

**1- Name:** Ramdane HEDJAR,

**2- Education:**

- **Ph.D. in Electrical Engineering, USTHB University, Algiers, Algeria , December 2002,in collaboration with SUPELEC- Paris-France.**
- **M.S. in Electrical Engineering, Saad Dahlab University, Blida, , Algeria October 1992,**
- **B.S. in Electrical Engineering, USTHB University, Algiers, Algeria , June 1988.**

**3- Academic experience**

- Professor, Computer Engineering, King Saud University, KSA, (2015- ),
- Associate Professor, Computer Engineering, King Saud University, KSA, (2009-2015 ),
- Assistant Professor, Computer Engineering, King Saud University, KSA, (2004-2009),
- Lecturer, Computer Engineering, King Saud University, KSA, (2000-2004),
- Lecturer , Electrical Engineering, Djelfa University, Algeria, (1992-2000),
- Teaching Assistant, Electrical Engineering, Saad Dahlab University, Blida, , Algeria 1992 (1988-1992).

**4- Non-academic experience**

- Head of Electronics and Electrical Engineering Department, Djelfa University, Algeria, (1992-2000),
- Member of Scientific Council of Djelfa University from 1992 to 2000.

**5- Certifications or professional registrations : None**

**6- Current membership in professional organizations**

- **IEEE Senior member**

**7- Honors and awards**

- **Best teacher award by Djelfa University for the academic year: 1997-1998.**
- **Best project supervisor award by the student council of Djelfa University for the academic year 1999-2000.**

**8- Service activities (within and outside of the institution)**

- The head of QMS (Quality Management System ) committee.
- Member of Research Center of College of Computer and Information Sciences (CCIS)- King Saud University. From Oct. 2010-2012.
- Member of students affairs committee (from 2013-2014)
- Member of the graduate study committee CEN-CCIS-KSU (2000-2006).
- Member of the purchase equipment committee (college level) - CCIS-King Saud university- From 2010-present.
- Laboratories responsible for ABET accreditation (2009-2012).
- The head of the Advising committee (department level)-CEN-Jan 2014-present.
- Representative of the computer-engineering department in the college Academic advising committee- Jan-2014-present.

## 9- Briefly list the most important publications and presentations from the past five years

- R. Hedjar and M. Bounkhel, "Wireless Model predictive control: Application to water level system", *Advances in mechanical engineering*, vol. 8(4), pp.1-, 13, 2016.
- Khalid Al-Muteb, Mohammed Faisal, Muhammad Emaduddin1, Mohammed Arafah, Mansour Alsulaiman, Mohamed Mekhtiche, Ramdane Hedjar, Hassan Mathkour1, Mohammed Algabri1, M. A. Bencherif, "An autonomous stereovision-based navigation system (ASNS) for mobile robots", *Intelligent Service Robotics*, July 2016, Volume 9, Issue 3, pp 187–205 (ISI).
- M. A .Mekhtiche, Z. A. Benselama, M. A. Bencherif1, M. Zakariah, M .Alsulaiman, R. Hedjar, M. Faisal, M. Algabri and K. AlMuteb "Visual Tracking in Unknown Environments Using Fuzzy Logic and Dead Reckoning", *International Journal of Advanced Robotic Systems*, 13:53, 2016 (ISI).
- M. Faisal, M. Alsulaiman, R. Hedjar, H. Mathkour, M. Zuair, H. Altaheri, M. Zakaria, M. Bencherif, M. Makhtiche, "Enhancement of mobile robot localization using extended Kalman filters" in *Advances in Mechanical Engineering*, vol. 8, 11, pp.1-11, 2016
- A. Bouras, R. Hedjar, L. Tadj, "Production planning in a three-stock-reverse-logistics system with deteriorating items under a periodic review policy," *Journal of Industrial and Management Optimization*, Volume 12, No3, pp.1075-1089, July 2016 (ISI).
- K. Al-Mutib, F. Abdessemed, **R. Hedjar**, M. Alsulaiman, M. Bencherif, M. Faisal, M. Algabri, and M. Mekhtiche "Mobile robot nonlinear feedback control based on Elman neural network observer," *Advances in Mechanical Engineering*, 2015, Vol. 7(12) pp.1–14 (ISI).
- Mohammed Algabri, Hassan Mathkour, Hedjar Ramdane, and Mansour Alsulaiman, "Comparative Study of Soft Computing Techniques for Mobile Robot Navigation in an Unknown Environment ", *Computers in Human Behavior*, Volume 50, September 2015, Pages 42-56, ISSN 0747-5632 (ISI).
- Ramdane Hedjar, Ajay K. Garg and Lotfi Tadj, "Model predictive production planning in a three-stock reverse-logistics system with deteriorating items", *International Journal of Systems Science: Operations & Logistics*, Taylor & Francis, Volume 2, Issue 4, October 2015, pages 187-198.
- K. Bdirina, M.S. Boucherit , R. Hedjar, D. Djoudi, H. Naimi, "Non linear predictive control with input constraints of electrical wheelchair", *The Mediterranean Journal of Measurement and Control*, Vol 10, No 02, 2014.
- Mohamed Algabri, Hassan Mathkour, **Ramdane Hedjar**, Khalid Al-Mutib and Mansour Alsulaiman, "Self-learning mobile robot navigation in unknown environment using evolutionary learning", *Journal of Universal Computer Science*, Vol. 20, 2014.
- **R. Hedjar** and M. Bounkhel, "Real-time obstacle avoidance for a swarm of autonomous mobile robots", accepted by *International Journal of Advanced Robotic Systems*, 11:67, 2014. (ISI-Journal).
- M. Algabri, **R. Hedjar**, H. Mathkour, K. Almutib, and M. Alsulaiman," Optimization of fuzzy logic controller using PSO for mobile robot navigation in an unknown environment", *Applied Mechanics and Materials*, vol.541-542, pp.1053-1061, 2014.
- F. Abdessemed, Mohammed Faisal, Muhammad Emaduddin, Hedjar Ramdane, Khalid Al-Mutib, Mansour Alsulaiman, and Hassan Mathkour, "A Hierarchical Fuzzy Control Design for Indoor Mobile Robot", *International Journal of Advanced Robotic Systems*, 2014 (ISI-Journal).
- **R. Hedjar**, "A laboratory-level control experiment for introducing predictive control to undergraduates", *International Journal of Electrical Engineering Education (IJEEE)*, Volume 51, Number 1 (January 2014) ISI-Journal.

- M. Faisal, R. Hedjar, M. Alsulaiman, K. Al-Mutib, "Fuzzy Logic Navigation and Obstacle Avoidance by a Mobile Robot in an unknown dynamic environment", *Int. J. Advanced Robotic Systems*, Vo.10, 37, 2013..
- **R. Hedjar**, "Adaptive Neural Network Predictive Control of Nonlinear Systems", accepted by *International Journal of Innovative Computing, Information and Control* accepted to be published in February 2013.
- **R. Hedjar**, P. Boucher and D. Dumur, "Robust nonlinear receding-horizon control of induction motors," *International Journal of Electrical power and Energy Systems (IJPES)*-Elsevier, Vol.46, pp.353-365, 2012.
- K. Al Mutib, M. Alsulaiman, M. Emaduddine, **R. Hedjar** and E. Mattar, "D\* Lite Based Real-Time Multi-Agent Path Planning in Dynamic Environments", *International Journal for Engineering Research and Applications (IJERA)*, vol.2, Issue 2, April, 2012.
- **R. Hedjar**, "Application of Nonlinear Rescaling Method to Model Predictive Control", *International Journal of Control, Automation and Systems (IJCAS)*, July 2010.
- **R. Hedjar**, "Fuzzy control of periodic-review state-dependent production systems with unknown deterioration rate", *International Journal of Operational Research (IJOR)*, Vol.3, No.6, pp650-660, 2008.
- **R. Hedjar**, "Model Predictive control for Continuous linear systems with State inequality constraints", the 8th IEEE Conference on Industrial Electronics and Applications (ICIEA 2013) 19-21 June 2013, Melbourne, Australia.

#### **Book Chapter:**

- 1- Hedjar, R., Tadj, L. and C. Abid, *Optimal control of integrated production - forecasting system*, chapter 6, in *Decision Support Systems*, Book edited Dr. Chiang Jao, INTECH-ISBN 978-953-51-0799-6, 2012.
- 2- Hedjar, R. and Tadj, L., Various control schemes of the production planning problem, in *Leading-Edge Applied Mathematical Modeling Research Trends*, ed. Matias P. Alvarez, Nova Science Publishers, Inc., Hauppauge, New York, pp.111-154, 2008.