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1114

# Supervised MSc Theses

#	Thesis title	Ву	Date
1	Evaluation of the Risk factors of the Environment on the growth of the Cancer tumor base on a chaotic neural network model	Mohammad Javad Khouhak & Mohammadreza Hashemigolpayegany	August 2021
2	Modelling the Center of Center of Pressure dynamics of a standing person while performing dual-task (postural control and cognitive task)	Fatemeh Delavari & Mohammadreza Hashemigolpayegany Other Supervisor: Mohammadali Ahmadi Pajouh	October 2018
3	indivitual computational chaotic cancer model of tumor growth based on effects of environmental factors	Faeze Khatibi & Mohammadreza Hashemigolpayegany	June 2016
4	NEW EEG SIGNAL PROCCESSING METHOD FOR NONLINEAR ANALYSIS OF ANESTHESIA DYNAMIC	Payman Gifani & Mohammadreza Hashemigolpayegany	April 2007
5	INTELLIGENT CHAOTIC CONTROL OF AN INVERSE TWO-LINK RIGID MANIPULATOR IN HIERARCHICAL STRUCTURE	Mahtab Nazari & Mohammadreza Hashemigolpayegany	March 2007
6	A STUDY OF TENILE CYCLIC LOADING ON THE MORPHOLOGY OF CULTURED ENDOTHELIAL CELLS WITH APPLICATION OF FRACTAL GEOMETRY	Samira Amini & Mohammadreza Hashemigolpayegany Other Supervisor: Mohammad Tafazzoli-Shadpour	February 2007
7	USING NEURAL NETWORK TECHNIQUES TO DETECT EEGS COGNITIVE COMPONENTS	Gholamreza Salimi Khorshidi & Mohammadreza Hashemigolpayegany	September 2006

# Journal Papers

#### **Portal Records**

- 1 Fatemeh Babazadeh, Mohammadali Ahmadi Pajouh, Mohammadreza Hashemigolpayegany, "A novel stretching and folding characterization method based on geometrical and physiological traits of chaotic and intermittent tracking signals", Scientia Iranica, June 2023 Vol. 0, Num. 0, Page 1-41, June 2023,
- 2 Fatemeh Babazadeh, Mohammadali Ahmadi Pajouh, Mohammadreza Hashemigolpayegany, "A Novel Approach to the Characterization of Stretching and Folding in Pursuit Tracking with Chaotic and Intermittent Behaviors", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, September 2022 Vol. 33, Num. 4, Page 1-21, September 2022.
- 3 Nazanin Zandi Mehran, Sajad Jafari, Mohammadreza Hashemigolpayegany, Hamidreza Namazi, "The Effect of Noise and Nonlinear Noise Reduction Methods on The Fractal Dimension of Chaotic Time Series", FRACTALS-COMPLEX GEOMETRY PATTERNS AND SCALING IN NATURE AND SOCIETY, November 2021 Vol. 29, Num. 8, Page 1-16, November 2021,
- 4 Ali Jafari, Iqtadar Hussain, Fahimeh Nazarimehr, Mohammadreza Hashemigolpayegany, Sajad Jafari, "A simple guide to plot a proper bifurcation diagram", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, January 2021 Vol. 31, Num. 1, Page 1-11, January 2021,
- Nazanin Zandi Mehran, Sajad Jafari, Mohammadreza Hashemigolpayegany, "Signal Separation In An Aggregation Of Chaotic Signals", CHAOS SOLITONS & FRACTALS, September 2020 Vol. 138, Num. 1, Page 1-8, September 2020,
- Mohammadreza Hashemigolpayegany, Zahra Sadat Hosseini, "Esophageal epithelium modeling based on globally coupled map: an approach toward precancerous lesion diagnosis", MEDICAL & BIOLOGICAL ENGINEERING & COMPUTING, April 2020 Vol. 58, Num. 6, Page 1297-1308, April 2020,
- 7 Nazanin Zandi Mehran, Sajad Jafari, Mohammadreza Hashemigolpayegany, Fahimeh Nazarimehr, Matja? Perc, "Different Synaptic Connections Evoke Different Firing Patterns in Neurons Subject to an Electromagnetic Field", NONLINEAR DYNAMICS, March 2020 Vol. 100, Num. 1, Page 1809-1824, March 2020,
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- 12 Zahra Sadat Hosseini, Mohammadreza Hashemigolpayegany, Masoud Sotoudeh, Reza Malekzadeh, "A fractal based approach to evaluate the progression of esophageal squamous cell dysplasia", BIOMEDICAL SIGNAL PROCESSING AND CONTROL, November 2018 Vol. 48, Num. 1, Page 273-289, November 2018,
- 13 Fahimeh Nazarimehr, Aboozar Ghaffari, Sajad Jafari, Mohammadreza Hashemigolpayegany, "Sparse Recovery and Dictionary Learning to Identify the Nonlinear Dynamical Systems: One Step Toward Finding Bifurcation Points in Real Systems", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, November 2018 Vol. 29, Num. 3, Page 1-17, November 2018,
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- 18 Ghasem Sadeghi Bajestani, Mohammadreza Hashemigolpayegany, Ali Sheikhani, Farah Ashrafizade, "Poincaré section analysis of the electroencephalogram in autism spectrum disorder using complement plots", KYBERNETES, February 2017 Vol. 46, Num. 2, Page 364-382, February 2017,
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- 24 Sajad Jafari, Julien Clinton Sprott, Mohammadreza Hashemigolpayegany, "Layla and Majnun: A Complex Love Story", NONLINEAR DYNAMICS, January 2016 Vol. 83, Num. 0, Page 615-622, January 2016,
- 25 Sajad Jafari, Fahimeh Nazarimehr, Julien Clinton Sprott, Mohammadreza Hashemigolpayegany, "Limitation of Perpetual Points for confirming conservation in dynamical systems", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, December 2015 Vol. 25, Num. 13, Page 1-6, December 2015,
- 26 Maryam Beigzadeh, Mohammadreza Hashemigolpayegany, "A cellular automaton based model for visual perception based on anatomical connections", SCIENTIA IRANICA TRANSACTION D-COMPUTER SCIENCE & ENGINEERING AND ELECTRICAL ENGINEERING, July 2015 Vol. 22, Num. 6, Page 2492-2504, July 2015,
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- 30 Golnaz Baghdadi, Sajad Jafari, Julien Clinton Sprott, Farzad Towhidkhah, Mohammadreza Hashemigolpayegany, "A Chaotic Model of Sustaining Attention Problem in Attention Deficit Disorder", COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, January 2015 Vol. 20, Num. 1, Page 174-185, January 2015,

- 31 Viet-Thanh Pham, Sajad Jafari, Cristos Volos, Xiong Wang, Mohammadreza Hashemigolpayegany, "Is that really hidden? The presence of complex fixed-points in chaotic flows with no equilibria", INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS, December 2014 Vol. 24, Num. 11, Page 1-6, December 2014,
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## **Conference Papers**

## Portal Records

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