Chadia ZAYANE

Assistant Professor, Department of Electrical and Computer Engineering, King Abdulaziz University

Education

Degree	*Field of Study*	*Institution*	*Year*
Ph.D.	Electrical Engineering	Mines ParisTech, Paris	2011
MS	Applied Mathematics	ENS Cachan, Paris	2007
BS	Electrical Engineering	SUPELEC, Paris	2005

Academic Experience

From	*To*	*Institution*	*Rank*	*Title*	*Full or Part Time*
2008	2010	IUT Fontainebleau, France	Lecturer	Engineer	Part Time

Non-Academic Experience *(Including Consultations)*

Post-doctoral fellow at KAUST, from 2012 to 2016 research and mentoring of Master and PhD students.

Funded Research Projects and Patents From The Last Five Years

Research at KAUST

Certifications and Professional Registrations

Machine learning (2017)
Emergency Incident Preparedness Training (2015)
Laboratory Safety Training (2015)
Hazardous Waste Training (2015)

Current Membership in Professional Societies and Organizations

Honors and Awards

- ✓ *EDF Group (French electricity company) research grant, 2007-2011.*
- ✓ *Winner of the Tunisian government grant (scholarship) for higher education in France (undergraduate studies and engineering school), 1999-2005.*

Institutional and Professional Services

Principal Publications/Presentations from the Past Five Years

- N. Khoram, C. Zayane-Aissa, R. Djellouli and T.M. Laleg-Kirati, A Novel Approach to Calibrate the Hemodynamic Model Using Functional Magnetic Resonance Imaging (fMRI) Measurements, *Journal of Neuroscience Methods*, 262 (2016), 93-109.
- S. Asiri, C. Zayane-Aissa and T.M. Laleg-Kirati, An Adaptive Observer Based Algorithm for Solving Inverse Source Problem for the Wave Equation, *Journal of Mathematical Problems in Engineering*, 6 (2015), 1-8.
- C. Zayane-Aissa, T.M. Laleg-Kirati and A. Chemori, Control of a Perturbed Under Actuated Mechanical System, *IEEE Multiconference on Systems and Control*, 2015, Sydney, Australia.
- C. Zayane-Aissa and T.M. Laleg-Kirati, A Sensitivity Analysis of fMRI Balloon Model, *Journal of Computational and Mathematical Methods in Medicine*, 2015 (2015), 11 pages.
- A.M. Karam, C. Zayane-Aissa, T.M. Laleg-Kirati and N. Kashou, Nonlinear Neural Network for Hemodynamic Model State and Input Estimation Using fMRI Data, *Journal of Biomedical Signal Processing and Control*, 14 (2014), 240-247.
- N. Khoram, C. Zayane-Aissa, T.M. Laleg-Kirati and R. Djellouli, On the Characterization of Single Event Related Brain Activity From Functional Magnetic Resonance Imaging (fMRI) Measurements, *IEEE EMBC*, 2014, Chicago, USA.
- C. Zayane-Aissa and T.M. Laleg-Kirati, Sliding Mode Observer for Hemodynamic Characterization Under Modeling Uncertainties, *IEEE Mediterranean Conference on Control & Automation*, 2014, Palermo, Italy.
- C. Zayane-Aissa and T.M. Laleg-Kirati, Exact Nonlinear Characterization of Hemodynamic Behavior Based on fMRI Experiments, *OHBM*, 2014, Hamburg, Germany.
- C. Zayane-Aissa**,** D.Y. Liu and T.M. Laleg-Kirati**,** Joint states and Parameters Estimation for a Class of Cascade Systems: Application to a Hemodynamic Model, *European Control Conference*, 2014, Strasbourg, France.
- M.U. Majeed, C. Zayane-Aissa and T.M. Laleg-Kirati, Cauchy Problem for The Laplace's Equation: An Observer Based Approach, *IEEE ICSC*, 2013, Algiers, Algeria.
- S. Asiri, T.M. Laleg-Kirati and C. Zayane, Inverse Source Problem for a One-dimensional Wave Equation using Observer, *WAVES*, 2013, Tunis, Tunisia.
- T.M. Laleg-Kirati, H. Arabi M. Tadjine and C. Zayane, Estimation of the Neuronal activation using fMRI data: an observer-based approach, accepted by *the ACC*, 2013, Washington, DC, USA.
- A. Karam, C. Zayane and T.M. Laleg-Kirati, Nonlinear Neural Network Approach for the Inversion of fMRI Response, IEEE *EMBC*, 2012, San Diego, USA.
- T.M. Laleg**,** A. Radwan and C. Zayane, An observer-based method to solve the Cauchy problem for Laplace equation, *PICOF*, 2012, Paris, France.

Recent Professional Development Activities (*Workshops, Trainings etc.)*