadt
Beck, Mark Tech. Univ. Darmstadt
Isermann, Rolf Univ. of Tech. Darmstadt

FrB1 Barcelona A
AI Methods for Model-Based Diagnosis (Invited Session)

Chair: Trave-Massuyes, CNRS

Louise
Co-Chair: Pulido, Belarmino Univ. de Valladolid
Organizer: Trave-Massuyes, CNRS

Louise
Organizer: Pulido, Belarmino Univ. de Valladolid
Organizer: Nyberg, Mattias Linköping Univ.

14:30-14:50 FrB1.1
Anytime Near-Optimal Troubleshooting Applied to an Auxiliary Truck Braking System (I), pp. 1306-1311.

Hlkan, Warnquist Linköping Univ.
Pernestil, Anna Linköping
Nyberg, Mattias Linköping Univ.

14:50-15:10 FrB1.2
Continuously Estimating Persistent and Intermittent Failure Probabilities (I), pp. 1312-1317.

de Kleer, Johan PARC
Kuhn, Lukas Palo Alto Res. Center
Liu, Juan Palo Alto Res. Center
Price, Bob Palo Alto Res. Center
Do, Minh Palo Alto Res. Center
Zhou, Rong Palo Alto Res. Center

15:10-15:30 FrB1.3
A Practical Approach for the Online Diagnosis of Industrial Transportation Systems (I), pp. 1318-1323.

Pill, Ingo Graz Univ. of Tech.
Steinbauer, Gerald Graz Univ. of Tech.
Wotawa, Franz Graz Univ. of Tech.

15:30-15:50 FrB1.4
Making Use of Problem Structure in Static and Dynamic Constraint-Based Diagnosis (I), pp. 1324-1329.

Perrot, Fabien LAAS-CNRS, Univ. of Toulouse
Trave-Massuyes, Louise CNRS

15:50-16:10 FrB1.5
Post-Mortem Diagnosis of Bottling Plants Based on Recorded Data (I), pp. 1330-1335.

Struss, Peter Tech. Univ. of Munich

16:10-16:30 FrB1.6
Lazy Diagnosis of Active Systems Via Pruning Techniques (I), pp. 1336-1341.

Ducoli, Andrea Univ. of Brescia
Lamperti, Gianfranco Univ. di Brescia
Piantoni, Emanuele Univ. of Brescia
Zanella, Marina Univ. di Brescia

FrB2 Barcelona C
Diagnosis and Environmental Issues (Invited Session)

Chair: Lefebvre, Dimitri Univ. Le Havre
Co-Chair: Chafouk, Houcine IRSEEM / ESIGELEC
Organizer: Lefebvre, Dimitri Univ. Le Havre
Organizer: Chafouk, Houcine IRSEEM / ESIGELEC

14:30-14:50 FrB2.1
WWTP Diagnosis Based on Robust Principal Component Analysis (I), pp. 1342-1347.

Tharrault, Yvon CRAN - INPL
Mourot, Gilles Inst. National Pol. De Lorraine
Ragot, Jose CRAN-INPL

14:50-15:10 FrB2.2
Industrial Risk Prevention by Robust Filter for Manufacturing Control System (I), pp. 1348-1353.

Marange, Pascale	Univ. of Nancy	Melendez, Joaquim	Univ. de Girona
Gellot, François	Univ. of REIMS	Ruiz, Magda	Univ. of Girona
Riera, Bernard	Reims Univ.	Colomer, Joan	Univ. de Girona
15:10-15:30	FrB2.3	Barta, Cesar	IberEspacio
<i>Sensor Fault Detection and Diagnosis in the Gas Turbine of San Isidro Combined Cycle Power Plant</i> , pp. 1354-1359.		15:10-15:30	FrB4.3
Berrios, Rodrigo	Pontificia Univ. Católica de Chile	<i>Comparison of Two Model Based Residual Generation Schemes for the Purpose of Fault Detection and Isolation Applied to a Pneumatic Actuation System</i> , pp. 1420-1425.	
Paredes, Rodrigo	Endesa Chile	Grewal, Karmjit Singh	Univ. of Loughborough
Cipriano, Aldo	Pontificia Univ. Católica de Chile	Dixon, Roger	Loughborough Univ.
15:30-15:50	FrB2.4	Pearson, John	BAE Systems
<i>Fault Detection and Isolation in Current and Voltage Sensors of Doubly-Fed Induction Generators (I)</i> , pp. 1360-1365.		15:30-15:50	FrB4.4
Gálvez Carrillo, Manuel	Univ. Libre de Bruxelles	<i>Actuator Fault Detection for Suspension Systems</i> , pp. 1426-1431.	
Ricardo		Gaspar, Peter	Computer & Automation Res. Inst.
Kinnaert, Michel	Univ. Libre de Bruxelles	Szabo, Zoltan	Hungarian Acad. of Sciences
15:50-16:10	FrB2.5	Bokor, Jozsef	Hungarian Acad. of Sciences
<i>Residual Analysis for the Diagnosis of Hybrid Electrical Energy Systems (I)</i> , pp. 1366-1371.		15:50-16:10	FrB4.5
Guerin, Francois	Univ. du Havre	<i>Detection and Quantification of Valve Stiction by the Method of Unknown Input Estimation</i> , pp. 1432-1437.	
Lefebvre, Dimitri	Univ. Le Havre	Balakrishnapillai Chitralekha,	Univ. of Alberta
FrB3	Sants	Saneej	
Automata and Petri Nets (Regular Session)		Shah, Sirish	Univ. of Alberta
Chair: Lunze, Jan	Ruhr-Univ. Bochum	Prakash, Jagadeesan	Madras Inst. of Tech.
Co-Chair: Jónsson, Ragnar Ingi	Tech. Univ. of Denmark	16:10-16:30	FrB4.6
14:30-14:50	FrB3.1	<i>Valve Stiction Detection by Pattern Recognition and Principal Component Analysis</i> , pp. 1438-1443.	
<i>Petri Net Models for Detection Isolation and Identification of Faults in Des</i> , pp. 1372-1377.		Stockmann, Markus	Cologne Univ. of Applied Sciences
Lefebvre, Dimitri	Univ. Le Havre	Haber, Robert	Univ. of Applied Science Cologne
Leclercq, Edouard	Univ. du Havre	Schmitz, Ulrich	Shell Rhineland Refinery
Ould El Mehdi, Souleiman	Univ. du havre	FrB5	Sarria
14:50-15:10	FrB3.2	Prognostics (Regular Session)	
<i>Diagnosability of Deterministic I/O Automata</i> , pp. 1378-1383.		Chair: Quevedo, Joseba	Tech. Univ. of Catalonia
Lunze, Jan	Ruhr-Univ. Bochum	Co-Chair: Dettmann, Kai-Uwe	Univ. of Duisburg-Essen
15:10-15:30	FrB3.3	14:30-14:50	FrB5.1
<i>Rule-Based Composable Modelling of Industrial Automation Automata under Nominal and Faulty Conditions</i> , pp. 1384-1389.		<i>Estimation of Damage Behaviour for Model-Based Prognostic</i> , pp. 1444-1449.	
Tilli, Andrea	Univ. of Bologna	Gucik-Derigny, David	Univ. Paul Cezanne
Paoli, Andrea	Univ. of Bologna	Outbib, Rachid	Univ. of Aix-Marseille III
15:30-15:50	FrB3.4	Ouladsine, Mustapha	Univ. d'aix marseille III
<i>On Fault Diagnosis of Random Free-Choice Petri Nets</i> , pp. 1390-1395.		14:50-15:10	FrB5.2
Flochova, Jana	FIIT Slovak Univ. of Tech.	<i>Functional Prognostic Architecture for the Maintenance of Complex Systems</i> , pp. 1450-1455.	
Boel, Rene K.	Univ. of Ghent	Ribot, Pauline	LAAS-CNRS; Univ. of Toulouse; UPS
15:50-16:10	FrB3.5	Pencolé, Y.	CNRS; Univ. de Toulouse; LAAS
<i>Fault Diagnosis and Prognosis in Petri Nets by Using a Single Generalized Marking Estimation</i> , pp. 1396-1401.		Combacau, Michel	LAAS-CNRS
Basile, Francesco	Univ. Degli Studi Di Salerno	15:10-15:30	FrB5.3
Chiacchio, Pasquale	Univ. di Salerno	<i>Expert Knowledge Impact on Damage Trajectory Analysis Based Prognostics</i> , pp. 1456-1461.	
De Tommasi, Gianmaria	Univ. degli Studi di Napoli Federico II	Peysson, Flavien	Univ. Paul Cézanne, Aix-Marseille III
16:10-16:30	FrB3.6	Ouladsine, Mustapha	Univ. d'aix marseille III
<i>Oestrus Detection in Dairy Cows Using Automata-Based Modelling and Diagnosis</i> , pp. 1402-1407.		Outbib, Rachid	Univ. of Aix-Marseille III
Jónsson, Ragnar Ingi	Tech. Univ. of Denmark	Leger, Jean-Baptiste	PREDICT
Caponetti, Fabio	Tech. Univ. of Denmark	15:30-15:50	FrB5.4
Blanke, Mogens	Tech. Univ. of Denmark	<i>A Data Driven Prognostic Methodology without a Priori Knowledge</i> , pp. 1462-1467.	
Poulsen, Niels Kjølstad	Tech. Univ. of Denmark	Peysson, Flavien	Univ. Paul Cézanne, Aix-Marseille III
FrB4	Montjuic	Boubezoul, Abderrahmane	Lab. Central des Ponts et Chaussées
Actuator Fault Detection (Regular Session)		Ouladsine, Mustapha	Univ. d'aix marseille III
Chair: Gaspar, Peter	Computer & Automation Res. Inst.	Outbib, Rachid	Univ. of Aix-Marseille III
Co-Chair: Melendez, Joaquim	Univ. de Girona	15:50-16:10	FrB5.5
14:30-14:50	FrB4.1	<i>Comparison of Two Prognosis Methods Based on Neuro Fuzzy Inference System and Clustering Neural Network</i> , pp. 1468-1473.	
<i>Estimation of Actuator Fault Parameters in a Nonlinear Boeing 747 Using a Linear Two-Stage Kalman Filter</i> , pp. 1408-1413.		Traore, Moussa	Ec. des Mines
Caliskan, Fikret	Istanbul Tech. Univ.	Duviella, Eric	Ec. des Mines de Douai
Zhang, Youmin	Concordia Univ.	Lecoeuque, Stéphane	Mines de Douai
Wu, Neng Eva	Binghamton Univ.	16:10-16:30	FrB5.6
Shin, Jong-yeob	Gulfstream Aerospace Co.	<i>Online Definition of Reliability Characteristics Based on Experimental Data</i> , pp. 1474-1479.	
14:50-15:10	FrB4.2		
<i>Statistical Modelling for Fault Diagnosis of Sensors of the Ariane's Engine</i> , pp. 1414-1419.			

Dettmann, Kai-Uwe Söffker, Dirk	Univ. of Duisburg-Essen Univ. Duisburg-Essen	Refflinghaus, J.-Robert Liangsiri, Jirapha	Dortmund Univ. of Tech. Carlsberg Breweries A/S
FrC1	Barcelona A	18:05-18:25	FrC2.5
Bridge between Control Theory and AI Methods for Model-Based Diagnosis (Invited Session)			
Chair: Nyberg, Mattias	Linköping Univ.	<i>Increasing Reliability of Intelligent Manufacturing Systems by Adaptive Optimization and Safety Supervision</i> , pp. 1533-1538.	Ding, Hao Tech. Univ. Muenchen
Co-Chair: Pulido, Belarmino	Univ. de Valladolid	Kain, Sebastian	Tech. Univ. Muenchen
Organizer: Trave-Massuyes, Louise	CNRS	Schiller, Frank	Tech. Univ. München
Organizer: Nyberg, Mattias	Linköping Univ.	Stursberg, Olaf	Univ. of Kassel
Organizer: Pulido, Belarmino	Univ. de Valladolid	18:25-18:45	FrC2.6
16:45-17:05	FrC1.1	<i>Fault Tolerant Software: A Multi Agent System Solution</i> , pp. 1539-1544.	
<i>Minimal Structurally Overdetermined Sets for Residual Generation: A Comparison of Alternative Approaches (I)</i> , pp. 1480-1485.			
Armengol Llobet, Joaquim	Univ. de Girona	Caponetti, Fabio	Tech. Univ. of Denmark
Bregon, Anibal	Univ. of Valladolid	Bergantino, Nicola	Integra software srl
Escobet, Teresa	Univ. Pol. de Catalunya	Longhi, Sauro	Univ. Pol. delle Marche
Gelso, Esteban R.	Univ. of Girona		
Krysanter, Mattias	Linköping Univ.		
Nyberg, Mattias	Linköping Univ.		
Olive, Xavier	Thales Alenia Space		
Pulido, Belarmino	Univ. de Valladolid		
Trave-Massuyes, Louise	CNRS		
17:05-17:25	FrC1.2	FrC3	Sants
<i>Analytic Redundancy, Possible Conflicts, and TCG-Based Fault Signature Diagnosis Applied to Nonlinear Dynamic Systems (I)</i> , pp. 1486-1491.			
Biswas, Gautam	Vanderbilt Univ.	Discrete Event Systems (Regular Session)	
Koutsoukos, Xenofon	Vanderbilt Univ.	Chair: Puig, Vicenc	Univ. Pol. de Catalunya
Pulido, Belarmino	Univ. de Valladolid	Co-Chair: Chantry, Elodie	Univ. of Toulouse, INSA
Bregon, Anibal	Univ. of Valladolid	16:45-17:05	FrC3.1
17:25-17:45	FrC1.3	<i>Monitoring and Active Diagnosis for Discrete-Event Systems</i> , pp. 1545-1550.	
<i>Diagnosability of Networks of Hybrid Systems (I)</i> , pp. 1492-1497.			
Blackhall, Lachlan	The Australian National Univ.	Chantry, Elodie	Univ. of Toulouse, INSA
Kan John, Priscilla	Australian National Univ. NICTA	Pencolé, Y.	CNRS; Univ. de Toulouse; LAAS
Grastien, Alban	NICTA	17:05-17:25	FrC3.2
Hill, David J.	The Australian National Univ.	<i>Diagnosability of Patterns in Distributed Discrete Event Systems</i> , pp. 1551-1556.	
17:45-18:05	FrC1.4	Ye, Lina	LRI, Univ. Paris-Sud 11, CNRS / INRIA Saclay – Île-de-France
<i>Active Diagnosis of Hybrid Systems Guided by Diagnosability Properties (I)</i> , pp. 1498-1503.			
Bayouhd, Mehdi	LAAS-CNRS, Toulouse Univ. CNRS	Dague, Philippe	LRI, Univ. Paris-Sud 11, CNRS / INRIA Saclay – Île-de-France
Trave-Massuyes, Louise	CNRS	17:25-17:45	FrC3.3
Olive, Xavier	Thales Alenia Space	<i>Diagnosis of Faults in Real-Time Discrete Event Systems</i> , pp. 1557-1562.	
18:05-18:25	FrC1.5	Khoumsi, Ahmed	Univ. of Sherbrooke
<i>Mixing Diagnosis Techniques for Autonomous Satellite FDIR (I)</i> , pp. 1504-1508.			
Olive, Xavier	Thales Alenia Space	Ouedraogo, Lucien	Univ. de Sherbrooke
Bayouhd, Mehdi	LAAS-CNRS, Toulouse Univ. CNRS	17:45-18:05	FrC3.4
Trave-Massuyes, Louise	CNRS	<i>Fault Isolation Module Implementation Using a Timed Discrete-Event Approach</i> , pp. 1563-1568.	
FrC2	Barcelona C	Meseguer, Jordi	Univ. Pol. de Catalunya (UPC)
Safety and Reliability (Regular Session)			
Chair: Qin, S. Joe	Univ. of Southern California	Puig, Vicenc	Univ. Pol. de Catalunya
Co-Chair: Ding, Hao	Tech. Univ. Muenchen	Escobet, Teresa	Univ. Pol. de Catalunya
16:45-17:05	FrC2.1	18:05-18:25	FrC3.5
<i>Hybrid Approach for Deriving Feared Scenarios in Industrial Systems</i> , pp. 1509-1514.			
Sadou, Nabil	SUPELEC	<i>Data Communication Reduction in Remote Diagnosis of Discrete-Event Systems</i> , pp. 1569-1574.	
17:05-17:25	FrC2.2	Schlage, Thorsten	Ruhr-Univ. Bochum
<i>Fault Diagnosis Based on Hazard Identification Results</i> , pp. 1515-1520.			
Németh, Erzsébet	The Univ. of Queensland	Unze, Jan	Ruhr-Univ. Bochum
Lakner, Rozália	Univ. of Pannonia	18:25-18:45	FrC3.6
Cameron, Ian T.	The Univ. of Queensland	<i>Candidates' Generation for Diagnosis of Discrete Manufacturing Systems</i> , pp. 1575-1580.	
Hangos, Katalin M.	Computer & Automation Rsrch. Inst. of the Hungarian Acad. of S	Sayed Mouchaweh, Moamar	CRISTIC, URCA
17:25-17:45	FrC2.3	Philippot, Alexandre	Univ. de Reims Champagne Ardenne
<i>Use Viewpoints to Control Effort of HAZOP Analysis for Safety Critical Systems</i> , pp. 1521-1526.			
Hu, Zaijun	ABB Corp. Res. Center	Carre-Menetrier, Veronique	UFR SCIENCES EXACTES ET NATURELLES DE REIMS - Univ. DE REIM
17:45-18:05	FrC2.4	FrC4	Montjuic
<i>Process Safety by Using Simulation for Assembly Processes</i> , pp. 1527-1532.			
Crostack, Horst-Artur	Dortmund Univ. of Tech.	Actuator Fault Accomodation (Regular Session)	
		Chair: Wu, Neng Eva	Binghamton Univ.
		Co-Chair: Bartys, Michal, Zbigniew	Warsaw Univ. of Tech.
		16:45-17:05	FrC4.1
		<i>Adaptive Control of a High Redundancy Actuator Using the Geometric Approach</i> , pp. 1581-1586.	
		Steffen, Thomas	Loughborough Univ.
		Zolotas, Argyrios	Loughborough Univ.
		Dixon, Roger	Loughborough Univ.
		Goodall, R.M.	Loughborough Univ.
		17:05-17:25	FrC4.2
		<i>H_∞-Based Virtual Actuator Synthesis for Optimal Trajectory Recovery</i> , pp. 1587-1592.	
		Richter, Jan	Ruhr-Univ. Bochum
		Unze, Jan	Ruhr-Univ. Bochum

- 17:25-17:45 FrC4.3
Concept of Feedback Fault Tolerant Actuator, pp. 1593-1598.
 Bartys, Michal, Zbigniew Warsaw Univ. of Tech.
- 17:45-18:05 FrC4.4
Enhancing Integrity in Multivariable Process Control under Actuator Failures, pp. 1599-1604.
 Sala, Antonio Univ. Pol. de Valencia
 Albertos, Pedro Univ. Pol. de Valencia
- 18:05-18:25 FrC4.5
Invariant Set Approach to Actuator Fault Tolerant Control, pp. 1605-1610.
 Seron, Maria The Univ. of Newcastle
 De Dona, Jose Adrian The Univ. of Newcastle
 Martinez-Molina, John Jairo INP-Grenoble, Gipsa-Lab.
- 18:25-18:45 FrC4.6
Comments on Actuator Fault Accommodation, pp. 1611-1616.
 Raharijaona, Thibaut Paul Cézanne Univ.
 Outbib, Rachid Univ. of Aix-Marseille III
 Ouladsine, Mustapha Univ. d'aix marseille III
 Ghachem, Sahbi Univ. de Tunis el Manar, LARA
 Automatique

FrC5 Sarria
Condition Monitoring (Regular Session)

- Chair: Butler, Shane W. National Univ. of Ireland,
 Maynooth
- Co-Chair: Fouladirad, Mitra Univ. Tech. of Troyes
- 16:45-17:05 FrC5.1
Nonperiodic Inspection/Replacement Policy for Monotone Deteriorating System with Covariates, pp. 1617-1622.
 Zhao, Xuejing Univ. de Tech. de Troyes
 Fouladirad, Mitra Univ. Tech. of Troyes
 Berenguer, Christophe Univ. de Tech. de Troyes
 Bordes, Laurent Univ. de Pau et des Pays de
 l'Adour - UMR CNRS 5142
- 17:05-17:25 FrC5.2
Predictive Condition-Based Replacement and Spare Ordering Policy for Dynamic Systems Suffering Hidden Degradation, pp. 1623-1628.
 Fan, Hongdong Tsinghua Univ.
 Hu, Changhua High Tech. Inst. of Xi'an
 Chen, Maoyin Tsinghua Univ.
 Zhou, Donghua Tsinghua Univ.
- 17:25-17:45 FrC5.3
A Graphic Computerised Maintenance Management System for Fault Detection, Supervision and Safety of the Railway Infrastructure, pp. 1629-1634.
 Garcia Marquez, Fausto Univ. of Castilla-La Mancha
 Pedro Univ. of Castilla-La Mancha
 Chacon Muñoz, Jesus Miguel Univ. of Castilla-La Mancha
- 17:45-18:05 FrC5.4
Prediction of Vacuum Pump Degradation in Semiconductor Processing, pp. 1635-1640.
 Butler, Shane W. National Univ. of Ireland,
 Maynooth
 Ringwood, John V. Dublin City Univ.
 MacGearailt, Niall Intel Ireland