

Contact Details



Saeid Sadeghnejad, PhD
Assistant Professor
Department of Petroleum Engineering,
Faculty of Chemical Engineering,
Tarbiat Modares University (TMU)

Date of birth: September 16th, 1982
Address: Department of Petroleum Engineering, Faculty of
Chemical Engineering, Tarbiat Modares University,
Tehran, Iran
Phone: +98 21 82883563
Research Group: Permlab.modares.ac.ir
Email: sadeghnejad@modares.ac.ir

Degree

Date	Degree	Field	University	Location
2006-2011	PhD	Petroleum Eng.	Sharif University of Technology	Tehran/Iran
2004_2006	M.Sc	Reservoir Eng.	Sharif University of Technology	Tehran/Iran
2000_2004	B.Sc	Chemical Eng.	Sharif University of Technology	Tehran/Iran

PhD Dissertation: “Estimation of reservoir performance parameter using percolation approach”, Supervisors: M. Masihi, M.R. Pishvaei, P.R. King.

MSc. Thesis: “Characterization of reservoir rock properties using wavelet transform and fractal analysis”, Supervisors: M.R. Pishvaei, R. Bozorgmehry.

Research Interests

- Reservoir formation characterization using novel methods (Pattern Recognition, Signal processing, Wavelet Transform, Percolation Approach, etc.)
- Advanced polymer flooding methods (PPG, pH Sensitive, smart polymers)
- Pore Network Modeling and estimating rock properties by Digital Rock Physics of carbonate reservoirs

Teaching Track Record

Graduate Courses at TMU:

- Reservoir Modeling & Simulation
- Advanced Pressure Transient Analysis
- Advanced Fractured Reservoir Engineering
- Geostatistical Reservoir Modeling

Honors/Awards

- Certificate of Dr. Mojtahedi for PhD thesis, innovation award for distinguished innovation in research and education, Sharif University of Technology (2010).
- Ranked 1st among the PhD students of both chemical and petroleum engineering department of Sharif University of Technology (2010).
- Ranked 10th among the B.Sc. students of Chemical Engineering department of Sharif University of Technology (2004).

Publications

Journal Papers:

1. Soltani A., Sadeghnejad S. (2018) Scaling and critical behavior of lattice and continuum porous media with different connectivity configurations. *Physica A: Statistical Mechanics and its Applications* (accepted).
2. Khoshneshin, R., Sadeghnejad, S. (2018) Integrated Well Placement and Completion Optimization using Heuristic Algorithms: A Case Study of an Iranian Carbonate Formation. *Journal of Chemical and Petroleum Engineering*, 52 (1), 35-47, DOI: 10.22059/JCHPE.2018.245405.1211.
3. Partovi A., Sadeghnejad S. (2018) Reservoir Rock Characterization Using Wavelet Transform and Fractals Dimension, *Iranian Journal of Chemistry and Chemical Engineering* (accepted).
4. Farasat A., VafaieSefti M., Sadeghnejad S., Saghafi H.R. (2017) Mechanical entrapment analysis of enhanced preformed particle gels (PPGs) in mature reservoirs, *Journal of Petroleum and Engineering*, 157, 441-450, DOI 10.1016/j.petro.2017.07.028.
5. Partovi S.M.A., Sadeghnejad S. (2017) Fractal parameters and well-logs investigation using automated well-to-well correlation, *Computers & Geosciences*, 103, 59-69, DOI 10.1016/j.cageo.2017.03.004.
6. Sadeghnejad S., Masihi M. (2017) Analysis of a more realistic well representation during secondary recovery in 3-D continuum models, *Computational Geosciences*, 21, 1035-1048, DOI 10.1007/s10596-017-9640-5.
7. Ashrafizadeh M., Ramazani A., Sadeghnejad S. (2017) Enhanced polymer flooding using a novel nano-scale smart polymer: experimental investigation, *The Canadian Journal of Chemical Engineering*, 95, 2168-2175 DOI 10.1002/cjce.22860.
8. Montazeri M., Sadeghnejad S. (2017) An Investigation of Optimum Miscible Gas Flooding Scenario: A Case Study of an Iranian Carbonates Formation, *Iranian Journal of Oil & Gas Science and Technology* 6 (3), 41-54, DOI 10.22050/IJOGST.2017.50695.

9. Farasat A., VafaieSefti M., Sadeghnejad S., Saghafi H.R. (2017) The Effects of reservoir temperature and salinity on the swelling ratio performance of enhanced preformed particle gels, *Korean Journal of Chemical Engineering*, 34 (5), 1509-1516, DOI 10.1007/s11814-017-0017-1.
10. Sadeghnejad S., Masihi M. (2016) Point to point continuum percolation in two dimensions, *Journal of Statistical Mechanics: Theory and Experiment*, 2016 (10), 103210, DOI 10.1088/1742-5468/2016/10/103210
11. Kariman A., Sadeghnejad S., Jafarai A. (2015) Simulation of polymer flooding process in a fractured micromodel containing heavy oil, *Petroleum Research* 25 (83), 4-15.
12. Sadeghnejad S., Masihi M., Pishvaie M., King P.R. (2013) Rock Type Connectivity Prediction Using Percolation Theory, *Mathematical Geosciences* 45(3), 321-340, DOI 10.1007/s11004-013-9446-5.
13. Sadeghnejad S., Masihi M., King P.R. (2013), Dependency of percolation critical exponents on the exponent of power law size distribution, *Physica A: Statistical Mechanics and its Applications* 392(24), 6189-6197, DOI:10.1016/j.physa.2013.08.022.
14. Ashrafizadeh M., Ramazani S.A., Sadeghnejad S. (2012) Improvement of polymer flooding using in-situ releasing of smart nano-scale coated polymer particles in porous media, *Energy Exploration and Exploitation Journal* 30(6), 915-940, DOI 10.1260/0144-5987.30.6.915.
15. Sadeghnejad S., Masihi M., Shojaei A., Pishvaie M., King P.R. (2011) Field scale investigation of percolation theory in characterizing geological formation, *Transport in Porous Media* 92(2), 357-372, DOI 10.1007/s11242-011-9907-6.
16. Sadeghnejad S., Masihi M., King P.R., Shojaei A., Pishvaie M. (2010) Effect of anisotropy on the scaling of connectivity and conductivity in continuum Percolation theory, *Physical Review E* 81, 061119, DOI 10.1103/PhysRevE.81.061119.
17. Sadeghnejad S., Masihi M., King P.R., Pishvaie M., Shojaei A. (2011) Utilization of Percolation approach to evaluate the reservoir connectivity and effective permeability: a case study on North Pars gas field, *Scientia Iranica, Transactions C: Chemistry and Chemical Engineering* 18(6), 1391-1396, DOI 10.1016/j.scient.2011.08.012.
18. Sadeghnejad S., Masihi M., Pishvaie M., Shojaei A., King P.R. (2014) Estimating Connected Volume of Hydrocarbon During Early Reservoir Life by Percolation Theory, *Energy Sources Part A: Recovery, Utilization, and Environmental Effects* 36 (3), 301-308 DOI 10.1080/15567036.2010.540630
19. Sadeghnejad S., Masihi M., King P.R., Shojaei A., Pishvaie M. (2011) Reservoir conductivity evaluation using Percolation theory, *Petroleum science and technology*, 29(10), 1041-1053, DOI 10.1080/10916460903502506.
20. Sadeghnejad S., Masihi M. (2011) Water flooding performance evaluation using percolation theory, *Iranian Journal of Petroleum Science and Technology* 2 (1), 19-23.
۲۱. سید محمد امین پرتوی، سعید صادق نژاد، شناسایی مرزهای زمین شناسی به کمک الگوریتم تطابق چینه ای خودکار مبتنی بر ابعاد فرکتال، نشریه مهندسی شیمی ایران، ۱۳۹۷
۲۲. سعید صادق نژاد، حسین روزساز، مهرداد منطقیان، بررسی اثر شرایط عملیاتی در بهینه سازی تزریق متناوب آب و گاز توسط الگوریتم سرد شدن پیوسته، نشریه مهندسی شیمی ایران، ۱۳۹۷

۲۳. محسن منتظری، سعید صادق نژاد، بررسی سناریوهای مختلف تزریق گاز در مخازن کربناته ایران، پذیرش شده در ماهنامه اکتشاف و تولید، ۱۳۹۴
۲۴. صادق نژاد، فرآیند تولید نرم افزارهای تخصصی درحوزه بالادستی مهندسی نفت، ماهنامه اکتشاف و تولید شماره ۹۷، دی ۱۳۹۱
۲۵. صادق نژاد، پیشوایی، بزرگمهری، تئوری موجک در مهندسی نفت، ماهنامه اکتشاف و تولید، شماره ۴۳، تیر ۱۳۸۶

Conference Papers:

1. Sadeghnejad S., Gostick J. (2018) Reconstruction of vugular carbonate rocks by pore network modeling and image-based network technique, 19th Annual Conference International Association for Mathematical Geosciences (IAMG2018), 2-8 September, Olomouc, Czech Republic.
2. Younesian-Farid H., Sadeghnejad S. (2018) Modeling and simulation of geochemical reactions during acid pre-flush to improve conformance control of pH-sensitive polymer flooding, 19th Annual Conference for International Association of Mathematical Geosciences (IAMG2018), 2-8 September, Olomouc, Czech Republic.
3. Koochakzadeh A., Sadeghnejad S. (2018) Experimental Evaluation of Geochemical Reactions of Weak Acids with Limestone Rocks from One of an Iranian Formations, 10th International Chemical Engineering Congress & Exhibition, 6-10 May, Isfahan, Iran.
4. Tohidi E., Sadeghnejad S., Haghtalab A. (2018) Solid particle deposition and formation damage analyses of water flooding in sandstone formations, 10th International Chemical Engineering Congress & Exhibition, 6-10 May, Isfahan, Iran.
5. Soltani P., Sadeghnejad S., Saedi Dehaghani A.H. (2018) Wettability Alteration of Formation Rocks during Soxhlet Cleaning, 10th International Chemical Engineering Congress & Exhibition, 6-10 May, Isfahan, Iran.
6. Javahei P., Sadeghnejad S. (2017) Effect of Injection Pattern Arrangements on Formation Connectivity during Water Flooding, SPE Europec featured at 79th EAGE Annual Conference & Exhibition, 12-15 June, Paris, France.
7. Sadeghnejad S., Masihi M., King P.R., Gago P.A. (2016) Estimating EOR efficiency using percolation approach by defining realistic well trajectory, the 15th European Conference on the Mathematics of Oil Recovery (ECMOR XV), 29 August to 1 September, Amsterdam, Netherlands.
8. Sadeghnejad S., Masihi M., King P.R. (2016) Study the Connectivity of Good Sands between two Wells Represented by Two Points Using Percolation Theory, 78th EAGE Conference and Exhibition 2016, Vienna, Austria.
9. Roozsaz H., Manteghian M., Sadeghnejad S. (2015) Investigation of operational constraints on improving the recovery of water alternative gas injection (WAG) in an Iranian offshore field using simulated annealing method, The 17th annual conference of the International Association for Mathematical Geosciences (IAMG), 3-5 September, Freiberg, Germany.
10. Sadeghnejad S., Partovi, S.M.A. (2015) Reservoir rock characterization using wavelet transform and fractal analysis, 9th international chemical engineering congress and exhibition (ICHEC 2015), 26-28 December, Shiraz, Iran.

11. Farasat A., VafaeiSefti M., Sadeghnejad S., Saghafi H.R. (2015) Experimental Evaluation of the Effects of Temperature and Water Salinity on the Swelling Ratio of Performed Particle Gels, the 9th international chemical engineering congress and exhibition (ICHEC 2015), 26-28 December, Shiraz, Iran.
12. Khoshneshin R., Sadeghnejad S., Badizad M.H., Investigation of well key parameters during gas injection with implementation of multi-segment well approach, the 9th international chemical engineering congress and exhibition (ICHEC 2015), 26-28 December, Shiraz, Iran.
13. KarimanMoghadam A., Sadeghnejad S. (2015) Investigation and sensitivity analysis of different key parameters of immiscible CO₂ injection in one of the Iranian dual porosity fractured reservoir, 1st National conference of development of oil and gas fields, Tehran, Iran, 28-29 January.
14. GhannadDezfuli M., Jafari A., Barkhordari V., Sadeghenjad S. (2015) CFD investigation of nanoparticles effect on the oil recovery using supercritical CO₂, the 2nd Iranian student chemistry conference, 6-8 October, Rasht, Iran.
15. Sadeghnejad S., Masihi M. (2011) Evaluation of breakthrough and post breakthrough behavior using percolation theory at early stage of reservoir life, The 7th International Chemical Engineering Congress & Exhibition (IChEC 2011), Kish, Iran, 21-24 November.
16. Ashrafizadeh M., Sadeghnejad S., Ramezani S.A. (2011) Simulation of Dissolution Process of Hydrophobic Coated Core-Shell Particles in Interface of Two Immiscible Fluids, The 7th International Chemical Engineering Congress & Exhibition (IChEC 2011), Kish, Iran, 21-24 November.
17. Sadeghnejad S., Masihi M., King P.R., Shojaei A., Pishvaie M. (2011) Estimating reservoir connectivity and effective permeability during early reservoir life by percolation theory and case study, 73rd EAGE Conference & Exhibition incorporating SPE EUROPEC 2011, Vienna, Austria, 23-26 May.
18. Ashrafizadeh M., Sadeghnejad S., Ramezani S.A. (2011) Modeling of dissolving of nano-core-shell particles in two phase viscosity prediction during polymer flooding, Polymer Processing Society (PPS2011), Asia/Australia Regional Meeting, Kish Island, Iran, 15-17 November.
19. Ashrafizadeh M., Sadeghnejad S., Ramezani S.A. (2011) Dissolution Modeling of Smart Nano-Scale Coated Polymer Particles in Polymer Flooding process, European Polymer Congress (EPF2011), Granada, Spanish, 21 June-1 July.
20. Sadeghnejad S., Masihi M., Pishvaie M., Shojaei A., King P.R., (2010) Reservoir Connectivity and Permeability Prediction: Analysis and Case Study, The 13th International Chemical Engineering Congress (IChEC 13) and the 1st International Regional Chemical and Petroleum Engineering Congress, 25-27 Oct, Kermanshah, Iran.
21. Ashrafizadeh M., Ramezani S. A., Sadeghnejad S. (2011) Simulation of dissolution of nano-scale coats of Polyacrylamide particles in polymer flooding, 2nd conference on application of nano technology in science, technology and medicine (NTC2011), Islamic Azad University, Mashhad, Iran, 16-17 May.
22. Mohammadi M., Sadeghnejad S., Pourafshary P., Bahramian A. (2010) Modification of phase behaviour calculation in vertical two phase fluid flow modelling and its effect on composition and pressure drop estimation in wellbore, 19th international congress of chemical and processing engineering (CHISA 2010), Prague, Czech Republic.

23. Mohammadi M., Sadeghnejad S., Purafshari P., Mansouri N. (2010) Effect of slip velocity on multiphase flow production in oil wells", 18th annual international conference on mechanical engineering (ISME), Sharif university of technology, Tehran, Iran.
 24. S. Sadeghnejad, Masihi M., Bazrafkan S., King P.R. (2008) Facies Connectivity and Conductivity Modeling, International Conference of Computational Methods in Water resources, , California, 6-9 July.
 25. Sadeghnejad S., Masihi M. (2008) Reservoir Connectivity of overlapping ellipsoid sandbodies, 5th International Chemical Engineering Congress (IChEC2008), Kish Island, Iran.
 26. Sadeghnejad S., Pishvaei M., Bozorgmehri R. (2007) Wavelet Transform and Petroleum Engineering" (in Persian), Exploration & Production journal, NIOC, 43, 2007, 10-16.
 27. Sadeghnejad S., Pishvaei M., Bozorgmehri R. (2006) Wavelet Transform applications in Reservoir Data Characterization, 11th chemical and petroleum engineering congress, Elmosanat university, Tehran, Iran.
 28. Sadeghnejad S., Pishvaei M., Bozorgmehri R. (2006) Wavelet Transform and Petroleum Engineering", 5th national student petroleum engineering congress, Aug 2006, Isfahan, Iran.
 29. Sadeghnejad S., Forouzanfar F. (2005) Application of Multiphase Pumps in Petroleum Industries, 4th of Petroleum Engineering Student National Conference, December 2005, Ahvaz, Iran.
 30. Sadeghnejad S., Pishvaei M. (2005) Wavelet Transform Applications in Petroleum Engineering, 4th of Petroleum Engineering Student National Conference, December 2005, Ahvaz, Iran.
 31. Sadeghnejad S., (2005) Cost Estimation of Production of Micronized Sulfur in a refinery and in an alone unit, 5th Student Conference of Chemical Engineering, March 2005, Tehran, Iran.
۳۲. شیدا عالیوند، الهام اسدی مهماندوستی، هرمز قلاوند، سعید صادق نژاد، محاسبه تخلخل و توزیع حفره های منافذ سازند ایلام با استفاده از روش تشدید مغناطیس هسته NMR در یکی از میادین نفتی ایران، نهمین همایش ملی زمین شناسی مهندسی و محیط زیست ایران، ۱۳۹۵
۳۳. محسن منتظری، سعید صادق نژاد، مطالعه عملکرد فرآیند تزریق گاز غیرامتزاجی در یکی از مخازن جنوب غربی ایران تحت سناریوهای مختلف تولید، دومین کنفرانس بین المللی و سومین همایش ملی کاربرد فناوریهای نوین در علوم مهندسی، اسفند ۱۳۹۴، ایران، مشهد
۳۴. محسن منتظری، سعید صادق نژاد، مقایسه سناریوهای تزریق امتزاجی و غیرامتزاجی گاز در مخازن کربناته جنوب غرب ایران، دومین کنفرانس بین المللی و سومین همایش ملی کاربرد فناوریهای نوین در علوم مهندسی، اسفند ۱۳۹۴، ایران، مشهد
۳۵. پیمان صدیرلی، آرزو جعفری، سعید صادق نژاد، اسماعیل کاظمی توسه، شبیه سازی فرایند ذخیره سازی گاز طبیعی در آبخوانها در حضور چاهای فقی، چهارمین کنفرانس ملی مهندسی مخازن هیدروکربوری و صنایع بالادستی، خرداد ۱۳۹۴، تهران، ایران

۳۶. حسین روزساز، مهرداد منطقیان، سعید صادق نژاد، بررسی مکانیزم های تخلیه نفت در تزریق آب، تزریق گاز و تزریق متناوب آب و گاز در مخازن با ترشوندگی خنثی، اولین همایش ملی توسعه میادین نفت و گاز، ۸-۹ بهمن ۱۳۹۳، تهران، ایران
۳۷. پیمان صدیرلی، آرزو جعفری، سعید صادق نژاد، احمد چنانی، شبیه سازی فرآیند ذخیره سازی گاز طبیعی در آبخوانها، اولین همایش ملی توسعه میادین نفت و گاز، ۸-۹ بهمن ۱۳۹۳، تهران، ایران

Employment History

- ✓ Assistant Professor, Petroleum engineering group, Department of chemical engineering, Tarbiat Modares University, Tehran, Iran (Since 2014).
- ✓ Visiting Research Scholar, University of Waterloo, Canada (2017)
- ✓ Manager of MAPSA Technology Center (MTC), engaged in developing upstream petroleum software, Tehran, Iran (2010-2014).
- ✓ Reservoir Engineer, Abdal Industrial Project Management Company, Iran (2005-2010).

Projects & Working Experiences

Research Projects

- ✓ Project manager, Experimental investigation and numerical modeling of acid injection for EOR purposes by pH-sensitive polymers, Iran National Science Foundation, INSF (Since 2017)

Software Development Experiences

- ✓ Project manager & software designer, "Lab Pro", a comprehensive core data library (RCAL & SCAL), visualizing, management, and integration, MAPSA Technology Center (2011-2013).
- ✓ Project manager & software developer, "VFP-Simulator" (2nd version), a multiphase flow simulator in wellbore with artificial lift modeling capability, Client: POGC (2009-2010).
- ✓ Advisor, "Log Pro", to generate missing petrophysical logs using artificial intelligence methods, MAPSA Technology Center (2008).
- ✓ Software developer, "VFP-Simulator" (1st version), a multiphase flow simulator in wellbore customized for gas condensate wells, Client: POGC (2008).

Laboratory Experiences

- ✓ Quality control assurance of RCAL & SCAL laboratory data, Abdal Industrial Project Management Co. (2013-2014).
- ✓ NMR measurement and interpretation of Soroush Oil field, Client: IOOC (2013).
- ✓ RCAL supervision of #G5 well of Golshan field, Client: POGC (2010).
- ✓ RCAL & SCAL supervision of #G4 well of Golshan field, Client: POGC (2009).
- ✓ Laboratory supervisor, Special Core Analysis Lab, Sharif University of Technology (2007-2011).
- ✓ Advisor, Rock and fluid analysis of 19 wells at North Yaran oil field, Client: Persia Co.

- ✓ Laboratory supervisor, Oil Laboratory (ASTM methods), Sharif University of Technology (2004-2007).

Reservoir Engineering Experiences

- ✓ Reservoir engineer, Master development Planning (MDP), Client: ICOFC (2007-2008).
Fields:
 - Dey,
 - Gordan,
 - SefidZakhor,
 - Mokhtar fields
- ✓ Reservoir engineer, modeling of asphaltene precipitation problem along the wellbore of 5 wells of the Mansori field, Client: NISOC (2007).
- ✓ Reservoir engineer, Geological modeling of North pars gas condensate field using 2-D and 3-D seismic data, Client: POGC (2006-2007).
- ✓ Reservoir engineer, Master development planning (MDP) of Shadegan oil field, Client: PEDEC (2006).

Teaching Experiences

- ✓ Workshop on Pore Network Modeling and Digital Rock Physics Using OpenPNM, IAMG2018, Olomouc, Czech Republic (2018)
- ✓ Lecturer, Advanced Fractured Reservoir Engineering, National Iranian South Oil Company (NISOC), 5-day course, Ahvaz, Iran (2018).
- ✓ Lecturer, Reservoir Modeling & Simulation (graduate), Tarbiat Modares University (since 2013).
- ✓ Lecturer, Fractured Reservoir Engineering (graduate), Tarbiat Modares University (Since 2013).
- ✓ Lecturer, Advanced Pressure Transient Analysis (graduate), Tarbiat Modares University (Since 2014).
- ✓ Lecturer, Reservoir simulation (undergraduate), Azad University, Shiraz, Iran (2014).
- ✓ Lecturer, Measurements, Analysis, and Quality Control of SCAL data, 4 days course, National Iranian Oil Company, NIOC (2013).
- ✓ Lecturer, Well Test Analysis, Azad University, Tehran, Iran (2009).
- ✓ Lecturer, Multiphase Flow, Azad University, Tehran, Iran (2009).
- ✓ Lecturer, Software Developing, Bisotun Petrochemical Co., 5-day course, Kermanshah, Iran (2006).

Certificates

- ✓ Advanced NMR analysis and interpretation, LLC R&C GEFES Co., July 2013 (2 weeks course), Moscow, Russia.
- ✓ Operation training course on Nuclear Magnetic Resonance (NMR), ProtonM20 machine, LLC R&C GEFES Co., Dec 2012 (2 weeks course), Moscow, Russia.
- ✓ Operation training course on Bench top relative permeameter (BRP350) apparatus, Vinci Co., Feb 2011, Tehran, Iran.
- ✓ Operation training course on acoustic velocity measurement (AVS700) apparatus, Vinci Co., Feb, 2011, Tehran, Iran.

- ✓ Operation training course on three phase relative permeability and Long core apparatus, Alberta Research Council (ARC), 4-30 Nov, 2006, Tehran, Iran.
- ✓ Project Management, Oil & Gas Development Projects from Discovery to First Oil/Gas, Total Co., 20-25 Nov 2004, Tehran, Iran.
- ✓ Integrated Reservoir Management, Total Co., June 19th-July 7th, 2005, Tehran, Iran.
- ✓ Drilling Techniques, Total Co., June 19th-July 7th, 2005, Tehran, Iran.
- ✓ Petroleum System Approach and Exploration Management, Total Co., June 19th -July 7th, 2005, Tehran, Iran.
- ✓ General First Aid Course, Sharif University of Technology, Nov 16th-Dec 30th, 2000, Tehran, Iran.

Languages

Persian:

- ✓ Native

English

- ✓ MCHE, score: 75 (out of 100), Sep 2007.
- ✓ TOEFL, score: 550, October, 2005.

Spanish

- ✓ DELE (Diplomas de Espanol como Lengua Extranjera), Nivel Avanzado (B2).

Arabic

- ✓ Basic Concepts

Membership & Communities

- ✓ Member of "International Association for Mathematical Geosciences", since 2017
- ✓ Member of "European Association of Geoscientists and Engineers", since 2011
- ✓ Member of "Society of Petroleum Engineers", since 2005.
- ✓ Member of "Iranian Association of Chemical Engineers", since 2005.
- ✓ Member of Sharif University of Technology Alumni Society