



Laboratoire  
**Automatique Appliquée**

Agréé en Février 2001  
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Grade : **Professeur**

**Publications Internationales :**

**Année 2013 :**

- S. Grouni, A. Aibeche, H. Akroum, " Dynamic Flux Observation on Variable Parameters in Field Oriented Control for Induction Machine Drives," in Chaos and Complex Systems, Proceedings of the 4th International Interdisciplinary Chaos Symposium, pp. 141-149, 2013,
- M.Kesraoui, A. Chaib, A. Madri And B. Hammani 'Using A Dfig based Wind Farm for Grid Node Reactive Power Compensation', International Journal of Renewable Energy Technology, IJRET, Vol.4, N°1, 2013.

**Année 2012 :**

- Kouadri Abdelmalek, Namoun Abdellah, Zelmat Mimoun et Aitouche Mohand Amokrane : A Statistical-based Approach for Fault Detection in a Three Tank System International Journal of Systems Science, 2012
- Kouadri Abdelmalek, AitoucheMohand Amokrane et Zelmat Mimoun: Variogram-based fault diagnosis in an interconnected tank system ISA Transactions, 2012.
- H. Akroum, M. Kidouche, A. Aibeche, " A dspace dsp Control Platform for V/F Controlled Induction Motor Drive and Parameters Identification," in Advances in Computer, Communication, Control and Automation, Lecture Notes in Electrical Engineering (LNEE), Vol. 121, pp 305-312, 2012.

**Année 2011 :**

- M.Kesraoui, A. Belkadi And N. Korichi, 'Maximum Power Point Tracker of a Wind Energy Conversion System', Renewable Energy, Vol. 36 (2011), Issue 10, Pages 2655-2662.
- M. Kesraoui, D. Acheli And A. Harfouche, 'Comparison of different wind farm layouts for a 25 MW project in the south west of Algeria', Renewable Energy and Power Quality Journal, Vol.9, May 2011.

- H. Habbi, M. Kidouche, M. Zelmat "Data-driven fuzzy models for nonlinear identification of a complex heat exchanger", Applied Mathematical Modelling (Elsevier), vol. 35(3), pp. 1470-1482, (2011).
- H. Habbi, M. Kidouche, M. Kinnaert, M. Zelmat "Fuzzy model-based fault detection and diagnosis for a pilot heat exchanger", International Journal of Systems Science (Francis & Taylor), vol. 42, n°.4, pp. 587-599, (2011).
- Chaib, D. Acheli And M. Kesraoui, '*Orientation system of solar panels based on a robot manipulator*', Renewable Energy and Power Quality Journal, Vol.9, May 2011.

**Année 2010 :**

- Kidouche M., Habbi H., « On Lyapunov stability of interconnected nonlinear systems: recursive integration methodology», Nonlinear Dynamics, Vol 60, N° 1, pp.183-191, (2010).
- Grouni S., Ibtiouen R., Kidouche M., Touhami O., « Novel loss optimization in induction machines with optimum rotor flux control», International Journal of Systems Control, Vol 1, N° 4, pp.163-169 (2010).
- Grouni S., Ibtiouen R., Kidouche M., Touhami O., « Real time rotor flux estimation for induction machine drives: an experimental approach», Journal of Electronics and Electrical Engineering, Vol 104, N° 8, pp.69-72 (2010).
- S. Grouni, R. Ibtiouen, M. Kidouche, O. Touhami, “Experimental Approach in Real Time of Rotor Flux Control For Vector Controlled Induction Machines Drives”, Elektronika Ir Elektrotehnika, October 2010, No. 8(104), pp. 69-73.
- S. Grouni, R. Ibtiouen, M. Kidouche, O. Touhami, “On line Estimator time constant rotor with optimum flux for Induction Motor drives”, Chapter 11, New Trends in Advanced Technologies, Intechweb.org, and Jan. 2010, Vukovar, Croatia, pp.201-212.
- S. Grouni, R. Ibtiouen, M. Kidouche, O. Touhami, “Application indirect field oriented with optimum Flux for Induction Motor drives”, Advanced Techniques in Computing Sciences and Software Engineering, Published by Springer, 2010, pp.7-11.
- Akroum H., Kidouche M., Grouni S., Zelmat M., «A Perfectly symmetrical configuration in dual-bridge inverter topology for maximum mitigation of EMI, common-mode voltages and common-mode currents», Journal of Electronics and Electrical Engineering, Vol 103, N° 7, pp.51-56 (2010).
- Kouadri A., Chiter L., Zelmat M., «A radial basis function neural network optimized through modified Direct algorithm based-model for a three interconnected water tank», Journal of Discrete Mathematical Sciences & Cryptography, Vol 13, N° 2, pp.185-200 (2010).

- Hafaifia A., Laaouad F., Laroussi K., « Fuzzy Logic Approach Applied to the Surge Detection and Isolation in Centrifugal Compressor », Automatic Control and Computer Sciences, Vol 44, (2010).

**Année 2009 :**

- Hafaifia A., Laaouad F., Guemana M., « A New Engineering Method for Fuzzy Reliability Analysis of Surge Control in Centrifugal Compressor », American Journal of Engineering and Applied Sciences, Vol 2, pp.676-682, (2009).
- Laroussi K., Zelmat M., Hafaifia A., « New Approach for a Supervisor of the PI Controller Parameters Applied for Induction Motor », International Review of Automatic Control, Vol 2, N° 5, pp.535-541, (2009).
- Hafaifia A., Laaouad F., Laroussi K., « Centrifugal compressor surge detection and isolation with fuzzy logic controller », International Review of Automatic Control, Vol 1, N° 2, pp.535-541, (2009).
- Habbi H., Kidouche M., « A combined LQG/LTR and Fuzzy logic strategy for the improved control of a drum-type boiler turbine plant », International Journal of control and intelligent systems, Vol 37, N°2, pp. 114, (2009).
- Grouni S., Kidouche M., « Experimental optimum flux control for vector controlled induction machines drives », International Journal of Factory Automation, ISSUE 3, pp. 122-126, (2009).

**Année 2008 :**

- Airouche M., Zelmat M., Kidouche M., « Statistical edge detectors applied to SAR images », International Journal of Computers, Vol 3, pp. 144-149, (2008).
- Grouni S., Kidouche M., « Improvement Approach on Rotor Time Constant Adaptation with Optimum Flux in IFOC for Induction Machines Drives », International Journal of Mathematical, Physical and Engineering Sciences, Vol 2, N° 3, pp. 121-125, (2008).
- Kidouche M., Habbi H., Zelmat M., « Stability of interconnected systems under structural perturbations: Decomposition-aggregation approach », International Journal of Mathematical, Physical and Engineering Sciences, Vol 2, N°3, pp. 116-120, (2008).
- Kidouche M., Habbi H., Zelmat M., Grouni S., « The first integral approach in stability problem of large scale nonlinear dynamical systems », International Journal of Computer Science, Vol 3, N°2, pp. 131-136, (2008).

**Année 2007 :**

- Laaouad F., Hafaifa A., Iratni A., « Non linear sensitive control of centrifugal compressor », International Journal of Applied Mathematics and computer Sciences, Vol 4, N°2, pp. 669-674, (2007).
- Laaouad F., Hafaifa A., Laroussi K., « A nonlinear model for a turbo compressor using fuzzy logic approach », WSEAS Transactions on Systems and Control, Issue 2, Vol 4, pp. 242-247, (2007).
- Bendib R., Khelassi A., « The assessment of interactions in ratios control schemes for a binary distillation column », International Journal of Applied Science Engineering and technology, Vol 4, N°4, pp. 217-222, (2007).

**Année 2006 :**

- Bendib R., Khelassi A., « Assessment of the effect of feed plate location on interactions for a binary distillation column », Transaction on Engineering, Comuting and Technology, Vol 17, pp. 314-318, (2006).
- Kidouche M., Charef A., « Constructive methodology of Lyapunov function of composite system with nonlinear interconnection term », International Journal of Robotic and Automation, vol 21, N° 1, pp. 19-24, (2006).

**Année 2005 :**

- Khelassi A., Laaouad F., Bouyahiaoui C., Grégoriev L., « Optimal fuzzy control to reduce energy consumption in distillation columns », Issue ,Vol 66, N° 2, pp. 200-208, (2005).
- Madi M., Diaf M., Khelassi A., Bouyahiaoui C., « Non-Interacting fuzzy control system design for distillation columns », Issue 4, Vol 4, pp.345-351, (2005).
- Hafaifa A., Laaouad F., Laroussi K., « A new control system design of compression systems using fuzzy control algorithms », Journal of Automatic Control and System Engineering, Vol 5,Issue 3, (2005).

**Année 2004 :**

- Hafaifa A., Laaouad F., Benani A., « Selection of the correct transmitter in compression systems for surge detection and isolation », International Journal of Computational Intelligence, Vol 1, N° 1, (2004).

**Année 2003 :**

- Habbi H., Zelmat M., Ould Bouamama B., « A dynamic fuzzy model for a drum-boiler-turbine system, » Automatica, Vol 39, pp. 1213-1219, (2003).