

MONDAY, 21

Opening (8:00-8:15)  
Room: Macedonia

Plenary Session M1-1 (8:15-10:15)  
Room: Macedonia

Chairman: M.A. Christodoulou, Technical U of Crete

**Keynote Lecture on Intelligent Control.** G. Saridis, Rensselaer Polytechnic Institute, USA .....

**Invited Lecture on Neural Networks for Control, Identification & Diagnosis.** H.E. Rauch, Lockheed, USA .....

Session M2-1 (10:45-12:15): Neural Networks for Control - Part A  
Room: Macedonia

Chairman: P.J. Antsaklis, U of Norte Dame  
Co-Chairman: K. Warwick, U of Reading

A. Sideris & K. Orita. A Novel Neural Network Structure with Application to Robot Trajectory Control. University of California, Irvine, USA & Nippon Steel Corporation, JAPAN .....

G. Rovithakis & M.A. Christodoulou. Regulation of Unknown Nonlinear Dynamical Systems via Dynamical Neural Networks. Technical University of Crete, GREECE .....

E.B. Kosmatopoulos, M.A. Christodoulou & P.A. Ioannou. Nonlinear system Identification Using Exponential Error Converging Neural Networks. Technical University of Crete, GREECE & University of Southern California, USA .....

I.K. Konstantopoulos & P.J. Antsaklis. The Four-Parameter Controller, A Neural Network Implementation. University of Norte Dame, USA .....

K. Koutroumbas & Kalouptsidis. A New Associative Memory Architecture. University of Athens, GREECE .....

F.L. Lewis, K. Liu & A. Yesildirek. Neural Net Robot Controller with Guaranteed Tracking Performance. The University of Texas at Arlington, USA.....

**Session M2-2 (10:45-12:15): Robotics**

**Room: Vergina**

Chairman: K.P. Valavanis, U of SW Louisiana

Co-Chairman: K.J. Kyriakopoulos, R.P.I.

S.R. Malladi, K.P. Valavanis & M.C. Mulder. Trajectory Generator for a Sensor Based Redundant Manipulator. University of Southwestern Louisiana, USA.....

Z. Lin, P.V. Patel & C.A. Balafoutis. Augmented Impedance Control: An Approach to Impact Reduction for Kinematically Redundant Manipulators. Concordia University, CA- NADA.....

A. Curran & K.J. Kyriakopoulos. Sensor-Based Self-Localization for Wheeled Mobile Robots. Rensselaer Polytechnic Institute, USA (Temporary Address, GREECE)

S.R. Malladi, K.P. Valavanis & M.C. Mulder. Sensor Based Motion Control and Coordination of a Redundant Manipulator. University of Southwestern Louisiana, USA.....

A. Ailon & R. Ortega. An Observer-Based Set-Point Controller for Robot Manipulators with Flexible Joints. Ben-Gurion University of the Negev, ISRAEL & Universite de Technologie de Compiegne, FRANCE.....

D.P. Tsakiris & P.S. Krishnaprasad. Motion Planning for a Class of Active Robotic Systems. University of Maryland, USA.

**Session M2-3 (10:45-12:15): Tracking, Noninteracting & Decoupling Control**

**Room: Samaria**

Chairman: M. Malabre, Ecole Centrale de Nantes

Co-Chairman: T.G. Koussiouris, N.T.U.A.

T.G. Koussiouris & M. Zervos. On the solvability of Morgan's problem: A necessary and sufficient condition for decoupling by state feedback and a constant singular point transformation. National Technical University of Athens, GREECE.....

J.C. Martinez Garcia, M. Malabre & R. Rabah. The partial non-interacting problem: geometric and structural solutions. LAN, URA, FRA- NCE & ALGERIA...

B. Bona, M. Indri & A. Tornambe. Decoupling Control and Trajectory Tracking for Piezoelectric Materials. Politecnico di Torino, ITALY.....

S. Longhi, A.M. Perdon & D. Camillucci. Output Tracking for a Family of Linear Systems. Universita di Ancona, ITALY.....

O.M. Grasselli, S. Longhi & A. Tornambe. Robust Continuous-Time Tracking and Regulation for Multirate Sampled-Data Systems. Universita di Roma "Tor Vergata" & Universita di Ancona, ITALY.....

D. Emiris. A Singularity Robust Kinematic Control Strategy for Decoupled Robot Geometry. Technical University of Crete, GREECE.....

#### **Session M3-1 (2:15-3:45): Adaptive Control**

**Room: Macedonia**

Chairman: P.A. Ioannou, U of Southern California

Co-Chairman: R. Lozano, U de Tech. de Compiègne

I. Kanellakopoulos, M. Krstic & P.V. Kokotovic. Trajectory Initialization in Adaptive Nonlinear Control. University of California at Los Angeles & University of California at Santa Barbara, USA.....

R. Lozano & X.-H. Zhao. Adaptive Pole Placement without Excitation Probing Signals. Universite de Technologie de Compiègne, FRANCE.....

G. Bartolini & A. Ferrara. Discontinuous Pole Assignment Control of Uncertain Systems Using only Input/Output Measurements. University of Genova, ITALY.

I.N.M. Papadakis & S.C.A. Thomopoulos. An Improved Performance adaptive Control Method for Linear and Linearizable Systems. Pennsylvania State University, USA.....

P. Pugliese & P. Muraca. An Adaptive Filter using Moving Sensor for a Class of Distributed Parameter System. Universita della Calabria, ITALY.....

S. Kotsios & N. Kalouptsidis. Adaptive Control for a Certain Class of Nonlinear Systems. University of Athens, GREECE.....

E. Kassapakis & K. Warwick. Adaptive Receding Horizon Strategies for Real-Time Target Tracking. University of Reading, U.K.....

#### **Session M3-2 (2:15-3:45) : 2-D Systems - Part A**

**Room: Vergina**

Organizer: T. Kaczorek, Warsaw Technical U

Chairman: T. Kaczorek, Warsaw Technical U

Co-Chairman: R. Nikoukhah, INRIA

N.K. Bose. Recent Results in Modeling and Parameter Estimation of 2-D Systems and Signals. Pennsylvania State University, USA .....

J.E. Kurek. A Simple Realization of Separable 2-D Systems. Polytechnika Warszawska ul. Chodkiewicza, POLAND .....

R. Nikoukhah. Estimation Theory for Graph Linear Systems: Applications to 1-D and multi-D filtering and smoothing. INRIA-Rocquencourt, FRANCE .....

A. Dzieliński. Optimal Reconstruction of State Vector in 2-D Systems: Survey. Warsaw University of Technology, POLAND .....

N.E. Mastorakis & N. Theodorou. Simple, Group and Approximate Factorization of Multidimensional Polynomials. National Technical University, GREECE .....

**Session M3-3 (2:15-3:45): Nonlinear & Infinite Dimensional Systems**  
**Room: Samaria**

Chairman: E.G. Strangas, Michigan State U

Co-Chairman: I.G. Kevrekidis, Princeton U

I.G. Kevrekidis & M.D. Graham. Model reduction for stability and bifurcation calculation for nonlinear PDEs. Princeton University, USA .....

P. Coustal, F. Delebecque & R. Nikoukhah. Application of  $H_\infty$  Methods to the Control of Flexible Structures. SFIM Industries EA & INRIA, FRANCE .....

E.G. Strangas & H.K. Khalil. A New Flux Observer for Induction Machines. Michigan State University, USA .....

P.-A. Bliman & M. Sorine. Modeling and Control of a Class of Systems with Hysteresis. Application to Friction Compensation. INRIA, FRANCE .....

R. Outbib & J.C. Vivalda. Stabilization of the rigid body about the middle axis. INRIA, Lorraine, FRANCE .....

V. Mahout, P. Lopez, J.P. Carcasses & C. Mira. Chaotic Behaviors of a Two Revolute Joint Robot Controlled with a PD Algorithm. GARI & GESNLA, FRANCE

## TUESDAY, 22

**Session T1-1 (8:45-10:15): Discrete Event Systems**  
**Room: Macedonia**

Chairman: J.N. Tsitsiklis, M.I.T.  
Co-Chairman: P.R. Kumar, U of Illinois at Urbana

D.P. Bertsekas & J.N. Tsitsiklis. Synchronous and Asynchronous Stochastic Control to a terminal state. M.I.T., USA.

S. Kumar & P.R. Kumar. Performance Bounds for Queueing Networks and Scheduling Policies. University of Illinois, Urbana, USA .....

D. Ionescu & J.-Y. Lin. A supervisor design procedure for discrete event systems in a temporal logic framework with applications. University of Ottawa, CANADA

A. Di Febbraro, S. Grosso & R. Minciardi. Analysis and Optimization of Discrete Event Systems modeling manufacturing processes. University of Genoa, ITALY .

M.A. de Ridder & M.P. Spathopoulos. Distributed control design for discrete event systems. University of Strathclyde, U.K .....

S.C.H. Lu, D. Ramaswamy & P.R. Kumar. Efficient Scheduling Policies to Reduce Mean and Variance of Cycle-time in Semiconductor Manufacturing Plants. University of Illinois, Urbana, USA .....

**Session T1-2 (8:45-10:15): Computational Procedures for Polynomial Control Design**  
**Room: Vergina**

Organizer: M. Sebek, Czech Academy of Sciences  
Chairman: M. Sebek, Czech Academy of Sciences  
Co-Chairman: V. Kucera, Czech Academy of Sciences

V. Kucera. The Pole Placement Equation: A Survey. Academy of Sciences of Czech Republic, CZECH REPUBLIC .....

P.J. Antsaklis & Z. Gao. On Polynomial and Rational Matrix Interpolation. University Of Norte Dame & Cleveland State University, USA .....

M. Sebek & S. Pejchova. Numerical Behavior of Linear Polynomial Operations or What Do Experiments Reveal?. Academy of Sciences of Czech Republic, CZECH REPUBLIC .....

O. Saito, T. Uasa & L. Xu. On Application of Computer Algebra to Control Theories. Toyohashi University, Japan .....

D. Fragopoulos, A. Casavola & M. Grimsble. A Polynomial Solution to Scalar  $H_{\infty}$  4-block General Distance Problem. University of Florence, ITALY & Strathclyde University, Scotland, U.K.....

Panel Discussion. Numerical Properties of Polynomial Algorithms.

**Session T1-3 (8:45-10:15): Fuzzy Logic, AI, & Expert Systems for Control**

**Room: Samaria**

Chairman: F.L. Lewis, U of Texas at Arlington

Co-Chairman: G. Conte, U di Ancona

K. Liu & F.L. Lewis. Self-Tuning Fuzzy Logic Control With a Single Function. University of Texas at Arlington, USA.....

V. R. Kumar. The Application of Artificial Intelligence Techniques for Intelligent Control of Dynamical Physical Systems. CSIRO, Australia.....

M. Zervakis. A Self-Organizing and Trainable Fuzzy-Neural Controller. University of Minnesota, USA.....

G. Conte & L. Silvestri. Fuzzy Controllers for Industrial Processes. Universita di Ancona, ITALY.....

S. Baglio, L. Fortuna, S. Graziani & G. Muscato. How the Membership Function Shape Characterizes the Dynamical Behaviors of a Fuzzy system. Universita di Catania, ITALY.....

G. Magoulas, A. Stathaki & R. E. King. A Development System for the Design of Fuzzy Controllers. University of Patras, GREECE.....

**Panel Discussion T2-1 (10:45-12:15): Towards Autonomous Control Systems**

**Room: Macedonia**

Chairman P.J. Antsaklis, U of Norte Dame

**Session T2-2 (10:45-12:15): Stability & Control of Nonlinear Systems - Part A**

**Room: Vergina**

Chairman: J. Tsiniias, N.T.U.A.

Co-Chairman: G. Rovithakis, T.U.C.

J. Tsiniias. Global stabilization for planar nonlinear systems. National Technical University of Athens, GREECE.....

A. Cavallo & G. De Maria. Nonlinear Tracking Problem by a Sliding Manifold Approach. Universita di Napoli & Universita di Firenze, ITALY.....

R.A. Wright & C. Kravaris. Notions of Output Equivalence for Nonlinear Systems. Dow Chemical Company & University of Michigan, USA.....

R. Chabour & P. Florchinger. Exponential Mean Square Stability of Partially Linear Stochastic Systems. INRIA Lorraine & Universite de Metz, FRANCE..

F. Couenne-Celle, H. Hammouri, J.-C. Marques. A Separation Principle for dissipative Control Affine system. Universite Claude Bernard Lyon I, FRANCE.....

P. Florchinger. Dynamic Stabilization of Nonlinear Stochastic Systems. Universite de Metz, FRANCE.....

J.B. Pomet & C. Moog. To be announced. INRIA Sophia, FRANCE.....

**Session T2-3 (10:45-12:15): Generalized Systems**

**Room: Samaria**

Chairman: N. Karcanas, City U

Co-Chairman: K. Ozcaldiran, Bogazici U

N. Karcanas. Control Theory Issues and Problems in Global Instrumentation. City University, UK.....

C.F. Fragulis. A Closed Formula for the Determination of the Impulse Solutions of Linear Homogeneous Matrix Differential Equations. Aristotle University of Thessaloniki, GREECE.....

K. Ozcaldiran & E. Sevilgen. Observers for singular systems. Bogazici University, TURKEY.....

M.L. Corradini. Self-Bounded Controlled Invariant Subspaces for Singular Systems. Universita di Ancona, ITALY.....

C.F. Fragulis. Minimal Realizations of the Inverse of a Polynomial Matrix using Finite and Infinite Jordan Pairs. Aristotle University of Thessaloniki, GREECE..

C.F. Fragulis & A.I.G. Vardoulakis. Reachability of Polynomial Matrix Descriptions. Aristotle University of Thessaloniki, GREECE.....

**Session T3-1 (2:15-3:45): Neural Networks for Control - Part B**

**Room: Macedonia**

Chairman: A.G. Chassiakos, California State U

Co-Chairman: E.B. Kosmatopoulos, Tech. U of Crete



K. Warwick & N. Ball. Using Self-Organizing Feature Maps for Adaptive Control. University of Reading, U.K. ....

A.G. Chassiakos & S.F. Masri. Applications of neural networks to the identification of structural systems. California State University at Long Beach & University of Southern California, USA ....

T.V. Theodosopoulos & M.S. Branicky. A hierarchical algorithm for neural training and control. MIT, USA ....

E.B. Kosmatopoulos & M.A. Christodoulou. Stability, Robustness & Approximation Properties of Recurrent High Order Neural Networks. Technical University of Crete, GREECE ....

S. Panzieri & G. Ulivi. Experiments on Neural Control of a Flexible Manipulator. Universita degli Studi di Roma "La Sapienza", ITALY ....

C.M. Jubien & N.J. Dimopoulos. Identification of a PUMA-560 Two-Link Robot using a Stable Neural Network. University of Victoria, CANADA ....

**Session T3-2 (2:15-3:45): 2-D Systems - Part B**  
**Room: Vergina**

Organizer: T. Kaczorek, Warsaw Technical U  
Chairman: Mertzios, Democritus U  
Co-Chairman: T. Kaczorek, Warsaw Technical U

J. Gregor. On Implicit Linear  $n$ -D Systems. Czech Technical University, Czech Republic ....

I. Follynska. Grownall's Inequality for 2-D Systems. Technical University of Poznan, POL- AND ....

J. Klamka. Minimum Energy Control Problem for General Linear 2-D Systems in Hilbert Spaces. Silesian Technical University, POLAND ....

T. Kaczorek. Periodic Solutions to 2-D Constant Linear Systems. Warsaw Technical University, POLAND ....

A. Dzielinski & S. Skoneczny. Neural Network models for two-dimensional image processing and recognition. Warsaw University of Technology, POLAND ....

Panel Discussion

**Session T3-3 (2:15-3:45): Stability & Control of Nonlinear Systems - Part B**

**Room: Samaria**



Chairman: N. Kalouptsidis, U of Athens  
Co-Chairman: C.A. Floudas, Princeton U

P. Psarris & C. Floudas. An optimization approach for robust stability analysis of linear and nonlinear systems with parametric uncertainty. Princeton University, USA .....

R. Chabour & A. Ferfera. Stabilization of a Class of Discrete-Time Bilinear Systems. INRIA & URA-CNRS, FRANCE .....

L. de Re. Hybrid feedback linearizing control for bounded bilinear dyadic plants. ETH, SWITZERLAND .....

W.A. Cebuhar & P.J. Hubbard. Approximate optimal control for nonlinear systems. Queen's University, CANADA .....

R. Chabour & H. Hammouri. Stabilization of Bilinear systems using an Observer Configuration. INRIA LORRAINE & Universite Claude Bernard Lyon I, FRANCE

A.C. Kokossis & C.A. Floudas. On the integration of optimization and stability: the matrix measure relaxation method and its application to the optimal synthesis of complex nonlinear systems. Princeton University, USA .....

### WEDNESDAY, 23

Session W1-1 (8:45-10:15): Robust Identification & Control  
Room: Macedonia

Chairman: M.A. Dahleh, M.I.T.  
Co-Chairman: P. Voulgaris, U of Illinois at Urbana

J.S. Shamma.  $\ell^1$  Optimal Control with Nonlinear Full State Feedback. University of Texas at Austin, USA .....

M.A. Dahleh, T.V. Theodosopoulos & J.N. Tsitsiklis. The Sample Complexity of Worst-Case Identification of F.I.R. Linear Systems. M.I.T. USA .....

P. Voulgaris. Optimal  $\ell^\infty$  to  $\ell^\infty$  Estimation: A Model Matching Approach. University of Illinois at Urbana Champaign, USA .....

Y. Theodor & U. Shaked. A Nash Game Approach to Discrete-Time  $H_\infty/H_2$  Filtering. Tel Aviv University, ISRAEL .....

M.J. Grimble. Weighting Selection and Robustness of  $H_{\infty}$  Designs. University of Strathclyde, UK.....

F. Amato, G. Ambrosino, F. Garifalo, L. Glielmo & L. Verde. Robust Stability via Polytopic Set Covering. Università di Napoli "Federico II", ITALY.....

K.Y. Smyth, C. Yi & E. Rogers. Computable Performance Bounds for Linear Repetitive Processes. University of Exeter, Advanced Systems Research Group & University of Southampton, U.K.....

**Session W1-2 (8:45-10:15): Control of Linear Systems**  
**Room: Vergina**

Chairman: P.P. Groumpos, U of Patras  
Co-Chairman: A. Aspragathos, U of Patras

L. Chisci & E. Mosca. Stabilizing Predictive Control with Dynamic Weights. Università di Firenze, ITALY.....

A.V. Medvedev & H.T. Toivonen. Continuous-Time Deadbeat Observation Problem. Lulea University of Technology, SWEDEN & Abo Akademi, FINLAND.....

R. Suarez, J. Solis-Daum & J. Alvarez. Stabilization of Linear Controllable Systems by Means of Bounded Continuous Feedback Control. Universidad Autonoma Metropolitana-Iztapalapa, MEXICO.....

M. M'Saad, M. Tadjine & M. Bouslimani. Self-Tuning Partial State Reference Model Controllers with Loop Transfer Recovery. GDR CNRS "Automatique", FRANCE.....

S. Tzafestas & G. Vagelatos. On the Inverse Design Problem of GMBPC. National Technical University of Athens, GREECE.....

A.V. Pagalos & P.P. Groumpos. The effect of interconnections on the BAS regulator of large scale systems and the BAS regulator of  $N$  identical subsystems. University of Patras, GREECE.....

**Session W1-3 (8:45-10:15): Applications**  
**Room: Samaria**

Chairman: A. Ferrara, U of Genoa  
Co-Chairman: G. Stavrakakis, Technical U of Crete

A. Di Febbraro & A. Ferrara. A discrete event model for freeway systems. University of Genoa, ITALY.....

- A. Pouliezios, G. Stavrakakis & G. Tselentis. Detection of Multivariable System Noise Degradation. Technical University of Crete, GREECE .....
- P.A. Frick & T.Q. Doan. Combined Solutions of Optimal Control and System Parameter Identification Problems for Parallel Machines. University of Colorado at Colorado Springs, USA .....
- A. Tzes & P.-Y. Peng. Backpropagation Neural Network Control for DC-motor stiction compensation. Polytechnic University, USA .....
- K. Stamatis, P. Lyras, P. Foundas, P. Prokopiou, J. Konstantidis & G. Papadopoulos. Implementation of an Intelligent Distributed system for Industrial Control. University of Patras, GREECE .....
- D. Kazakos & T. Pimenides. Observer based control of culture fermentation processes. University of Patras, GREECE .....
- S.A. Manesis & T. Pimenides. Expert rule-based control to a fish generative-cumulative plant. University of Patras, GREECE .....

**Session W2-1 (10:45-12:15) : Modeling, Estimation and Control of Infinite Dimensional Systems**

**Room: Macedonia**

- Organizers: H.T. Banks, North Carolina State U  
& M.A. Demetriou, U.S.C.
- Chairman: H.T. Banks, North Carolina State U
- Co-Chairman: M.A. Demetriou, U.S.C.

H.T. Banks. Control of Smart Materials Structures. North Carolina State University, USA.

J.A. Burns. An application of robust control to nonlinear distributed parameter systems. Virginia Polytechnic Institute and State University, USA .....

M.A. Demetriou & I.G. Rosen. Adaptive estimation of a flexible beam via piezoceramic actuation. University of Southern California, USA.

F. Kappel. Parameter identification for state dependent delays originating from threshold conditions. University of Graz, AUSTRIA .....

K. Kunish. Parallel implementations of the augmented lagrangian method for parameter problems. University of Graz, AUSTRIA .....

M.D. Gunzburger. Computational techniques for flow control and optimization. Virginia Tech, USA .....

**Session W2-2 (10:45-12-15) : Linear Systems**

**Room: Vergina**

Chairman: A.I.G. Vardoulakis, U of Thessaloniki

Co-Chairman: M. Malabre, Ecole Centrale de Nantes

D. Aeyels & R. Sepulchre. Stability for time-variant differential equations. Universiteit Gent, BELGIUM .....

N.P. Karampetakis, A.C. Pugh, A.I.G. Vardoulakis & G.E. Hayton. Structural Properties of Inverse Linear systems. Aristotle University of Thessaloniki, GREECE, Loughborough University of Technology, U.K. & University of Hull, U.K. ....

M.E. Bonilla, M. Malabre & J.A. Cheang Wong. On the Use of Derivators (and Approximations) for Solving Basic Control Problems. Ecole Centrale de Nantes, FRANCE .....

I. G. Kevrekidis, R.A. Adomaitis, C.E. Frouzakis & R. Rico-Martinez. Noninvertibility and its role in the dynamics of adaptively-controlled systems University of Maryland & Princeton University, USA .....

N.P. Karampetakis & A.I.G. Vardoulakis. On the Solution Space of Discrete Time AR Representations. Aristotle University of Thessaloniki, GREECE .....

**Session W2-3 (10:45-12-15) : Intelligent Methods for Control**

**Room: Samaria**

Chairman: B.G. Mertzios, Democritus U

Co-Chairman: R.E. King, U of Patras

K.P. Valavanis & M.A. Bayoumi. A VLSI Based Architecture for Plan Formulation and Organization in Multisensory Robotic Systems. University of Southwestern Louisiana, USA .....

E. Dermatas, A. Nearchou & A. Aspragathos. Solving the inverse kinematic problem of a robot arm using the error back-propagation algorithm. University of Patras, GREECE .....

C. Tatsiopoulos & B.G. Mertzios. Ways to Improve Machine Learning and Intelligent Techniques. Democritus University of Thrace, GREECE .....

R. E. King & A. Stathaki. Rule-Based Industrial Neural Control. University of Patras, GREECE .....

O. Kosmidou, D. Zimeris & B.G. Mertzios. On the Robustness Aspects of Fuzzy Logic Controllers. Democritus University of Thrace, GREECE .....

S. Tzafestas, A. Triantafyllakis & G. Rizos. A New Heuristic Approach for Scheduling Dependent Tasks on Identical Machines to Minimize the Makespan. National University of Athens, GREECE .....

**Session W3-1 (2:15-3:45) : Filtering & Signal Processing**  
**Room: Macedonia**

Chairman: A.N. Venetsanopoulos, U of Toronto

Co-Chairman: S. Fioretti, U di Ancona

M. Zervakis & A.N. Venetsanopoulos. To be announced. University of Toronto, CANADA .....

S. Fioretti & L. Jetto. Low A-Priori Information Signal Modeling for Optimal Smoothing and Differentiation. Universita di Ancona, ITALY .....

M.G. Kazantzakis & E. Angelidis. A Mathematical Programming Method for Designing FIR Digital Filters with Nonuniform Frequency Samples. Hellenic Navy Research Center, GRE- ECE .....

P. Marino, R. Setola, F. Vasca & L. Glielmo. Kalman filtering in synchronous Frame for Parameter Estimation of Field Oriented Controlled Induction Machine. Universita di Napoli "Federico II", ITALY .....

G. Magoulas, A. Stathaki & R. E. King. A Learning Digital Laguerre Filter. University of Patras, GREECE .....

E. Angelidis & M.G. Kazantzakis. A Parallel LU-Decomposition Algorithm for Modeling Discrete Signals by Polynomial or Exponential Interpolation. Hellenic Navy Research Center, GREECE .....

**Session W3-2 (2:15-3:45): Control**  
**Room: Vergina**

Chairman: R. E. King, U of Patras

Co-Chairman: N.T. Koussoulas, U of Patras

S.S. Tsalidis & N.A. Aspragathos. Study of joint dynamic models used in computed-torque control of manipulators. University of Patras, GREECE .....

- F. Skiadas & N.T. Koussoulas. Properties of the Utopian Multiobjective Regulator. University of Patras, GREECE.....
- E.G. Stamatoukos & P.P. Groumpos. The block arrow structure (BAS) regulator versus the perturbation approach regulator. A comparison study. University of Patras, GREECE.....
- G.S. Stavropoulos & P.P. Groumpos. A comparison study on the decentralized discrete stochastic estimation problem. University of Patras, GREECE.....
- A.V. Pagalos & P.P. Groumpos. The effect of interconnections on the BAS regulator of large scale systems and the BAS regulator of  $N$  identical subsystems. University of Patras, GREECE.....
- C.A. Barbargires & C.A. Karybakas. Dead-Beat Response of SISO systems to Parabolic Inputs with Optimum Step and Ramp Responses. Aristotle University of Thessaloniki, GREECE.....
- N.T. Koussoulas & J. Vakalis. Approximations for Chaotic Systems via Stochastic Linear Systems - Experimental Results. University of Patras, GREECE.....