CURRICULUM VITAE

Abdelhak Hafdallah

GENERAL INFORMATION_____

FUNCTION | Associate Professor - Researcher
Department of Mathematics and Computer Science
University of Tebessa, Algeria.

Degree | MCA
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Address | Aqueduc 136, Tébessa, Algeria. 12000
Specialty | Optimal control, Applied mathematics
Languages | Arabic, English and French
Web pages | https://www.researchgate.net/profile/Abdelhak_Hafdallah
https://abgattal.academia.edu/AbdelhakHafdallah
https://www.linkedin.com/in/abdelhak-hafdallah-51766ba7

EDUCATION _____

2013 - 2018 | University of O.E.B., Ph.D.
Thesis title: Optimal control of some hyperbolic equations with missing data
Advisor: Abdelhamide Ayadi, full professor.

2010 - 2012 | University of Tebessa, Magisterium .
Advisor: Abdelhamide Ayadi, full professor.

2005 - 2009 | University of Tebessa, D.E.S.
Head of Class: Mathematics.

ACADEMIC EMPLOYMENT _____

July 2018 - Now | **Associate Professor**, University of Tebessa, Algeria.

November 2012 –
July 2018 | **Assistant Professor**, University of Tébessa, Algeria.

September 2011 - | **High School Teacher**, Haouari Boumediane Secondary school.

November 2012

HONORS AND AWARDS _____

2009   **Head of Class**

          Awarded for being Promotional staff, by University of Tébessa.

PUBLICATIONS _____

Achab, F., **Hafdallah, A.**, & Rezzoug, I. (2024). Identification of the local changes in age-structured population dynamics with missing initial condition. *Russian Mathematics* 68.8 (2024):

1-15. https://doi.org/10.3103/S1066369X24700646

Hafdallah, A. (2024). Sentinels of nth-order insensitivity for identification problems with high-order incomplete data. *Boletim da Sociedade Paranaense de Matematica*, https://doi.org/10.5269/bspm.65709

Hafdallah, A. (2023) Identification of diffusion coefficient in a semi-linear parabolic equation with incomplete initial condition: a no-regret control method, *Journal of Control and Decision*, https://doi.org/10.1080/23307706.2023.2284142.

Elhamza, B., & **Hafdallah, A**. (2023). Identification of the Potential Coefficient in the Schrödinger Equation with Incomplete Initial Conditions from a Boundary Observation. *Russian Journal of Mathematical Physics*, *30*(2), 176-183.

Elhamza, B. and **Hafdallah, A.**, (2023). Identification of the bulk modulus coefficient in the acoustic equation from boundary observation: a sentinel method. *Boundary Value Problems*, *2023*(1), pp.1-10. https://doi.org/10.1186/s13661-023-01708-3

Elhamza, B. and **Hafdallah, A.**, (2022). Identification of the potential coefficient in the wave equation with incomplete data: a sentinel method. *Russian Mathematics*, *66*(12), pp.102-111.

Laouar , C., Ayadi ,A., & **Hafdallah, A.** (2022). Identification problem of a fractional thermoelastic deformation system with incomplete data: A sentinel method. *Nonlinear Studies*, *29*(2), 399-410.

Laouar , C., Ayadi ,A., & **Hafdallah, A.** (2021). Optimal Control of a Partially Known Coupled System of BOD and DO. *International Journal of Analysis and Applications*, *19*(6), 984-996.

Hafdallah, A., & Abdelli, M. (2021). Averaged No-Regret Control for an Electromagnetic Wave Equation Depending upon a Parameter with Incomplete Initial Conditions. In *Electromagnetic Wave Propagation for Industry and Biomedical Applications*. IntechOpen. DOI: 10.5772/intechopen.95447

Benghazi, Z., Zeghichi, L., Djellali, A. & **Hafdallah, A.**(2020). Predictive Modeling and Multi-response Optimization of Physical and Mechanical Properties of SCC Based on Sand's Particle Size Distribution. Arab J. Sci Eng. https://doi.org/10.1007/s13369-020-

Abdelli, M., **Hafdallah, A.,** Merghadi, F., & Louafi, M. (2020). Regional averaged controllability for hyperbolic parameter dependent systems. *Control Theory and Technology*, *18*(3), 307-314.

Hafdallah, A. (2020). On the optimal control of linear systems depending upon a parameter and with missing data. Nonlinear Studies, 27(2), 457-469.

Hafdallah, A.. (2020). Optimal control for a controlled ill-posed wave equation without requiring the Slater hypothesis.Ural Mathematical Journal, 6(1 (10)).

Hafdallah, A., & Ayadi, A. (2018). Optimal control of electromagnetic wave displacement with an unknown velocity of propagation. *International Journal of Control*, https://doi.org/10.1080/00207179.2018.1458157.

Hafdallah, A., & Ayadi, A. (2018). Optimal control of a thermoelastic body with missing initial conditions. *International Journal of Control*, https://doi.org/10.1080/00207179.2018.1519258.

Hafdallah, A., Laouar, C. & Ayadi, A. (2017). No-regret optimal control characterization for an Ill-posed wave equation. *International Journal of Mathematics Trends and Technology (IJMTT).* V41(3):283-288.

CONFERENCE PRESENTATIONS _____

TALKS

A. Hafdallah, A. Ayadi . Optimal control for wave equation with incomplete data. Talk presented at the *First International Conference on Modeling and Scientific Computing in Mathematical Engineering (MOCASIM),* Marrakesh, Morocco from 19 to 22 November 2014 .

A. Hafdallah, A. Ayadi. About optimal control of problems with missed data. Talk presented at the *Seventh Workshop of Modelling, Analysis and Control of Systems (MACS-7),* El Jadida, Morocco 29, and 30 October 2015.

A. Hafdallah, A. Ayadi. Oum El Bouaghi, Algeria, June 1st 2016.

A. Hafdallah, *On the optimal control of systems with missing data*. Talk presented at the *Identification and control: some challenges*. Monastir, Tunisia. 18–20 June, 2019.

POSTERS

A. Hafdallah, A. Ayadi (2016), About optimal control of problems with missed data. Poster presented at *the International Conference of the Euro-Maghreb Laboratory of Mathematics and their Interactions (LEM2I),* Hammamet, Tunisia, April 27 to May 1st 2016.

CITATIONS

Total   119 h-index 7

REVIEWING

A REVIEWER FOR TAIWANESE JOURNAL OF MATHEMATICS DURING 2017.
 A REVIEWER FOR Journal of Nonlinear Evolution Equations and Applications DURING 2021
A REVIEWER FOR Journal Rendiconti del Circolo Matematico di Palermo Series 2 DURING 2021
A REVIEWER FOR Results in Control and Optimization Journal DURING 2022
A REVIEWER FOR Results in *Journal of Mathematics* DURING 202**3**
A REVIEWER FOR *ADVANCES IN CONTINUOUS AND DISCRETE MODELS: THEORY AND APPLICATIONS* DURING 2024
A REVIEWER FOR *FRACTIONAL CALCULUS AND APPLIED ANALYSIS* DURING 2024

EDITING

Guest Editor for the Special Issue "Recent Advances on Control Theory of Uncertain Systems: Methods and Applications**" in Contemporary Mathematics ISSN: 2705-1064** DURING 202**3**.
   https://ojs.wiserpub.com/index.php/CM/SI/Control_Theory_Uncertain_Syst
Guest Editor in Contemporary Mathematics ISSN: 2705-1064 DURING 2024.

SUPERVISING

PHD STUDENT Bilal Elhamza   **THESIS TITLE** Study of some identification problems by using the sentinel method   **YEAR OF DISSERTATION** 2023
PHD STUDENT   THESIS TITLE YEAR OF DISSERTATION

CO-SUPERVISING

PHD STUDENT   THESIS TITLE YEAR OF DISSERTATION 2022
PHD STUDENT   THESIS TITLE YEAR OF DISSERTATION 2021

TEACHING & ADVISING
EXPERIENCE_____

January 2012	**Maths 1 & Maths 2**
September 2014-2016	**Elliptic problems and spectral methods**
September 2017- Now	**Introduction to control theory of systems**
2015- Now	**Advising end of studies' project for Master students**
October 2020- Now	**Advisor of PHD thesis**.
October 2018- Now	**Co-advisor of PHD thesis**.

CONFERENCE ORGANISATION COMMITTEE MEMBER _____

Scientific contribution as a member of the Committee of the 9th International Conference on Computing, Control and Industrial Engineering (CCIE 2025) that is being held in Hangzhou, China during 19-21 September 2025. http://www.ccieconf.com/Committee.html

Scientific contribution as a member of the Scientific Committee of the IEEE International Conference on Recent Advances in Mathematics and Informatics (ICRAMI'2021), held on September 21-22, 2021, University of Tebessa, Algeria

Workshop sur les Systèmes Dynamiques, les équations Différentielles et leurs applications, Oum El Bouaghi University, Algeria, November 14 &15, 2018.

Journée scientifique « Apport de la géophysique dans le domaine minier, cas de la méthode tomographie de résistivité électronique (TRE) « University of Tébessa, Algeria, January 23rd, 2018.