CURRICULUM VITAE

1. PROFESSIONAL AND PERSONAL INFORMATIONS

First Nam: SEBBAGH
Last Name: Abdennour
Date and place of birth: 03 January 1977 in Oum Toub, Skikda
Nationality : Algerian
Fonction : Senior Lecturer (Associate Professor)
Home institution: Electrotechnical and Automatic Engineering Dapartment, Université 8 Mai 1945 - Guelma
Address : Avenue du 19 Mai 1956 BP 401, LAIG, 24000, Guelma
Laboratory: Laboratoire d'Automatique et Informatique de Guelma (LAIG)
Research team leader: Robotics and Systems Modeling
Family situation: Married, + 4 children
Mobile: (+213) 0662 96 51 47, **(+213)** 0551 32 05 22
E-mail : sebbagh.abdennour@univ-guelma.dz, abdennour.sebbagh@gmail.com

2. UNIVERSITY DIPLOMAS

Diploma	year	Specialty	Establishment
Baccalaureate	1995 1997	Exact Sciences Science	Secondary school of Oum Toub Skikda
Engineering	2000	Automatic control	University of Badji Mokhtar Annaba
Magister	2004	Robotic, Automatic and Data processing **Option**: Automatic Control	Polytechnic Military School (EMP) Alger
Doctorate (P.HD)	2016	Electrical Engineering (Automatic Control)	8 Mai 1945 University Guelma
Habilitation (HDR)	2020	Automatic Control	8 Mai 1945 University Guelma

3. LANGUAGE AND COMPUTING KNOWLEDGE

LANGUAGE

Arab : Mother Tongue
French: Good Level
English: Intermediate level

COMPUTING

Operating system: Windows
Office: Microsoft Office (Word, Excel, Power Point)
Programming: Matlab / Simulink, dSPACE, Language C, Step 7, win cc….

4. OCCUPIED FUNCTIONS

1. Research Associate at the Center for Scientific and Technical Research in Welding and Control CRSTSC, Cheraga, Algiers;de 01/03/2005 au 09/11/2005.

2. Teacher Researcher at the University 8 Mai 1945 Guelma from 13/11/2005 to this date

5. SUBJECTS TAUGHT

Year	Teaching module	Sem	Group	CR	TUT	PW
2021/2022	Advanced Control	S3	Master 2. AII	✓	✓	✓
	Non linear Systems	S2	Master1. AII	✓	✓	
	Slaved Systems Sampled	S6	3L. Automatique	✓	✓	
2020/2021	Advanced Control	S3	Master 2. AII	✓	✓	✓
	Sensorss and Instrumentation	S1	Master1. ELM	✓		
	Measurement	S3	2L. Automatique			✓
	Non linear Systems	S2	Master1. AII	✓	✓	
	Slaved Systems Sampled	S6	3L. Automatique	✓	✓	
	Sensors and Measurement Chain	S6	3L. Automatique	✓		
	Automatic Tuning Theory	S4	2L.ELM.Prof	✓	✓	
2019/2020	Advanced Control	S3	Master 2. AII	✓	✓	✓
	Non linear Systems	S2	Master1. AII	✓	✓	
	Slaved Systems Sampled	S6	3L. Automatique	✓	✓	
2018/2019	Advanced control	S3	Master2. AII	✓	✓	✓
	Non linear Systems	S2	Master1. AII	✓	✓	
	Slaved Systems Sampled	S6	3L. Automatique	✓	✓	
2017/2018	Advanced Control	S3	Master 2. AII	✓	✓	✓
	Non linear Systems	S2	Master1. AII	✓	✓	
	Slaved Systems Sampled	S6	3L. Automatique	✓	✓	
	Sensors and Measurement Chain	S5	3L. Automatique	✓		
2016/2017	Optimal Control	S3	Master 2 CDSI	✓	✓	
	Actuators and Instrumentation	S3	Master 2 CDSI	✓	✓	✓
	Slaved Systems Sampled	S6	3L. Automatique	✓	✓	
	Sensors and Measurement Chain	S5	3L. Automatique	✓		
2015/2016	Optimal Control	S3	Master 2 CDSI	✓	✓	
	Actuators and Instrumentation	S3	Master 2 CDSI	✓	✓	✓
	Measurement of electrical and non-electrical quantities	S5	3L. Automatique	✓	✓	✓
	Continuous and sampled servo systems	S6	3L. Automatique	✓	✓	
2014/2015	Optimal Control	S3	Master 2 CDSI	✓	✓	
	Actuators and Instrumentation	S3	Master 2 CDSI	✓	✓	✓
	Measurement of electrical and non-electrical quantities	S5	3L. Automatique	✓	✓	✓
	Continuous and sampled servo systems	S6	3L. Automatique	✓	✓	
	Architecture of automated systems	S4	2L Sciences et Techniques	✓		
2013/2014	Industrial regulation	S1	Master 1 AII	✓	✓	
	Actuators and Instrumentation	S3	Master 2 CDSI	✓	✓	✓
	Measurement of electrical and non-electrical quantities	S5	3L. Automatique	✓	✓	✓

	Continuous and sampled servo systems	S6	3L. Automatique	✓	✓	
	Architecture of automated systems	S4	2L Sciences et Techniques	✓		
2012/2013	Actuators and Instrumentation	S3	Master 2 CDSI	✓	✓	✓
	Measurement of electrical and non-electrical quantities	S5	3L. Automatique	✓	✓	✓
	Continuous and sampled servo systems	S6	3L. Automatique	✓	✓	
	Architecture of automated systems	S4	2L Sciences et Techniques	✓		
2011/2012	Optimal Control	S3	Master 2 CDSI	✓	✓	
	Measurement of electrical and non-electrical quantities	S5	3L. Automatique	✓	✓	✓
	Actuators and Instrumentation	S3	Master 2 CDSI	✓	✓	✓
	Continuous and sampled servo systems	S6	3L. Automatique	✓	✓	
2010/2011	Optimal Control	S3	Master 2 CDSI	✓	✓	
	Measurement of electrical and non-electrical quantities	S5	3L. Automatique	✓	✓	✓
	Actuators and Instrumentation	S3	Master 2 CDSI	✓	✓	✓
	Continuous and sampled servo systems	S6	3L. Automatique	✓	✓	
2009/2010	Industrial regulation	S1	Master 1 AII	✓	✓	
	Measurement of electrical and non-electrical quantities	S5	3L. Automatique	✓	✓	✓
	Continuous and sampled servo systems	S6	3L. Automatique	✓	✓	
2008/2009	Optimal Control		5 ING (AUTO)	✓	✓	
	Measurement of electrical and non-electrical quantities	S5	3L. Automatique	✓	✓	✓
	Continuous and sampled servo systems	S6	3L. Automatique	✓	✓	
2007/2008	Optimal Control		5 ING (AUTO)	✓	✓	
	Measurements and Technology of Servo Systems		4 ING (AUTO)	✓	✓	✓
2006/2007	Optimal Control		5 ING (AUTO)	✓	✓	
	Measurements and Technology of Servo Systems		4 ING (AUTO)	✓	✓	✓
2005/2006	Measure in Industrial Control		5 ING (ELN)	✓	✓	
	Measurements and Technology of Servo Systems		4 ING (AUTO)	✓	✓	✓
2003/2004	Linear Servo Systems		4 ING (AUTO)			✓

AII : Automatic and Industrial Informatis
CDSI : Control and Diagnosis of Industrial Systems

6. COMMUNICATIONS AT SYMPOSIUM

A. National

1. **Abdennour Sebbagh**, Mohand Said Djouadi, and Daoud berkani,"*Towards an efficient Algorithm for Tracking Highly Maneuverable Target*", National Conference on the Genius

Electric (CGE 04) in Polytechnic Military School ex: ENITA, 12 and 13 April 2005, Algiers, Algeria.

2. **A. Sebbagh**, M. Halimi, "*Comparison Between an Area Method and two Edge Detectors with Sub-Pixel Accuracy and their Application to Radiographic Images*". National colloc on Signal processing and their Applications CNTSA-2005, Guelma, Algeria.
3. **A. Sebbagh**, H. TEBBIKH, « *Poursuite Multi-Cibles par Filtrage Particulaire* », la 1ère Journée Thésard de Génie Electrique JT1, Université 08 Mai 45 de Guelma, 12 décembre 2007, Guelma, Algérie.

4. **Abdennour SEBBAGH** et Hicham TEBBIKH, « *Détection de contours avec précision subpixels* », la 4ème journée sur les signaux et systèmes JSS'08, Université 8 Mai 1945 Guelma, le 13 Novembre 2008, Guelma, Algérie.

B. International

1. **Abdennour Sebbagh**, Mohand Said Djouadi, and Daoud berkani, "*IMM-UKF Algorithm and IMM-EKF Algorithm for Tracking Highly maneuverable Target: A comparison*", International Conference on Computer Systems and Information Technology(ICSIT 05) July 2005, Algiers, Algeria

2. Mohand Said Djouadi, **Abdennour Sebbagh** and Daoud berkani, "*A Nonlinear Algorithm for Maneuvering Target Visual-based Tracking*" , IEEE Proceeding of the Second International Conference on intelligent Sensing and Information Proceeding, ICISIP 2005, page 61-66, Chennai, India.

3. **A. SEBBAGH**, H. TEBBIKH, « *Particle Filtering for Aircraft Tracking with Bearing-Only Measurement* », International Conference on Systems and Information Processing ICSIP'09,May 2-4,2009, Guelma, Algeria.

4. Loucif. Fatiha, Kechida. Sihem **et Sebbagh.** Abdennour, « *Heuristic methods for optimization of a PID controller for the control of a robot manipulator*», The 3rd International Conference on Electromechanical Engineering ICEE'2018, November 21-22, 2018, Skikda, Algeria

5. Loucil. Fatiha, Kechida. Sihem et **Sebbagh. Abdennour**, « *Gray Wolf Optimizer To Tune PID Controller For The Trajectory Tracking Control Of Robot Manipulator*», 3rd International Conference on Technological Advances in Electrical Engineering ICTAEE'18, 10-11 December 2018, Skikda, Algeria

6. **Abdennour Sebbagh**, Sihem Kechida et Mohammed Aidoud," *Multiple Targets Tracking with Bearing-Only Measurement*" the International Conference on Recent Advances in Robotics and Automation ICRARA, june 29-30, 2019, Sousse-Tunisia.

7. Mohammed Aidoud, Moussa Sedraoui, Chams-Eddine Feraga and **Abdennour Sebbagh**, "*Robustification of Generalized Internal Model Control Based on the H_∞ Method for the Stabilization and Tracking of a Hydraulic Actuator System*" the International Conference on Recent Advances in Robotics and Automation ICRARA, june 29-30, 2019, Sousse-Tunisia.

8. **Abdennour Sebbagh**, Sihem Kechida et Mohammed Aidoud," *Maneuvering Target Tracking with Bearing-Only Measurement*", 5th International Conference of Computing for Engineering and Sciences"ACM-ICCES, 20-22 july 2019, Hammamet, Tunisia.

9. Mohammed Aidoud, Moussa Sedraoui, Chams-Eddine Feraga and **Abdennour Sebbagh**," *Robustification of Generalized Predictive Law(GPC) bu the Implicit Application of the H_∞ Method",* 5th International Conference of Computing for Engineering and Sciences" ACM-ICCES, 20-22 july 2019, Hammamet, Tunisia.

7. INTERNATIONAL SCIENTIFIC PUBLICATIONS

1. Mohand Said Djouadi, **Abdennour Sebbagh** and Daoud berkani, *IMM Based UKF and IMM Based EKF Algorithms for Tracking Highly Maneuverable Target*". Archives of Control Sciences (ACS), vol. 15, No. 1, pages19-51,2005.

2 **Abdennour Sebbagh**, Hicham Tebbikh, "*Nonlinear multiple model particles filters algorithm for tracking multiple targets*". Archives of Control Sciences (ACS), Vol. 21, No. 1, pages 37 – 60, 2011.

3 **Sebbagh Abdennour** and Tebbikh Hicham "*Parallel Particle Filters for Multiple Target Tracking*". International Arab Journal of information technology (IAJIT), Vol .13, No. 6, page 708-715, 2016**.**

4 **Abdennour Sebbagh** and Sihem Kechida" *Nonlinear IMM-SUKF Algorithm for Maneuvering Target Tracking with Bearings-Only Measurement*". SAE Technical papers,2019, doi:10.4271/2019-01-6005.

5 Loucif Fatiha, Kechida Sihem et **Sebbagh Abdennour**" *Whale optimizer algorithm to tune PID controller for the trajectory tracking control of robot manipulator*" Journal of the Brazilian Society of Mechanical Sciences and Engineering. Vol.42, No.1, 2020. doi 10.1007/s40430-019-2074-3.

6 Aidoud, M., Feliu-Batlle, V., **Sebbagh, A**. et Sedraoui, M. *Small signal model designing and robust decentralized tilt integral derivative TID controller synthesizing for twin rotor MIMO system*. *Int. J. Dynam. Control* (2022). https://doi.org/10.1007/s40435-022-00916-6.

7 **Sebbagh, A**., Kichida, S. *EKF-SIRD model algorithm for predicting the coronavirus (COVID-19) spreading dynamics.* Scientific Reports 12, 13415 (2022). https://doi.org/10.1038/s41598-022-16496-6

8. EDITORIAL OF EDUCATIONAL DOCUMENTS

1. handout of "Advanced Control" courses for students of the Master 2 (Automatic and Industrial Computing (AII) and Automatic and Systems (AS)).

9. SCIENTIFIC AND EDUCATIONAL RESPONSIBILITY

1. Responsible for courses in the Master "Automatic and Industrial Computing (AII)", option: Control and Diagnosis of Industrial Systems (CDSI), in the Department of Electrical Engineering and Automation, University 8 Mai 1945- Guelma, from 9 October 2011 to 9.
2. Responsible for courses in the Master "Automatics and Industrial Computing (AII)", option: Control and Diagnosis of Industrial Systems (CDSI), at the Department of Electrical Engineering and Automation, University 8 Mai 1945- Guelma, from 31 December 2014 to 31 December 2017.

3. Head of the "Automatic" Stream in Bachelor and Master in the Faculty of Science and Technology, University May 8, 1945- Guelma, from December 31, 2017 to December 31, 2020.
4. Member of the Scientific Committee of the Department of Electrical and Automatic Engineering
   -from November 2010 until October 2013
   -from March 2017 until February 20205.
5. Member of the Disciplinary Council of the Faculty of Science and Technology
   - from March 2017 to the present day

10. FRAMING OF MEMORIES OF END OF STUDIES

1. **Engineer level**

Year	Title of the dissertation	Date of defense
2005/2006	Using visual information for tracking a target or moving object based on the perfume-free Kalman filter.	June 2006
2005/2006	Using visual information for tracking a target or moving object based on the extended Kalman filter	June 2006
2006/2007	Using Particle Filtering for Target Tracking	June 2007
2007/2008	Tracking of an aerial target by Kalman filtering.	June 2008
2008/2009	Target Tracking by Kalman Filtering	June 2009

2. **LMD Bachelor Level**

Year	Title of the dissertation	Date of defense
2008/2009	Kalman filtering	June 2009
2009/2010	Image processing	June 2010
2009/2010	The cryptography	June 2010
2012/2013	Position control of a DC motor	June 2013
2012/2013	Speed control of a DC motor	June 2013
2018/2019	Initiation to the Consensus	June 2019

3. **Master Level**

Year	Title of the dissertation	Date of defense
2010/2011	Tracking a target with an odorless Kalman filter	June 2011
2010/2011	Tracking of an object by particular filtering	June 2011
2011/2012	Tracking a target by Kalman filtering	June 2012
2011/2012	Tracking of a target by particular filtering	June 2012
2013/2014	Servo control and control of a gas turbine	June 2014
2014/2015	Diagnosis of defects based on observers	June 2015
2015/2016	Speed control of a model airplane propeller	June 2016
2016/2017	Modeling and control of a wind turbine	June 2017
2017/2018	Quadratic linear control (LQ) of a soft modeling wind turbine	June 2018

2019/2020	Control and supervision of a dehydration unit Gas based on DCS YOKOGAWA CS 3000	September 2020
2020/2021	Automation of a LAC Hydraucyclone Tipper by the S7-300	July 2021
2020/2021	Control of a photovoltaic pumping system	July 2021
2021/2022	Control and supervision of an air handling unit (dryer)	September 2022

11. LINES OF RESEARCH

- Tracking of mono and multi-targets
- Optimization and control of systems
- Estimation and control of wind turbines
- Estimation in trafic networks

12. RESEARCH PROJECTS

1. Member of the project (CNEPRU), code: B 2401/02/05
   Project title: *Design and implementation of an automatic face recognition system.*
   Date of approval: January 2006
2. Member of the project (CNEPRU), code: J0201520080013
   Project title: *Using visual information for tracking maneuvering targets and monitoring sensitive sites.*
   Date of approval: January 2009.
3. Member of the project (**PRFU**), code: **A01L08UN240120180001**
   Project title: *Industrial Systems Control and Supervision (CSSI)*
   Date of approval: January 2018.
4. Project Manager (**PRFU**), code : **A01L08UN240120220002**
   Project title: *Control and Consensus of Dynamic Systems (CCSD)*
   Date of approval: January 2022.

13. COMPLETED MODULE

1. CReSTIC Laboratory of Reims, France from 28 October 2017 to 11 November 2017

14. ORGANIZATION OF SCIENTIFIC EVENTS

Member of the organizing committee:

1. *Journée de Formation sur la normalisation JFN'18,* 22 Novembre 2018, Université 8 Mai 1945.
2. *Journée de Formation sur les énergies solaire photovoltaïque JFES.PV'18,* 22 Avril 2018, Université 8 mai 1945.
3. *Journée Doctorale JD'18,* 13 Décembre 2018 à l'Université 8 Mai 1945 Guelma.
4. *Troisième Journée Doctorale JD'17,* 07 Décembre 2017 à l'Université 8 Mai 1945 Guelma.

5. *Deuxième Journée Doctorale JD'17,* 26 Octobre 2017 à l'Université 8 Mai 1945 Guelma.
6. *Première Journée Doctorale JD'17*, 11 Mai 2017 à l'Université 8 Mai 1945 Guelma.
7. *Journée de Formation sur les énergies renouvelables-solaire photovoltaïque*, 02 juillet 2017, Université 8 Mai Guelma.
8. *Troisième Journées sur les Signaux et Systèmes 3ème JSS'16,* 29 Juin 2016 à l'Université 8 Mai 1945 Guelma.
9. *Deuxième* Journées *sur les Signaux et Systèmes 2ème JSS'16,* 03 Mars 2016 à l'Université 8 Mai 1945 Guelma.
10. *Première Journée sur les Signaux et Systèmes 1ème JSS'16, 07 Janvier 2016,* à l'Université 8 Mai 1945 Guelma.
11. *Journées sur les Signaux et Systèmes* JSS'14, Université 8 Mai 1945 Guelma, 19-20 Novembre 2014.
12. *Third International Conference on Systems and Information Processing* ICSIP'13, May 12-14,2013, Université 8 Mai 1945 Guelma, Algeria
13. *Troisième Conférence Nationale sur les systèmes d'Ordre fractionnaires et leurs Applications 3ème SOFA'12*, 25-27 Novembre 2012, Université 8 Mai 1945 Guelma, Algeria

I.16. CO-ENCADREMENT DE THESES DE DOCTORAT

Ph.D student	Thesis title	Supervisor	Defense date
LOUCIF Fatiha	Contribution to the non-linear control of manipulator robots	Pr. Kechida Sihem (Supervisor) Dr. Sebbagh Abdennour (Co-Supervisor)	November 2021