

C u r r i c u l u m V i t a e

Family Name: AFSHANIMEHRABAD Given Name(s): ALIREZA

Gender: Male

Date of Birth: January 28, 1984

Nationality: Iran

Home Address: 505 Solid Refine Warabi, 2-33-1 Shibanakada,
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Educational Background

Month/Date/Year

(Beginning and completion dates of bachelor's degree)	(Name of university, college or school and department)
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09/01/2003—08/30/2007	Tabriz University , Engineering departments, Faculty of Civil Engineering (Iran).
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(Beginning and completion dates of master's degree)	(Name of university, graduate school, department and title of thesis)
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09/01/2007—15/02/2010	University of Tehran , Faculty of Engineering, School of Civil Engineering (Iran). Thesis title: Pile driving analysis and proposing simple equation for hammer selection and driving time estimation.
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(Beginning and completion dates of doctorate)	(Name of university, graduate school, department and degree and date awarded, and dissertation title)
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08/22/2011—20/09/2014	Waseda University , Graduate school of creative science and engineering, Department of civil and environmental engineering Thesis subject: Numerical analysis of the effect of earth pressure balanced shield tunneling on soil stress–deformation behavior. Date of graduation: 2014/10/23
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Employment RecordMonth/Date/Year

06/01/2008–06/30/2010	Geotechnical supervisor, PGC company, Tehran–Iran (Field work)
06/01/2008–07/30/2010	Geotechnical design engineer, PGC company, Tehran–Iran (office work).
09/01/2014–03/30/2015	Geotechnical design engineer, Geo Research Institute company, Tokyo–Japan (office work).
04/01/2015–Now	Assistant Professor, Waseda University.

Current Employer and Position

Assistant Professor, Department of Civil and Environmental Engineering, Waseda University.

Field of Specialization

- Tunneling and underground structure investigations
- Analytical and numerical modeling
- Geotechnical Laboratory and field tests
- Foundation engineering

Publications:Journal papers:

- **Alireza Afshani**, Hirokazu Akagi, Shinji Konishi, “Interaction between closely constructed tunnels with non-circular cross-sections”, **Geomechanics and Geoen지니어ing, An International Journal**, 2018. (Under review.)
- Shigeaki OKA, Yoshihiro ITO, Wei LI, **Alireza AFSHANI**, Shunsuke KANEKO, Jin SAITO and Hirokazu AKAGI, “Long term additional load on a shield tunnel in soft clay due to clay consolidation with water leakage.”, **JSCE Journal**, 2018. (Under review.)
- **Alireza Afshani**, Yoshihiro Itoh, Wei Li, Shigeaki Oka, Hirokazu Akagi, Shunsuke Kaneko, Jin Saito, “An approach to study long-term behavior of tunnels in cohesive soil.”, **International Journal for Numerical and Analytical Methods in Geomechanics**, 2018. (Under review.)
- **Alireza Afshani**, Koichi Kawakami, Shinji Konishi and Hirokazu Akagi, “Numerical investigation of the infrared thermal application for detecting the defects within tunnel lining”, **Tunneling and Underground Space Technology Journal**, 2017. (Under review.)
- **Alireza Afshani**, Shengwei Zhu, and Hirokazu Akagi. “Jack Force Control in EPB Shield Tunnel Steering”, Proceedings of tunnel engineering, **JSCE Journal**, Vol. 26, II-4, 2016.
- **Afshani A.** and H. Akagi, “Artificial ground freezing application in shield tunneling”, **Journal of Japanese Geotechnical Society**, Vol. 3, No. 2, pp. 71–75, 2015.

- **A. Afshani**, H. Dobashi, K. Komiya, H. Akagi, “Numerical analysis of the effect of EPB shield tunneling on soil stress–deformation behavior”, **JSCE Journal**, Geotechnics, Vol 2, pp. 224–238, Oct. **2014**.
- **Afshani A.**, Fakher A., and Palassi M., 2013, “Selection of the Proper Hammer in Pile Driving and Estimation of the Total Driving Time”, **Journal of Civil Engineering and Architecture**, Issue 12, Vol. 6, No. 12, pp. 1663–1671, **2012**.

Conference papers:

- Alireza Afshani, Grant Hassan, Hirokazu Akagi, “Monitoring of ground surface displacement during the excavation of an underground ramp in proximity to other existing tunnels.”, **2019** (Submitted.)
- Alireza Afshani, Hirokazu Akagi, Shinji Konishi, “Influence of close tunneling on deformation of new and existing underground structures.”, 17th European Conference of Soil Mechanics and Geotechnical Engineering, Reykjavik, Iceland, **2019** (Submitted.)
- Alireza Afshani, Wei Li, Hirokazu Akagi, Oka Shigeaki, “Long-term behavior of the tunnel under the loads of consolidation and tunnel temperature.”, ITA – AITES World Tunnel Congress (WTC), Italy, Naples, **2019** (Accepted).
- K. Adachi, S. Oka, Y. Itoh, A. Afshani, H. Akagi, “Design earth pressure for shield tunneling in medium stiff clay.”, GeoKanto2018, Nov. **2018**.
- Ryunosuke Todaka, Hirokazu Akagi, Shinji Konishi, Ito Satoshi, Kenichi Anan, Alireza Afshani, Shigeta Kyohei, “Assessment of Deformation of existing open-cut subway tunnel due to proximity construction by FEM.”, GeoKanto2018, Nov. **2018**.
- Alireza Afshani, Hirokazu Akagi, “Investigate the detection rate of defects in concrete lining using infrared–thermography method”, 7th Japan–China Geotechnical Symposium, China **2018**.
- Grant Hasan, Alireza Afshani, Akagi Hirokazu, “Numerical Analysis of Tunnel lining and Ground Behaviour During Shield Tunneling —A Case Study in Japan”, 5th GeoChina International Conference, **2018**.
- Alireza Afshani, Hirokazu Akagi, and Shinji Konishi “Thermal analyses of passive infrared thermography application in the tunnel lining with defects”, ITA – AITES World Tunnel Congress (WTC), Dubai **2018**.
- Oka Shigeaki, Wei Li, Alireza Afshani, and Hirokazu Akagi, “Long-term subsidence of a shield tunnel in alluvial clay”, ITA – AITES World Tunnel Congress (WTC), Dubai **2018**.
- Shengwei Zhu, Alireza Afshani, Hirokazu Akagi, “Numerical Investigation of a Proximity Shield Tunneling”, ITA – AITES World Tunnel Congress (WTC), Dubai **2018**.
- Alireza Afshani, Hirokazu Akagi, “Numerical investigation of infrared thermography application in tunneling”, 2nd International Conference “Challenges in Geotechnical Engineering”, Kyiv, Ukraine, **2017**.
- A. Afshani and H. Akagi, “Ground Improvement for Underground Space Utilization using Freezing Method”, Sustainability, Energy, and the Geoenvironment / Geo-Institute Specialty Conference, Chicago, USA, Aug. **2016**.
- A. Afshani and H. Akagi, “Stress–path and drainage analysis of soil during earth pressure balanced shield tunneling”, International Symposium on Geotechnical Aspects of Underground Construction in Soft Ground, Seoul, Aug. **2014**.

- A. Afshani, H. Dobashi, K. Komiya, H. Akagi, “Advancement simulation of parallel tunnels and their interchange with two other subway lines using a new FEM approach, a case study”, The 2nd international conference on geotechnics for sustainable development, Hanoi, Vietnam, **2013**.
- A. Afshani, H. Dobashi, S. Konishi, K. Komiya, H. Akagi, “Shield Tunneling Advancement Simulation Using 3D FEM Considering Distance Factor and Its Validation”, 3rd International Conference on Computational Methods in Tunnelling and Subsurface Engineering, Bochum, pp. 75-84, **2013**.
- A. Afshani, H. Dobashi, S. Konishi, K. Komiya, H. Akagi, and K. Orihara, “Shield Tunneling Advancement Simulation Using 3D FEM Considering Distance Factor and Its Validation”, 18th Southeast Asian Geotechnical and Inaugural AGSSEA Conference, Singapore, pp. 431-437, **2013**.
- A. Afshani, H. Dobashi, S. Konishi, K. Komiya, H. Akagi, and K. Orihara, “Shield Tunneling Advancement Simulation Using 3D FEM Considering Distance Factor and Its Validation”, 18th Southeast Asian Geotechnical and Inaugural AGSSEA Conference, Singapore, pp. 431-437, **2013**.
- A. Afshani, H. Dobashi, S. Konishi, K. Komiya, and H. Akagi, “Approach to Numerical Simulation of Shield Tunneling and Its Evaluation by Comparison with Field Data”, International Symposium on Tunneling and Underground Space Construction for Sustainable Development, Seoul, Korea, **2013**.
- Afshani A., Fakher A., and Palassi M., “Experimental equation for selecting a proper hammer to avoid overstress condition during pile driving”, 63rd Canadian Geotechnical Conference & 6th Canadian Permafrost Conference, Calgary, Canada, **2010**.
- Afshani A., Fakher A., and Palassi M, “Selection of the Proper Hammer in Pile Driving and Estimation of the Total Driving Time”, 7th European Conference on Numerical Methods in Geotechnical Engineering, Trondheim, Norway, pp. 667-72, **2010**.
- Afshani A., Heidarzade H., Galandarzadeh A. ‘Represented Soil Thickness Criteria in 2800 Standard’, Proceeding of 8th internaonal congress in civil engineering, Shiraz, Iran, May **2009**.

Presentations:

- Title: Investigate the detection rate of defects in concrete lining using infrared-thermography method.
Organizer: China Civil Engineering Society (CISMGE – CCES) and The Japanese Geotechnical Society (JGS)
Place and time: **Sanya, China, March 2018**.
- Title: Numerical investigation of infrared thermography application in tunneling.
Organizer: Ukrainian Society for Soil Mechanics, Geotechnics and Foundation Engineering.
Place and time: **Kyiv, Ukraine, 2017**.
- Title: Ground Improvement for Underground Space Utilization using Freezing Method
Organizer: Geoenvironment / Geo-Institute Specialty Conference
Place and time: **Chicago, USA, Aug. 2016**.
- Title: Jack Force Control in EPB Shield Tunnel Steering
Place and time: **Tokyo, 2016**.
- Title: Stress-path and drainage analysis of soil during earth pressure balanced shield tunneling
Organizer: International Symposium on Geotechnical Aspects of Underground Construction in Soft Ground

Place: **Seoul, Aug. 2014.**

- Title: Approach to Numerical Simulation of Shield Tunneling and Its Evaluation by Comparison with Field Data.
Organizer: International Symposium on Tunneling and Underground Space Construction for Sustainable Development.

Place: **Seoul, Korea, 2013**

- Title: Shield Tunneling Advancement Simulation Using 3D FEM Considering Distance Factor and Its Validation
Organizer: 3rd International Conference on Computational Methods in Tunnelling and Subsurface Engineering

Place: **Bochum, 2013.**

- Title: Advancement simulation of parallel tunnels and their interchange with two other subway lines using a new FEM approach, a case study”
Oaganizer: The 2nd international conference on geotechnics for sustainable development

Place: **Hanoi, Vietnam, 2013.**

Teaching activity:

Current (University of Waseda, Fall 2018)

- Geoinformatics: Field Practice, Fall sem., 2018, **Wed. 3rd–4th** Peroids (**15 sessions**/15 sessions)
- Science and Engineering Laboratory 1B, Fall sem., 2018, **Fri. 2nd–5th** and **Sat. 2nd–5th** Periods (**5 sessions**/15 sessions)
- Seminar on Soil Mechanics B and D, Fall sem., 2018, **Mon. 2nd** Peroid and **Thu. 2nd** period (**15 sessions**/15 sessions)
- Geotechnical Engineering Laboratory [S Grade], Fall sem., 2018, **Mon. 3rd** and **4th** Peiods (**3 sessions**/15 sessions)
- Soil Mechanics, Fall sem., 2018, **Wed. 6th** Period (**3 sessions**/15 sessions)

Past (University of Waseda, each Spring 2015–18)

- Geoinformatics:Field Practice, spring sem., **Wed. 3rd–4th** Peroids (**15 sessions**/15 sessions)
- Basic Experiments in Science and Engineering 1A V, spring sem., **Fri. 2nd–5th** Periods (**4 sessions**/15 sessions)
- Seminar on Soil Mechanics A and C, spring sem., **Mon. 2nd** Peroid and **Thu. 2nd** period (**15 sessions**/15 sessions)
- Geotechnical Engineering Laboratory [S Grade], spring sem., **Mon. 3rd** and **4th** Peiods (**3 sessions**/15 sessions)
- Geotechnical Engineerig, spring sem., **Wed. 6th** Period (**3 sessions**/15 sessions)

Other academic and professional activities:

Honors:

- Receiving WASEDA University special scholarship for Doctoral Program, Japan (The Asian Special Scholarship)
- Candidate of AY2016 Faculty Development Program at University of Washington (UW).

Holding of workshops and seminars:

- WASEDA–RPI Workshop: This was a workshop between Waseda University (Japan) and Rensselaer Polytechnic Institute (US)that was conducted in Waseda University, Kajima technical research institute, and Gaikan shield tunneling site. The workshop sponcered by department of civil and

environmental engineering of Waseda Univeristy. (23–25 May 2018)

Membership of scientific organization:

- Japanese Geotechnical Society (JGS)
- Japanese Society of Civil Engineering (JSCE)
- American Society of Civil Engineering (ASCE)
- Tunneling Association of Canada (TAC)
- Iranian Geotechnical Society (IGS)
- Iranian Tunneling Association (ITA)

Date 2018 November

Applicant's Signature

Applicant's Name(in Roman block capitals)

ALIREZA AFSHANIMEHRABAD