

Biographical Information

Dr. Yang Kuo-Hsin is currently a Professor and Associate Chair of the Department of Civil Engineering at the National Taiwan University (NTU). He completed his Ph.D. degree at the University of Texas in Austin in 2009 under the supervision of Dr. Zornberg for research entitled “Stress Distribution within Geosynthetic-Reinforced Soil Structures.” He worked with Dr. Bathurst as a visiting scholar in the Department of Civil Engineering at the Royal Military College (RMC), Canada in 2015. Dr. Yang has many years’ experience in research and practice in geotechnical and geosynthetics engineering and contributed considerably to this field in education and service.

As part of his research and practical experience, Dr. Yang has conducted many research and projects on the analysis, design, and case study of geosynthetic-reinforced soil (GRS) structures using both numerical and physical modeling. The aim is to provide a better understanding of the performance of GRS structures with complex geometrics (narrow or multi-tier wall) or under natural disaster conditions (heavy rainfall, seismic loadings, and fault movement). The research results are applied to prevent and mitigate the natural disaster-induced damage or collapse of GRS structures and to achieve the ultimate goal of establishing sustainable infrastructures and safe homeland. Recently, Dr. Yang is dedicated to investigating the performance of GRS structures with marginal backfills subjected to rainfall as a common and significant problem for the application of GRS structures in Taiwan and Southeast Asian countries located in the tropical areas. Based on the results and findings from the research, methods for backfill selection, stability evaluation, as well as improved design recommendations are proposed to benefit the practical design of GRS structures against heavy rainfall.

Dr. Yang is the author and co-author of more than 100 publications in journals, conference proceedings, and reports. Among these publications, many papers were published in the most reputable journals in this field, e.g., *Geotextiles and Geomembranes*, *Geosynthetics International*, *Journal of Geotechnical and Geoenvironmental Engineering*, and *International Journal of Geomechanics*. In recognition of his research work, Dr. Yang received the Second Best Paper Award from *Geosynthetics International* in 2020, Best Paper Award from the *Journal of GeoEngineering* in 2020, 2014, 2012, Best Engineering Paper Award from the Chinese Institute of Engineers in 2021, and Best Conference Paper Award from the 7th Asia Young Geotechnical Engineers Conference under the auspices of the International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE) in 2012. He was also awarded the Young Member Achievement Award from International Geosynthetics Society (IGS) in 2014, and the Young Researcher Achievement Award from National Taiwan University in 2020, and the Outstanding Young Researcher Project (3-year research grant) from the Ministry of Science

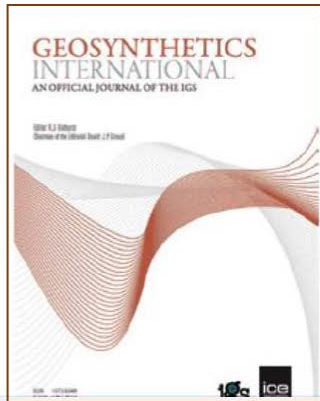
and Technology, Taiwan, for research projects related to GRS structures.

Regarding his contribution to education, Dr. Yang taught many geotechnical related courses in graduate-level (e.g., *Application of Geosynthetics, Advanced Foundation Engineering, Design of Reinforced Earth Retaining Structures, and Numerical Method in Geotechnical Engineering*) and undergraduate-level (e.g., *Soil Mechanics, Soil Mechanics Lab, Intermediate Soil Mechanics, Foundation Engineering, Mechanics of Materials, and Design of Foundation and Hillside-Special Projects*). In the *Reinforced Earth Structures* course, he organized a small-scale MSE wall competition. This competition allowed students to receive hands-on experience in designing and building reinforced soil structures in a fun and exciting manner.

Dr. Yang has supervised 10 Ph.D. students, 47 master students. Under Dr. Yang's supervision, two of his Ph.D. students (one from Kenya and the other from Vietnam) were selected as one of the ten paper winners to present his research paper in the IGS Young Members Forum in the 11th (2018) and 10th (2014) International Conference on Geosynthetics. Besides, two of his graduate students (one from Taiwan and the other from Indonesia) received the IGS Student Award at the Asian Regional Conference on Geosynthetics in Bangkok, Thailand, in 2012.

Regarding his service and participation, Dr. Yang participates in the ISSMGE technical committee for reinforced fill structures (TC218), and in the IGS technical committee for soil reinforcement (TC-Reinforcement). He serves as the council committee member and academic committee member in the Taiwan Geotechnical Society and Taiwan Geosynthetics Society. He serves as the editor-in-chief of the *Journal of GeoEngineering*, and the *Taiwan Geotechnical Society Special Publication*. He also serves in the editorial board member of the *Geotextiles and Geomembranes*. He is in the core organizing committee for the 16th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering (16ARC 2019), and the 7th Asian Regional Conference on Geosynthetics (GeoAsia 2022).

Dr. Yang was selected as the Taiwanese delegate for the 7th Asia Young Geotechnical Engineers Conference (2012) in Tokushima, Japan, and for the 8th Southeast Asian Geotechnical Conference-Young People Session (2013) in Singapore. During these events, he had the opportunity to interact with delegates from other countries and introduced them to his research on and experience in reinforced soil structures. Dr. Yang has also participated in and presented his research at several domestic and international conferences, including ICG (2018, 2014), Geo-Asia (2016, 2012), SEAGC (2013, 2010), Geo-Congress (2013, 2012), AYGEC (2012), Earth Retention Conference (2010), Geo-Taiwan (2017, 2015, 2013, 2011), and GSI-Asia (2010). Dr. Yang was also invited to deliver lectures at university seminars and annual society meetings and to teach short courses in workshops organized by the Professional Civil Engineers Association, governmental agencies, and consulting engineering company.



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IGS Young Member Award, International Geosynthetics Society, 2014



Visiting scholar at RMC, Canada under the supervision of Dr. Bathurst, 2015