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Place of Birth :**Iran**
Date of Birth :**January 6, 1966**
Position: **Professor**
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Education

- PHD, INPL(ENSEM),Nancy,France,1996
- MSC, INPL(ENSEM),Nancy,France,1993
- BSc, Sharif University of Technology, Tehran, Iran, 1989

Fields of Interest

- Simulation and Modeling in Biological System
- Biofluid-Mechanics
- CFD
- Tissue and Cell Engineering

Citation indices All Since 2020

• Citations	4837	1961
• H-index	41	23
• I10-index	104	61

Working Experience

- Professor, IUST, (2014-now).
- Associate Professor, IUST, (2010-2014).
- Assistant Professor, IUST, (1998-2010).
- Assistant Professor, Iranian organizations for science and technology, (1996-1998).
- Director of Tissue Engineering and Biological Systems Research Laboratory, School of Mechanical Engineering, IUST, (2013-present).
- Member of Professors Promotion Committee of IUST, (2014- 2016).
- Graduate Dean, Department of Mechanical Engineering, IUST (2006-2007), (2011-2013).
- Head of Biomechanics Group, School of Mechanical Engineering, IUST (2009-2011).
- Associate Dean in Educational Affair, School of Mechanical Engineering, IUST (2008-2009).
- Vice-Chancellor for Education, IUST (2005-2006).
- Dean of Education Affair, IUST, (2004-2005).
- Vice-Chancellor for Education, IUST Campus 2 (2011-2021).
- Director General of the Office of Non-Governmental Higher Education, Ministry of Science, Research and Technology (2025-persent)

Publications - Journal Papers

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- M Maghazeh, H Pishbin, M Navidbakhsh, E Pishbin, Numerical investigation of centrifugetrapping technique for generating gas–liquid flows in microchannels, *Journal of Physics of Fluids* 34 (8).(2022)
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- M Abdi, M Navidbakhsh, Collateral flow at circle of Willis in healthy condition, *Perfusion* 37 (3), 293-305, (2022) • A Dehghan, A Gholizadeh, M Navidbakhsh, H Sadeghi, E Pishbin , Integrated microfluidic system for efficient DNA extraction using on-disk magnetic stirrer micromixer, *Sensors and Actuators B: Chemical* 351, 130919, (2022)
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- SS Sarraf, A Saeidfar, M Navidbakhsh, SB Islami, Modeling and simulation of magnetic nanoparticles' trajectories through a tumorous and healthy microvasculature • SS Sarraf, A Saeidfar, M Navidbakhsh, SB Islami, *Journal of Magnetism and Magnetic Materials* 537, 168178, (2021)
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- D Zohrevandi, E Pishbin, M Navidbakhsh, M Eghbal, Design, Fabrication and Experimental Study of Spiral Microchannel Particle Separator on Centrifugal Microfluidic Platforms, *Amirkabir Journal of Mechanical Engineering* 53 (3), 1359-1372, (2021)
- E Pishbin, A Kazemzadeh, M Chimerad, S Asiaei, M Navidbakhsh , Frequency dependent multiphase flows on centrifugal microfluidics, *Lab on a Chip* 20 (3), 514-524, (2020)
- M Azizi, M Navidbakhsh, S Hosseinzadeh, M Sajjadi, Cardiac cell differentiation of muscle satellite cells on aligned composite electrospun polyurethane with reduced graphene oxide, *Journal of Polymer Research* 26, 1-9, (2019)
- E Pishbin, M Eghbal, M Navidbakhsh, M Zandi, Localized air-mediated heating method for isothermal and rapid thermal processing on lab-on-a-disk platforms, *Sensors and Actuators B: Chemical* 294, 270-282, (2019)
- S Rahmani, M Navidbakhsh, M Alizadeh, Investigation of a new prototype of multi-balloons LVAD using FSI, *Journal of the Brazilian Society of Mechanical Sciences and Engineering* 40, 1-15, (2018)
- F Sadeghpour, N Fatouraee, M Navidbakhsh, Haemodynamic of blood flow through stenotic aortic valve, *Journal of Medical Engineering & Technology* 41 (2), 108-114, (2017)
- A Karimi, T Sera, S Kudo, M Navidbakhsh, Experimental verification of the healthy and atherosclerotic coronary arteries incompressibility via digital image correlation, *Artery Research* 16, 1-7, (2016)

- R Faturechi, A Karimi, A Hashemi, H Yousefi, M Navidbakhsh, Influence of Poly (acrylic acid) on the Mechanical Properties of Composite Hydrogels, *Advances in Polymer Technology* 34 (2),(2015)
- A.Karimi,M.Navidbakhsh,M.Alizadeh,R.Razaghi," A comparative study on the elastic modulus of polyvinyl alcohol sponge using different stress-strain stressstrain Definitions", *Biomedical Engineering / BiomedizinischeTechnik*, 59(5),439-444,(2014) •
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A.Karimi,M.Navidbakhsh,H.yousefi, " Mechanical properties of polyvinyl alcohol sponge under different strain rates" , *Int. J. Mater. Res. , Vol.105, No.4*, 404-408, (2014) •
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- M.Abdolrazaghi,M.Navidbakhsh,K.Hassani," Mathematical modeling and electrical analog equivalent of the human cardiovascular system", Cardiovasc Eng.,10, 45-51,(2010)
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- Kamran Hassani, Mahdi Navidbakhsh, Mostafa Rostami," Simulation of the cardiovascular system using equivalent electronic circuit with active elements" Amirkabir Journal of Science & Technology, Vol.17,No 64(2006)
- Kamran Hassani, Mahdi Navidbakhsh, Mostafa Rostami," Simulation of the cardiovascular system using equivalent electronic system" Biomedical Papers, Volume 150(1), July 20006, p105(2006)
- M.Navidbakhsh,F.Farzad," A method for the determination and monitoring patient respiratory parameters in ventilator system"(In Farsi) Amirkabir Journal of Science & Technology,Vol.14,No 54-B(2003)
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Publications - Conference Proceedings

- A.Tanbakoosaz, M.Navidbakhsh, " Influence of stent geometric traits on blood flow hydrodynamic parameters" 14th Iraninan Conference on Biomedical Engineering (ICBME2007)
- M.Abdolrazaghi, M.Navidbakhsh, K.Hassani," Thoracic Aortic Aneurysm Modeling " 14th Iraninan Conference on Biomedical Engineering (ICBME2007)
- M.H.Korayem, M.Navidbakhsh, Y.Habibyar, M.Hashemi," Artificial Human Gait Generation with Robotic Multi-Segment Model" 14th Iraninan Conference on Biomedical Engineering (ICBME2007)
- S.Sadeghian, M.Navidbakhsh,R.Molae," Numerical flow analysis in actual model of human coronary" 3rd WSEAS inter. Conf. appl. and theo. mech.,spain(2007)
- Z.Rahmdel, M.Navidbakhsh , M.Khalilian," Analysis of Non-Newtonian Blood Flow Through Arteries With Double Symmetric Stenosis "(In Farsi) The 14th Annual (international) conference of Mechanical Engineering, Tehran-Iran(2006)
- M.Navidbakhsh, H.M.Vafa,"Diagnosis of ST-elevation according to wavelet and nervous system"The 12th ICBME2005,Singapore,(2005)
- Z.Asgharpour, M.Navidbakhsh,"Simulation of valvular heart disease in combination of two cases including stenosis and insufficiency"The 12th ICBME2005,Singapore,(2005)
- Z.Asgharpour, M.Navidbakhsh,"Effects of exercise on circulation with the heart rate fixed"The 12th ICBME2005,Singapore,(2005)

- M.Navidbakhsh, E.Khormali,"Blood-flow study in systemic pulmonary shunt:application of non-newtonian model"14th IASTED Applied Simulation and Modelling,(2005)
- M.Navidbakhsh,M.R.Naghavi,"Non-Newtonian behavior of blood flow in 3d-simulated model of carotid artery bifurcation"14th IASTED Applied Simulation and Modelling,(2005)
- M.Navidbakhsh, M.R.Naghavi, " Study on carotid artery bifurcation lesions, using CFD"11th Iraninan Conference on Biomedical Engineering (ICBME2004)
- M.Navidbakhsh, A.Haddadzadeh "Mathematical modeling of electrolytes exchange across the cell membrane during dialysis"(In Farsi) The 10th Annual (international) conference of Mechanical Engineering(2002)
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- M.N varag, M.Navidbakhsh , "Simulation of the cardiovascular system and study of pressure-volume variation "(In Farsi) 10th Iraninan Conference on Biomedical Engineering (ICBME2001)
- M.Navidbakhsh ,A.Bagherieh,"Modeling of the McKibben artificial muscle by describing the antagonist working principles"(In Farsi) 10th Iraninan Conference on Biomedical Engineering (ICBME2001)
- M.Navidbakhsh ,A.Arefmanesh,M.Norooz zadeh,H.R.Moghadam, M, "3-D modeling of keratoplasty by finite element method "(In Farsi) 9th Iraninan Conference on Biomedical Engineering (ICBME2000)
- M.Navidbakhsh ,N.moazeni,"Heat exchange modeling of the oxygenator by finite element method"(In Farsi) 9th Iraninan Conference on Biomedical Engineering (ICBME2000)
- M.Navidbakhsh,F.Farzad," Determination and monitoring patient respiratory parameters in ventilator system"(In Farsi) 9th Iraninan Conference on Biomedical Engineering (ICBME2000)
- M.Navidbakhsh,X.Wang, N.Lucius, J.F.Stoltz, " Ecoulement permanent dans un aneurisme axisymetrique: importance des proprietes non-newtoniennes du sang"(In French) XXIeme Congres de la Societe de Biomecanique(1996)

Courses Taught

- Lubrication
- Modeling and Simulation of Biological Systems
- Biofluid
- Artificial Organs