

Curriculum Vitae

Personal details

Name: Hamidreza
Last Name: Namazi
Title: Dr.
Date of birth: 15 Sep 1984
Telephone Number: +65-97790590
E-mail: hnamazi@ntu.edu.sg
Address: School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore

Educational background

2008- 2013:

Doctor of Philosophy (Mechanical Engineering-Thermal & Fluids Engineering), School of Mechanical & Aerospace Engineering, Nanyang Technological University (NTU), Singapore.

2006 – 2007:

Master of Engineering (Mechanical Engineering– Advanced Manufacturing Technology), Faculty of Mechanical Engineering, University Technology Malaysia, Malaysia.

2002 – 2006:

Bachelor of Science (Mechanical Engineering-Manufacturing & Production), Faculty of Mechanical Engineering, Amirkabir University of Technology (Tehran Polytechnic), Tehran, IRAN.

Skills

Programming Skills: MATLAB, C, Visual C++
Software Skills: ABAQUS, AUTOCAD, CATIA, ANSYS, MATLAB

Language Skill: English, Fluent
Persian, Fluent

Research Area

Fractal Based Analysis and Modelling of Mechanical and Biomedical Time series

Brain-Computer Interface and Neural Engineering

Mathematical Fluid Dynamics

Physical Applied Mathematics

Anomalous Diffusion Modelling in Living Systems

Mathematical Modelling and Analysis of Energy Transport in Biological systems

Working Experience

November 2016-Present

Research Fellow

School of Mechanical and Aerospace Engineering,
Nanyang Technological University, Singapore

December 2015-November 2016

Research Associate

School of Mechanical and Aerospace Engineering,
Nanyang Technological University, Singapore

Teaching assistant

Course taught:

- Heat Transfer Lab

November 2013- June 2015

Senior Lecturer

Faculty of Engineering, Universiti Malaysia Sarawak,
Kuching, Sarawak, Malaysia

Course taught:

- Engineering Mathematics
- Computational Fluid Dynamics
- Fluid Mechanics
- Advanced Heat Transfer
- Engineering Design

January 2012-April 2012

Teaching Assistant

School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore

Course taught:

- Energy Balance in Compressor

August 2011- November 2011

Teaching Assistant

School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore

Course taught:

- Performance of Gas Turbine Engine
- Energy Balance in Compressor

Honour

Ranked 615 between 600/000 Participants in Iranian Public Universities National Exam

Awards

Nanyang Technological University Research Scholarship, August 2008-August 2012

Journals' Editor

ARC Journal of Neuroscience

American Research Journal of Addiction and Rehabilitation

Journals' Guest Editor

Applied Computational Intelligence and Soft Computing

(For the special issue: Computational Intelligence and Cognitive Science)

Journals' Reviewer

Computer in Biology and Medicine (Elsevier)

Clinical Anatomy

Oncotarget

Conference Committee Chair

2015 International Conference on Electrical, Automation and Mechanical Engineering (EAME 2015)-July 26-27, Phuket, Thailand

Conference Keynote Speaker

The International Conference on Mechanical Control and Automation (ICMCA2016), July 15th - 17th, 2016, Shanghai, China.

Featured publications

<http://www.nature.com/articles/srep26948>

<http://www.nature.com/articles/srep26639>

<http://www.nature.com/articles/srep13583>

2016

1. Namazi H, Khosrowabadi R, Hussaini J, Habibi S, Akhavan A, Kulish V.V. Analysis of the influence of memory content of auditory stimuli on the memory content of EEG signal. *Oncotarget*, 7, 56120-56128, 2016; DOI: 10.18632/oncotarget.11234
2. Namazi H, Akrami A, Kulish V.V. The Analysis of the Influence of Odorant's Complexity on Fractal Dynamics of Human Respiration. *Scientific reports*. 6, 26948, 2016; DOI: 10.1038/srep26948.
3. Namazi H, Kulish V.V, Akrami A. The analysis of the influence of fractal structure of stimuli on fractal dynamics in fixational eye movements and EEG signal. *Scientific reports*. 6, 26639, 2016; DOI: 10.1038/srep26639.
4. Namazi H, Kulish V.V. Mathematical Based Modeling and Prediction of the Effect of External Stimuli on Human Gait. *International Journal for Numerical Methods in Biomedical Engineering*, 2016; DOI: 10.1002/cnm.2805.
5. Namazi H, Kulish V.V, Nazeri S, Wong A. Mathematical Based Calculation of Drug Penetration Depth in Solid Tumors. *Biomed research international*, 2016, 8437247, 2016; DOI: 10.1155/2016/8437247.
6. Namazi H, Akrami A, Nazeri S, Kulish V.V. Analysis of the influence of complexity and entropy of odorant on fractal dynamics and entropy of EEG signal. *Biomed Research International*, 2016. DOI: 10.1155/2016/5469587.
7. Namazi H, Akrami A, Hussaini J, Silva O.N, Wong A, Kulish V.V. The fractal based analysis of human face and DNA variations during aging. *Bioscience Trends*. 2016; DOI: 10.5582/bst.2016.01182.
8. Namazi H, Akrami A, Haghighi R, Delaviz A, Kulish V.V. Analysis of the Influence of Element's Entropy on the Bulk Metallic Glass (BMG) Entropy, Complexity and Strength. *Metallurgical and Materials Transactions A*. 2016; DOI: 10.1007/s11661-016-3870-3.
9. Namazi H, Kulish V.V. Mathematical based analysis of the coupling between the structure of visual stimulus and the structure of fMRI images. *Scientific reports* (Under review).
10. Namazi H, Haghighi R, Kulish V.V. Fractal Based Analysis of the Coupling between Spider's Brain Activity and Web. *Complexity* (Under review).

11. Namazi H, Kulish V.V. Fractal Based Analysis of the Influence of Odorants on Heart Activity. *Scientific reports* (Under review).
12. Namazi H, Kulish V.V. Analysis of the influence of fractal dynamics of auditory stimuli on fractal dynamics of heart rate and blood pressure. *Scientific reports* (Under review).
13. Namazi H, Kulish V.V. Information based analysis of the coupling between the visual stimulus and the brain response. *Scientific reports* (Under review).
14. Namazi H, Nazeri S, Kulish V.V. Fractal based analysis of the influence of aging on heart rate and blood pressure. *Oxidative Medicine and Cellular Longevity* (Under review).

2015

15. Namazi H, Kulish V.V., Hussaini J, Hussaini J, Delaviz A, Delaviz F, Habibi S, Ramezanpoor S. A Signal processing based analysis and prediction of seizure onset in patients with epilepsy. *Oncotarget*. 7(1), 2015; doi: 10.18632/oncotarget.6341.
16. Namazi H, Kulish V.V, Delaviz F, Delaviz A. Diagnosis of skin cancer by correlation and complexity analyses of damaged DNA. *Oncotarget*. 6(40), 2015; doi: 10.18632/oncotarget.6003.
17. Namazi, H., Kulish, V. V., Wong A. Mathematical Modelling and Prediction of the Effect of Chemotherapy on Cancer Cells. *Scientific reports*. 5, 13583, 2015; doi: 10.1038/srep13583.
18. Haghighi R, Namazi H. Algorithm for Identifying Minimum Driver Nodes Based on Structural Controllability. *Mathematical Problems in Engineering*, 2015, 192307, 2015. doi:10.1155/2015/192307.
19. Namazi H, Kiminezhadmalaie M. Diagnosis of Lung Cancer by Fractal Analysis of Damaged DNA. *Computational and Mathematical Methods in Medicine*, 2015, 242695, 2015; doi:10.1155/2015/242695.
20. Namazi H, Kulish V.V, Fractional Diffusion Based Modelling and Prediction of Human Brain Response to External Stimuli, *Computational and Mathematical Methods in Medicine*, 2015, 148534, 2015; doi:10.1155/2015/148534.

2013

21. Namazi H, Kulish V.V. A Mathematical Based Calculation of a Myelinated Segment in Axon, *Computers in Biology and Medicine*, 43, 693–698, 2013.

2012

22. Namazi H, Kulish V.V. A Mathematical Based Definition of Human Consciousness, *Mathematics in Engineering, Science and Aerospace*, 3(2), 189-198, 2012.
23. Seetharaman K, Namazi H, Kulish V.V. Phase-lagging Model of Brain Response to External Stimuli-Modelling of Single Action Potential, *Computers in Biology and Medicine*. 42(8), 857-862, 2012.
24. Namazi H, Kulish V.V. Mathematical Modelling of Human Brain Neuronal Activity in the Absence of External Stimuli, *Journal of Medical Imaging and Health Informatics*. 2, 1-8, 2012.

Conference Papers

2015

1. Namazi H, Kulish V.V., Haghighi R. A New Mathematical Based Approach for Calculation of Diffusion Coefficient in Propagation of Fractal Signals, 11'th International Conference on Diffusion in Solids and Liquids – DSL2015, 22-26 June, 2015, Munich, Germany.
2. Namazi H. Fractal Based Approach in Fluid Mechanics' Signal Analysis, Second International Conference on Advances in Mechanical and Automation Engineering - MAE 2015, 18-19 April, 2015, Rome, Italy.
3. Namazi H. A Time Delay Neural Network for Prediction of Human Behaviour, Annual Conference on Engineering and Information Technology, 22-24 March 2015, Osaka, Japan.

2014

4. Namazi H. Modification to Reaction-diffusion Neural Network by Incorporating the Time- Dependent Diffusion Coefficient, Second International Conference On Advances in Mechanical, Aeronautical and Production Techniques - MAPT 2014, 20-21 December, 2014, Kuala Lumpur, Malaysia.

2012

5. Namazi H, Kulish V.V. An Energy Based Analysis of Human Consciousness, The Eighth KSME-JSME Thermal and Fluids Engineering Conference (TFEC8), 18-21 March 2012, Incheon, Korea.

2011

6. Namazi H. Optimal Selection of Machining Parameters in Abrasive Flow Machining Using Artificial Bee Colony (ABC), EMT2011, 24-26 November 2011, Lviv, Ukraine.

- Namazi H. Optimal Selection of Machining Conditions in EDM of Tool Steel Using Neural Network, ASME2011 Small Modular Reactors Symposium (SMR2011), 28-30 September 2011, Washington, District of Colombia, USA.

2010

- Namazi H. Genetic Algorithm Based Optimization of Cutting Parameters in Drilling of Composite Materials, ASME international mechanical engineering congress & exposition, November 12-18 2010. Vancouver, British Columbia.
- Namazi H. Examination of Machining Parameters on Surface Roughness in EDM of AISI D2 Tool Steel, International Conference Advances in Materials and Processing Technologies, Oct. 24-27, 2010, Paris, France.

2009

- Namazi H. Surface Roughness Optimization in End Milling of Mould Parts Using Neural Network, and Genetic Algorithm, ACTEA 2009, Conference on Advances in Computational Tools for Engineering Applications, July 15-17 2009, NDU, Lebanon.
- Namazi H. Prediction of Critical Temperatures in Steel Heat-Treatment Operations with Artificial Neural Network; ICHMT, May 18-21, 2009, Guangzhou, China.
- Namazi H. Prediction of tool elastic deflections under cutting forces in ball-end milling operation, Third International Conference on Modeling, Simulation, and Applied Optimization, January 20-22, 2009, American University of Sharjah, Sharjah, United Arab Emirates.

2008

- Namazi H. Warpage Optimization in Plastic Injection Moulding Using Genetic Algorithm, CUTSE International Conference 2008, 24-27th November 2008, Curtin Campus, Miri, Sarawak, Malaysia.
- Namazi H, Akhavan Farid A. Creep Feed Grinding Forces Modeling Using Artificial Neural Networks, The 4th International Student Conference at Ibaraki University, November 1-2, 2008, Ibaraki, Japan.
- Namazi H. Prediction of Tool Elastic Deflections Under Cutting Forces in End Milling Operation on Steel AISI 1045, International Conference on Engineering Optimization, EngOpt 2008, 1- 6 of June 2008, Rio de Janeiro, Brazil.

2007

- Namazi H, Sharif S, Akhavan Farid A, Razfar M. Optimization of Workpiece Elastic Deflection in Turning Operations Using Ant Colony System, Tehran International

- Congress on Manufacturing Engineering (TICME2007), December 10-13, 2007, Tehran, Iran, 1-11.
17. Namazi H. Finite Element Modeling and Analysis of Tool Elastic Deflection Under Cutting Forces in End Milling Operation, Regional Conference on Engineering, Mathematics, Mechanics, Manufacturing, Architecture (*EM³ARC*), Organized by University Kebangsaan Malaysia, 27-28 November 2007, Kuala Lumpur, Malaysia.
 18. Namazi H, Sharif S. Genetic Algorithm-Based Optimization of Cutting Parameters in End Milling Operations, Conference on Design, Simulation, Product Development and Optimization (PRODUCT & DESIGN 2007), 10-11 December 2007, Batu Feringghi, Penang, Malaysia.
 19. Namazi H, Sharif S, Akhavan Farid A; Heat treatment Optimization of 15-5PH Stainless Steel Using Genetic Algorithm, National Metallurgical Conference, (NMC2007), 26 – 27th November 2007, Johor Bahru, Johor, Malaysia.
 20. Namazi H, Sharif S. Evaluation of the Global Heat Transfer Coefficient in Turning Operation, 1st Engineering Conference Energy & Environment, 27 - 28 December 2007, Kuching, Malaysia.
 21. Namazi H, Sharif S, Razfar M. Finite Element Modelling and Analytical Analysis of Workpiece Elastic Deflection under Cutting Forces in Turning Operation, Proc. of the Middle East Mech. Engg. Conf. (MEMEC 2007), Nov. 4 -7, 2007, Manama, Kingdom of Bahrain.
 22. Namazi H. Genetic Algorithm-Based Optimization of Cutting Parameters in Turning Operations, International Student conference in Engineering, S-SPEC 2007, 10th & 11th March 2007, Johor, Malaysia.

References

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