Resume (Updated, 15 June 2016)	
Name: Kiumars Mazaheri **Date of Birth:** 24-08-1958 **Marital Status:** Married **Email:** Kiumars@modares.ac.ir	

Education:

Major	**Degree**	**University**	**Date**
Mechanical Engineering (Thermo-fluid)	B.Sc.	Isfahan University of Technology	1986
Mechanical Engineering (Thermo-fluid)	M.Sc.	Isfahan University of Technology	1989
Mechanical Engineering (Combustion & Explosion)	Ph.D.	McGill University (Canada)	1997

Experiences:

Topic	**Location**	**Date**
Head of School	Faculty of Mechanical Engineering, Tarbiat Modares University	2016-present
Chair	Iranian Combustion Institute	2013-present
Deputy Dean for Academic Affairs and Research	Faculty of Mechanical Engineering, Tarbiat Modares University	2013-2016
Professor	Tarbiat Modares University	2011-present
Energy Conversion Group Director	Tarbiat Modares University	2009-2013
Chair	Iranian Combustion Institute	2008-2012
Executive Director	Fuel and Combustion (Journal)	2008-Present
Associate Professor	Tarbiat Modares University	2005-2011
General Director of Research Affair	Tarbiat Modares University	2006-2008
Chair	First Combustion Conference of Iran	2006
Research Deputy	Faculty of Engineering Tarbiat Modares University	2005-2006
Assistant Professor	Tarbiat Modares University	1997-2005
Research Assistant	McGill University Canada	1995-1997
Doctoral Candidate	McGill University Canada	1993-1997
Chair	Iranian Combustion Institute	2002-2006
Lecturer	Isfahan University of Technology	1989-1991
Consultant	Different industries	1986-Present

Research Interests:
Numerical simulation of reactive flow; Combustion instability in Gas Turbines; Micro-combustors; Advanced industrial furnaces; Furnace and Boilers Optimization, NOx reduction in industrial furnaces, New combustion technologies, Oil In-Situ Combustion.

Teaching Interests:
Advanced Combustion- Dynamics of Compressible Flows- Computational Fluid Dynamics (CFD) – Numerical Methods - Internal combustion engines- Advanced fluid mechanics.

Publications

a-Journal papers

1. K.Mazaheri, A. Mahdavi, and J.H. Lee, "Numerical Study of Blast Initiation of Detonation, using a Two-Step Chemical kinetics Model," International Journal of Engineering,Vol. 15, Part B, pp. 213-222, 2002.

2. K. Mazaheri and J.H. Lee, "The Effect of Instability on the Direct Initiation of Detonations," Modares Technical and Engineering, V.6, pp. 58-72, 2002.

3. K. Mazaheri, S. A. Hashemi, and J. H. Lee, "Numerical Study of Detonation Instability for a Two-Step Kinetics Model," Scientia Iranica, Vol. 11, No.4, pp. 292-301,2003.

4. K. Mazaheri, and S. Sarmasti, P. Taheri, "Extension of a High Resolution Lagrangian Method to Consider the Real Gas Effect," Computational Fluid Dynamics J., V.13, No. 4, pp. 730-734, 2005.

5. R. Mohammadi, G. Heidarinejad, K. Mazaheri, "A New Model for Prediction of Heat diffusivity in pipe Expansion Turbulent Flows," Iranian J. Chem. Eng., V. 2, pp. 24-33, 2005.

6. Mirzaei, M., Mazaheri, K., Biglari, H., "Analytical modeling of the elastic structural response of tubes to internal detonation loading," Pressure Vessels and Piping, V. 85, pp. 883-895, (2005)

7. Mazaheri K., Mirzaei, M., Biglari, H., " Transient Dynamic Response of Tubes to Internal Detonation Loading," Journal of Sound and Vibration, V. 297,pp. 106-122, 2006.

8. Sabzpooshani M., Mazaheri K., "Numerical Investigation of Two-Dimensional Gaseous Detonation and its Propagation in a Channel," Energetic Material, Vol. 2, pp. 59-67, 1385.

9. Mazaheri K., S. A. Hashemi, “The Effect of Chain Initiation Reaction on the Stability of Gaseous Detonations,” Combust. Sci. and Tech., Vol. 179, pp. 1701-1736, 2007.

10. Khsoravi El-Hosseini M., Maerefat M., Mazaheri K., "Numerical Investigation on the Effects of Pressure Drop on Thermal Behaivior of Porous Burners," J. Heat Transfer, Vol. 130, paper no. 032601, pp.1-5, 2008.

11. Azdast T., Behravesh A. H., Mazaheri K., and Darvishi M. M., "Numerical Simulation and Experimental Validation of Residual Stress Induced Constrained Shrinkage of Injection Molds Parts," Polimers, Vol. 53, no. 4, pp. 304-310, 2008.

12. Khosravi El-Hosseini M., Maerefat M., and Mazaheri K., “Numerical Modeling of Porous Radiant Burners using Full Reduced Kinetics Mechanism,” Iran. J. Chem. Chem. Eng., Vol. 27, no. 1, pp. 53-63, 2008.

13. Heidari A. and Maqqzaheri K., “Determination of the Equilibrium Parameters of Gaseous Detonations using a Genetic Algorithm,” Iranian J. of Chemical Engineering (IAChE), Vol. 5, No.3, pp. 3-13, 2008.

14. Sabzpooshani M., Mazaheri K., “Formation of Unburnt Pockets in Gaseous Detonation,” Combustion, Explosion, and Shock Waves, Vol. 45, No. 2, pp. 182-189, 2009.

15. Anbarlooei H. R., Mazaheri K., "Moment of Fluid Interface Reconstruction Method in Multi-Material Arbitrary Lagrangian Eulerian (MMALE) Algorithms," Comput. Methods Appl. Mech. Engrg., Vol. 198, pp. 3782-3794, 2009.

16. Soury H., Mazaheri K., "Utilizing Unsteady Curved Detonation Analysis and Detailed Kinetics to Study the Direct Initiation of Detonation in H2-O2 and H2-Air mixtures," International Journal of Hydrogen Energy, Vol. 34, pp. 9847-9856, 2009.

17. Marefat M., Mahmoudi S. Y., and Mazaheri K. “Numerical Simulation of Forced Convection Enhancement in a Pipe by porous Inserts,” Heat Transfer Engineering, Vol. 32, no. 1, pp. 45-56, 2011.

18. Mahmoudi Y., and Mazaheri K., "High Resolution Numerical Simulation of the Structure of Gaseous detonation," Proceedings of the Combustion Institute, 33, pp. 2187-2194, 2011.

19. Marefat M., M. Khosravy el-Hossaini, and Mazaheri K. “Numerical Modeling of Two-Dimensional Cylindrical Porous Radiant Burners with Sidewall Heat Losses,” Journal of Porous Media, Vol. 14, no. 4, pp. 317-327, 2011.

20. Anbarlooei H. R., Mazaheri K., ""Moment of Fluid" Interface Reconstruction Method in Axisymmetric Coordinates," Int. J. Numer. Meth. Biomed. Engng. Vol. **27**, pp. 1640–1651, 2011.

21. Mazaheri K., Mahmoudi Y., and Radulescu M. I., "Diffusion and hydrodynamic instabilities in gaseous detonations," Combustion and Flame, Vol. 159, pp. 2138-2154, 2011.

22. Mahmoudi Y., Mazaheri K. "Triple Points Collision and Hot Spots in Detonations with Regular Structures," Combust. Sci. Technol., Vol. 184, pp. 1135-1151, 2012.

23. Alipoor A., Mazaheri K., "The optimization of detonation properties in gaseous mixtures and mixed explosive materials" Journal of Energetic Materials, Vol. 31, pp. 115-126, 2013.

24. Mahmoudi Y., Mazaheri K., and Parvar S., "Hydrodynamic and transverse waves in propagation mechanism of gaseous detonations," Acta Astronautica, Vol. 91, pp. 263-282, 2013.

25. Hashemi S. A., Hajialigol N., Mazaheri K., and Fattahi A., "Investigation of Air Turbulence Intensity Effect on the Flame Structure in Different Flame Holder Geometry," IJE TRANSACTIONS C, Vol. 26, pp. 1423-1432, 2013.

26. Hashemi S. A., Hajialigol N., Fattahi A., Mazaheri K., and Heydari R., " Investigation of a flame holder geometry effect on flame structure in non-premixed combustion," Journal of Mechanical Science and Technology Vol. 27, pp. 3505-3512, 2013.

27. Hashemi S. A., Hajialigol N., Mazaheri K., and Fattahi A., "Investigation of the Effect of the Flame Holder Geometry on the Flame Structure in Non-Premixed Hydrogen-Hydrocarbon Composite Fuel Combustion," Combustion, Explosion, and Shock Waves, Vol. 50, pp. 32-41, 2014.

28. Mahmoudi Y., Karimi N., and Mazaheri K., "Analytical investigation of heat transfer enhancement in a channel partially filled with a porous material under local thermal non-equilibrium condition: Effects of different thermal boundary conditions at the porous-fluid interface" International Journal of Heat and Mass Transfer, Vol. 70, pp. 875-891, 2014.

29. Alipoor A., Mazaheri K., "Studying the repetitive extinction-ignition dynamics for lean premixed hydrogen-air combustion in a heated microchannel," Energy, Vol. 73, pp. 367-379, 2014.

30. Karimi N., Mahmoudi Y., and Mazaheri K., "Temperature fields in a channel partially filled with a porous material under local thermal non-equilibrium condition – An exact solution," Proc IMechE Part C, Vol. 228, pp. 2778-2789, 2014.

31. Mazaheri K., Mahmoudi Y., Sabzpooshani M., and Radulescu M. I., "Experimental and numerical investigation of propagation mechanism of gaseous detonations in channels with porous walls," Combustion and Flame, Vol. 162, pp. 2638-2659, 2015.

32. Emami S., Mazaheri K., Shamooni A., and Mahmoudi Y., "LES of flame acceleration and DDT in hydrogen-air mixture using artificially thickened flame approach and detailed chemical kinetics," Int. J. of Hydrogen Energy, Vol. 40, pp. 7395-7408, 2015.

33. Mahmoudi Y., Mazaheri K., "High Resolution Numerical Simulation of Triple Point Collision and Origin of Unburned Gas Pockets in Turbulent Detonations," Acta Astronautica, Vol. 115, pp. 40-51, 2015.

34. Alipoor A., Mazaheri K., "Combustion characteristics and flame bifurcation in repetitive extinction-ignition dynamics for premixed hydrogen-air combustion in a heated micro channel," Energy, Vol. 109, pp. 650-663, 2016.

b- Conference papers

1. K. Mazaheri and J.H. Lee, (1996), "Effect of Instability on the Direct Initiation of Gaseous Detonations," Technical Meeting of the Combustion Institute, Canadian Section.
2. K. Mazaheri and J.H. Lee, (1997), "The Effect of Instability on the Direct Initiation of Detonations," 16th International Colloquium on the Dynamics of Explosions and Reactive Systems, Poland.
3. K. Mazaheri and J.H. Lee, (1997), "Effect of Hot Spots on the Initiation of Detonations," 16th International Colloquium on the Dynamics of Explosions and Reactive Systems, Poland.
4. K. Mazaheri, S. Hashemi, and J.H. Lee, (2001), "Numerical Study of Detonation Instability for a Two-Step Kinetics Model," 18th. International Colloquium on the Dynamics of Explosions and Reactive Systems, Washington, August, 2001.
5. K. Mazaheri, A. Mahdavi, and J.H. Lee, "Numerical Study of Blast Initiation of Detonation, Using a Two-Step Chemical Kinetics Model," Second Mediterranean Combustion Symposium, which will be held in Sharm El-Sheikh 6-11 January 2002.
6. K. Mazaheri, G. R. Alavi, "A Collocated Finite Volume Method for Navier-Stokes Equation at all Speeds," 10th. Annual (International) Mechanical Engineering Conference, Tehran, Iran, 2002.
7. K. Mazaheri, P. Taheri, "Numerical Simulation of Underwater Explosive Bubble using Lagrangian PPM," CFD2002, Windsor, Canada.

8. M. Darbandi, K. Mazaheri, and S. Vakilpour, "A Pressure Weighted Upwinding Scheme for Calculating Flows on Unstructured Grids,", Proceeding of the International Conference of Computational Methods in Science and Engineering, (ICCME 2003), 2003.
9. M. Darbandi, K. Mazaheri, and S. Vakilpour, "The Influence of a Pressure-Weighted Upwind Scheme in Unstructured Finite-Element Grids," Fifth European Conference on Numerical Mathematics and Advanced Applications, Prague, Czech Republic, Auguest 2003.
10. K. Mazaheri, and S. Sarmasti, "Extension of a High Resolution Lagrangian Method to Consider the Real Gas Effect," The Fifth Asian Computational Fluid Dynamics, Busan, Korea, October 27~ October 30, 2003.
11. H.R. Anbarlooie, K. Mazaheri, and M. Bidabadi, "ALE Simulation of Rayleigh-Taylor Instability," 12th Annual Conference of the CFD Society of Canada, Ottawa, Canada, 2004.
12. K. Mazaheri, and S. A Hashemi, "The Effect of Chain Initiation Reaction on the Stability of Gaseous Detonations," The 24th International Symposium on Shock Waves, ISSW24, Beijing, China, July 11-16, 2004.
13. M. Khosravi El_hosseini, M. Marefat, K. Mazaheri, "Comparison of Full Mechanism and Reduced Mechanisms in Numerical Modeling of Porous Burners," Forth Mediterranean Combustion symposiumMCS4Lisbon, October 6-10, 2005.
14. M. Zamaninejad, K. Mazaheri, and M.R. Rajaee, "Numerical Simulation of Laminar Premixed Methane-Air Flame Using Reduced Mechanism," 2nd Int. Conference on Thermal Engineering Theory and Application, UAE, January 3-6, 2006.
15. K. Mazaheri and H.R. Anbarlooei, "Higher Order Interface Reconstruction in Multi-Material Arbitrary Lagrangian Eulerian (MMALE) Algprithm," 16th Annual (Int.) Conference on Mechanical Engineering, ISME2008, May 13-15, Kerman, Iran, 2008.
16. Y. Mahmoudi and K. Mazaheri, "Operator Splitting in Simulation of Detonation Structure," 22nd International Colloquium on the Dynamics of Explosions and Reactive Systems (ICDERS 22), Minsk, Belarus, July 27-31 2009.
17. Anbarlooei H.R., Mazaheri K., "Revision of the Curvlinear Grid discritization in Lagrangian Gas Dynamics," 17th Annual (Int.) Conference on Mechanical Engineering, ISME2008, May 19-21, Tehran, Iran, 2009.
18. Mahmoudi Y., and Mazaheri K., "High Resolution Numerical Simulation of the Structure of Gaseous detonation," 33rd International Symposium on Combustion, Beijing, China, July 2010.
19. Mazaheri K., Sabzpooshani M., and Mahmoudi Y., "Numerical Study of Detonation Propagation ib a Channel with Porous Wall," 33rd International Symposium on Combustion, Beijing, China, July 2010. (Poster)
20. K. Mazaheri ,Y. Mahmoudi and M. I. Radulescu, "Diffusion in Gaseous Detonations," 23nd International Colloquium on the Dynamics of Explosions and Reactive Systems (ICDERS 23), Irvine, USA, July 24-29 2011. K. Mazaheri
21. Mazaheri, k., Sabzpooshani, M., Y. Mahmoudi, and M. I. Radulescu, "Numerical Study of Detonation Structure in a Channel with Porous Wall," 23nd International Colloquium on the Dynamics of Explosions and Reactive Systems (ICDERS 23), Irvine, USA, July 24-29 2011. K. Mazaheri

22. Y. Mahmoudi, Mazaheri k., and M. I. Radulescu, "Triple Points Collision in Unstable Detonations," 23nd International Colloquium on the Dynamics of Explosions and Reactive Systems (ICDERS 23), Irvine, USA, July 24-29 2011. K. Mazaheri
23. H. Pasdarshahri, G. Heidarinejad and K. Mazaheri "Large Eddy Simulation of One-Meter Methane Pool Fire using One equation Sub-Grid Scale Model," Seventh Mediterranean Combustion Symposium, Sardinia, Italy, 11-15 Sep. 2011.
24. M. Hallaji, K. Mazaheri "Numerical simulation of turbulent non-premixed combustion in diluted hot coflow using PaSR combustion model," Seventh Mediterranean Combustion Symposium, Sardinia, Italy, 11-15 Sep. 2011.
25. M. Hallaji, K. Mazaheri "Comparison of LES and RANS in numerical simulation of turbulent non-premixed flame under MILD combustion condition," Seventh Mediterranean Combustion Symposium, Sardinia, Italy, 11-15 Sep. 2011.
26. Y. Mahmoudi, K. Mazaheri "Hydrodynamic instabilities and unreacted gas pockets in cellular detonations ," Seventh Mediterranean Combustion Symposium, Sardinia, Italy, 11-15 Sep. 2011.
27. Mahmoudi, K. Mazaheri "Triple point collision and hot spot in detonations with regular structure," Seventh Mediterranean Combustion Symposium, Sardinia, Italy, 11-15 Sep. 2011.
28. Hashemi A. A., Hajialigol N., and Mazaheri K., "Study of a turbulent Non-premixed methane-air reacting flame in a burner using flame holdr," 4th Fuel and Combustion Conference of Iran, Kashan University, Kashan, Iran, February 2012.
29. Shamooni A., Mazaheri K., and Timaji M., " A Novel Strategy for Computationally Efficient Implementation of Detailed Chemistry in Parallel Simulation of Reactive Flows," Eigth Mediterranean Combustion Symposium, Izmir, Turkey, 8-13 Sep. 2013.