

Baleanu, Dumitru

Professor, Chemical and Materials Engineering Department, King Abdulaziz University

Education

<i>Degree</i>	<i>Field of Study</i>	<i>Institution</i>	<i>Year</i>
PhD	Theoretical Physics	Institute of Atomic Physics, Romania	1996
MS	Nuclear Physics	Institute of Atomic Physics, Romania	1989
BS	Physics	University of Craiova, Romania	1988

Academic Experience

<i>From</i>	<i>To</i>	<i>Institution</i>	<i>Rank</i>	<i>Title</i>	<i>Full or Part Time</i>
1989	1990	Institute of Nuclear Reactors, Pitesti, Romania	Physicist		Full
1990	1995	Institute of Gravity and Space Sciences, Bucharest-Magurele, Romania	Physicist		Full
1995	1996	Institute of Gravity and Space Sciences, Bucharest-Magurele, Romania	Assistant Professor		Full
1996	2001	National Institute for Laser, Plasma and Radiation Physics, Institute of Space Sciences, Bucharest-Magurele, Romania	Assistant Professor		Full
2001	2006	National Institute for Laser, Plasma and Radiation Physics, Institute of Space Sciences, Bucharest-Magurele, Romania	Associate Professor		Full
2006	2012	National Institute for Laser, Plasma and Radiation Physics, Institute of Space Sciences, Bucharest-Magurele, Romania	Professor		Full
2012	2013	King Abdulaziz Univ.	Adjunct Professor		Full
2013	date	King Abdulaziz Univ.	Professor		Full

Non Academic Industrial Experience (including Consultations)

<i>From</i>	<i>To</i>	<i>Company/Entity</i>	<i>Title</i>	<i>Position Description</i>	<i>Full or Part Time</i>
None					

Funded Research Projects and Patents from the Past Five Years

1. "OI174001 - Dynamics of hybrid systems with complex structures. Mechanics of materials. Sponsored by Ministry of Sciences and Technology, Republic of Serbia. (2011-2014)

Certifications and Professional Registrations

1. Certificates of appreciation of ASME, Design Engineering Division, Technical Committee on Multibody Systems and Nonlinear Dynamics, 2009 and 2011.
2. Certification of Review, Physica A: Statistical Mechanics and its Applications, 2010
3. ScienceWatch.com -Eqab M. Rabei & **Dumitru Baleanu** talk with ScienceWatch.com and answer a few questions **about this month's Fast Breaking Paper in the field of Mathematics**, October **2008**

Current Membership in Professional Societies and Organizations

	<i>Society/organization</i>	<i>Rank</i>	<i>Member Since</i>
1.	American Society of Mechanical Engineering	Member	2010
2.	American Chemical Society	Member	2009
3.	Mechatronic and Embedded Systems and Applications	Member	2007

Honors and Awards

1. 2nd IFAC Workshop on Fractional Differentiation and its Applications prize, 19 - 21 July, Porto, Portugal, 2006
2. 2010 award of the Rev. Chim. (SCI journal) and SYSCOM for the joint manuscript titled “*Wavelet transform and artificial neural network for the quantitative resolution of ternary mixtures*”, published in Rev.Chim., 57(6), 2006, p. 626

Institutional and Professional Services (*administration, committees, units, etc.*)

1. None

Principal Publications/Presentations from the Past Five Years

1. A new approach to the characterization of the nano-surface structure by using factor analysis, E. Dinç, **D. Baleanu**, A.O. Solak ; et al., Commun. Nonlinear. Sci. , 17(2) , 1012-1020 DOI: 10.1016/j.cnsns.2011.02.029 , (2012)
2. Hopf bifurcation for a class of fractional differential equations with delay, A. Babakhani, **D. Baleanu**, R. Khanbabaie, Nonlinear Dynamics Vol: 69 Issue: 3 pages:721-729 DOI:10.1007/s11071-011-0299-5 (2012)
3. Fractional Euler-Lagrange equations revisited, M.A.E. Herzallah **D. Baleanu**, Nonlinear Dynamics Vol :69 Issue: 3 Pages: 977-982 DOI:10.1007/s11071-011-0319-5 (2012)
4. Higher order fractional variational optimal control problems with delayed arguments, F.Jarad, T. Abdeljawad (Maraaba), **D. Baleanu**, Applied Mathematics and Computation, Vol. 218, Pages. 9234-9240, (2012)
5. Generalized fractional order Bloch equation with extended delay, S. Bhalekar, V. Daftardar-Gejji **D. Baleanu** et al., International Journal of Bifurcation and Chaos, vol: 22, Article Number: 1250071, (2012)
6. Factor Analysis for the Characterization of the Nano-Surface of the Nitroazo-benzene-Modified Glassy Carbon Electrode, E. Dinc, **D. Baleanu**, A. O. Solak et al., Journal of Computational and Theoretical Nanoscience, Vol.: 9, Pages: 319-326 , (2012)
7. Stability analysis of Caputo fractional-order nonlinear systems revisited, H. Delavari, **D. Baleanu**, J. Sadati, Nonlinear Dynamics, Vol: 67, Pages: 2433-2439, 2012
8. On Riesz-Caputo Formulation for Sequential Fractional Variational Principles, F. Jarad, T. Abdeljawad, **D. Baleanu**, Abstract and Applied Analysis, Article Number: 890396, (2012)
9. One-Phase Problems for Discontinuous Heat Transfer in Fractal Media, M. S. Hu, **D. Baleanu**, X.Y. Yang, Mathematical Problems In Engineering Article Number: 358473 DOI: 10.1155/2013/358473 (2013)
10. Conditional Optimization Problems: Fractional Order Case, A. Razminia, **D. Baleanu**, V. J. Majd, Journal of Optimization Theory and Applications, 156(1), 45-55, DOI: 10.1007/s10957-012-0211-6 (2013)
11. New applications of the variational iteration method - from differential equations to q-fractional difference equations, G. C. Wu, **D. Baleanu**, Advances in Difference Equations , Article Number: 21 DOI: 10.1186/1687-1847-2013-21 (2013)
12. Stability of q-fractional non-autonomous systems, F. Jarad, T. Abdeljawad, Thabet, **D. Baleanu**, Nonlinear Analysis-Real World Applications 14(1), 780-784 DOI: 10.1016/j.nonrwa.2012.08.001 (2013)
13. A uniqueness criterion for fractional differential equations with Caputo derivative, **D. Baleanu**, O.G. Mustafa, Octavian, D. O'Regan, Nonlinear Dynamics, 71 (4) , Pages: 635-640 DOI: 10.1007/s11071-012-0449-4 (2013)
14. A note on stability of sliding mode dynamics in suppression of fractional-order chaotic systems, M.R. Faieghi, H. Delavari, **D. Baleanu**, Computers and Mathematics with Applications , in press (2013)
15. A mathematical model for simulation of a water table profile between two parallel subsurface drains using fractional derivatives, B. Mehdinejadani, A.A. Naseri, H. Jafari, A. Ghanbarzadeh, **D. Baleanu**, Computers and Mathematics with Applications, in press (2013)

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

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19 Scientific Journal