

CURRICULUM VITAE

Ali Yassaghi

Orcid No: 0000-0002-0984-7721

Scopus h-index: 23

Present Position: Professor, Department of Geology

Address: Faculty of Basic Sciences, Tarbiat Modares University Tehran, P. O. Box: 14115-175, Iran

Telephone: +98-21-82883406

Fax: +98-21- 82883460

E-mail: yassaghi@modares.ac.ir

Web: www.modares.ac.ir/~yassaghi

Degrees and Education

B.Sc. degree in Geology (1981-1986) from Mashhad University, Mashhad, Iran, First Class Honors.

M.Sc. degree in Tectonics (1986-1990) from Tarbiat Modares University, Tehran, Iran. Advisor: Dr M. A. Nogol Sadat. Thesis topic: Structural Geology of the SW central Alborz Mountains. No publication out of this research.

Ph.D. degree in Structural Geology (1994-1998) from Adelaide University, Adelaide, Australia.

Supervisor: Professor Patrick R. James. Thesis title: “Geometry, Kinematics, Microstructures, Strain analysis and P-T conditions of the shear zones in Adelaide Hills.”
Two publications out of this in research as follow:

Appointments

1990-1994 Lecturer, Mashhad University

1998-2006 Assistant Professor, Tarbiat Modares University

2006-2017 Associate Professor, Tarbiat Modares University

2018-present Professor, Tarbiat Modares University

Courses Taught

1. Undergraduate: Structural Geology, Tectonics, Mapping and Photogeology Courses (Mashhad University, Mashhad, Iran; Sharif University of Technology, Tehran, Iran)
2. Graduate: Advanced Deformation, Seismotectonics, Experimental Tectonics and Geotectonics Courses for MSc students of Tectonics (Tarbiat Modares, Tehran, Iran)
3. Graduate: Strain Analysis and Faulting Courses for PhD students of Tectonics (Tarbiat Modares, Tehran, Iran)

Present Research Interest:

- 1- Structural analysis of the Arabian-Eurasian continental collision zone in Iranian plateau.
- 2- Analysis on impact of evaporate-shale rocks on style of deformed structures

- 3- Evaluation of Seismic/Aseismic (Friction and Faulting) behavior of faults using Physical-Mechanical properties of fault rocks and geodetic investigation of fault zones.
- 4- Implication of rock deformation (Geomechanics) in Civil works (e.g. Tunnels and Roads)

Publications:

I)- ISI (JCR) Journal Papers:

- 47- Ehteshami-Moinabadi, M., Yassaghi, A., 2025, Structural segmentation of a mountain front fault evolved as an oblique thrust system: the North Tehran Fault case study, *J.Mt. Sci*, 22(7), 2391-2422.
- 46- Elyad, S., Yassaghi, A., Najafi, M., 2025, Structural evolution of anticlines over the Hendijan Paleo-High in the northwestern Persian Gulf: Insights into the influence of inherited basement faults, *Marine and Petroleum Geology*, V. 180, 107479.
- 45- Madanipour, S., Najafi, M., Nozaem, R., Vergés, J., Yassaghi, A., Heydari, I., Khodaparast, S., Zahra Soudmand, Z., and Aghajari, L., 2024, The Arabia-Eurasia collision zone in Iran, *Tectonostratigraphic and structural synthesis*, *J. of Petroleum Geology*, 47(2), 123-172.
- 44- Taghikhani, H., Yassaghi, A., Madanipour, S., Najafi, M., 2024, Salt tectonics along the High Zagros Fault in Iran, faulting through welded salt walls, *J of Asian Earth Sciences* , Vol. 259, 105928.
- 43- Safari, F., Yassaghi, A., 2023, Unravelling the tectonic phases: The impact of the South Caspian Block on Late Cenozoic deformation in the Central Alborz, Iran, *Geologica Carpathica*, Vol. 74, 6, 489-500
- 42- Yang , Ying-Hui, Li, Xiaoyun, Hu, Jyr-Ching , Song, Jiawei , Zhao, Jingjin , Yassaghi, Ali , Pathier, Erwan , Xu, Qiang , and Chen, Qiang, 2023, The 2022 Hormozgan Doublet Earthquake: Two Blind Thrusts-Related Folding in Zagros Fold-And-Thrust Belt, Southeast Iran, *Geophysical Research Letters*, 10.1029/2022GL101902
- 41- Tavakolian, I., Yassaghi, A., Najafi, M., 2022, Structural style in the south Dezful embayment, SW Iran, combined influence of the Zagros front Fault system and the detachment in the Miocene gachsaran Formation, *JPG*, Vol. 45(3), pp 303-324.
- 40- Sharifi, A., Yassaghi, A., 2021, Late Cenozoic Faulting at Ziar Area in central Alborz, *Geopersia*, 11(2), 399-409.
- 39- Ghanbarian M. A., Yassaghi, A., Derakhshani, R., 2021, Detecting a Sinistral Transpressional Deformation Belt in the Zagros, *geosciences*, 11,226.38- Najafi, M., Beamud, E., Ruh, J., Mouthereau, F., Tahmasbi, A., Bernaola, G., Yassaghi, A., Motamedi, H., Sherkati, S., Goodarzi, H., Vergés, J., 2020, Pliocene growth of Dowlatabad syncline to constrain folding propagation across the Fars arc in Zagros, *AAPG Bulletin*, 133, 1347-1369.
- 37- Hassanpour, J., Muñoz, J.A., Yassaghi, A., Ferrer, O., Jahani, S., 2021, Impact of salt layers interaction on the salt flow kinematics and diapirism in the Eastern Persian Gulf, Iran: Constraints from seismic interpretation, *Tectonophysics*, 188, 228887.
- 36- Hassanpour, J., Yassaghi, A., Muñoz, J.A., Jahani, S., 2020, Salt tectonics in a double salt source layer setting (Eastern Persian Gulf, Iran): Insights from interpretation of seismic profiles and sequential cross section restoration, *Basin Research*, 33, 159-185.
- 35- Jalili, Y., Yassaghi, A., Khatib, M. M., Golalzadeh A., 2020, Effect of transverse faults on fracture characteristics and borehole instability in the Asmari reservoir of Zagros folded belt zone, Iran, *Journal of Petroleum Science and Engineering*, 188-106820.
- 34- Yassaghi, A., Marone, C., 2019, The relationship between fault zone structure and frictional heterogeneity, insight from faults in the High Zagros, *Tectonophysics*, 762, 109-120.
- 33- Saeed Madanipour, Ali **Yassaghi**, Todd A. Ehlers, and Eva Enkelmann, 2018, *Tectonostratigraphy, structural geometry and kinematics of the NW Iranian Plateau margin: Insights from the Talesh Mountains, Iran*, *American Journal of Science*, 318, 208–245.
- 32- Ying-Hui Yang, Jyr-Ching Hu, **Yassaghi, A.**, Min-Chien Tsai, Mehdi Zare, Qiang Chen, Ze-Gen Wang, Ali M. Rajabi, and Farnaz Kamranzad Midcrustal Thrusting and Vertical Deformation Partitioning

Constraint by 2017 Mw 7.3 Sarpol Zahab Earthquake in Zagros Mountain Belt, Iran, *Seismological Research Letters*, 89 (6), 2204-2213.

- 31- Feng, W., Samsonov, S., Almeida, R., **Yassaghi, A.**, Li, J., Qiu, Q., et al. (2018). Geodetic constraints of the 2017 Mw7.3 Sarpol Zahab, Iran earthquake, and its implications on the structure and mechanics of the northwest Zagros thrust-fold belt. *Geophysical Research Letters*, 45, 6853–6861.
- 30- Moumeni-Taromsari, M., Dehbozorgi, M., Nozaem, R., **Yassaghi, A.**, 2018, Active tectonics analysis of the Kalmard fault zone, Central Iran. *Arabian Journal of Geosciences*, 11:369
- 29- Ehsan Saberi, **Ali Yassaghi** and Yahya Djamour, 2017, Application of geodetic leveling data on recent fault activity in Central Alborz, Iran. *Geophysical Journal International*, 211, 751-765.
- 28- Saeed Madanipour, Todd A. Ehlers, **Ali Yassaghi**, and Eva Enkelmann, 2017, Accelerated middle Miocene exhumation of the Talesh Mountains constrained by U-Th/Hetermochronometry: Evidence for the Arabia-Eurasia collision in the NW Iranian Plateau, *Tectonics*, 36, 1538–1561
- 27- Ghasemi-Rozveh, T., Khatib, M. M., **Yassaghi, A.**, & Gholami, E., 2017, Using Airborne Geophysical Data in Identifying Tectonic Lineaments in East of Iran, *Geotectonics* 51 (3), 331-339.
- 26- Shahriar Sadeghi , Fabrizio Storti , **Ali Yassaghi** , Yago Nestola , Cristian Cavozi, 2016, Experimental deformation partitioning in obliquely converging orogens with lateral variations of basal décollement rheology: Inferences for NW Zagros, Iran. *Tectonophysics*, 693, 223-238.
- 25- Sadeghi, S.; **Yassaghi, A.**, 2016, Spatial evolution of Zagros Collision Zone in Kurdistan- NW Iran, Constraints for Arabia-Eurasia Oblique Convergence. *Solid Earth*, 7, 659-672.
- 24- Ghasemi-Rozveh, T., Khatib, M. M., **Yassaghi, A.**, & Gholami, E., 2016, Geodynamics and Underlying Bedrock of the Magnetically Active Crust Layer of the Lut Block, Eastern Iran, *Geotectonics* 50 (3), 327-335.
- 23- Javadi, H.R, Esterabi, M., M., Guest B., **Yassaghi, A.**, Ghassemi, M.R., Shahpasandzadeh, A. Naeimi, 2015, Tectonic reversal for the western Doruneh Fault system, implications for central Asian tectonic. *Tectonics*, 34, 2034-2051.
- 22- Najafi, M., **Yassaghi A.**, Bahroudi, A., Vergés, J., Sherkati, S., 2014, Impact of the Late Triassic Dashtak intermediate detachment horizon on anticline geometry in the Central Frontal Fars, SE Zagros fold belt, Iran, *Marine and Petroleum Geology*, 54, 23-36.
- 21- Madanipour, S., Ehler, T., **Yassaghi, A.**, Rezaeian, M., Enkelmann, E., Bahroudi, A. 2013, Synchronous deformation on orogenic plateau margins: Insight from the Arabia- Eurasia Collision, *Tectonophysics*, 605, 440-451.
- 20- Nozaem, R., Mohajjel, M., Rossetti, F., Della Seta, M., Vignaroli, G., **Yassaghi, A.**, Salvini F., Elyasi, M., 2013, Post-Neogene right-lateral strike-slip tectonics at the north-western edge of the Lut Block (Kuh-e-Sarhangi Deformation Zone), Central Iran, *Tectonophysics*, 589, 220-233.
- 19- Masoodi, M., **Yassaghi, A.**, Nogole Sadat, M.A.A., Neubauer, F., Bernroider, M., Friedl, G., Genser, J., Houshmandzadeh, A., 2013, Cimmerian evolution of the Central Iranian basement: Evidence from metamorphic units of the Kashmar-Kerman Tectonic Zone, *Tectonophysics*, 588, 189-208.
- 18- Javadi, H.R, Ghassemi, M.R., Shahpasandzadeh, M., Guest B., Esterabi, M., **Yassaghi, A.**, Kohpeyma, P., 2013, History of faulting on the Doruneh fault system; implications for the kinematic changes of the Central Iranian Microplate, *Geological Magazine*, 1-22
- 17- Madanipour, S., **Yassaghi, A.**, 2012, Photograph of the month, Slump fold. *Journal of Structural Geology*, Vol. 34, 1.
- 16- **Yassaghi, A.** and Massodi, M., 2011, A metamorphic core complex model for host of uranium mineralization in the Khoshumi Mountain, Central Iran, *Resource Geology*, 3, 259-269.
- 15- **Yassaghi, A.** and Naeimi, A., 2011, Structural analysis of the Gachsar sub-zone in central Alborz range, constrain for inversion tectonics followed by the range transverse faulting, *Int. J. Earth Sci.*, 100, 1237-1249.
- 14- Alsouki, M., Riahi, M., A., and **Yassaghi, A.**, 2011, Seismic Imaging of sub-circular salt-related structures: evidence for passive diapirism in the Straits of Hormuz, Persian Gulf, *Petroleum Geoscience*, 17, 101-107.

- 13- Babaahmadi, A., Safaei, H., **Yassaghi, A.**, Naeimi, A., and Madanipour, S., 2010, A study of Quaternary structures in the Qom region, west Central Iran, J. of Geodynamics, 50, 355-367.
- 12- Babaahmadi, A., **Yassaghi, A.**, Naeimi, A., and Taghipour, S., 2010, Mapping Quaternary faults in the west of Kavir Plain, north-central Iran, from satellite imageries, Int. J. Remote Sensing, 31 (19), 5111-5125.
- 11- Nemati, M., **Yassaghi, A.**, 2010. Structural Characteristics of the transitional zone from internal to external parts of the Zagros orogenn, Iran. J. of Asian Earth Science, 39, 161-172.
- 10- Farzipour-Saein, A., **Yassaghi, A.**, Sherkati, S. and. Koyi, H., 2009, Basin evolution of Lurestan region in Zagros fold-thrust belt, Iran. Journal of Petroleum Geology, Vol. 32, 5-20
- 9- Farzipour-Saein, A., **Yassaghi, A.**, Sherkati, S., Koyi, H., 2009. Mechanical stratigraphy and folding style of the Lurestan region in the Zagros Fold-Thrust Belt, Iran. Journal of the geological Society, London, 166, 1101-1115
- 8- Iranpanah, N., Mohammadzadeh, M., Vahidi Asl, M.Q. & **Yassaghi, A.**, 2009. Spatial data analysis of finite strain data across a thrust sheet using R. Computer & Geosciences, 35, 626-634.
- 7- **Yassaghi, A.** & Madanipour, S., 2008, Influence of a transverse basement fault on along-strike variations in the geometry of an inverted normal fault: case study of the Mosha Fault, Central Alborz Range, Iran. Journal of Structural Geology, Vol. 30, 1507-1519.
- 6- Ehteshami-Moinabad, M.& **Yassaghi, A.**, 2007, Geometry and Kinematics of Mosha fault, Central Alborz Range, Iran, J. of Asian Earth Sci., 29 (5-6), 928-938.
- 5- **Yassaghi, A.**, 2006, Integration of landsat imagery interpretation and geomagnetic data on verification of deep-seated transverse fault lineaments in SE Zagros, Iran, Int. J. of Remote Sensing, 56(12), 152-167.
- 4- **Yassaghi, A.** & Salari-Rad, H., 2005, Squeezing rock conditions at an igneous contact zone in the Taloun Tunnels, Tehran-Shomal Freeway, Iran: A case study. Int. J. of Rock Mech. & Mining Sci., 42(1), 95-108.
- 3- **Yassaghi, A.**, Salari-Rad, H.& Moghadam, H., 2005, Geomechanical evaluations of Karaj tuffs for rock tunneling in Tehran-Shomal Freeway, Iran, Eng. Geology 77 (2), 83-98.
- 2- **Yassaghi, A.**, James, P.R., Flottmann, T. & C. N. Winsor, 2004, PT-conditions and kinematics of shear zones from the southern Adelaide Fold-Thrust Belt, South Australia: insights into the dynamics of a deeply eroded orogenic wedge. Aust. J. of Earth Sci., 51(2), 301-317.
- 1- **Yassaghi, A.**, James, P.R. & Flottmann, T., 2000, Geometry and kinematics of asymmetric ductile shear zones in thrust sheets, southern Adelaide Fold-Thrust belt, S.A., J. of Struct. Geol., 22 (9), 889-912.

II)- Iranian and other Journal Papers (No.): 68

Selected International Conference papers:

- 21- **Yassaghi, A.**, 2018, The role of Izeh transverse fault zone in Zagros, Iran. 1st conference of the Arabian Journal of Geosciences (CAJG) 2018, Tunisi, Tunisia.
- 20- **Yassaghi, A.**, 2017, Allochthonous Collapse Structures in Zagros Fold Thrust Belt, Iran. 4th Slope Tectonics conference, Kyoto, Japan.
- 19- **Yassaghi, A.**, Nemati, M., 2017, Application of fluid inclusions on assessment of deformation condition of thrust sheets in Zagros, Iran. ECROFI 2017 conference, Nancy, France.
- 18- **Yassaghi, A.**, Taghikani, H., 2015, Fault termination geometry for segmentation of Kazerun Fault Zone in Zagros, Iran The World Multidisciplinary Earth Sciences Symposium WMESS2015, Prague, Czech Republic.
- 17- **Yassaghi, A.**, 2014, Some Remarks on wet gypsum as a viscous material for physical modeling, GeoMod2014 conference, Potsdam, Germany.

- 16- **Yassaghi, A.**, Ehteshami-Moinabadi, M., 2013, Application of fluid inclusions in assessment of deformation condition of the Mosha Fault in central Alborz, Iran. ECROFI XXII conference, Antalya, Turkey.
- 15- **Yassaghi, A.**, Ehteshami-Moinabadi, M., 2013, Structural evidence for Cimmerian Orogeny in Central Alborz. ICGG 2013 conference, Beijing, China.
- 14- **Yassaghi, A.**, Najafi, M., Bahroudi, A., Sherkati, S., 2012, The Significance of Basement Reverse Faulting on Fold Style of Cover Sequence with Multiple Detachments in Zagros Fold-Thrust Belt: Field data and Analogue Modeling Approach. ICTJA, Darius conference, Barcelona, Spain.
- 13- **Yassaghi, A.**, 2011, Late Cenozoic reactivation of Basement faults in Central Alborz Range. 11th SGEM 2011, Albena, Bulgaria.
- 12- **Yassaghi, A.**, 2010, Structure of Zagros suture zone, Iran. 7th AOGS, Hyderabad, India.
- 11- **Yassaghi, A.**, 2009, Kinematics of Earthquakes in Central Alborz, Iran, 6th AOGS, Singapore, Singapore.
- 10- **Yassaghi, A.**, 2008, Structural Geometry of Taleqan Mountains in Central Alborz Range; constraints for the range left-lateral transpression followed inversion tectonics, AOGS 2008, Busan, Korea.
- 9- **Yassaghi, A.**, 2007, Kinematics of transverse faulting on Zagros Fold-Thrust belt, an evidence for structural inheritance and reactivation in young fold belt, 6th Int. Sympo. on Eastern Mediterranean Geology, Amman, Jordan.
- 8- **Yassaghi, A.**, 2005, The effect of deep-seated transverse faults on structural evolution of west-central Alborz mountains, EGU 2005 Conference, Vienna, Austria.
- 7- Salari-Rud, H., Hosseini, A. H. & **Yassaghi, A.**, 2004, Stability analysis of twin tunnel entrances in sloping ground surface conditions by 3D FEM. SEMC 2004 Conference, Cape Town, South Africa.
- 6- Davoodi, Z. & **Yassaghi, A.**, 2004, Effect of Basement Tectonics on Hydrocarbon Prospective in Zagros, Iran, Middle East Petroleum Geoscience Conference, Bahrain
- 5- **Yassaghi, A.**, & Kanani-Moghadam, H., 2002, Geotechnical investigation and assessment for design of Alborz Tunnel, Iran, 28th world Tunnel Congress, Sydney, Australia
- 4- **Yassaghi, A.**, Salary-Rad, H., & Jafari, M., 2002, Taloun-service tunnel, the challenges on construction and support, 28th world Tunnel Congress, Sydney, Australia
- 3- **Yassaghi, A.**, 2001, Inversion tectonics in central Alborz Range, European Union of Geosciences (EUG XI), France, Abstract
- 2- **Yassaghi, A.** & Kanai-Moghadam, H., 2001, Implication of engineering rock mass classification in design and construction of Talon pilot tunnel, 3rd Asian symposium on Engineering Geology and the environment, Indonesia, Extended Abstract.
- 1- **Yassaghi, A.**, 2001, Implication of landsat images on verification of deep-seated transverse faults in SE Zagros Fold-Thrust belt, Iran, GSA 2001 Annual Meeting, Geological Society of America, U S A, Abstract.

Iranian Conference papers (No.): 70

Graduated Ph.D students

- 14- Safari, F., Thesis Title: Investigation on the effect of indentation tectonics on the kinematics of fault zones in Central Alborz and Western Makran, 2019-2025.
- 13- Taghikhani, H., Thesis Title: Structural Evolution of High Zagros Zone in Paleozoic, 2016-1022.
- 12- Hassanpour, J., Thesis title: Structural and Salt-tectonic Evolution of the Eastern Persian Gulf:

Constraints from Seismic Data Interpretation, Sequential Cross-section Restoration, and Physical Modelling, 2015-2020.

- 11- Tavakolian, E., Thesis title: Effects of Zagros Front Fault deformation on fold style in south Dezful Embayment, 2015-2020.
- 10- Saberi, E., Thesis title: Application of geodetic leveling data on recent fault activity in Central Alborz. 2013-2017.
- 9- Atapour, A., Thesis title: Structural Evolution of East Zagros (Fars Zone), using Paleozoic Formation thermochronometry (Apatite Fission Track). 2012-2016.
- 8- Sadeghi, S., Thesis title: Spatial evolution of Zagros Collision Zone in Kurdistan- NW Iran. 2012-2016.
- 7- Najafi, M., Thesis title: Impact of the Late Triassic Dashtak intermediate detachment horizon on anticline geometry in the Central Frontal Fars, SE Zagros fold belt, Iran. 2010-2014.
- 6- Madanipour, S., Thesis title: Kinematics of Talesh Mountain. 2009-2013.
- 5- Masoodi, M., Thesis title: Cimmerian evolution of the Central Iranian basement: Evidence from metamorphic units of the Kashmar-Kerman Tectonic Zone. 2008-2012.
- 4- Ehteshami-Moinabad, M., Thesis title: Kinematics of Mosha fault, Central Alborz Range. 2006-2010.
- 3- Davoudi, Z., Thesis title: Geometry and Kinematics of the Izeh fault zone in Zagros Fold- Thrust Belt, Iran, 2007-2011.
- 2- Farzipour-Saeen, A., Thesis title: Folding style and structural evolution of Lurestan region (Zagros fold-thrust belt) with lay emphasis on hydrocarbon aspects, Iran, 2006- 2009.
- 1- Nemati, M., Thesis title: Geometry, Kinematics, and Spatial and temporal evolution of Thrust System of High Zagros Fold- Thrust Belt, Iran, 2005-2010.

Graduated MSc. Students (No): 58