

Navid Hosseini-Alaee

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Assistant Professor, Department of Mining Engineering, Technical Engineering Faculty, Islamic Azad University (IAU), South Tehran Branch. 45-Metri-Ahang Street, 4th Bridge, 16-Metri-Abuzar Street, Piruzi, Tehran, Iran. Postcode: 1777613511
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PERSONAL INFORMATION

- **Gender:** Male
- **Date of Birth:** August 20th, 1981 (Iran)
- **Language Proficiency:** Persian, English

EDUCATION

- **Doctor of Philosophy, Mining Engineering, February 2012**
Islamic Azad University (IAU), Science & Research branch, Tehran, Iran
Thesis: Estimation of stress state around the longwall mining panel using passive seismic velocity tomography
- **Master of Science, Mining Engineering, September 2006**
Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran
Thesis: Modeling of pillars in longwall method using advanced numerical techniques
- **Bachelor of Engineering, Mining Engineering, September 2004**
Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran
Thesis: E-commercial and dimension stone database for Iran

AFFILIATIONS

- Member of the Young Researchers Club (YRC).
- Member of the International Society for Rock Mechanics (ISRM).
- Member of the Society for Mining, Metallurgy & Exploration (SME).
- Member of the Institute of Materials, Minerals & Mining (IOM3).

RESEARCH INTERESTS

- Rock Mechanics, Rock Dynamics and Geomechanics
- Ground Control and Underground Mining
- Tomography, Acoustic Emission and Stress Detection
- Computer Application, Photogrammetry, Monitoring and Numerical Modeling in Rock Mechanics
- Mechanized Excavation of Tunneling and Underground Space

TEACHING INTERESTS

- Rock Mechanics
- Rock Dynamics
- Underground Excavation
- Strength of Materials

TEACHING

- Assistant professor in mining engineering department of Islamic Azad University (IAU) – Tehran South Branch from 2007 up to the present.
 - **BE:** Rock Mechanics, Rock Mechanics Lab., Computer Application in Mine, Strength of Materials, Geotechnics.
 - **MSc:** Special Topic in Mine Extraction, Tunnel and Shaft Excavation, Advanced Mathematics, Advanced Rock Mechanics, Design and Planning Underground Spaces.
 - **PhD:** Ground Subsidence, Mechanics of Strata and Methods of Control, Advanced Rock Dynamics.
- Research & Education Organization of Iran ministry of industry and mining (Rock Mechanics, Support in Mines, Mining Software, etc.) from 2006 up to 2009.

PUBLICATIONS & PRESENTATIONS

- **BOOKS**
 - Book with title “**Computer Application in Mine**”, Islamic Azad University (IAU), Press, Tehran, Iran, 2007, p. 197, (in Persian).
- **PAPERS**

○ **Conference Papers**

- **Hosseini Navid**, Salehi Bahram; (2004), “**Clay Bioleaching and Alumina Production**” in Chemical and Geology Evaluation in Mine Conference, Islamic Azad University (IAU), South Tehran Branch & North Tehran Branch, Tehran, Iran, pp. 127 – 139, (in Persian).
- Amirafshari Mehdi, **Hosseini Navid**; (2004), “**E-Learning and Application in Mining Engineering**” in from E-Learning to Virtual University Conference, Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran, pp. 74 – 88, (in Persian).
- Amirafshari Mehdi, **Hosseini Navid**, Salehi Bahram; (2005), “**Bioleaching Application in Copper Processing**” in 1st Mining Engineering Conference, Lahijan University, Lahijan, Iran, p. 454; (in Persian).
- Amirafshari Mehdi, Gholinejad Mehran, **Hosseini Navid**; (2005), “**Mineral Processing Development Strategy**” in 2nd Mining and Related Science Region Conference, Tabas University, Tabas, Iran, pp. 53 – 72, (in Persian).
- Amirafshari Mehdi, **Hosseini Navid**; (2005), “**Ore Strategy in 1400 Iranian Scheduling and Ore Role in Enlarge**” in National Enlarge and Outlook for Iran in 1400 Region Conference, Kermanshah University, Kermanshah, Iran, 2005, pp. 1 – 12, (in Persian).
- Amirafshari Mehdi, Kia Vahid, **Hosseini Navid**; (2005), “**University, Industrial and Government Consociation Pattern**” in 3rd Government, University and Industrial Cooperation International Congress, Tehran, Iran, pp. 1 – 12, (in Persian).
- **Hosseini Navid**, Oraee Kazem; (2006), “**Estimation of Yield Pillar Strength by Finite Element Method**” in 1st Mine & Mining Consequence International Conference, Mashhad, Iran, pp. 68 – 76, (in Persian).
- Amirafshari Mehdi, **Hosseini Navid**; (2007), “**CWM Production Feasibility in Iran**” in 3rd Mining and Related Science Region Conference, Tabas University, Tabas, Iran, pp. 93 – 103, (in Persian).

- Oraee Kazem, **Hosseini Navid**, Gholinejad Mehran; (2008), “**Logical Design of Yield Pillar Base in Longwall Mining**” in 17th International Symposium on Mine Planning and Equipment Selection (MPES08), Beijing, China, pp. 706 – 712.
- Oraee Kazem, **Hosseini Navid**, Gholinejad Mehran; (2008), “**3D Strain-Softening Modeling of Coal Pillars in a Deep Longwall Mine**” in 17th International Symposium on Mine Planning and Equipment Selection (MPES08), Beijing, China, pp. 761 – 767.
- Oraee Kazem, **Hosseini Navid**, Gholinejad Mehran; (2009), “**Estimation of Coal Pillar Strength by Finite Difference Model**” in 9th Underground Coal Operators Conference (COAL2009), Wollongong, Australia, pp. 54 – 61.
- Oraee Kazem, **Hosseini Navid**, Gholinejad Mehran; (2009), “**The New Approach of Selected Tunnel Supporting System Using Analytical Hierarchy Process (AHP)**” in 9th Underground Coal Operators Conference (COAL2009), Wollongong, Australia, pp. 78 – 89.
- Oraee Kazem, **Hosseini Navid**, Gholinejad Mehran; (2009), “**Coal Pillar Strength Based on the Ground Reaction Curve – a New Approach**” in 28th International Conference on Ground Control in Mining (ICGCM), Morgantown, West Virginia, USA, pp. 21 – 24.
- Oraee Kazem, **Hosseini Navid**, Soltani Mohammadreza, Amirafshari Mehdi; (2010), “**Productivity Preferment from Economic Concept to an Engineering Tool**” in 10th Underground Coal Operators Conference (COAL2010), Wollongong, Australia, pp. 368 – 376.
- **Hosseini Navid**, Oraee Kazem, Gholinejad Mehran; (2010), “**Seismic Analysis of Horseshoe Tunnels under Dynamic Loads Due to Earthquakes**” in 10th Underground Coal Operators Conference (COAL2010), Wollongong, Australia, pp. 140 – 145.
- **Hosseini Navid**, Oraee Kazem, Gholinejad Mehran; (2010), “**Selection of Tunnel Support System by Using**

- Multi Criteria Decision-Making Tools**” in 29th International Conference on Ground Control in Mining (ICGCM), Morgantown, West Virginia, USA, pp. 58 – 66.
- **Hosseini Navid**, Oraee Kazem, Gholinejad Mehran; (2010), “**Optimization of Chain Pillars Design in Longwall Mining Method**” in 29th International Conference on Ground Control in Mining (ICGCM), Morgantown, West Virginia, USA, pp. 67 – 70.
 - Rostamabadi Sina, Rostami Alireza, **Hosseini Navid**, Khosrotash Mohammad; (2010), “**Analytical and Numerical Estimation of Subsidence and Comparison to Instrumentation Results**” in 2nd Maadan Charkh-e-Sanaat, Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran, pp. 93 – 101, (in Persian).
 - Amirafshari Mehdi, Gholinejad Mehran, **Hosseini Navid**; (2010), “**Calculation and Productivity Analysis of Alborz-Sharghi Coal Mines**” in 2nd Maadan Charkh-e-Sanaat, Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran, pp. 73 – 83, (in Persian).
 - Mohammad-Hosseini Masoud, **Hosseini Navid**; (2010), “**The Study on Shield Support System in Longwall Mining**” in 2nd Maadan Charkh-e-Sanaat, Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran, pp. 66 – 71.
 - Oraee Behdeen, **Hosseini Navid**, Oraee Kazem, Gholinejad Mehran; (2011), “**Analyses of Tunnel Stability under Dynamic Loads**” in 2011 SME Annual Meeting, Preprint 11-145, Denver, CO., USA, pp. 1 – 4.
 - **Hosseini Navid**, Gholinejad Mehran, Adib Ahmad; (2011), “**Estimation of Coal Pillar Bearing Capacity Using 3D Strain Softening Modeling**” in 5th national conference of geology & environment, Islamshahr, Iran, No. 39, p. 7, (in Persian).
 - Rostamabadi Sina, **Hosseini Navid**, Ghorbani Masoud; (2011), “**Evaluation of Tunnel Excavation and Ground Settlement Influence on Surface Constructions (Case Study: Tehran Metro Tunnel – Line 7)**”, in First Asian and 9th Iranian Tunneling Symposium, Tehran,

Iran, ATS11-03311, pp. 227 – 233.

- Oraee Kazem, Tayebi-Khorami Maedeh, **Hosseini Navid**; (2012), ***“Prediction of the Penetration Rate of TBM Using Adaptive Neuro Fuzzy Inference System (ANFIS)”***, SME Annual Meeting, Seattle, WA, USA, Preprint 12-062.
- Oraee Kazem, **Hosseini Navid**, Gholinejad Mehran; (2012), ***“Determining the Amplitude of Certainty for Empirical Rock Failure Criteria”***, SME Annual Meeting, Seattle, WA, USA, Preprint 12-027.
- Shahriar Kourosh, **Hosseini Navid**; (2012), ***“Rock Failure Criterion for Coal Basin Rocks”***, 18th Coal Congress of Turkey, Zonguldak, Turkey, pp. 1 – 8.
- **Hosseini Navid**, Behdeen Oraee-Mirzamani, Oraee Kazem; (2012), ***“The Evaluation of Empirical Coal Pillar Strength Formula Based on Uncertainty Criterion”***, 31st International Conference on Ground Control in Mining (ICGCM), Morgantown, West Virginia, USA, pp. 1 – 4.
- Rostami Alireza, **Hosseini Navid**, Adib Ahmad, Roozbahani Hesamedin; (2013), ***“The Effect of Tunnel Section Geometry on Stability and Stress Redistribution in Surrounding Rock Mass of Excavation in Urban Area (Case Study: Karaj Metro, Line #2)”***, Symposium and workshop of sustainable development and urban management, Tehran, Iran.
- Rostamabadi Sina, Sharifzadeh Mostafa, **Hosseini Navid**; (2013), ***“Analysis of Building Damage Caused by Twin Tunnels Excavated Using Relative Stiffness (Case Study: Isfahan Metro)”***, 10th Iranian Tunnelling Conference, Underground Space and the 3rd Millennium Development Goals, Tehran, Iran.
- Afrasiabian Bijan, Aghajani-Bazzazi Abbas, **Hosseini Navid**; (2014), ***“Prediction of TBM Penetration Rate by Artificial Neural Network and Multivariate Linear Regression Analysis”***, 5th Iranian Rock Mechanics Conference (IRMC5), Tehran, Iran.
- Mahdizadeh Mahdi, **Hosseini Navid**, Afzal Peyman, Kaveh-Ahangaran Dariush; (2014), ***“Using Size-***

- Number Fractal Method for Rock Classification based on Strength, Case Study: Gheslagh Coal Mine**, 5th Iranian Rock Mechanics Conference (IRMC5), Tehran, Iran.
- Mahdizadeh Mahdi, **Hosseini Navid**, Afzal Peyman, Kaveh-Ahangaran Dariush, Yasrebi Amir-Bijan; (2014), **“Using Semi-Fuzzy RMR to Determine the Required Support System for Gheslagh Coal Mine”**, 22nd UK Conference of the Association for Computational Mechanics in Engineering, University of Exeter, Exeter, UK.
 - Bahador-Beygi Dawood, **Hosseini Navid**, Rezazadeh-Azar Ehsan; (2016), **“A Quantitative Approach to Optimizing the Fuel Consumption of Dump Trucks in Earthmoving Projects”**, 84th ICOLD Annual Meeting, Johannesburg, South Africa, pp. 8-371 – 8-380.
 - Hosseini Seyed Sohrab, Mihannejad Alireza and **Hosseini Alaei Navid**; (2017), **“Analysis of Rock Dynamic Parameters Using Non-Destructive Experiments for Mine Design”**, International Conference on Civil Engineering, Architecture and Urban Development of Contemporary Iran, Tehran, Iran; <https://civilica.com/doc/708950/>
 - Mihannejad Alireza, Hosseini Seyed Sohrab and **Hosseini Alaei Navid**; (2017), **“Determining the Physical Properties of Limestone Using Dynamic Methods”**, 3th Earth Sciences and Urban Development and the First Conference on Art, Architecture and Urban Management, Tehran, Iran; <https://civilica.com/doc/688359/>
 - Mihannejad Alireza, Hosseini Seyed Sohrab and **Hosseini Alaei Navid**; (2017), **“Utilization of Dynamic Parameters to Estimate the Modulus of Elasticity and Compressive Strength of Uniaxial Magnetite”**, 3th Earth Sciences and Urban Development and the 1st Conference on art, Architecture and Urban Management, Tehran, Iran; <https://civilica.com/doc/688358/>
 - Mihannejad Alireza, Hosseini Seyed Sohrab and **Hosseini Alaei Navid**; (2017), **“Using of Dynamic Parameters to Estimate the Modulus of Stiffness and**

- Compressive Strength of Uniaxial Magnetite**", 5th International Conference on Civil Engineering, Architecture & Urban Development, Tehran, Iran; <https://civilica.com/doc/735505/>
- Elhamian Goodarz, Aghajani Bazazi Abbas and **Hosseini Alaei Navid**; (2018), "**Prediction of Tehran Metro Line 7 Tunnel Meeting Using Linear Regression Method and Mamdani Fuzzy Inference System**", First National Conference of Modelling in Mining Engineering, Tehran, Iran; <https://civilica.com/doc/860604/>
 - Hosseini Seyed Sohrab, Mihannejad Alireza and **Hosseini Alaei Navid**; (2018), "**Evaluating the Efficiency of Non-Destructive Methods in Rock Mechanics as A Complementary Method**", 5th Iranian International NDT Conference, Tehran, Iran; <https://civilica.com/doc/867335/>
 - Tahmasebi Mohammad Ali, Shirinabadi Reza, **Hosseini Alaei Navid** and Hosseini Morteza; (2018), "**Stability Analysis of Finite Difference Maintenance System (Case Study of Zarbalizadeh Underpass Tunnel)**", 5th Dam and Tunnel Conference and Exhibition, Tehran, Iran; <https://civilica.com/doc/854619/>
 - Zoghi Emad, Shaham Afshin, **Hosseini Alaei Navid** and Mohammadi Ghodratalah; (2019)' "**The Effect of Additives, Optimization of Cement in The Detrital Silica-Gas Reservoir of Khangiran**", 5th International Conference Chemical and Petroleum Engineering, Tehran, Iran; <https://civilica.com/doc/911356/>
 - Zoghi Emad, Shaham Afshin, **Hosseini Alaei Navid** and Mohammadi Ghodratalah; (2019)' "**The Effect of XC Polymer on The Properties of Drilling Fluid Cake Filters in Khangiran Formation**", 5th International Conference Chemical and Petroleum Engineering, Tehran, Iran; <https://civilica.com/doc/911355/>
 - Moosavi Seyed Mohammad, Shaham Afshin and **Hosseini Alaei Navid**; (2019)' "**Modeling with The Aim of Exploration and Exploration of Polymetallic Minerals Based on A Combination of Remote Sensing Methods and GIS in Northern Zanjan**", 5th International Conference Chemical and Petroleum Engineering,

Tehran, Iran; <https://civilica.com/doc/911316/>

- Moosavi Seyed Mohammad, Shaham Afshin and **Hosseini Alaei Navid**; (2019)' "**Modeling with Crosta Remote Sensing Method with The Aim of Exploring Polymetallic Minerals in GIS (North of Zanzan)**", 5th International Conference Chemical and Petroleum Engineering, Tehran, Iran; <https://civilica.com/doc/911315/>
- Moosavi Seyed Mohammad, Shaham Afshin and **Hosseini Alaei Navid**; (2019)' "**Preparation of Exploratory Model of Polymetallic Minerals by Remote Sensing Method of Band Composition and Band Ratio in The North of Zanzan**", 5th International Conference Chemical and Petroleum Engineering, Tehran, Iran; <https://civilica.com/doc/911314/>

○ **Journal Papers**

- **Hosseini Navid**; (2002), "**Mining – Inexpensive Office Creation**" Asia Newsletter, Tehran, Iran, Volume 418, (in Persian).
- Amirafshari Mehdi, **Hosseini Navid**, Meysam Mokhtari; (2006, 2006, and 2010), "**HSE Learning Necessity in Dimension Stone Mines**" Dimension Stone Mines Conference, Mahalat University, Mahalat, Iran, and Iranian Stone Book, Volume 8, Tehran, Iran, pp. 72 – 75, and in Mining Development Journal, Volume 8, pp. 87 – 89 (in Persian).
- **Hosseini Navid**; (2006), "**Yield Pillar Design Feasibility by Using Chain Pillar Design Conventional Methods**" Mother Industry Journal, Volume 4, Esfahan University, Esfahan, Iran, pp. 21 – 25, (in Persian).
- **Hosseini Navid**; (2007), "**Advance Numerical Techniques Application in Rock Slope Stability Evaluation**" Mining and Development Weekly, Volumes 234 and 235 (in Persian).
- Oraee Kazem, **Hosseini Navid**, Yasipur-Tehrani Hamid; (2007), "**Chain Pillar Using in Longwall Mining Method**" Bolur Journal, Volume 22, Polytechnic

University, Tehran, Iran, pp. 22 – 25, (in Persian).

- Oraee Kazem, **Hosseini Navid**; (2008), “**Design of Yield Coal Pillar in Longwall Mining**” *Geology and Environment Journal*, Volume 4, Tehran, Iran, pp. 1 – 9, (in Persian).
- Amirafshari Mehdi, **Hosseini Navid**, Salehi Bahram; (2009), “**Mass Dynamic Parameter Model of Rock Bolts for Learning the Neural Network**”, *Osveh Journal*, Volume 15, pp. 23-31, (in Persian).
- Rostamabadi Sina, **Hosseini Navid**; (2011), “**Tunnel Stability Analysis and Support System Design Using Finite Element Method**” *Bolur Journal*, Volume 29, Polytechnic University, Tehran, Iran, pp. 18 – 22, (in Persian).
- Rostami Alireza, **Hosseini Navid**, Shabani Narjes, Khosrotash Mohammad; (2011), “**The Effect of Tunnel Section Geometry on the Stability and Stress around the Excavation**” *Bolur Journal*, Volume 29, Polytechnic University, Tehran, Iran, pp. 23 – 28, (in Persian).
- Rostamabadi Sina, Rostami Alireza, **Hosseini Navid**; (2011), “**Studying the Subsidence Calculation Methods due to Tunnel Construction - Case Study: Tehran Metro (Line #7)**”, *Tunnel Journal*, Volume 12, Iranian Tunnelling Association Magazine, pp. 16 – 21, (in Persian).
- Rostami Alireza, Rostamabadi Sina, **Hosseini Navid**, Khosrotash Mohammadreza; (2011), “**Numerical and Analytical Estimating of Ground Subsidence and Comparison with the Result of Observational and Instrumental Method (Case Study: Second Line of Karaj Subway Tunnel)**”, *Journal of Earth & Resources*, 4th year, Issue 3, Series No. 12, pp. 33 – 40, (in Persian).
- **Hosseini Navid**, Oraee Kazem, Shahriar Kourosh, Goshtasbi Kamran; (2012), “**Passive Seismic Velocity Tomography and Geostatistical Simulation on Longwall Mining Panel**”, *Archives of Mining Sciences Journal*, Volume 57, Number 1, pp. 51 – 67.
- **Hosseini Navid**, Oraee Kazem, Shahriar Kourosh, Goshtasbi Kamran; (2012), “**Simultaneous Iterative**

Reconstructive Technique (SIRT) Passive Seismic Velocity Tomography on Longwall Mining Panel", Journal of Central South University of Technology, Volume 19, Issue 8, pp. 2297 – 2306.

- **Hosseini Navid**, Oraee Kazem, Shahriar Kourosh, Goshtasbi Kamran; (2013), "**Studying the Stress Redistribution around the Longwall Mining Panel Using Passive Seismic Velocity Tomography and Geostatistical Estimation**", Arabian Journal of Geosciences, Issue 6, pp. 1407–1416.
- **Hosseini Navid**, Goshtasbi Kamran, Oraee Behdeen, Gholinejad Mehran; (2014), "**Calculation of Periodic Roof Weighting Interval in Longwall Mining Using Finite Element Method**", Arabian Journal of Geosciences, Issue 7, pp. 1951 – 1956.
- **Hosseini Navid**, Gholinejad Mehran; (2014), "**Investigating the Slope Stability Based on Uncertainty by Using Fuzzy Possibility Theory**", Archives of Mining Sciences Journal, Volume 59, Number 1, pp. 179 – 188.
- Sedaghat-Nejad Hesam, **Hosseini Navid**, Nikvar-Hassani Arash; (2016), "**Determination of the Optimum Size of Building Stone Blocks; Case Study: Delichay Travertine Mine**", International Journal of Environmental, Chemical, Ecological, Geological and Geophysical Engineering, Volume 10, Number 3.
- Rostamabadi Sina, Sharifzadeh Mostafa, **Hosseini Navid**; (2016), "**Analysis of Twin Tunnels Excavation on Ground Settlement by Using Empirical and Numerical Method (Case Study: Isfahan Metro)**", Tunnel Journal, Volume 26, Iranian Tunnelling Association Magazine, pp. 21 – 26, (in Persian).
- Bahador-Beygi Dawood, **Hosseini Navid**, Rezazadeh-Azar Ehsan; (2016), "**Reducing Emissions of Greenhouse Gases by Optimizing Fuel Consumption in Construction Machines**", Payam-e-Abadgaran, Syndicate of Iran Construction Companies Monthly Magazine, Number 345, pp. 48 - 59 (in Persian).
- **Hosseini Navid**; (2017), "**Evaluation of the Rockburst**

Potential in Longwall Coal Mining Using Passive Seismic Velocity Tomography and Image Subtraction Technique", Journal of Seismology, DOI: 10.1007/s10950-017-9654-4.

- Samieinejad Mohammad Masoud, **Hosseini Navid**, Ahangari Kaveh; (2017), "**A Field Investigation of the Application of Digital Terrestrial Photogrammetry to Characterize Geometric Properties of Discontinuities in Open Pit Slopes**", Journal of Mining and Environment, DOI: 10.22044/jme.2017.930
- **Hosseini-Alaee Navid**, Mozafari Ali, Mirzaee Misagh, Faghihi Aref, Tolouei Kamyar; (2019), "**Fuzzy evaluation method for the identification of subsidence susceptibility in an underground mine (case study in Tabas coal mine of Iran)**", Journal of Natural Hazards, <https://doi.org/10.1007/s11069-019-03774-2>
- Pezeshkan Mehdi, **Hosseini Navid**; (2020), "**An approach based on Fuzzy Best-Worst method for sustainable evaluation of mining industries**", Mineral Resources Management, Volume 36, Issue 2, pp. 41–70, DOI: 10.24425/gsm.2020.132563
- Sasan Sepehri, Reza Shirinabadi, **Navid Hosseini-Alaee**, Ehsan Moosavi and Amirhossein Bangian-Tabrizi; (2020), "**Investigating the effects of rock failure mechanism on its bearing capacity using the three-dimensional particle flow code (PFC3D)**", Journal of Mining and Environment, DOI: 10.30479/JMRE.2019.10985.1283
- Pezeshkan Mehdi, **Hosseini Navid**; (2020), "**An integrated approach for performance evaluation of mining industry: a case study of Iranian Steel Complex**", Mineral Resources Management, Volume 36, Issue 3, pp. 5–28, DOI: 10.24425/gsm.2020.133931

PROJECTS & RESEARCHS

- Design and programming of **Iranian Dimension Stone** website with the aim of introduction, search and on-line buying, 2004.
- Design and management of **Madan-Gostar Bisotun Co. website**, from 2003 up to 2006.

- Member of teamwork in “**Feasibility Study and Application of Coal Water Mixture in Iran**” project, Optimization Fuel Consumption Organization, Tehran, Iran, 2002.
- Programming code and design of **Master Database Software**, Learning & Research Institute, Iran Ministry of Industry and Mining, Tehran, Iran, 2003.
- Member of teamwork in “**Mineral Processing Importance**” project, Geological and Exploration Services Organization of Iran, Tehran, Iran, 2003.
- Executor of “**Feasibility Study of Abrasive Using Garnet in Iran**” project, Tolu-e Shargh Co., Kerman, Iran, 2003.
- Member of teamwork in “**The Flowcharts Design of Research Operations Database**” project, Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran, 2004.
- Member of teamwork in “**Database of ore and mineral extraction in Iran**” project, National Geoscience Database of Iran (NGDIR), Tehran, Iran, 2004.
- Member of teamwork in “**Consideration of University, Government and Industrial Connection**” project, Islamic Azad University (IAU), Tehran, Iran, 2005.
- Member of teamwork in “**Analysis of Research Law, Dissertations, Research Tools and Research Center**” project, Islamic Azad University (IAU), Tehran, Iran, 2005.
- Executor of “**The design of Salt Mine**” project, Zamin-Sanaat Co., Semnan, Iran, 2006.
- Member of teamwork in “**Copper Analysis and its Strategy Production in Iran**” project, Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran, 2007.
- Executor of “**Cement Analysis and its Strategy Production in Iran**” project, Young Researchers Club, Tehran, Iran, 2008.
- Executor of “**Extraction Design and Production Scheduling of Gandy Gold Mine - Dameghan**” project, Madankavan Bisotun Co., Tehran, Iran, 2008.
- Member of teamwork in “**The Coal Tailing Study for Determine the Industrial Application**” project, Madankavan Bisotun Co., Tehran, Iran, 2009.
- Executor of “**Determination of Rock Mass Strength Based on Traditional Rock Failure Criteria**” project, Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran, 2010.

- Executor of “**Large-Scale Slope Stability Analysis Based on the Combination Study of Effective Parameters under Uncertainty Conditions**” project, Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran, 2011.
- Project manager in “**Check Leakage of Evaporative Ponds**”, Hampa Danesh Shidvash Consultant Engineers Company, Potash Complex, IMPASCO, Khour and Biabanak, Isfahan, 2015.
- Project manager in “**Geotechnical Comprehensive Studies - Angouran Lead and Zinc Complex**”, Hampa Danesh Shidvash Consultant Engineers Company, Angouran Complex, IMPASCO, Dandy, Zanjan, 2016.
- Project manager in “**Mining Exploration Studies – DehZaman Iron Mine**”, Hampa Danesh Shidvash Consultant Engineers Company, Faravari Maadani Opal Kani Pars, Bardeskan, Dehzaman, Khorasan, 2016.
- Project manager in “**Geotechnical Instrumentation in Zarbalizadeh Underpass**”, Hampa Danesh Shidvash Consultant Engineers Company, Hara Institution, Tehran, 2017.
- Project manager in “**Flat Wedge Dilatometer Test**”, Hampa Danesh Shidvash Consultant Engineers Company, Bainolmelal Omran Sarir, Metro, H7 Station, Tehran, 2017.

PRESENT POSITION

- **Faculty Member of Mining Engineering Department**, Islamic Azad University (IAU), South Tehran Branch, Tehran, Iran from 2007 up to the present.
- **Head of Department**, Mining Engineering Department, B.E. and M.Sc., Islamic Azad University (IAU), South Tehran Branch, 2012 up to 2015.
- **Head of Department**, Mining Engineering Department, Ph.D., Islamic Azad University (IAU), South Tehran Branch, 2014 up to 2015.
- **Head of Incubator Center of Technology Units**, Islamic Azad University (IAU), South Tehran Branch, 2014 up to 2018.
- Member of reviewer committee of **Geology and Environment Journal** of Islamic Azad University (IAU), Islamshahr Branch from 2009 up to the present.
- Chairperson of the Board, **Technical and Engineering Madankavan Bisotun Company**, from 2007 up to 2012.

- Member of reviewer committee of **International Mining Congress**, 2010.
- Head of scientific committee and member of reviewing committee of **2nd Maadan Charkh-e-Sanaat**, Islamic Azad University (IAU), South Tehran Branch, 2010.
- Journal reviewer for **Journal of Mountain Science** (ISI, IF: 1.017), from 2012 up to the present.
- Journal reviewer for **Journal of Research in Environmental Science and Toxicology**, from 2012 up to the present.
- Journal reviewer for **Journal of Civil Engineering and Construction Technology**, from 2012 up to the present.
- Journal reviewer for **Natural Hazards** (ISI, IF: 1.746), from 2013 up to the present.
- Journal reviewer for **Journal of Applied Geophysics** (ISI, IF: 1.355), from 2013 up to the present.
- Journal reviewer for **Applied Geophysics** (ISI, IF: 0.804), from 2014 up to the present.
- Journal reviewer for **Open Journal of Geology** (ISI, IF: 0.60), from 2014 up to the present.
- Journal reviewer for **Geosciences Journal** (ISI, IF: 0.922), from 2015 up to the present.
- Journal reviewer for **Arabian Journal of Geosciences** (ISI, IF: 1.224), from 2016 up to the present.
- Chairperson of the Board, **Hampa Danesh Shidvash Consultant Engineers Company**, from 2014 up to the present.
- Chief Executive Officer (CEO), **Hampa Danesh Shidvash Consultant Engineers Company**, from 2015 up to the 2019.
- Chairperson of the Board, **Hampa Fanavaran Shidvash Company**, from 2016 up to the present.
- Member of the Board, **Ayerma Consultant Engineers Company**, from 2017 up to the present.
- Mine deputy of **Zarrin Industrial and Mining Holding Group**, from 2018 up to 2019.
- Chairperson of the Board, **Kansar Faravar Mobin Company**, from 2018 up to the present.
- Chairperson of the Board, **Hampa Faravar Iranian Company**, from 2020 up to the present.

- Chairperson of the Board, **Hampa Danesh Iranian Company**, from 2020 up to the present.

IT & COMPUTER SKILLS

- **GENERAL**

- Windows Seven & Windows Server
- Microsoft Office
- Visual Studio.Net (Specially: Visual Basic.Net, and C#.Net)
- SQL Server
- Photoshop, CorelDraw, 3D MAX, Flash MX
- AutoCAD
- MATLAB
- LINGO
- Expert Choice
- COMFAR Expert III

- **SPECIAL**

- ITASCA (FLAC, FLAC 3D, UDEC, 3DEC, PFC 2D, and PFC 3D)
- Rocscience (RocPlane, RocSupport, RocLab, RocData, Dips, Phase², RocFall, Unwedge, Swedge, Slide, and Examine2D & 3D)
- Logging Software (View Log, Win Logger, and Log Plot)
- Tomography Software (TomoDD, SIMULPS, GeoTom, RAYFRACT, TomTime)
- Surveying Software (Surfer, and SDRmap)
- ROCKWORKS
- PLAXIS
- SURPAC
- ROCK3D
- DIGITIZER
- NIOSH Software (AHSM, ALPS, AMSS, ARBS, ARMPS, ARMPS-HWM, CMRR, LaModel, Tunnel Assistant, AQE, and STOP)
- Several programming code such as “Plane Failure”, “NPV”, “Rock Mass Coefficients (RMC)”, “Roof Support Load (RSL)”, and etc.

HOBBIES

- Listening to Music
- Travelling
- Playing Tennis
- Visiting Friends

THESIS SUPERVISED & ADVISED

- **Bachelor of Engineering**

- Ashkan Sasani; ***Under-Load Tunnel Design Based on the Concrete Permeability and Rock Mass – Structure Reaction***, IAU – South Tehran Branch, B.E., 2009.
- Shahram Sharifi; ***Estimation of Applied Load on Roof Slope in Longwall Mining***, IAU – South Tehran Branch, B.E., 2009.
- Mohammad Arab-Bagheri; ***Analysis of Subsidence Due to Coal Mining in Longwall Method***, IAU – South Tehran Branch, B.E., 2009.
- Mohammad-Saleh Rafii-Nia; ***Analysis of Caving Mechanism in Longwall Mining Method***, IAU – South Tehran Branch, B.E., 2009.
- Sina Rostam-Abadi; ***Tunnel Stability Analysis under Seismic Load Due to Earthquake***, IAU – South Tehran Branch, B.E., 2010.
- Mohammad-Reza Dashti; ***Rock Failure Theories***, IAU – South Tehran Branch, B.E., 2010.
- Amin Mirgloy-Bayat; ***Analysis of Tunneling Methods, Evaluation of New Austrian Tunneling Method (NATM)***, IAU – South Tehran Branch, B.E., 2010.
- Keyvan Eisazadeh-Far; ***Consideration of Tunnels, Excavation Methods, and Mechanized Tunneling***, IAU – South Tehran Branch, B.E., 2010.
- Ashkan Najminejad-Tehrani; ***The Selection Process of Excavation Machine for Tunneling***, IAU – South Tehran Branch, B.E., 2010.
- Mehdi Foroozan; ***Tunneling Analysis Based on Tunnel Boring Machine (TBM)***, IAU – South Tehran Branch, B.E., 2010.
- Yaghoob Haghgoo-Ghazalchah; ***Numerical Methods in Rock Mechanics***, IAU – South Tehran Branch, B.E., 2010.
- Hamidreza Khatami; ***Design and Selection of Shield Support in Longwall Mining Method***, IAU – South Tehran Branch, B.E., 2010.
- Ali Ramezan-Shams; ***Calculation of Periodic Loads in Longwall Mining Method***, IAU – South Tehran Branch, B.E., 2010.
- Mohammad-Sadegh Saadati; ***Determination the Excavation Sequence in NATM Method Using AHP***, IAU – South Tehran

- Branch, B.E., 2010.
- Kamyar Toluee; **Determination of Convert Coefficient between Point Load and UCS Using Artificial Neural Network**, IAU – South Tehran Branch, B.E., 2010.
 - Akbar Mohtasham; **Evaluation of Rock Failure Criteria**, IAU – South Tehran Branch, B.E., 2010.
 - Mehdi Mehdizadeh; **Prediction of TBM Rate of Advance Using Artificial Neural Network**, IAU – South Tehran Branch, B.E., 2010.
 - Milad Ghavidel; **Comparison of Empirical Jointed Rock Failure Criteria**, IAU – South Tehran Branch, B.E., 2011.
 - Arash Koklan; **Calculation of Optimum Rate of Advance in Longwall Mining Method**, IAU – South Tehran Branch, B.E., 2011.
 - Aref Faghihi; **Analysis and Comparison of Slope Stability Design Methods**, IAU – South Tehran Branch, B.E., 2011.
 - Kamran Tajik; **Analysis the Rock Dynamic Properties**, IAU – South Tehran Branch, B.E., 2011.
 - Amir Khaki; **Evaluation the Tunneling Excavation Methods**, IAU – South Tehran Branch, B.E., 2011.
 - Hamidreza Eskandar; **Studying the Tunnel Design Methods**, IAU – South Tehran Branch, B.E., 2011.
 - Iman Riazi; **Calculation Methods of the Applied Loads on the Tunnels and Other Underground Spaces**, IAU – South Tehran Branch, B.E., 2011.
 - Ali Ahmadi; **Slope Stability Analysis in Open-Pit and Quarry Mining**, IAU – South Tehran Branch, B.E., 2012.
 - Amir-Hossein Haji-Gholam; **Shaft Support Design Based on Dynamic Loads**, IAU – South Tehran Branch, B.E., 2012.
 - Shahin Faghihi; **Tunnelling Under Squeezing Rock Conditions**, IAU – South Tehran Branch, B.E., 2012.
 - Ali-Reza Amani; **Evaluation of the Support System in Amirkabir Urban Tunnel**, IAU – South Tehran Branch, B.E., 2012.
 - Nooshad Ghazi-Mir-Saeed; **Prediction of Rock Fragmentation in Tehran Cement Mine Using Artificial Neural Network (ANN)**, IAU – South Tehran Branch, B.E., 2012.
 - Ahmad Hedayati; **Studying of the Tunneling Methods Based on Excavation Procedure and Ground Condition**, IAU – South Tehran Branch, B.E., 2012.
 - Siamak Asadzadeh; **Design of the Wall and Floor of Entrance**

- Ramp Structure for TBM in Tabriz Metro**, IAU – South Tehran Branch, B.E., 2013.
- Mehrshad Mirzaeeyan-Khamseh; **Slope Stability Analysis Based on Dynamic Factors**, IAU – South Tehran Branch, B.E., 2013.
 - Amir Masumi; **Selection Process of Suitable Excavator Machine for Tunneling**, IAU – South Tehran Branch, B.E., 2013.
 - Alireza Salamat; **Analysis the Slope Failure Mods and Slope Failure Process in Open Pit Mines**, IAU – South Tehran Branch, B.E., 2013.
 - Alireza Amiri; **Stability Analysis of Large Slope**, IAU – South Tehran Branch, B.E., 2013.
 - Mojtaba Iranpur; **Pillars Role's in Longwall Mining Method**, IAU – South Tehran Branch, B.E., 2013.
 - Pooria Parnian; **Compression of Longwall and Room-and-Pillar Mining Methods**, IAU – South Tehran Branch, B.E., 2013.
 - Amirhasan Arabi; **Analytical Methods in Stress Redistribution Detecting**, IAU – South Tehran Branch, B.E., 2013.
 - Masoud Hosseini; **Numerical Methods in Stress Redistribution Detecting**, IAU – South Tehran Branch, B.E., 2013.
 - Mohammadhossein Masoudi; **Analysis the Tunneling Methods**, IAU – South Tehran Branch, B.E., 2013.
 - Arash Shahpasand; **Block Theory Application in the Surface and Underground Excavations**, IAU – South Tehran Branch, B.E., 2013.
 - Hosseinali Rabipur; **Evaluation of Rock Failure Criteria**, IAU – South Tehran Branch, B.E., 2013.
 - Saeed Babae Dizaaji; **Determine the Suitable Slurry Composition for EPB TBM in Dry Area**, IAU – South Tehran Branch, B.E., 2013.
 - Mohammad-Mahdi Mousa-Mayali; **Comparison of Experimental, Numerical and Analytical Methods in Underground Spaces Design**, IAU – South Tehran Branch, B.E., 2014.
 - Mahdi Amini; **Excavation and Driving the Metro Tunnels by Using Austrian - Iranian Novel Method**, IAU – South Tehran Branch, B.E., 2014.
 - Ehsan Gholam; **Stability Evaluation of the Tunnel under Water Pressure**, IAU – South Tehran Branch, B.E., 2015.
 - Hamed Amiri; **Rock Mechanics Studies and Slope Stability**, IAU

- South Tehran Branch, B.E., 2015.
 - Amir Agha-Najafi; ***Numerical Methods in Rock Mechanics***, IAU – South Tehran Branch, B.E., 2015.
 - Behnam Bakhshi; ***Perspectives for Use of Hydraulic Fracturing in Oil and Gas Production***, IAU – South Tehran Branch, B.E., 2020.
- **Master of Science**
 - Mohsen Jahandar-Lashaki; ***Effect of Soil Gradation on the Results of Pressure Cell Measurements***, IAU – South Tehran Branch, M.Sc., 2013.
 - Foad Salehpoor; ***3D Simulation of Excavation and Mechanized Tunneling***, IAU – South Tehran Branch, M.Sc., 2013.
 - Sina Rostam-Abadi; ***Analysis the Effect of Urbane Tunnels on Ground Subsidence and Surface Structures Settlement***, IAU – South Tehran Branch, M.Sc., 2013.
 - Meysam Mokhtari, ***Geotechnical Analysis of Building Stone***, IAU – Science and Research, Tehran, M.Sc., 2013.
 - Afshin Zargar-Shooshtari; ***Evaluation of the Risks in Urban Tunneling and Practical Controls – Case Study: Niayesh Tunnel***, IAU – South Tehran Branch, M.Sc., 2014.
 - Hooman Zarei-Polgardani; ***Prediction and Evaluation the Squeezing in Tunnel Construction – Case Study: Baylon Tunnel***, IAU – South Tehran Branch, M.Sc., 2014.
 - Hamidreza Eskandar; ***Prediction the Rate of Penetration in Open Pit Mining Extraction Drilling based on Geotechnical Properties of Rock Mass***, IAU – South Tehran Branch, M.Sc., 2014.
 - Dawood Bahador-beygi; ***Reducing Emissions in Mining and Civil Major Projects by Fuel Consumption Optimization of Transport Machinery***, IAU – South Tehran Branch, M.Sc., 2014.
 - Hamed Rajaei; ***Analysis of Ground Subsidence in Line #7 (West - East) of Tehran Metro using Plaxis 3D, Artificial Neural Network (ANN) and Genetic Programming (GP)***, IAU – South Tehran Branch, M.Sc., 2014.
 - Morteza Hadidi; ***Calculate the Probability of Occurrence of the Squeezing Using Multivariate Decision-Making Methods***, IAU – South Tehran Branch, M.Sc., 2015.
 - Amir-Reza Hajimazdarani; ***The Optimal Dimensions of the Longwall Panel Based on Geomechanical Properties***, IAU –

- South Tehran Branch, M.Sc., 2015.
- Hossein Haidari; ***The Impact of Carbonation on Sustainable of Lining the Urban Tunnels***, IAU – South Tehran Branch, M.Sc., 2015.
 - Omid Taleb-Hosseini; ***Conceptual Design of Coal Cutter Machine for Extraction the Tine Coal Layers***, IAU – South Tehran Branch, M.Sc., 2015.
 - Hesam Sedaghat-Nejad; ***Calculation of Optimal Dimension of Extracted Blocks in Building Stone Mining (Case Study: Travertine Quarry Dalichai)***, IAU – South Tehran Branch, M.Sc., 2015.
 - Payam Beyknia; ***Excavation Design by Using of Self-Sustaining Structure Method from Technical, Economic and Performance Point of View***, IAU – South Tehran Branch, M.Sc., 2015.
 - Ali Tajik-Fillestan; ***Twin Tunnel Interactions; Case Study: Shock Pack Baba Tunnel, Kazakhstan***, IAU – South Tehran Branch, M.Sc., 2015.
 - Farid Daghighi; ***Stability Analysis of Underground Cavern of Stored Pump Powerhouse of Lorestan Rudbar by Using of 3DEC***, IAU – South Tehran Branch, M.Sc., 2015.
 - Ahmad Mashhadolguyeh; ***Analysis the Effective Parameters on the Coal Pillar Recovery in Room-and-Pillar Coal Mining Method Based on Rock Mass Engineering Classification Systems***, IAU – South Tehran Branch, M.Sc., 2015.
 - Navid Pedram; ***Classification of Building Stones on the Using Area***, IAU – South Tehran Branch, M.Sc., 2015.
 - Reza Kalati; ***Salt Pillar Design by Using PFC and Assessment by Fisher and SVM Methods***, IAU – Science and Research, Tehran, M.Sc., 2016.
 - Alireza Khoshmagham; ***Design of Blasting Pattern based on Geomechanical Properties of Rock Mass; Case Study: Esfordi Phosphate Mine***, IAU – South Tehran Branch, M.Sc., 2017.
 - Mehdi Amini; ***Numerical Methods in Analysis of Large Underground Space; Case Study: Bimeh Metro Station***, IAU – South Tehran Branch, M.Sc., 2017.
 - Amiresmaeil Shahsavarani; ***Prediction and Estimation of the Stress Redistribution around the Oil Hole in Jointed Rock Mass***, IAU – South Tehran Branch, M.Sc., 2017.
 - Mohamad Morovati; ***Numerical Methods in Ground Settlement Analysis***, IAU – South Tehran Branch, M.Sc., 2018.

- Mohammad-Reza Solimanifar; **Design of Pressurized Tunnels**, IAU – South Tehran Branch, M.Sc., 2018.
 - Mohamad-Mehdi Alashti; **Improvement of Soil to Increase Rock Stability**, IAU – South Tehran Branch, M.Sc., 2018.
 - Azadeh Khosrojerdi; **Photogrammetry and Terrestrial Remote Sensing in Rock Characterization**, IAU – South Tehran Branch, M.Sc., 2018.
 - Mahdi Arabi; **Evaluation of Seismic Behavior of Segmental Tunnel Cover Under Earthquake-Induced Dynamic Loads**, IAU – South Tehran Branch, M.Sc., 2019.
 - Davoud Goudarzi; **Discontinuities Mapping and Investigation of their Influence on Pit-Wall of Lead and Zinc Angouran Open-Pit by Using Close Range Terrestrial Photogrammetry Technic**, IAU – South Tehran Branch, M.Sc., 2019.
- **Doctor of Philosophy**
 - Mahdi Pezeshkan; ***Mining Enterprises and Regional Economic Development: An Exploratory Analysis of the Sustainable Development Model in Iran Mines***, IAU – South Tehran Branch, Ph.D., 2017.
 - Mohammad-Masoud Samieinejad; **A New Approach in Slope Stability Analysis by Using Photogrammetry and Terrestrial Remote Sensing**, IAU – Science and Research, Tehran, Ph.D., 2018.
 - Sasan Sepehri; **Investigating the effects of rock failure mechanism on its bearing capacity using the three dimensional particle flow code (PFC3D)**, IAU – South Tehran Branch, Ph.D., 2020.