

# Curriculum vitae with track record (for researchers)

## Personal information

First name, Surname:	Gyu-Hyun Go		
Date of birth:	12.Feb.1986	Sex:	M
Nationality:	South Korea		
Researcher unique identifier(s)	Google scholar: <a href="https://scholar.google.com/citations?user=QRRNoEYAAAAJ&amp;hl=ko">https://scholar.google.com/citations?user=QRRNoEYAAAAJ&amp;hl=ko</a>		
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## Education

Year	Faculty/department - University/institution - Country
2016 (dissertation defended)	Ph.D. in civil and environmental engineering – KAIST, S.Korea
2011	B.S. in civil and environmental engineering, Hanyang University, S.Korea

## Positions - current and previous

*(Academic sector/research institutes/industrial sector/public sector/other)*

Year	Job title – Employer - Country
2023 -	Associate Professor, Kumoh National Institute of Technology, S.Korea
2018-2023	Assistant Professor, Kumoh National Institute of Technology, S.Korea
2016-2018	Senior Researcher, Korea Institute of Civil Engineering and Building Technology (KICT), S.Korea

## Project management experience

*(Academic sector/research institutes/industrial sector/public sector/other. Please list the most relevant.)*

Year	Project owner - Project - Role - Funder
2022-2027	Kumoh National Institute of Technology, S.Korea – Development of optimization technology for artificial ground freezing at challenging tunnel construction sections with groundwater flow – Project manager – NFR, S.Korea
2024	Kumoh National Institute of Technology, S.Korea – Sensitive analysis of ground behavior associated with explosions in underground hydrogen storage and construction of minimum safe distance dataset – Project manager – KICT, S.Korea
2023	Kumoh National Institute of Technology, S.Korea – Study on the dynamic characteristics of the ground due to hydrogen gas explosion vibration of an underground hydrogen storage facility – Project manager – KICT, S.Korea
2022	Kumoh National Institute of Technology, S.Korea – Optimization study through thermo-hydraulic-mechanical (THM) coupled simulation– Project manager – KICT, S.Korea

2019-2021	Kumoh National Institute of Technology, S.Korea – Prediction and prevention technology of frost heave in freezing soils in preparation for the Inter-Korean railway connection – Project manager – NFR, S.Korea
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## Supervision of students

(Total number of students)

Master's students	Ph.D. students	Undergraduate students(Research Intern)	University/institution - Country
2	3	2	Kumoh National Institute of Technology, S.Korea

## Track record

- A total of 50 peer-reviewed journal publications during my career.
- H-index = 16, i10-index =23, citations = 1061 at google scholar  
([https://scholar.google.com/citations?hl=ko&user=QRRNoEYAAAAJ&view\\_op=list\\_works&sortby=pupdate](https://scholar.google.com/citations?hl=ko&user=QRRNoEYAAAAJ&view_op=list_works&sortby=pupdate))

### International publications

1. Van-Hoa Cao, Gyu-Hyun Go\* (2025) "Stability analysis of random soil–rock mixture slope using an energy-based failure criterion and Monte Carlo simulation", Engineering Failure Analysis, Vol. 171, 109346 (SCIE) <https://doi.org/10.1016/j.engfailanal.2025.109346>
2. Gyu-Hyun Go, Hyunwoo Jin, Jangguen Lee\*, Young-Jae Kim, Hyu-Soung Shin (2025) "Electromagnetic–Thermal Coupled Modeling for Optimizing the Microwave Sintering of Homogeneous Block of KLS-1 Lunar Regolith Simulant", International Communications in Heat and Mass Transfer, Vol. 161, 108544 (SCIE) <https://doi.org/10.1016/j.icheatmasstransfer.2024.108544>
3. Gyu-Hyun Go, Dinh-Viet Le, Jangguen Lee (2024) "Evaluation of artificial ground freezing behavior considering the effect of pore water salinity", Geomechanics and engineering, Vol. 39(1), pp. 73-85. (SCIE) <https://doi.org/10.12989/gae.2024.39.1.073>
4. Van-Hoa Cao, Gyu-Hyun Go\* (2024) "A Novel Approach to Stability Analysis of Random Soil-Rock Mixture Slopes Using Finite Element Method in ABAQUS", Natural Hazards, Vol. 120, 14381-14407. (SCIE) <https://doi.org/10.1007/s11069-024-06771-2>
5. Seok Yoon, Gyu-Hyun Go\* (2024) "Numerical Analysis Study on Determination of Unfrozen Water Saturation Curve for Sandy Soil" International Communications in Heat and Mass Transfer, Vol. 154, 107418 (SCIE) <https://doi.org/10.1016/j.icheatmasstransfer.2024.107418>
6. Hyeon-Jae Woo, Gyu-Hyun Go\* (2024) "Mechanical behavior assessment of retaining wall structure due to frost heave of frozen ground" International Journal of Geo-Engineering, Vol. 15(7), 1-16. (ESCI) <https://doi.org/10.1186/s40703-024-00210-8>
7. Gyu-Hyun Go, Van-Hoa Cao, YoungSeok Kim, Hyun-Jun Choi, Se-Wook Oh, Min-Jun Kim (2023) "Evaluation of the Dynamic Stability of Underground Structures Assuming a Hydrogen Gas Explosion Disaster in a Shallow Underground Hydrogen Storage Facility" Applied Science, Vol.13, No.22, pp.12317. (SCIE) <https://doi.org/10.3390/app132212317>
8. Seok Yoon, Gi-Jun Lee, Gyu-Hyun Go\* (2022) "Linear thermal expansion behavior of compacted bentonite buffer materials" Case Studies in Thermal Engineering, Vol. 32, 101889. (SCIE) <https://doi.org/10.1016/j.csite.2022.101889>
9. Hyunwoo Jin, Gyu-Hyun Go, Byung Hyun Ryu, Jangguen Lee\* (2021) "Experimental and numerical investigation of closure time during artificial ground freezing with vertical flow" Geomechanics and Engineering, Vol. 27(5), pp. 433–445. (SCIE) <https://doi.org/10.12989/gae.2021.27.5.433>

10. Seok Yoon, Dinh-Viet Le, Gyu-Hyun Go\* (2021) "Artificial Neural Network-Based Model for Prediction of Frost Heave Behavior of Silty Soil Specimen" *Applied Science*, Vol. 11, 10834. (SCIE) <https://doi.org/10.3390/app112210834>
11. BaHuu Dinh, Gyu-Hyun Go, Young-Sang Kim (2021) "Performance of a horizontal heat exchanger for ground heat pump system: effects of groundwater level drop with soil-water thermal characteristics" *Applied thermal engineering*, Vol. 195, pp.117203. (SCIE) <https://doi.org/10.1016/j.applthermaleng.2021.117203>
12. Gyu-Hyun Go, Jangguen Lee, Taeil Chung, Byung Hyun Ryu, Hyunwoo Jin, Li Zhuang, Hyu Soung Shin, Jae Hyun Kim, Tae Sup Yun (2021) "Controlling soil disturbance of a lunar regolith simulant bed during depressurization in a vacuum chamber" *Scientific reports*, Vol. 11(1878), pp. 1-8. (SCI) <https://doi.org/10.1038/s41598-021-81317-1>
13. Sinhang Kang, Sung-Eun Cho, Byungmin Kim, Gyu-Hyun Go\* (2020) "Effects of Two-Phase Flow of water and air on shallow slope failures induced by rainfall insights from slope stability assessment at a regional scale" *Water*, Vol. 12(3), 812. (SCIE) <https://doi.org/10.3390/w12030812>
14. Gyu-Hyun Go, Jangguen Lee, Hyu Soung Shin, Byung Hyun Ryu, Hyun Woo Jin, Deuk Woo Kim (2019) "Evaluation of one-dimensional freezing behavior for ice-rich sandy soil" *International Journal of Heat and Mass Transfer*, Vol. 130, pp.960–967. (SCI) <https://doi.org/10.1016/j.ijheatmasstransfer.2018.11.017>
15. Tan Manh Do, Gyeong-O Kang, Gyu-Hyun Go, Young-Sang Kim (2019) "Evaluation of coal ash-based CLSM made with cementless binder as a thermal grout for borehole heat exchangers" *Journal of Materials in Civil Engineering*, Vol. 31(6) pp.1–11. (SCIE) [https://doi.org/10.1061/\(ASCE\)MT.1943-5533.0002691](https://doi.org/10.1061/(ASCE)MT.1943-5533.0002691)
16. Gyu-Hyun Go, Seung-Rae Lee, Young-Sang Kim (2016). "A reliable model to predict thermal conductivity of unsaturated weathered granite soils" *International Communications in Heat and Mass Transfer*, Vol. 74, pp. 82–90. (SCIE) <https://doi.org/10.1016/j.icheatmasstransfer.2016.01.009>
17. Gyu-Hyun Go, Seung-Rae Lee, Seok Yoon, Min-Jun Kim (2016). "Optimum design of horizontal ground-coupled heat pump systems using spiral-coil-loop heat exchangers" *Applied Energy*, Vol. 162, pp. 330–345. (SCI) <https://doi.org/10.1016/j.apenergy.2015.10.113>
18. Min-Jun Kim, Seung-Rae Lee, Seok Yoon, Gyu-Hyun Go (2016). "Thermal Performance Evaluation and Parametric Study of a Horizontal Ground Heat Exchanger" *Geothermics*, Vol. 60, pp. 134–143. (SCIE) <https://doi.org/10.1016/j.geothermics.2015.12.009>
19. Gyu-Hyun Go, Seung-Rae Lee Han-Byul Kang, Seok Yoon, Min-Jun Kim (2015). "A novel hybrid design algorithm for spiral coil energy piles that considers groundwater advection" *Applied Thermal Engineering*, Vol. 78, pp. 196–208. (SCIE) <https://doi.org/10.1016/j.applthermaleng.2014.12.060>
20. Gyu-Hyun Go, Seung-Rae Lee, Nikhil N.V., Seok Yoon (2015). "A new performance evaluation algorithm for horizontal GCHPs (ground coupled heat pump systems) that considers rainfall infiltration" *Energy*, Vol. 83, pp. 766–777. (SCI) <https://doi.org/10.1016/j.energy.2015.02.086>
21. Seok Yoon, Seung-Rae Lee, Yun-Tae Kim, Gyu-Hyun Go (2015). "Estimation of saturated hydraulic conductivity of Korean weathered granite soils using a regression analysis" *Geomechanics and Engineering*, Vol. 9(1), pp. 101–113. (SCIE) <https://doi.org/10.12989/gae.2015.9.1.101>
22. Seok Yoon, Seung-Rae Lee, Gyu-Hyun Go, Skhan Park (2015). "An experimental and numerical approach to derive ground thermal conductivity in spiral coil type ground heat exchange" *Journal of the Energy Institute*, Vol. 88(3), pp. 229–240. (SCIE) <https://doi.org/10.1016/j.joei.2014.10.002>
23. Seok Yoon, Seung-Rae Lee, Gyu-Hyun Go (2015). "Evaluation of thermal efficiency in different types of horizontal ground heat exchangers" *Energy and Buildings*, Vol. 105, pp.100–105. (SCIE) <https://doi.org/10.1016/j.enbuild.2015.07.054>
24. Seok Yoon, Seung-Rae Lee, Jianfeng Xue, Kai Zosseder, Gyu-Hyun Go, Hyunku Park (2015). "Evaluation of the thermal efficiency and a cost analysis of different types of ground heat exchangers"

- in energy piles” *Energy Conversion and Management*, Vol. 105, pp.393–402. (SCIE) <https://doi.org/10.1016/j.enconman.2015.08.002>
25. Gyu-Hyun Go, Seung-Rae Lee, Seok Yoon, Han-Byul Kang (2014). “Design of spiral coil PHC energy pile considering effective borehole thermal resistance and groundwater advection effects” *Applied Energy*, Vol. 125, pp. 165–178. (SCI) <https://doi.org/10.1016/j.apenergy.2014.03.059>
  26. Gyu-Hyun Go, Seung-Rae Lee, Young-Sang Kim, Hyun-Ku Park, Seok Yoon (2014). “A new thermal conductivity estimation model for weathered granite soils in Korea” *Geomechanics and Engineering*, Vol. 6(4), pp. 359–376. (SCIE) <https://doi.org/10.1016/j.apenergy.2014.03.059>
  27. Gyu-Hyun Go, Seung-Rae Lee, Seok Yoon, Hyunku Park, Skhan Park (2014). “Estimation and experimental validation of borehole thermal resistance” *KSCE Journal of Civil Engineering*, Vol. 18(4), pp. 992–1000. (SCIE) <https://doi.org/10.1007/s12205-014-0454-x>
  28. Seok Yoon, Seung-Rae Lee, Gyu-Hyun Go (2014). “A numerical and experimental approach to the estimation of borehole thermal resistance in ground heat exchangers” *Energy*, Vol. 71, pp. 547–555. (SCI) <https://doi.org/10.1016/j.energy.2014.04.104>
  29. Seok Yoon, Seung-Rae Lee, Gyu-Hyun Go, Jianfeng Xue, Hyunku Park, Dowon Park (2014). “Thermal transfer behavior in two types of W-shape ground heat exchangers installed in multilayer soils” *Geomechanics and Engineering*, Vol. 6, No. 1, pp. 79–98. (SCIE) <https://doi.org/10.12989/gae.2014.6.1.079>
  30. Do-Won Park, Seung-Rae Lee, Nikhil N. V., Seok Yoon, Gyu-Hyun Go (2014). “Quantitative assessment of landslide susceptibility on a regional scale using geotechnical database developed from GIS-based maps” *Disaster Advances*, Vol. 7, No. 5, pp. 26–38.