



Amirkabir University of Technology
(Tehran Polytechnic)



NADER MONTAZERIN

Professor
Department of Mechanical Engineering
Fluids & Heat

Email:
mntzrn@aut.ac.ir

Phone:

h-index (Scopus):

12

Citations (Scopus):

398

Supervised MSc Theses

#	Thesis title	By	Date
1	A study on the effect of interrogation window on the turbulence calculations from PIV measurements	Reza Azadi & Nader Montazerin	September 2021
2	Reconstructing Irregularly Sampled Laser Velocimetry (PIV) signals by Using Artificial Intelligence and Gappy POD	Milad Delafkar & Nader Montazerin	January 2021
3	analysis of turbulence models near the volute tongue of centrifugal turbomachine using PIV data	Masoud Yarmohamadi & Nader Montazerin	February 2019
4	A forecast algorithm for Turbulent shear layer	Reza Jamali & Nader Montazerin	May 2018
5	Investigation of sub-grid scale models on outler flow of squirrel cage fan according to SPIV test results	Arman Roohafza & Nader Montazerin	November 2017
6	The use of esisting numerical models for modeling the performance of GOLOGOHAR,s polycom thickener and compare with experimental result in order to increase the transparency of overflow ...	Seyed Alireza Aghili & Nader Montazerin	February 2017
7	The relationship between macro policies and micro policies in the optimization of gas consumption	Fateme Abbasimazar & Nader Montazerin	February 2017
8	The use of numerical models for modeling the performance of GOLOGOHAR,s hematite thickener and compare with experimental result in order to increase the transparency of overflow water and underflow ..	Mohamad Sadegh Arefi & Nader Montazerin	February 2017
9	jet and wake impact analysis and noise generation over fan cutoff from PIV experiments	Neda Firooznia & Nader Montazerin	July 2016

10	Gappy POD on shear layer experimental data for analysis of turbulence flow structures	Hossein Rahmani & Nader Montazerin	February 2016
11	SPIV measurement of fine-scale turbulent structures in the rotor exit region of a centrifugal turbomachine considering the minimum systematic error	Ali Shadmani & Nader Montazerin	February 2016
12	Algorithm identification between LDA and PIV in their common interface	Mohammad Amin Mashoofi & Nader Montazerin	June 2015
13	Identification and analysis of turbulent flow structures by conditional averaging based on SPIV data in the rotor exit region of a centrifugal turbomachine	Matin Hoseini & Nader Montazerin	October 2014
14	The entrapment of particles by windbreaks	Mohammad Ali Rasoulia & Nader Montazerin	May 2014
15	Feasibility of flow control in the input area of squirrel cage fan, using calculation software	Aminola Rasteh & Nader Montazerin	February 2014
16	An analysis of the structures in a turbulent shear layer from SPIV data	Siamak Najafinia & Nader Montazerin	January 2014
17	Scenario Analysis of Future Automotive by Approach of Energy Basket of Iran	Elahe Jami & Nader Montazerin	October 2013
18	The review & calculation of the relation between reliability concept with parts life in gas turbines	& Nader Montazerin	September 2013
19	Prediction of transmitted natural gas of selected CGS of Qazvin province using artificial intelligence	Amin Aramesh & Nader Montazerin	February 2013
20	Analysis of heat cost allocation in residential buildings	& Nader Montazerin	February 2013
21	Recognition and analysis of centrifugal vortical jet-wake flow using PIV data	Mohammad Reza Najjari & Nader Montazerin	October 2012
22	guidelines to reduce gas consumption of a sample building equipped with a central heating	Tooran Tavangar & Nader Montazerin	July 2012
23	Tehran gas consumption simulation and analysis	Mohammadsajjad Zalipour & Nader Montazerin	February 2012
24	Experimental study of noise interaction between two out let of a squirrel-cage fan	& Nader Montazerin	February 2012
25	Noise Analysis of flow in squirrel-cage fan with half-cone rotor with Openfoam software and experimental validation.	Sayed Mohamad Reza Shetab Boushehri & Nader Montazerin	November 2011
26	experimental investigation of turbulent shear layer	& Nader Montazerin	January 2011
27	Design, Implementation and Analysing of Heat Cost Allocation in Residential Buildings	Mohammad Karami Ziarani & Nader Montazerin	January 2011
28	With optimization of squirrel cage fan	Reza Sepahi Samian & Nader Montazerin	April 2009

29	Investigation of plane shear layer by using PIV and LES	Mojtaba Mehrjooei & Nader Montazerin	March 2009
30	Experimental and numerical analysis of turbulent two phase flow (solid-liquid) between two infinity plane	Mohammad Hesam Asoodeh & Nader Montazerin	February 2009
31	Investigation on fluid flow inside Squirrel-cage fan with frustums or right circular cones rotor	Masoud Nikkhoo & Nader Montazerin	January 2009
32	FLOW FIELD ANALYSIS AFTER FAN ROTOR BLADES USING PIV DATA	Morteza Akbarizadeh & Nader Montazerin	March 2008
33	STUDY ON SQUIRREL CAGE FAN VOLUTE PROFILE	Sina Samarbakhsh & Nader Montazerin	February 2007
34	INVESTIGATION ON FLUID FLOW INSIDE SQUIRREL - CAGE FAN WITH FRUSTUMS OF RIGHT CIRCULAR ROTOR	Javad Ali Nejad & Nader Montazerin	December 2006

Books

#	Title	Author(s)	Publisher country	publication date	version
Portal Records					
1	2007 State of the Future	Zohreh Besharati, Mohsen Bahrami, Yousof Hojat, Nasim Ghiasi, Reza Kalantari Nezhad, Mahkameh Taati, Nader Montazerin, Narges Nouri	Iran (Islamic Republic of)	June 2010	1
2	Heat Cost allocation for residential buildings	Nader Montazerin, Amir Hossein Rezaei, Masoud Nikkhoo	Iran (Islamic Republic of)	February 2011	1
3	State of the Future 2008	Zohreh Besharati, Mohsen Bahrami, Dowood Bizari, Yousef Hojjat, Mirmehdi Seyed Esfahani, Mahkameh Taati, Roya Tabatabaee Yazdi, Rahim Ghaffari, Reza Kalantarinezhad, Fathollah Moztarzadeh, Reza Maknoon, Nader Montazerin, Nafiseh Montazerin, Narges Noori	Iran (Islamic Republic of)	December 2010	1
4	Developments in Turbomachinery Flow; Forward Curved centrifugal fans	Nader Montazerin, Ghassem Akbari, Mostafa Mahmoodi	United Kingdom	August 2015	1
5	State of the Future 2006	Zohreh Besharati, Mohsen Bahrami, Yousof Hogat, Roshanak Shokohi, Mehran Solati, Mahkameh Taati, Nader Montazerin, Narges Nouri	Iran (Islamic Republic of)	April 2010	1

Journal Papers

Portal Records

- 1 Ghasem Akbari, Nader Montazerin, "Reconstruction of particle image velocimetry data using flow-based features and validation index: a machine learning approach", MEASUREMENT SCIENCE & TECHNOLOGY, October 2021 Vol. 33, Num. 1, Page 1-29, October 2021,

- 2 Salar Askari Lasaki, Nader Montazerin, Mohammad Hossein Fazel Zarandi, "Modeling energy flow in natural gas networks using time series disaggregation and fuzzy systems tuned by particle swarm optimization", APPLIED SOFT COMPUTING, July 2020 Vol. 92, Num. 0, Page 1-27, July 2020,
- 3 Mostafa Mahmoodi, Nader Montazerin, "On the Aerodynamic and Acoustic Behavior of Double Outlet Squirrel Cage Fans", Journal of Applied Fluid Mechanics JAFM, May 2020 Vol. 13, Num. 6, Page 1873-1883, May 2020,
- 4 Ghasem Akbari, Nader Montazerin, "Subgrid scale stress parameterization for anisotropic turbomachinery flow as deduced from stereoscopic particle image velocimetry measurements", JOURNAL OF THE BRAZILIAN SOCIETY OF MECHANICAL SCIENCES AND ENGINEERING, July 2019 Vol. 41, Num. 333, Page 1-19, July 2019,
- 5 Seif Dalil Safaei, Nader Montazerin, "Inference System Based on Fuzzy Clustering to Display the Flow Field Changes in the Rotor Outlet of centrifugal Turbomachinery", Modares Mechanical Engineering, May 2019 Vol. 19, Num. 6, Page 1495-1505, May 2019,
- 6 Seyed Alireza Aghili, Nader Montazerin, Shahram Hashemi Marghzar, "Water recovery improvement at Golegozar line 4 (Polycom) tailing thickener using system optimization", journal of separation science and engineering, March 2019 Vol. 11, Num. 1, Page 89-102, March 2019,
- 7 Siamak Najafinia, Nader Montazerin,, "Investigation of structures in a highly turbulent mixing layer by using LDA and SPIV", Aeronautics and Aerospace Open Access Journal, January 2019 Vol. 3, Num. 1, Page 1-9, January 2019,
- 8 Hasan Parsa, Amin Ziaee Shahrakee, Nader Montazerin, "Modeling of a Gas Compressor Stations Performance at the Design Point and Out of the Design Point", , June 2017 Vol. 49, Num. 1, Page 113-126, June 2017,
- 9 Salar Askari Lasaki, Nader Montazerin, Mohammad Hossein Fazel Zarandi, "Generalized Possibilistic Fuzzy C-Means with novel cluster validity indices for clustering noisy data", APPLIED SOFT COMPUTING, January 2017 Vol. 53, Num. 0, Page 262-283, January 2017,
- 10 Salar Askari Lasaki, Nader Montazerin, Mohammad Hossein Fazel Zarandi, Ehsan Hakimi, "Generalized entropy based possibilistic fuzzy C-Means for clustering noisy data and its convergence proof", NEUROCOMPUTING, November 2016 Vol. 219, Num. 0, Page 186-202, November 2016,
- 11 Salar Askari Lasaki, Nader Montazerin, Mohammad Hossein Fazel Zarandi, "Gas networks simulation from disaggregation of low frequency nodal gas consumption", ENERGY, October 2016 Vol. 112, Num. 0, Page 1286-1298, October 2016,
- 12 Alireza Hajjalimohammadi, Daniel Edgington-Mitchell, Damon Honnery, Nader Montazerin, Amir Abdullah, S. Mostafa Agha Mirsalim, "Ultra high speed investigation of gaseous jet injected by a single-hole injector and proposing of an analytical method for pressure loss prediction during transient injection", FUEL, June 2016 Vol. 184, Num. 0, Page 100-109, June 2016,
- 13 Salar Askari Lasaki, Nader Montazerin, Mohammad Hossein Fazel Zarandi, "High-Frequency Modeling of Natural Gas Networks From Low-Frequency Nodal Meter Readings Using Time-Series Disaggregation", IEEE TRANSACTIONS ON INDUSTRIAL INFORMATICS, February 2016 Vol. 12, Num. 1, Page 136-147, February 2016,
- 14 Salar Askari Lasaki, Nader Montazerin, Mohammad Hossein Fazel Zarandi, "A clustering based forecasting algorithm for multivariable fuzzy timeseries using linear combinations of independent variables", APPLIED SOFT COMPUTING, July 2015 Vol. 35, Num. 0, Page 151-160, July 2015,
- 15 Salar Askari Lasaki, Nader Montazerin, Mohammad Hossein Fazel Zarandi, "Forecasting semi-dynamic response of natural gas networks to nodal gas consumptions using genetic fuzzy systems", ENERGY, April 2015 Vol. 83, Num. 0, Page 252-266, April 2015,
- 16 Mohammad Reza Najjari, Nader Montazerin, Ghasem Akbari, "On the presence of spectral shortcut in the energy budget of an asymmetric jet-wake flow in a forward-curved centrifugal turbomachine as deduced from SPIV measurements", JOURNAL OF TURBULENCE, March 2015 Vol. 16, Num. 6, Page 503-524, March 2015,
- 17 Salar Askari Lasaki, Nader Montazerin, "A high-order multi-variable Fuzzy Time Series forecasting algorithm based on fuzzy clustering", EXPERT SYSTEMS WITH APPLICATIONS, November 2014 Vol. 42, Num. 0, Page 2121-2135, November 2014,
- 18 Amin Aramesh, Nader Montazerin, Abbas Ahmadi, "A general neural and fuzzy-neural algorithm for natural gas flow prediction in city gate stations", ENERGY AND BUILDINGS, January 2014 Vol. 72, Num. 72, Page 73-79, January 2014,

- 19 Ghasem Akbari, Nader Montazerin, "On the role of anisotropic turbomachinery flow structures in inter-scale turbulence energy flux as deduced from SPIV measurements", JOURNAL OF TURBULENCE, December 2013 Vol. 14, Num. 11, Page 44-70, December 2013,
- 20 Ghasem Akbari, Nader Montazerin, "A-priori study of subgrid-scale models for the flow field in the rotor exit region of a centrifugal turbomachine", INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, August 2013 Vol. 66, Num. 0, Page 423-439, August 2013,
- 21 Javad Ali Nejad, Nader Montazerin, Sina Samarbakhsh, "Accretion of the Efficiency of a Forward-Curved Centrifugal Fan by Modification of the Rotor Geometry: Computational and Experimental Study", International Journal of Fluid mechanics Research, July 2013 Vol. 40, Num. 6, Page 469-481, July 2013,
- 22 Masoud Ramezanzpour Targhi, Nader Montazerin, Payam Izady, Ahmad Doosthoseini, "A New Approach to the Gas Dynamic Equation; An Application of the Fourier Transform Variational Iteration Method", Applied Mathematical Sciences, June 2013 Vol. 7, Num. 86, Page 4287-4293, June 2013,
- 23 Mojtaba Mehrjooei, Nader Montazerin, Ebrahim Damangir, "Laser velocimetry of a plane mixing layer with a specific initial condition for study of turbulence characteristics of enhanced growth rate", JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY, April 2012 Vol. 26, Num. 4, Page 1049-1057, April 2012,
- 24 Ghasem Akbari, Nader Montazerin, Morteza Akbarizadeh, "Stereoscopic particle image velocimetry of the flow field in the rotor exit region of a forward-blade centrifugal turbomachine", PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART A-JOURNAL OF POWER AND ENERGY, February 2012 Vol. 226, Num. 2, Page 163-181, February 2012,
- 25 Nader Montazerin, Mohsen Bahrami, Masoud Nikkhoo, "Applying an Engineering PhD at Work: A Test Case and Foresight in a Developing Country", The International journal of Learning, November 2011 Vol. 18, Num. 1, Page 127-150, November 2011,
- 26 Ehsan Tavakoli, Nader Montazerin, "Stochastic analysis of natural gas consumption in residential and commercial buildings", ENERGY AND BUILDINGS, September 2011 Vol. 43, Num. 9, Page 2289-2297, September 2011,
- 27 Masoud Nikkhoo, Nader Montazerin, Ebrahim Damangir, Reza Sepahi Samian, "An experimental study of leaning blades on the half-cone rotor of a squirrel cage fan", , August 2009 Vol. 0, Num. 8, Page 0-0, August 2009,
- 28 Arash Heshmat Dehkordi, Nader Montazerin, Ebrahim Damangir, Seyed Mohammad Rezaei Niya, "Effect of Volute and Rotor Widths on Squirrel Cage Fan Performance and Velocity Profiles", Iranian Journal of Mechanical Engineering, March 2008 Vol. 8, Num. 2, Page 0-0, March 2008,
- 29 Seyed Mohammad Rezaei Niya, Nader Montazerin, Ebrahim Damangir, Arash Heshmat Dehkordi, "Performance and Laser Doppler Anemometry Experimental Investigation of Squirrel Cage Fans With Half -Cone Rotors", , July 2006 Vol. 0, Num. 220, Page 0-0, July 2006,
- 30 Mohammad Hassan Hessami Azizi, Nader Montazerin, Ebrahim Damangir, "A combined noise-laser doppler velocimetry study of the squirrel-cage fan", , March 2005 Vol. 0, Num. 1, Page 0-0, March 2005,
- 31 Shahram Hashemi Marghzar, Nader Montazerin, Hassan Rahimzadeh, "Flow field turbulence and critical condition at a horizontal water intake", , January 2003 Vol. 0, Num. 0, Page 0-0, January 2003,
- 32 Shahram Hashemi Marghzar, Hassan Rahimzadeh, Nader Montazerin, "A joint experimental and numerical investigation on flow structure and critical condition at avertically downward intake", , October 2002 Vol. 0, Num. 52, Page 0-0, October 2002,
- 33 Ahmad Kazemifard, Nader Montazerin, Ebrahim Damangir, "study of slip factor and velocity components at the rotor exit of forward -curved squirrel cage fans,using laser doppleranemometry", , December 2001 Vol. 0, Num. 0, Page 0-0, December 2001,
- 34 Mansoor Jahangiri, [en-name N/A], Nader Montazerin, Saeid Savarmand, "Investigation of the viscoelastic effect on the metzner and otto coefficient through LDA velocity measurements", , February 2001 Vol. , Num. 9, Page 0-0, February 2001,
- 35 Nader Montazerin, Ebrahim Damangir, Hamid Reza Mirzaie, "Inlet induced flow in squirrel_cage fans", , January 2000 Vol. , Num. , Page 0-0, January 2000,
- 36 Nader Montazerin, Ebrahim Damangir, Saeed Myryan, "A new concept for squirrel_ cage fan inlet", , November 1998 Vol. , Num. , Page 0-0, November 1998,






Conference Papers

Portal Records

- 1 Seif Dalil Safaei, Nader Montazerin, Mohammad Hossein Fazel Zarandi, "Predicting Rotor Outlet Flow Field of Centrifugal Turbomachinery Using Fuzzy Time Series ", 3rd international conference on electrical engineering mechanical engineering and computer engineering sciences, September 2019
- 2 Nader Montazerin, Ghasem Akbari, Ehsan Tavakkoli, "A method to decide on target groups for macro energy saving ", 10th International Energy Conference, August 2014
- 3 Mehdy Gooya, Hamid Naderan Tahan, Nader Montazerin, "Numerical Study of Compressor Stator Blade Deposition Erosion Rate ", 20th Annual International Iranian Mechanical Engineering Conference, May 2012
- 4 Mohammad Reza Najjari, Nader Montazerin, Ghasem Akbari, "Statistical PIV Data Validity for Enhancement of Velocity Driven Parameters in Turbomachinery Jet-Wake Flow ", 20th Annual International Iranian Mechanical Engineering Conference, May 2012
- 5 Reza Sepahi Samian, Nader Montazerin, Ebrahim Damangir, Masoud Nikkhoo, "A Numerical Study of the effect of rotor width on squirrel cage fan performance ", 13th Annual and 2nd International Fluid Dynamics Conference, Fd2010, October 2010
- 6 Reza Sepahi Samian, Nader Montazerin, Ebrahim Damangir, Masoud Nikkhoo, "An experimental study of squirrel cage fan rotor width on performance and velocity profiles ", International Conference on Fluid Dynamics and Thermodynamics Technologies, February 2010
- 7 Morteza Akbarizadeh, Nader Montazerin, Ebrahim Damangir, Hassan Basirat Tabrizi, "Particle image velocimetry measurements in rotor outlet of a forward curved centrifugal fan ", , November 2008
- 8 Morteza Akbarizadeh, Nader Montazerin, Ebrahim Damangir, Hassan Basirat Tabrizi, "Velocity field measurements in rotor outlet of squirrel cage fan with piv technique ", , January 2008
- 9 Nader Montazerin, Ebrahim Damangir, Mohammad Hassan Hessami Azizi, "studies on noise and flow fields in a squirrel cage fan ", , July 2004
- 10 Shahram Hashemi Marghzar, Nader Montazerin, Hassan Rahimzadeh, "Numerical Simulation of Flow Through an Symmetric horizontal Intake ", , September 2002
- 11 Shahram Hashemi Marghzar, Nader Montazerin, Hassan Rahimzadeh, "Numerical simulation of flow through a horizontal intake with a step ", , August 2002
- 12 Nader Montazerin, Hassan Rahimzadeh, Shahram Hashemi Marghzar, "Numerical simulation of asymmetric flow in a vertically downward intake . ", , June 2002
- 13 Nader Montazerin, Hassan Rahimzadeh, Shahram Hashemi Marghzar, "Prediction of Critical Condition at a Horizontal Intake Through Pressure Contours ", , September 2001
- 14 Nader Montazerin, Hassan Rahimzadeh, Shahram Hashemi Marghzar, "Prediction of critical condition at a horizontal intake through pressure contours ", , September 2001
- 15 Mansoor Jahangiri, [en-name N/A], Nader Montazerin, Saeid Savarmand, "mixing in the transition region with rushton turbine impeller ", , May 2001
- 16 Mansoor Jahangiri, [en-name N/A], Nader Montazerin, Saeid Savarmand, "heat transfer and viscoelasticity in mixing tank in the transition regime ", , May 2001
- 17 Mansoor Jahangiri, [en-name N/A], Nader Montazerin, Saeid Savarmand, "shear rate and velocity profiles of a helical ribbon impeller in the transition region through LDA studies ", , August 2000
- 18 Mansoor Jahangiri, [en-name N/A], Nader Montazerin, Saeid Savarmand, "local Shear rate Profiles in mixing of viscoelastic fluids ", , August 2000
- 19 Nader Montazerin, "A DOUBLE OUTLET SQUIRREL CAGE FAN ", , July 2000

- 20 [en-name N/A], Mansoor Jahangiri, Nader Montazerin, Saeid Savarmand, "investigation on the metzner and otto coefficient in viscoelastic fluids agitated by a rushton based on LDA velocity measurements", , March 2000
- 21 Mansoor Jahangiri, [en-name N/A], Nader Montazerin, Saeid Savarmand, "velocity profiles of helical ribbon impeller in mixing of polymeric liquid based on LDA technique", , March 2000
- 22 Mansoor Jahangiri, [en-name N/A], Nader Montazerin, Saeid Savarmand, "Experimental Study Of ISO thermal axial flow of Power Law fluids", , May 1999
- 23 Ebrahim Damangir, Nader Montazerin, "Stall Cells in The Value Squivel Of a Squivel Cage Fan", , July 1998

Taught Courses

#	Course title	Description	Headlines	Date
1	Turbomachinery	Introducing axial/ centrifugal, compressible/incompressible Turbomachines, one dimensional calculations and industrial applications.		Fall 2021
2	Thermodynamics (I)	Introduction to the laws of thermodynamics and their application in the analysis of general life problems and engineering systems		Fall 2021
3	Thermodynamics (I)	آشنایی دانشجویان با اصول عمومی ترمودینامیک کلاسیک		Spring 2021
4	Turbomachinery	آشنایی دانشجویان با نمونه هایی از توربوماشین محوری، گریز از مرکز، تراکم پذیر، تراکم ناپذیر. ایجاد توانایی برای محاسبه سطح صفر توربو ماشی		Fall 2020
5	Thermodynamics (I)	آشنایی دانشجویان با اصول عمومی ترمودینامیک کلاسیک		Fall 2020

Inventions/Patents

#	Invention title	Reg. number	Country	contributors	Reg. date	Exp. date
1	Blade Lean Angle in Half Cone Rotors of Squirrel Cage Fans	56374			2009/01/1	-
2	Half Cone Rotors for Squirrel Cage Fan	31853			2005/06/1	-