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Personal information

Name	Fadhil Rahma Tahir
Date of Birth	1974
Place of Birth	Mesaan, Iraq
Nationality	Iraqi
Marital Status	Married
Number of Children	5
Mob.	009647805233719
Scientific Rank	Professor
General Specialty	Electrical Engineering
precise specialization	Control and Systems
Date of first appointment at the university	2002 - University of Basrah

Educational Details

The below mentioned qualifications are attested by Government of Iraq.

Degree	Specialization	University	Year
Ph.D.	Control and Systems	University of Basrah	2013
M.Sc.	Control and Systems	University of Basrah	2000
B.Sc.	Electrical Engineering	University of Basrah	1997



Experience Details				
Designation	Department	College/University	Period	
			From	To
Professor	Electrical Engineering	College of Engineering, University of Basrah	April 2018	Till now
Asst. Professor	Electrical Engineering	College of Engineering, University of Basrah	Oct. 2009	April 2018
Teacher	Electrical Engineering	College of Engineering, University of Basrah	Jan. 2007	Oct. 2009
Asst. Teacher	Electrical Engineering	College of Engineering, University of Basrah	Aug. 2002	Jan. 2007

Research and Publications

Ph.D. supervision		
Title of PhD project	Student-University	Year of registration
Cellular Nonlinear Network based on Memristor with its Performance Analysis and Applications	Ahmed Mohamed Ali-Basrah University, Iraq	2018
Analog and Digital Implementation of fractional order nonlinear oscillators for application in secure communication systems	Girma Adam-Defense University, Ethiopia	2018
M.Sc. supervision		
Title of MSc project	Student-University	Year of registration
Combining CPLD and FPAA – Based Remotely Programmable Smart Sensors	Alaa A. Salman- Basrah University, Iraq	2014
Design and Implementation of a Chaotic Communication System Using FPGAs	Ola J. Hussein-Basrah University, Iraq	2014
Stabilization of Chaotic Dynamics in PMDC Drive System	Mohammed A. Abdullah-Basrah University, Iraq	2015
Performance Evaluation of Chaotic	Mariam H. Abd- Basrah	2015



RADAR System	University, Iraq	
Memristor - Based Nonlinear Electronic Circuits: Dynamics and Synchronization	Saif M. Ramadan- Basrah University, Iraq	2016
PLC-Based Implementation of Chaotic Controlled Liquids Mixer	Hamza A. Aboud- Basrah University, Iraq	2017
Complex Dynamics and Chaotic Oscillations in an Induction Motor System: Detection and Control	Fatma N. Ayoub- Basrah University, Iraq	2018

Publications

- [1] **Fadhil R. Tahir**, Luigi Fortuna, Mattia Frasca, " New attractors and new behaviors in photo-controlled Chua's circuit " International journal of bifurcation and chaos, vol. 19, n0.1, 329-338, 2009. (**Clarivate Analytics Indexed Journal -Impact factor of 1.501**)
- [2] **Fadhil R. Tahir** and Falh Mousa, " Synchronization of Chaos in Unidirectional Coupled Duffing Oscillators " Accepted in Physics Control Conference ,University of Catania, Italy (2009).
- [3]**Fadhil. R. Tahir**, "Synchronization of chaotic semiconductors lasers with optoelectronic feedback and its applications to encoded communications" Basrah journal of engineering sciences, vol.6 , no. 1, 2006.
- [4] **Fadhil. R. Tahir**, " Chaotic characteristics of vertical cavity surface emitting lasers subject to optoelectronic feedback" Iraqi journal for electrical and electronic engineering, vol. 2, no. 1, 2006.
- [5] **Fadhil. R. Tahir**, "Chaotic Colpitts oscillator " Journal of Basrah researches (Sciences), vol. 33, part1, 38-48, 2007.
- [6] Raad. S. Fyath, Saad. M. Falh, and **Fadhil. R. Tahir**, "Transient response of multiquantum well vertical – cavity surface emitting lasers" Iraqi journal for electrical and electronic engineering, vol. 4, no. 1, 64-77, 2008.
- [7] **Fadhil. R. Tahir** and Raad. S. Fyath, "Theoretical model for heterojunction phototransistor in optoelectronic switch configurations: Part I : optical gain characteristics " Iraqi journal for electrical and electronic engineering, vol. 4, no. 1,44-54, 2008.



- [8] **Fadhil R. Tahir** and Raad. S. Fyath, "Theoretical model for heterojunction phototransistor in optoelectronic switch configurations: Part II: speed of switching" Iraqi journal for electrical and electronic engineering, vol. 4, no. 1, 54-64, 2008.
- [9] **Fadhil R. Tahir**, " Secure communications based on dual synchronization of cross - coupled chaotic oscillators", Basrah journal of Engineering sciences , vol. 10, no.1, 2010.
- [10] **Fadhil R. Tahir**, " Chaotic oscillation in nonlinear RC circuit " Journal of Basrah researches (Sciences), vol. 35, no.5, 55-61, 2009.
- [11] **Fadhil R. Tahir**, " Experimental confirmation of 3 and 4 scroll attractors from laser Chua's circuit", Accepted in Physics and Control Conference, University of Leon , ESPAÑA Sept. 2011.
- [12] **Fadhil Rahma**, Ramzy S. Ali, Luigi Fortuna, Mattia Frasca, " New chaotic attractors and new chaotic circuits" IJACT, vol. 4, no. 3, 2012. (**Scopus Indexed Journal**).
- [13] **Fadhil Rahma**, Ramzy S. Ali, Luigi Fortuna, " A Nonlinear capacitor –based chaotic electrical oscillator " Proceeding of 3rd International Scientific Conference F.T.E 2013.
- [14] **Fadhil Rahma**, Ramzy S. Ali, Luigi Fortuna, " Analog Programmable Electronic Circuit-Based Chaotic Lorenz System" Accepted for publishing in Basrah journal of Engineering sciences.
- [15] Viet- Thanh Pham, **Fadhil R. Tahir**, Luigi Fortuna, Mattia Frasca, " Dynamics and Synchronization of a Novel Hyperchaotic System without Equilibrium " , International journal of bifurcation and chaos, vol.24, no.6, 1450087, 2014. (**Clarivate Analytics Indexed Journal -Impact factor of 1.501**)
- [16] **Fadhil Rahma**, Ramzy S. Ali, Luigi Fortuna, Mattia Frasca, " Chaos Control in the Smallest – based Chaotic Circuit ", Scientific Quarterly journal issued by Ismailic College University, No. 29, pp.101-109, 2015.
- [17] **Fadhil R. Tahir**, Sajad Jafrai, Viet- Thanh Pham, Christos Volo, Xiong Wang, " A novel no-equilibrium chaotic system with multiwing butterfly attractors ", International journal of bifurcation and chaos, vol.25, no.4, 1550056, 2015. (**Clarivate Analytics Indexed Journal -Impact factor of 1.501**)
- [18] Alaa A. H., **Fadhil R. Tahir**, Mofeed. T. R., "Design and Implementation Model for Linearization Sensor Characteristic by FPAA " Iraq J. Electrical and Electronic Engineering, Vol. 11, No.2, 2015.
- [19] Ola J. H., **Fadhil R. Tahir**, " Adaptive Control-Based Synchronization of Chaotic Systems with Uncertain Paramteres and Its Applications " Basrah J. for Engineering Science, Vol. 16, No.2, 2016
- [20] **Fadhil R. Tahir**, R. S. Ali, Viet- Thanh Pham, Arturo Buscarino, Mattia Frasca, Luigi Fortuna, "A novel 4D autonomous $2n$ -butterfly wing chaotic attractor", Springer, Nonlinear



Dynamics, DOI 10.1007/s11071-016-2853-7, 2016. (**Clarivate Analytics Indexed Journal - Impact factor of 4.339**).

[21]M. Abbas, **Fadhil R. Tahir**, Khalid M. Abdul-Hassan, "Sliding Mode Control-Based Chaos Stabilization in PM DC Motor Drive", Iraqi J. for Electrical and Electronics Engineering, Vol.12, No.2, 2016.

[22] **Fadhil R. Tahir**, Khalid M. Abdul-Hassan, M. Abbas, Viet- Thanh Pham, Thang Manh Hoang, Xiong Wang, Analysis and Stabilization of Chaos in Permanent Magnet Dc Motor Driver" International journal of bifurcation and chaos, vol. 27, no.11, 1750173, 2017. (**Clarivate Analytics Indexed Journal -Impact factor of 1.501**)

[23]M. Hussein Abd, **Fadhil R. Tahir**, G. A. Al-Suhail, Viet- Thanh Pham, " An adaptive observer synchronization using chaotic time-delay system for secure communication", Springer, Nonlinear Dynamics, DOI 10.1007/s11071-017-3825-2, 2017. (**Clarivate Analytics Indexed Journal -Impact factor of 4.339**)

[24] G. A. Al-Suhail, **Fadhil R. Tahir**, M. Hussein Abd, Viet- Thanh Pham, L. Fortuna, " Modelling of long-wave chaotic radar system for anti-stealth applications ", Elsevier, Commun Nonlinear Sci Numer Simulat, 57 (2018). (**Clarivate Analytics Indexed Journal -Impact factor of 3.181**).

[25]Karthikeyan Rajagopal, Viet-Thanh Pham, **Fadhil R. Tahir**, Akif Akgul, Hamid Reza Abdolmohammadi, Sajad Jafari, "A chaotic jerk system with non-hyperbolic equilibrium: Dynamics, effect of time delay and circuit realization ", Praman-J. Physc. 2018. (**Clarivate Analytics Indexed Journal -Impact factor of 0.699**)

[26]**Fadhil R. Tahir**, Saif Muneam, " Analog Programmable Circuit Implementation for Memristor ", Iraqi Journal for Electrical and Electronics Engineering, vol. 14, no. 1, 2018.

[27]**Fadhil R. Tahir**, G. A. Al-Suhail, M. Hussein Abd, " String of scrolls from a time-delayed chaotic circuit ", Int. J. Simulation and Process Modelling, Vol. 13, No. 5, 2018. (**Scopus Indexed Journal**).

[28]**Fadhil Rahma**, Jawad Radhi, Hamzah Abdulkareem, Luigi Fortuna, "A Novel Programmable Logic Controller Implementation Of Chaotic Lorenz System", IICETA, 2018.

[29] Ahmed Mohammed, Saif Muneam, **Fadhil Rahma**, "A Novel 2D-Grid of Scroll Chaotic Attractor generated by CNN", Symmetry Journal, 11, 99; doi:10.3390/sym11010099, 2019. (**Clarivate Analytics Indexed Journal -Impact factor of 1.256**).

Indexing	
Scopus h-index	6
RG score	15.5



Books		
Title of Book	Editor	Year of registration
Chapter 5: A Memristive System with Hidden Attractors and Its Engineering Application. Of Book: Advances in Memristors, Memristive Devices and Systems.	Springer	2017
Memristive Nonlinear Electronic Circuits: Dynamics, Synchronization and Applications	Springer	2019 ISBN: 978-3-030-11921-8 https://link.springer.com/book/10.1007/978-3-030-11921-8

Subjects Handled	Stage
Chaotic Communications Systems	Ph.D. course
Advanced Analog Signal Processing.	Ph.D. course
Analog Signal Processing	M.Sc. course
Chaotic Electronics Circuits	M.Sc. course
Advanced Electronics circuits	Ph.D. course
Adaptive Complex Systems	Ph.D. course
Advanced Control Systems	M.Sc. course
Control Lab.	M.Sc. course
Mathematics II, 2 nd year	B.Sc.
Control and Computer Lab., 4 th year	B.Sc.
Electronics and Communications Lab. ,4 th year	B.Sc.
Control Engineering , 3 rd year	B.Sc.
Electrical circuits Lab., 2 nd year	B.Sc.

Declaration

All the above mentioned details are true to the best of my knowledge.

Fadhil Rahma