## **IPA News Letter**

## Young Members Column

## Adnan Anwar Malik

Assistant Professor, Department of Civil and Environmental Engineering Saitama University

I started my academic career in 2018 as an assistant professor at the department of civil and environmental engineering (Saitama University, Japan). Before that, I had worked as a professional geotechnical engineer in various engineering firms like National Development Consultants – Pakistan, National Engineering Services Pakistan (NESPAK) and Ammico Contracting Company – Qatar. My professional experience includes broad geotechnical engineering areas such as field geotechnical investigations (soil/rock), design of embankment dams, deep and shallow foundations and deep excavation support systems. In order to expand my knowledge in the field of geotechnical engineering, I enhanced my qualifications during my professional experience, and completed Master of Engineering and Doctor of Philosophy degrees from Saitama University – Japan in 2011 and 2015 respectively.



The population of the world is increasing every passing day, and it demands an increase in infrastructure development, which results in expanding cities not only horizontally but also in elevation. This expansion in urban areas creates environmental problems such as air pollution due to construction activity, noise pollution due to heavy machinery, vibrations in the surrounding buildings due to heavy machinery. In addition to this, space constraint is another problem in urban areas for the construction of new structures. In the field of geotechnical engineering, researchers and professional engineers are striving hard to develop innovative construction ways so that space constraints and environmental issues can be overcome without affecting the performance of the engineering structures. In this regard, my research focuses on the performance enhancement of new piling techniques such as press-in and screw pile systems during pile installation and loading carrying stage in difficult grounds. I feel that the International Press-in Association provides a great platform to the engineers and researchers from different organizations and institutions to share their experiences and findings, which will help to develop innovative technologies for the betterment of the society.

## Marc Arthur Go

Master Student, Institute of Civil Engineering University of the Philippines – Diliman

I am a graduate student, currently taking my master's degree in Geotechnical Engineering under the Institute of Civil Engineering (ICE) at the University of the Philippines – Diliman (UPD). I am also a geotechnical evaluator for a geotechnical contracting and soils laboratory testing company. My first encounter with the IPA was during the 4<sup>th</sup> international seminar on Press-in Technology in the Philippines, last May 2018. IPA, in partnership with ICE and Philippine Society for Soil Mechanics and Geotechnical Engineering (PSSMGE), presented the press-in method of pile installation - an alternative to the more commonly used diesel and pneumatic pile driving methodology in the local construction industry. Designers and contractors are often limited to the traditional installation of piles due to the available technologies in the local industry. Having other pile driving options (e.g. press-in method) makes the construction easier, especially in areas with special restrictions (e.g.



limited working space, vibration limitations, etc.) Recently, I have been recommended and was advised by mentor and PSSMGE President, Prof. Alexis Acacio, to join the IPA editorial board to broaden my knowledge on the geotechnical engineering practice in the global scene and also to impart some of the practice here in our country.

As a practicing geotechnical evaluator, I am made aware of the problems in geotechnical engineering practice in the Philippines. One of the challenges in doing evaluation and design is the characterization of soils. Due to cost restraints, subsurface investigation is often limited and / or scarce to fully characterize the subsurface condition of an area. Thus, local engineers are compelled to use correlations in determining design geotechnical parameters. Although this practice is generally accepted, the applicability of these empirical correlations to the local soils are not guaranteed. This problem led me to my research on the characterization of undrained shear strength of Philippine soils. My research aims to gauge how well these existing correlations perform in local soils by comparing them to actual laboratory test results. By doing this research, I hope to provide geotechnical engineers with a better model in obtaining the strength of local soils.