

# CURRICULUM VITAE

of

## Pr. SEDRAOUI MOUSSA

### • CURENT POSITIONS

Professor/ Electromagnetism team leader in Laboratoire des Télécommunications (LT)/  
Department of Electronics and Telecommunications/ Faculty of Sciences and Technology/  
university of 8 Mai 1945 Guelma, Algeria

- Google Scholar Link:

[https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&q=sedraoui%20moussa&oq=](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=sedraoui%20moussa&oq=)

- Research gate Link: [https://www.researchgate.net/profile/Sedraoui\\_Moussa](https://www.researchgate.net/profile/Sedraoui_Moussa)

- Scopus profile Link: <https://www.scopus.com/authid/detail.uri?authorId=24077366300>

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### • CONTACT INFORMATION

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### • EDUCATIONS, DIPLOMAS, EXPERIENCES

- **1993:** Baccalaureate in mathematic
- **1994:** Second baccalaureate in nature science
- **1999:** State engineer in Automation. University of Annaba, Algeria.
- **2001:** Magister in control engineering, University of Constantine, Algeria.
- **2009:** Doctorate in control engineering. University of Constantine, Algeria.

- **2012:** Habilitation in electrical engineering, University 8 Mai 1945, Guelma-Algeria
- **2017:** Professor in electronic engineering, University 8 Mai 1945, Guelma-Algeria
- **2000-2004 :** State engineer in ammonia NH<sub>3</sub> industry (FERTIAL factory of Annaba)
- **2004-2009:** Teacher researcher in Cheikh Larbi Tébessi- Tébessa University. Algeria
- **2009-2020:** Teacher researcher in 8 May 1945 Guelma University, Algeria

### • TEACHING ACTIVITIES

- Sensors and actuators
- Metrology and instrumentation
- Control of discrete time systems
- Reliability
- Bio-inspired optimization algorithms
- Multivariable and optimal controls

### • RESEARCH KEYWORDS

- Heuristic and meta-heuristic optimization algorithms
- Robust and predictive controls
- Robustification of the standard controllers
- Fractional calculus.

### • PNR, CNEPRU and PRFU PROJECTS

- **2011-2013:** PNR titled: Imagerie 2D. 3D en radiographie osseuse. (Project member).
- **2010-2013:** CNEPRU titled: Approche multi-modèles pour la détection et l'isolation des défauts dans les procédés dynamiques non linéaires. **Code number:** J0202920090012. (Project member).
- **2014-2017:** CNEPRU titled: Robustification de la commande prédictive généralisée polynomiale par l'utilisation de la para-métrisation de Youla et l'optimisation heuristique moderne. **Code number:** A10N01UN240120140005. (Project head).
- **2018-2021:** PRFU titled: Apport des principales approches avancées dans la modélisation et la commande robuste des systèmes de production d'énergies renouvelables. **Code number:** A25N01UN240120180002. (Project head).

## • DEFENDED DOCTORAL THESIS

- 1- *Robustification d'un contrôleur fractionnaire par l'introduction de l'ordre non entier dans la sensibilité mixte.* **Doctorat student:** Amieur Toufik. **Supervisor:** Sedraoui Moussa. Doctorate thesis in science supported in the **July 9<sup>th</sup>, 2017**.
- 2- *Commande non linéaires des systèmes photovoltaïques.* **Doctorat student:** Bechouat Mohecene. **Supervisor:** Sedraoui Moussa. Doctorate thesis in science supported in the **December 7<sup>th</sup>, 2017**.
- 3- *Modélisation et commande d'un système éolien.* **Doctorat student:** Kahla Sami. **Supervisor:** Sedraoui Moussa. Doctorate thesis in science supported in the **May 15<sup>th</sup>, 2018**.
- 4- *Robustification de la forme polynomiale de la loi de GPC en utilisant les transferts d'ordre entier.* **Doctorat student:** Aidoud Mohammed. **Co-supervisor:** Sedraoui Moussa. Doctorate thesis in science supported in the **June 19<sup>th</sup>, 2018**.
- 5- *Synthèse d'un prédicteur de Smith (SP) par l'utilisation des transferts d'ordre non entier.* **Doctorat student:** Djabri Riadh. **Supervisor:** Sedraoui Moussa. Doctorate thesis in science supported in the **July 4<sup>th</sup>, 2018**.
- 6- *Robustification d'un contrôleur conventionnel par un transfert d'ordre non entier.* **Doctorat student:** Guessoum Hanni. **Supervisor:** Sedraoui Moussa. Doctorate thesis in science supported in the **May 2<sup>nd</sup>, 2019**.
- 7- *Reconnaissance automatique de visage.* **Doctorat student:** Boualleg Abdelhalim. **Supervisor:** Sedraoui Moussa. Doctorate thesis in science supported in the **Mars, 2020**.

## • DEFENDED OF THE MASTER THESIS

- Etude comparative entre les contrôleurs  $H_{\infty}$  & RST-GPC . State engineer supported in the **June, 2005**.
- Robustification de la Loi de GPC sous contraintes. State engineer supported in the **June, 2006**.
- Commande robuste des procédés multi variables par les méthodes:  $H_{\infty}$  et les gains principaux. State engineer supported in the **June, 2006**.
- Commande prédictive généralisée multi variable algorithmique et polynomiale. State engineer supported in the **June, 2007**.
- Commande prédictive généralisée sous contraintes utilisant la méthode économique "Economical Method". State engineer supported in the **June, 2008**.

- Synthèse d'un régulateur PID d'ordre non entier par l'optimisation non linéaire sous contraintes. State engineer supported in the **June, 2009**.
- Commande robuste d'une machine asynchrone à double alimentations par la méthode  $H_\infty$ . State engineer supported in the **June, 2011**.
- Commande robuste d'ordre non entier (CRONE). Master student: Zeghoum Amine. **Supervisor:** Sedraoui Moussa. Master thesis in electronic supported in the **June, 2012**.
- Synthèse d'un contrôleur robuste par le principe du Prédicteur de Smith. **Master student:** Boudouda Abdelhalim. **Supervisor:** Sedraoui Moussa. Master thesis in electronic supported in the **June, 2013**.
- Commande prédictive généralisée sous contraintes d'un processus non linéaire. **Master student:** Layada Lazhar. **Supervisor:** Sedraoui Moussa. Master thesis in electronic supported in the **June, 2015**.
- Une solution par la méthode de Dichotomie de la loi de la commande prédictive généralisée sous contraintes. **Master students:** Medjeldi Mehdi and Atietallah Ahmed. **Supervisor:** Sedraoui Moussa. Master thesis in electronic supported in the **June, 2016**.
- Commande robuste d'un moteur synchrone à aimant permanent (PMSM). **Master students:** Zerig Hamza. **Supervisor:** Sedraoui Moussa. Master thesis in instrumentation supported in the **June, 2017**.
- Commande robuste d'un moteur synchrone à aimant permanent en utilisant les pondérations fixes et ajustables. **Master students:** Benzitouni Moudjib. **Supervisor:** Sedraoui Moussa. Master thesis in instrumentation supported in the **June, 2018**.
- Modélisation avancée d'un panneau solaire. **Master students:** Haddad Ismail. **Supervisor:** Sedraoui Moussa. Master thesis in instrumentation supported in the **June, 2019**.
- Modélisation et commande d'un système hydraulique à surface libre. Application sur un canal d'irrigation. **Master students:** Mehallel aissa. **Supervisor:** Sedraoui Moussa. Master thesis in instrumentation supported in the .....

#### • EXTERNAL SCIENTIFIC COLLABORATIONS

##### • French:

- Ecole Nationale Supérieure d'Ingénieurs de Poitiers (ENSIP). Laboratory of Automation and Applied Computer Science (**LAII**). Poitiers, Franch.

- L'Institut national d'horticulture (**INH**). Institut des Sciences et Techniques de l'Ingénieur (**ISTIA**). Angers, France.

- **Switzerland:**

- Pervasive Artificial Intelligence (**PAI**) laboratory. Informatics department. Fribourg University, Switzerland.
- Institut d'Automatisaion Industrielle (**IAI**). HEIG-VD. University of Yverdon-les-Bains, Switzerland.

- **Spain:**

- Automation and Robotics Group (**ARG**), Universidad de Castilla-La Mancha- UCLM, Spain

- **Turkey:**

- Laboratory of PID and sliding mode controls. University of Balikesir, Turkey.

- **SCIENTIFIC ANIMATIONS**

- **2011:** Member of the scientific program of the international Conference on Signal, Image, Vision and their Applications (SIVA'11). November 21-24, 2011. Guelma University. Algeria.
- **2013 :** Reviewer in the Chemical Engineering Communications journal (Francis & Taylor) USA.
- **2016:** Reviewer in the Transactions of the Institute of Measurement and Control (SAGE). UK.
- **2017:** Member of the scientific program of the Algerian Summer School on Signal Processing and its Applications 'Signal Processing for Telecommunications'(A3SPA'2017). December, 2018. Guelma University. Algeria.
- **2018:** Member of the scientific program of the third International Conference on Technological Advanced in Electrical Engineering ICTAEE'18. December 10-11, 2018. Skikda University. Algeria.

- **INTERNATIONAL PUBLICATIONS**

1. **Sedraoui M., Kemih K., & Filali S., (2007).** "Different Methods to Control Nonlinear Systems Adapted to the Constrained Generalized Predictive Control". International Journal of Computer Sciences and Engineering Systems. Vol. 1(2), pp. 139-147, 2007. (**Journal rank C**)

- 2.** Sedraoui M., (2008). "Application of the Multivariable Predictive Control on a Distillation Column Using the Optimization Methods". Control and Intelligent System. ACTA Press. Vol. 36(1), pp. 111-118, 2008. (**Journal rank B**).
- 3.** Gherbi S., Yahemdi S., Sedraoui M., (2009). "Robust H<sub>infinity</sub> Control of a Doubly Fed Asynchronous Machine". International Journal of Computing and Informatics. Informatica. Vol.33 (2), pp. 151-158, 2009. (**Journal rank B**).
- 4.** Belfedal Ch., Gherbi S., Sedraoui M., Moreau S., Champenois G., Allaoui, T, & Denai, M. A (2010). "Robust Control of Doubly Fed Induction Generator for Stand- Alone Applications". Electric Power Systems Research. Science direct, Elsevier. Vol.80, pp. 230 – 239, 2010. (**Journal rank A**)
- 5.** Sedraoui M., Gherbi S., & Abdelmalik S., (2011). "Multivariable Generalized Predictive Control Using An Improved Particle Swarm Optimization Algorithm". International Journal of Computing and Informatics. Vol.35 (3) pp. 363-374, 2011. (**Journal rank A**)
- 6.** Sedraoui M., & Boudjehem Dj., (2012). "Robust Fractional Order Controller Based on Improved PSO Algorithm for the Wind Turbine Equipped with a Doubly Fed Asynchronous Machine". Proceedings of the Institution of Mechanical Engineers, Part I, Journal of Systems and Control Engineering. Vol. 226(9) pp. 1274 – 1286, 2012. (**Journal rank A**)
- 7.** Gherbi S., Sedraoui M., Lachouri A., & Mehennaoui L., (2012). "A New Design Method of Mismatched Smith Predictor (optimization approach)". Journal of Control Engineering and Applied Informatics. Vol.14 (2). pp. 21-27, 2012. (**Journal rank A**)
- 8.** Sedraoui M., Gherbi S., & Abdelmalek S., (2012). « A Robust Controller Based on Fractional Structure for MIMO Plant with Multiple Delays ». Control and Intelligent system, ACTA press. Vol.40 (2) pp. 83-94, 2012. (**Journal rank B**)
- 9.** Boudjehem Dj., Sedraoui M., & Boudjehem B., (2013). "A Fractional Model for Robust Fractional Order Smith Predictor". Nonlinear Dynamics journal. Springer. Vol.73 (1). pp. 1557–1563, 2013. (**Journal rank A**)
- 10.** Kahla S., Soufi Y., Sedraoui M., & Bechouat, M., (2015). « On-Off Control Based Particle Swarm Optimization for Maximum Power Point Tracking of Wind Turbine Equipped by DFIG Connected to the Grid with Energy Storage». International Journal of Hydrogen Energy. Vol.40. pp. 13749-13758, 2015. (**Journal rank A**)

- 11.** Bechouat M., Soufi Y., **Sedraoui M.**, & Kahla S., **(2015)**. "Energy Storage Based on Maximum Power Point Tracking in Photovoltaic Systems: A Comparison between GAs and PSO Approaches". International Journal of Hydrogen Energy. Vol.40. pp. 13737-13748, 2015. (**Journal rank A**)
- 12.** Aidoud M., **Sedraoui M.**, Lachouri A., & Boualleg AH., **(2016)**. "Robustified GPC Controller Based on  $H_\infty$  Robust Control For an Hydraulic Actuator". Vol.38 (7), pp 2181–2188, 2016. Journal of the Brazilian Society of Mechanical Sciences and Engineering. Springer Berlin Heidelberg. (**Journal rank A**)
- 13.** Bouiadra Bachir R., Khelfi MF., Salem M., & **Sedraoui M.**, **(2016)**. "Nonlinear  $H_\infty$  Control via Measurement Feedback using Neural Network". Vol.39 (4), pp 1109–1118, 2016. Journal of the Brazilian Society of Mechanical Sciences and Engineering. Springer Berlin Heidelberg. (**Journal rank A**)
- 14.** **Sedraoui M.**, Amieur T., Bouiadra Bachir R., & Sahnoun M., **(2017)**. "Robustified Fractional-Order Controller Based on Adjustable Fractional Weights for a Doubly Fed Induction Generator". Vol.39 (5). PP. 660–674, 2016. Transactions of the Institute of Measurement and Control. (**Journal rank A**)
- 15.** Bechouat M., **Sedraoui M.**, Soufi Y., & Kahla S., **(2017)**. "Particle Swarm Optimization Backstopping Controller for a Grid-Connected Pv/Wind Hybrid System". Journal of Engineering Science & Technology Review. Vol.10 (1), PP. 91-99, 2017. (**Journal rank B**)
- 16.** Djabri R., **Sedraoui M.**, & Younsi A., **(2017)**. "A New Design for a Robust Fraction Smith Predictor Controller Based Fractional Model". Vol.30 (1): pp.221-242, 2017. Leonardo Electronic Journal of Practices and Technologies (LEJPT). (**Journal rank C**)
- 17.** Bechouat M., **Sedraoui M.**, Yousfi L., Tabet I., & Touafek KH., **(2017)**. "Parameters identification of a photovoltaic module in a thermal system using meta-heuristic optimization methods". Vol. 8(4). PP. 331-341, 2017. International Journal of Intelligent Engineering and Systems (IJIES). (**Journal rank B**)
- 18.** Kahla S., Soufi Y., **Sedraoui M.**, Bechouat M., **(2017)**. "Maximum Power Point Tracking of Wind Energy Conversion System Using Multi-objective grey wolf optimization of Fuzzy-Sliding Mode Controller". Vol. 7(2), PP. 926-936. 2017, International Journal of Renewable Energy Research (IJRER). (**Journal rank B**)

- 19.** Kahla, S., **Sedraoui, M.**, Bechouat, M., & Soufi, Y. **(2018)**. *Robust Fuzzy On-Off Synthesis Controller for Maximum Power Point Tracking of Wind Energy Conversion*. Vol. 19(2). PP. 146-156. *Transactions on Electrical and Electronic Materials*. **(Journal rank B)**
- 20.** Kahla, S., Sedraoui, M., Soufi, Y., & Bechouat, M. **(2018)**. *Improved Sliding Mode Controller for Maximum Power Point Tracking of WECS*, Vol. 66(1). PP. 29-35. 2018. *Electrotehnica, Electronica, Automatica*. **(Journal rank B)**
- 21.** Amieur, T., **Sedraoui, M.** and Amieur, O., **(2018)**. Design of Robust Fractional-Order PID Controller for DC Motor Using the Adjustable Performance Weights in the Weighted-Mixed Sensitivity Problem. *International Journal of Robotics and Automation (IJRA)*, 7(2), pp.108-118. **(Journal rank A)**
- 22.** Menasria, A., Bennia, A., Nemissi, M., & **Sedraoui, M.** **(2018)**. *Multiclassifiers system for handwritten Arabic literal amounts recognition based on enhanced feature extraction model*. Vol. 27(3), 033024. *Journal of Electronic Imaging*. **(Journal rank A)**
- 23.** Bouiadra, R. B., **Sedraoui, M.**, & Younsi, A. **(2018)**. *Robust fractional PID controller synthesis approach for the permanent magnetic synchronous motor* Vol. 9(12). PP. 2027-2041. *International Journal of Machine Learning and Cybernetics*. **(Journal rank A)**
- 24.** Aidoud, M., **Sedraoui, M.**, Lachouri, A., & Boualleg, A. **(2018)**. *A robustification of the two degree-of-freedom controller based upon multivariable generalized predictive control law and robust  $H\infty$  control for a doubly-fed induction generator*. Vol. 40(3). PP. 1005-1017. *Transactions of the Institute of Measurement and Control*. **(Journal rank A)**
- 25.** Aidoud M, Feraga C-E., Bechouat M., Sedraoui M., Kahla S., **(2019)**. *A Comparative Analysis Of Different Photovoltaic Cells Models Based On Fundamental Modeling Approaches*. Vol. 7(2). PP. 21-26.. *International Journal of Scientific Research & Engineering Technology (IJSET)*. **(Journal rank C)**
- 26.** Aidoud, M., Feraga, C. E., Bechouat, M., **Sedraoui, M.**, & Kahla, S. **(2019)**. *Development of photovoltaic cell models using fundamental modeling approaches*. Vol. 162(1). PP. 263-274. *Energy Procedia*. **(Journal rank B)**
- 27.** Bouyedda, H., Ladaci, S., **Sedraoui, M.**, & Lashab, M. **(2019)**. *Identification and control design for a class of non-minimum phase dead-time systems based on fractional-order Smith predictor and genetic algorithm technique*. *International Journal of Dynamics and Control*, 1-12. **(Journal rank B)**

- 28.** Ikni, S., Abed, D., Redadaa, S., & **Sedraoui, M.** **(2019).** *PAPR reductions in FBMC-OQAM systems based on discrete sliding norm transform technique. Systems. Vol. 62(2). PP. 51-60. Radio-electronics and Communications.* **(Journal rank B)**
- 29.** Guessoum, H., Feraga, C. E., Mehennaoui, L., **Sedraoui, M.**, & Lachouri, A. **(2019).** *A robust performance enhancement of primary  $H\infty$  controller based on auto-selection of adjustable fractional weights: Application on a permanent magnet synchronous motor. Vol 41(11). PP. 3248-3263. Transactions of the Institute of Measurement and Control.* **(Journal rank A)**
- 30.** Feraga, C. E., **Sedraoui, M.**, & Bouiadjra, R. B. **(2019).** *Enhanced Indirect Field-Oriented Control of Single-Phase Induction Motor Drive Using  $H\infty$  Current Controller. Vol. 44(8). PP. 7187-7202. Arabian Journal for Science and Engineering.* **(Journal rank A)**
- 31.** Bechouat, M., **Sedraoui, M.**, Feraga, C. E., Aidoud, M., & Kahla, S. **(2019).** *Modeling and Fuzzy MPPT Controller Design for Photovoltaic Module Equipped with a Closed-Loop Cooling System. Journal of Electronic Materials, 1-10* **(Journal rank A)**
- 32.** Boualleg AH., Deriche M., **Sedraoui M.**, *An Improved Weber Face Based Method For Face Recognition Under Uncontrolled Illumination Conditions.* **(2020).** "International Journal of Biometrics" (in press) **(Journal rank B)**

## • INTERNATIONAL CONFERENCES

1. Filali Salim, & **Sedraoui Moussa.** **(2003).** "Some Solutions to Multivariable Generalized Predictive Control under Constraints on the Input Signals". Computational Engineering in Systems Application (CESA' 2003). 9-11, July 2003, Ecole Centrale de Lille, France.
2. **Sedraoui Moussa**, & Filali Salim. **(2005).** "Robustification du Régulateur GPC". Sixième Conférence Internationale des Sciences et des Techniques de L'Automatique (STA'2005). 19 – 25 décembre 2005- Sousse, Tunisie.
3. **Sedraoui Moussa**, & Salim Filali. **(2006).** "Robustification de la forme polynomial de la loi GPC". 4éme Conférence Internationale (JTEA'2006). 12 - 14 Mai 2006- École Supérieure des Sciences et Techniques de Tunis, Hammamet, Tunisie.
4. **Sedraoui Moussa**, & Amara Korba Mohamed Cherif **(2010).** "Obtained Of Fractional Multivariable PID By Resolving Of Non Smooth Optimization Problem". Onzième Conférence Internationale des Sciences et des Techniques de L'Automatique (STA'2010). 19 - 21 Décembre 2010. El Monastir, Tunisie.

5. Gherbi Sofiane, **Sedraoui Moussa (2011)**. "Réglage optimal d'un contrôleur basé sur le principe de Smith Predictor". First international conference on Signal, Image, Vision and their Applications (SIVA'11). November 21-24, 2011. Guelma University. Algeria.
6. **Sedraoui Moussa**, Gherbi Sofiane, Abdelmalek Samir **(2011)**. "Synthèse d'un contrôleur fractionnaire par l'algorithme d'essaims particulaire". First international conference on Signal, Image, Vision and their Applications (SIVA'11). November 21-24, 2011. Guelma University. Algeria.
7. Chenikher Salah, Abdelmalek Samir, & **Sedraoui Moussa (2012)**. "*Control of uncertainly multi-variable system with Fractional PID*". 16<sup>th</sup> IEEE Mediterranean conference on Electro-technical (MELECON'2012). pp.1079 - 1082, 2012.
8. Hassaine S., Moreau S., Gherbi S., **Sedraoui M.**, & Mazari B. **(2012)**. "*Real Time Implementation of Robust Controller for PMSM Drive System Using  $H_\infty$  Norm*". The 38<sup>th</sup> IEEE Annual Conference on Industrial Electronics Society (IECON'2012). Montréal, Canada. pp. 1976 – 1981, 2012.
9. Abdelmalek S., **Sedraoui, M.**, & Dali A. **(2013)**. "*Control of DFIM Machine with Fractional  $PID^\mu$  controllers*". The international conference on electronics & oil: from theory to applications (ICEO'2013). March 05-06, 2013, Ouargla, Algeria.
10. Amieur Toufik, **Sedraoui Moussa**, Amieur Oualid, Djeddi Abdelghani, & Houam Yahia **(2014)**. "*Adaptive Fuzzy Sliding Mode Control for Uncertain Nonlinear SISO Systems*". The 15<sup>th</sup> IEEE international conference on Sciences and Techniques of Automatic control & computer engineering (STA'2014). 21-23 Dec. 2014. pp. 142 – 147, 2014.
11. Kahla Sami, Soufi Youcef, **Sedraoui Moussa**, & Bachouat Mohcen **(2014)**. "*On-Off Control Based Particle Swarm Optimization for Maximum Power Point Tracking Of Variable Speed Wind*". 2<sup>ème</sup> Conférence Internationale des Energies Renouvelables (CIER'14). Monastir, Tunisie, 2014.
12. Bachouat Mohcen, Kahla Sami, Soufi Youcef, & **Sedraoui Moussa (2014)**. "*Maximum Power Point Tracking for Photovoltaic Systems: a Comparison between GAs and PSO Approaches*". 2<sup>ème</sup> Conférence Internationale des Energies Renouvelables (CIER'14). Monastir, Tunisie, 2014.
13. Kahla Sami, Soufi Youcef, **Sedraoui Moussa**, & Bachouat Mohcen **(2014)**. "*Sliding Mode Control Based Bacterial Foraging Optimization of Wind Energy Conversion Systems*".

International Conference on NDT and Materials Industry and Alloys (IC-WNDT-MI'14), Annaba, Algeria, 2014.

14. Amieur Toufik, **Sedraoui Moussa**, Amieur Oualid, Djeddi Abdelghani, & Houam Yahia **(2014)**. «*Adaptative Fuzzy Sliding Mode Control*». International Conference On Electro-Energy (ICEE'2014). Skikda, Algeria, 2014.
15. Soufi Youcef, Kahla Sami, Bachouat Mohcen, & **Sedraoui Moussa (2014)**. “*Particle Swarm Optimization Based Sliding Mode Control of Variable Speed Wind Energy Conversion Systems*”. 4ème International conference on Nuclear and Renewable Energy Resource (NURER'14). Antalya, Turkey, 2014.
16. Amieur Toufik, **Sedraoui Moussa**, Taibi Djamel, Djeddi Abdelghani, & Guessoum Hanni **(2015)**. “*A Robust Fractional Controller Based on Weighted- Mixed Sensitivity Optimization Problem for Permanent Magnet Synchronous Motor*”. 3ème conference Internationale des énergies renouvelables (CIER'15). Proceedings of Engineering and Technology – PET. Vol.(10). pp. 1-6, 2015.
17. Amieur Toufik, **Sedraoui Moussa**, Taibi Djamel, Djeddi Abdelghani, & Guessoum Hanni **(2015)**. “*Design of Fractional Order PID Controller for DC Motor*”. 3ème conférence Internationale des énergies renouvelables (CIER'15). Vol.10. pp.1-6, 2015.
18. Bouadjra Bachir Rochdi, **Sedraoui Moussa**. **(2016, November)**. Fixed-order  $\mathcal{H}^\infty$  controller based on HIFOO for a Doubly-Fed Induction Generator wind turbine. International Conference In Renewable and Sustainable Energy (IRSEC), 2016 (pp. 485-490). IEEE.
19. Amieur Toufik., Younsi Abdelaziz, Aidoud Mohammed, **Sedraoui Moussa**, & Amieur, Oualid. **(2017, March)**. Design of robust fractional order PID controller using fractional weights in the mixed sensitivity problem. 14th International Multi-Conference on Systems, Signals & Devices (SSD) IEEE (pp. 549-553). 2017
20. Younsi Abdelaziz, Amieur Toufik, Amieur Oualid, **Sedraoui Moussa**, Taibi Djamel **(2017, March)**. Adaptive fuzzy sliding mode control based on linear matrix inequalities for nonlinear systems. In Systems, Signals & Devices (SSD), 2017 14th International Multi-Conference on (pp. 287 - 292). IEEE.
21. M. Aidoud, C-E. Feraga, M. Bechouat, **M. Sedraoui**, S. Kahla, **(2018)**. «*A Comparative Analysis Of Different Photovoltaic Cells Models Based On Fundamental Modeling*

Approaches» pp: 320-3265th International Conference on Automation, Control Engineering and Computer Science (ACECS-2018) Hammamet - Tunisia, 19-22 December 2018. ISSN: 1737-9334.

22. Toufik Amieur, **Moussa Sedraoui** and Chams-Eddine Feraga **(2018)**. «Robust Fractional PID Controller with Fractional Weights Selection for Pneumatic Manipulator Using Fminimax Optimization Technique» pp:1-6. Proceedings of 3rd International Conference on Recent Advances in Electrical Systems (ICRAES'18) Hammamet - Tunisia, 23-25 December 2018, ISBN 978-9938-9937-1-4.
23. Bechouat Mohcene, **Sedraoui Moussa**, Feraga Chams-Eddine and Kahla Sami **(2018)**. «Traditional MPPT Algorithms Applied to Different Models of Photovoltaic System» pp:195-199. Proceedings of 3rd International Conference on Recent Advances in Electrical Systems (ICRAES'18) Hammamet - Tunisia, 23-25 December 2018, ISBN 978-9938-9937-1-4.
24. L. Abderrazak T. Amieur, **M. Sedraoui**, C-E. Feraga, M.Bechouat **(2018)**. «Off-line Robustification of Adaptive Fuzzy Sliding Mode Control Law for Multi-Input Multi-Output Nonlinear Systems» Third International Conference on Technological Advances in Electrical Engineering ICTAEE'18, December 10-11, 2018, Skikda, Algeria.
25. Mohcene Bechouat, Chams-Eddine Feraga, Mohammed El hadi Attia and **Moussa Sedraoui (2018)**. «Improved Perturb & Observe Method by Particle Swarm Optimization Algorithm for Photovoltaic System» *International Symposium on Mechatronics & Renewable Energies* (ISMRE'2018).
26. Toufik Amieur, **Moussa Sedraoui** and Chams-Eddine Feraga Mohcene Bechouat **(2018)**. «Improved Trade-off Between Nominal Performance and Robust Stability For Permanent Magnet Synchronous Motor Speed Control based using an automatic selection of adjustable Fractional Weights in the Weighted-Mixed Sensitivity Problem» pp:. 2nd International Conference on Electrical Engineering (ICEEB'18) 2-3 December 2018, Biskra, Algeria.
27. AH Boualleg, M., Deriche, H Bourouba, **M Sedraoui**, H., Doghmane and A. Menasria **(2018)**. "Enhanced face recognition under varying conditions using a Weber-Face combined with local phase quantization " Proceedings of the International Conference on Recent Advances in Electrical Systems, Tunisia, 2018 , Dec 23-25, 2018.

- 28.** Azzeddine Menasria, Abdelhak Bennia, Boualleg Abdelhalim and **Moussa Sedraoui** (**2018**) "Recognition of Handwritten Arabic literal amounts Using Neural Networks" International Conference on Recent Advances, Dec 23-25, 2018.
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