

## Obituary

### In Memoriam: Professor Abdul-Kareem Ismet Zainel (1959 – 2018)



*Professor Abdul-Kareem Ismet Zainel, BSc (Civil Eng.), BSc (Comp. Eng.), MSc, PhD, MISSMGE (1959-2018)*

Dr. Abdul-Kareem was born in Baghdad in 1959. He had his primary and secondary level education at *Mansour Private School* in Baghdad. After earning the Iraqi secondary education baccalaureate, he enrolled at the Department of Civil Engineering of the University of Basrah. After four years of hard work and study at this university, he earned a Bachelor's degree in 1980. After graduation from college, he practiced the civil engineering profession in maintenance projects for the period from 1985 to 1989. In 1990 and in addition to his usual professional tasks, he worked part time as a software engineer at the *Iraqi Company for Electronic Systems*. From 1989 to 1993, he was appointed as *Chairman of the Department of Computer Applications* at municipalities acting under the umbrella of the *Mayorship of Baghdad, the capital city of Iraq*. From 1993 to 1997, he was appointed as *Director of the Computer Center of the Mayorship of the City of Baghdad*. In 1994, he applied for postgraduate studies at the *Department of Civil Engineering of the University of Baghdad* where he was accepted at the *Sanitary Engineering* section of it.

In 1997, he earned a *Master's degree in Civil Engineering* after successfully defending a thesis entitled: *Selection of Optimal Path for Garbage Waste Disposal Vehicles in the City of Kadhimiyah in Baghdad*. After that, he pursued a *Doctorate degree in Geotechnical Engineering* this time at the *Department of Civil Engineering of the University of Baghdad*. At this stage, I gave him course lectures and was a member of the comprehensive exam that he took at that department and found him knowledgeable and most eligible for conducting original research work in the realm of geotechnical engineering. After passing those exams, I jointly supervised his Doctorate degree thesis with Professor Yousif al-Shakarchi and found him studious, meticulous and diligent in all the tasks he was assigned to complete. He submitted a doctorate degree thesis that was entitled: *Solution of Some Problems of Partially Saturated Soils Using the Finite Element Method*. Again, he was most successful in defending the concepts encompassed in it before an examination committee which earned him the degree with distinction in 2002. His thesis introduced numerical solutions of the consolidation process in partly saturated soils by taking into consideration variations in temperatures. Two dimensional plane strain problems were studied according to his proposed algorithms and were found to be practical and effective. The study concentrated on vertical and lateral displacements in addition to prediction of pore water and air pressures and temperature changes. Due to his dedication for reaching numerical solutions to engineering problems by the use of computers, he joined the Department of Computer Science at the University of Technology in Baghdad and earned a second Bachelor's degree in Software and Computer Engineering this time. He earned the degree in 2002 with distinction.

Dr. Abdul-Kareem was appointed as an Assistant Professor at the Department of Civil Engineering of the University of Baghdad after earning his doctorate degree in Geotechnical Engineering in 2004. He gave lectures to students in various topics including: *Soil Mechanics* and *Computer Applications* for undergraduate students and *Advanced Computer Programming, Numerical Applications in Geotechnical Engineering, Seepage of Fluids in Porous Media by the Finite Element Method* and *Unsaturated and Expansive Soils* for postgraduate students at the Master and Doctorate degree levels. He supervised several postgraduate student theses at this academic Department of the University of Baghdad and published several papers and

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books in the realm of geotechnical engineering. The most recent were four books published in Germany; topics of which included: *Assessment of Collapsibility Rate of Unsaturated Soils*, *Bearing Capacity of Concrete Piles in UnSaturated Clayey Soils* and *Bearing Capacity of Footings on Unsaturated Soils*. He was also an active Member at the *Iraqi Geotechnical Society*, the *Iraqi Engineers Union* and *The International Society of Soil Mechanics and Geotechnical Engineering*.

Professor Abdul-Kareem Ismet Zainel was a most pleasant person, humble and warm. He passed away on Wednesday July 17, 2018. He phoned me a couple of weeks earlier in good health to discuss requirements for submitting his full length paper entitled: *'Water Vapor Transfer Through Unsaturated Soils Due to Temperature Variations and Its Effect on Soil Shear Strength'*. The Abstract of this paper was accepted earlier to be published at the *Proceedings of the 16<sup>th</sup> Asian Regional Conference (16<sup>th</sup> ARC) of Soil Mechanics and Geotechnical Engineering* which is going to be held in *Taipei, Taiwan* in *October 14-18, 2019*. I was shocked to learn about his early decease. He will be much missed, but never forgotten by his family, colleagues and former and current students at the university. May his soul rest in peace and in heaven.

*Omar al-Farouk Salem al-Damluji, President,  
Iraqi Geotechnical Society,  
August 30<sup>th</sup>, 2018*