



TO MAGNIFICO RETTORE OF UNIVERSITA' DEGLI STUDI DI MILANO

ID CODE 6148

I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Scienze della Terra Ardito Desio**

Scientist- in - charge: Prof. Cecinato

[Name and surname] Saeed Mahdavi (Mahdevari)

CURRICULUM VITAE

PERSONAL INFORMATION

Surname	Mahdavi (Mahdevari)
Name	Saeed

PRESENT OCCUPATION

Appointment	Structure
Assistant Professor	Mining Engineering Department, Isfahan University of Technology, Iran

EDUCATION AND TRAINING

Degree	Course of studies	University	year of achievement of the degree
PhD	Rock Mechanics	Amirkabir University, Iran	2012-2017
M.Sc.	Rock Mechanics	Tehran University, Iran	2001-2004
B.Sc.	Mining Engineering	Tehran University, Iran	1997-2001

REGISTRATION IN PROFESSIONAL ASSOCIATIONS

Date of registration	Association	City
2005	Iranian rock mechanics association	Tehran, Iran

FOREIGN LANGUAGES

Languages	level of knowledge
English	Fluent



AWARDS, ACKNOWLEDGEMENTS, SCHOLARSHIPS

Year	Description of award
2001	Recognized as the foremost student among mining engineering graduates, demonstrating exceptional performance throughout the B.Sc. program.

TRAINING OR RESEARCH ACTIVITY

<ul style="list-style-type: none">• Considering the geomechanical characteristics of Block in matrix rocks (Bimroks) applying large scale laboratory tests and 3D numerical simulation.• Utilizing neural networks and multi-variable regression analysis to investigate the penetration and advance rate of hard rock TBMs.• Conceptual design of forepoling system in soft tunnelling applying 3D numerical simulation.• Investigation of the rock burst and squeezing potential in the Beheshtabad water conveyance tunnel.• Evaluation of the required thrust for excavation in the single and double shield TBMs based on their advance rates.• Analysing the tunnel displacement profile regarding the tunnel geometry and host rock geomechanical characteristics.• Seismic sensitivity analysis on the thickness and rigidity of tunnel lining.• Slope stability analysis of Chadormalou mine regarding time dependent deformation.• Geometric quality assessment of in situ blocks in dimension stone quarries.• Applying ultrasonic waves to evaluate the volumetric block proportion of bimrocks.• Considering the surface subsidence in EPB tunneling regarding EPB operational parameters and backfilling setting time.• Investigation of the subsidence profile regarding twin tunnels sequence excavation and the pillar width.• Analysing the stability of underground subway stations regarding to construction methods applying 3D numerical simulation in continuum media.• Examining the seismic response of mine slopes with respect to wall curvatures.• Application of 3D numerical simulations to process the plate loading test results.• Stability analysis of the arch dams applying thermo-mechanical numerical simulation.• Applying continuum and dis-continuum hydro-mechanical numerical simulation to analysis the inflow and outflow quantities of water conveyance tunnels.• Analysing the longitudinal tunnel displacement profile regarding to tunnel face pressure applying 3D numerical simulations.
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PROJECT ACTIVITY

Year	Project
2020	Slope stability analysis of Chadormalou iron mine applying rheology parameters of host rocks, Yazd, Iran. Funded by Chadormalou mining and industrial company.
2023	Optimization of foam injection ratio in EPB tunneling regarding to machine power. Funded by the organization of Isfahan subway lines.
2023	Develop a software to analysis the wellbore stability and determination of the safe mud window. Funded by oil and gas Arvardan company.



PUBLICATIONS

International Journal Papers
Mohammad Hossein Kadkhodaei, Ebrahim Ghasemi, Saeed Mahdavi, Modelling tunnel squeezing using gene expression programming: a case study, <i>Geotechnical Engineering</i> , (2023).
Mohammad Ghafari, Saeed Mahdevari, The Effect of Tunnel Geometry and Geomechanical Parameters of Host Rock on Tunnel Displacement Profile, <i>Geotechnical and Geological Engineering</i> (2022) 40, 2799-2809
Ali Mazaheri, Masoud Cheraghi Seifabad, Saeed Mahdavi and Bijan Dehghani, Seismic Sensitivity Analysis of Rigidity and Thickness of Tunnel Lining by Using Ground Structure Interaction Method Case Study: Roudbar Lorestan Dam, <i>Geotechnical and Geological Engineering</i> (2021) 39, 1557-82
Saeed Mahdevari , Parviz Moarefvand , Danial Mohammadzamani, Considering the Effect of Block-to Matrix Strength Ratio on Geomechanical Parameters of Bimrocks, <i>Geotechnical and Geological Engineering</i> (2020) 38, 4501-20eses
Danial Mohammadzamani , Saeed Mahdevari and Raheb Bagherpour, Evaluation of required thrust force based on advance rates in shielded TBMs under squeezing conditions, <i>Journal of Geophysics and Engineering</i> (2019) 16, 842-861
Arman Hazrathosseini and Saeed Mahdevari, Geometric quality assessment of in situ blocks in dimension stone quarries, <i>Bulletin of Engineering Geology and the Environment</i> , (2019) 78, 2377-85
Saeed Mahdevari and Parviz Moarefvand, Experimental investigation of fractal dimension effect on deformation modulus of an artificial bimrock, <i>Bulletin of Engineering Geology and Environment</i> , (2018) 77, 1729-37
Arman Hazrathosseini and Saeed Mahdevari, Applicability quality assessment of dimension stones for service in the buildings (A new approach using a mathematical model and fuzzy logic), <i>Journal of Building Engineering</i> , (2018) 20, 585-594
Saeed Mahdevari and Parviz Moarefvand, applying ultrasonic waves to evaluate the volumetric block proportion of bimrocks, <i>Arabian Journal of Geosciences</i> , (2017) 10, 1-12
Saeed Mahdevari and Parviz Moarefvand, An investigation into the effects of block size distribution function on the strength of bimrocks based on large-scale laboratory tests, <i>Arabian Journal of Geosciences</i> , (2016) 9, 1-9
Raheb Bagherpour and Saeed Mahdevari, 3D Numerical Simulation to Consider the Effects of EPB Tunnelling on the Existing Support System, <i>Journal of Civil Engineering and Urbanism</i> , (2014) 3, 256-260
Saeed Mahdevari and Raheb Bagherpour, Considering Creep Parameters of Rock Mass to Evaluate the Necessity Thrust for Excavation in Squeezing Ground, <i>Journal of Civil Engineering and Urbanism</i> , (2014) 4, 370-377
Morteza Abdi Cherlo, Hamid Hashemolhosseini, Masoud Cheraghi, Saeed Mahdevari, Feasibility evaluation for excavation of Naghshe Jahan Square subway station by underground methods, <i>Journal of Rock Mechanics and Geotechnical Engineering</i> (2013) 5, 452-459

National Journal Papers (Persian)
Reza Mahyari, Saeed Mahdavi, Investigation the design criteria of umbrella arc system based on the instrumentation data and numerical simulation, <i>Journal of Engineering Geology</i> , (2021) 15, 35-48
Sadegh Tahmasebi ¹ , Amin Azhari, Hajar Share Isfahani, Saeid Mahdavi, Investigating the effect of wall curvature on seismic response of slopes, <i>Journal of Analytical and Numerical Methods in Mining Engineering</i> , (2021) 11, 71-84



Saeed Mahdavi, Mehrnosh Haghighat, Maryam Mokhtari, Application of 3d numerical simulation to process the plate loading test results-Beheshtabad dam as a case study, <i>Journal of Engineering Geology</i> , (2020) 14,175-202
Arman Hazrathosseini and Saeed Mahdevari, Application of genetic algorithm to develop a new index to determine the cuboid productivity of dimension stone quarries and find the optimum cutting direction, <i>Iranian Journal of Mining Engineering</i> , (2019) 41, 92-101
Ali Ahmadzadeh, Raheb Bagherpour, Saeed Mahdevari, Flow analysis of the Rozieh water conveyance tunnel during the construction and operation phase using numerical simulation, <i>Journal of Engineering Geology</i> , (2016) 10,3405-25
Saeed Mahdevari, Farimah Ayati, Investigation of the required thrust for excavation, Beheshabad water conveyance tunnel as a case study, <i>Journal of Engineering Geology</i> , (2013) 7,1707-24
Saeed Mahdevari, Masoud Hashemi, Fezzeh Ayati, applying numerical and analytical approaches to evaluate the Leakage quantity of Beheshtabad water conveyance tunnel, <i>Iranian Journal of Mining Engineering</i> , (2009) 4,63-71
Saeed Mahdevari and Ebrahim Fathi Salmi, evaluation the geotechnical parameters of Isfahan southern subway line using back analysis, <i>Iranian Journal of Mining Engineering</i> , (2008) 2,37-46
Mahdi Yavari and Saeed Mahdevari, Prediction of hard rock TBM utilization factor, <i>Iranian Journal of Mining Engineering</i> , (2007) 2,1-10
Mahdi Yavari and Saeed Mahdevari, Prediction of hard rock TBM penetration rate, <i>Journal of the College of Engineering</i> , (2006) 40,115-121

Articles in reviews
Danial Mohammadzamani , Saeed Mahdevari , Armin Matindoust, A New Approach to Evaluate the Effect of Over-Boring and Standstill Time on Thrust force of shielded TBMs based on Penetration Rate under Squeezing Conditions, <i>Arabian Journal of Geosciences</i> , (2023), Minor revision

Some of Congress proceedings
Saeed Mahdevari, Masoud Hashemi, Determination of the appropriate pillar thickness between Beheshtabad diversion tunnels applying numerical simulation, 8th Iranian Tunnelling Conference, 2009.
Saeed Mahdevari, Techno-economical evaluation of steel rib and lattice girder in urban tunnels - a case study of Isfahan subway, Third Iranian Mining Engineering Conference, 2010.
Saeed Mahdevari, Masoud Hashemi, Farimah Ayati, Investigation of the squeezing potential along Beheshtabad water conveyance tunnel, Third Iranian Mining Engineering Conference, 2010.
Torab Alam zadeh, Raheb bagherpour, Saeed Mahdevari, Esmaeil Fasihi, The effect of shield operation parameters and overcut quantity on the existing tunnel in multi-level crossing tunnels, 9th International Congress on Civil engineering, 2012.
Morteza Abdi Cherlo, Masoud Cheraghi, Saeed Mahdevari, Feasibility evaluation for excavation of subway station in historical urban area, 9th International Congress on Civil engineering, 2012.
Saeed Mahdevari, Maedeh Mozneb, comparison between practical analytical and numerical tunnel design methods- Beheshtabad tunnel as a case study, 7th International Geomechanics Conference, 2012.
Mostafa Vamegh, Lohrasb Faramarzi, Saeed Mahdevari, Homan Rezayi, Final tunnel lining design considering the effects of temporary installed support-Beheshtabad tunnel as a case study, The second conference and exhibition of Iran Dam and Tunnel, 2012.
M. H. Salimiyan, S. Mahdevari, Determination of the optimum pillar width in twins Rokh tunnel applying numerical simulation, National Conference on Civil Engineering and Sustainable Development, 2013.



Ali Ahmad Zadeh, Raheb Bagherpour, Saeed Mahdevari, Investigation of the effect of thickness and permeability of grouting zone around the tunnel on the water inflow applying numerical simulation, 1th National Conference on Soil Mechanics and Foundation Engineering, 2014.
Ali Ahmad Zadeh, Raheb Bagherpour, Saeed Mahdevari, Investigation the variation of water inflow rate in Roziyeh water conveyance tunnel after tunnel enlargement applying hydromechanical couple simulation, 1th National Conference on Soil Mechanics and Foundation Engineering, 2014.
Javad Tavakoli, Saeed Mahdevari, Stability analysis of Gojan Dam abutments applying finite difference approach, 1th National Conference on Soil Mechanics and Foundation Engineering, 2014.
Mehrnoush Haghighat, Saeed Mahdevari, Zohreh Hosein Zadeh, Determination of rock mass deformation modulus based on back analysis, The Second National Conference on Applied Research in Civil Engineering, Architecture and Urban Management, 2015.
Mehrnoush Haghighat, Saeed Mahdevari, Selection of the appropriate practical approach to estimate the rock mass deformation modulus, International Conference on Civil Engineering Architecture and Urban Infrastructure, 2015
Ali Mazaheri, Saeed Mahdevari, The stability analysis of Boltagh Dam abutments and foundation applying numerical simulation, 2nd International Conference on Geotechnical & Urban Earthquake Engineering, 2015.
Ahmad Sajadfar, Mohammad Ali Roshanzamir, Saeed Mahdevari, Investigation of composed retaining structures performance in deep excavations, 2nd Iranian Conference on Soil Mechanic & Foundation Engineering, 2015.
Mohsen Rahmanipour, Lohrasb Faramarzi, Saeed Mahdevari, Optimization of the support system of mechanized Tabas Coal mine applying numerical simulation, 3rd National Iranian Coal Congress, 2016.
Mohsen Rahmanipour, Lohrasb Faramarzi, Saeed Mahdevari, proposing the appropriate support system to control the main entry invert heave using instrumentation data, 3rd National Iranian Coal Congress, 2016.
Mohammad Hosein Kadkhodayi, Saeed Mahdevai, Stability analysis of the subway lines intersection- Case study Isfahan subway lines 1 and 2, 5th International Congress on Civil Engineering, Architecture and Urban Development, 2017.
Arman Hazrathosseini and Saeed Mahdavi, Health and safety risks assessment of Irankooh mine complex using fuzzy failure mode and effects analysis, National Conference of Risk and Resilience Management in Mining Industries, 2019.
Zahra Rohanifar, Saeed Mahdavi, Stability analysis of Koohrange III portal tunnel applying 2D and 3D numerical approaches, 2nd International Conference Development of Materials Engineering Technology, Mining and Geology, 2020.
Hadi Mahmoudi, Saeed Mahdavi, Stability analysis of Koohrang III dam abutments, 9th Iranian Mining Engineering Conference and 6th International Mine & Mining Industries Congress, 2021.
Saeed Mahdavi, Ramin Salamat, Comparison of the approaches to calculate the hard rock TBM penetration rate, The 40th National Geosciences congress, 2022.

OTHER INFORMATION

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n. 445/2000.

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Place and date: Esfahan, Iran, 12 Dec. 2023