



Professor Y. Cengiz Toklu, Ph. D.

Professor Toklu obtained his BS and MS degrees in Civil Engineering from Middle East Technical University, Ankara, Turkey, and his doctorate from Universite de Pierre et Marie Curie (Paris VI), Paris, France. In his professional life he directed and/or supervised numerous giant construction projects in Turkey, including a pontoon bridge, a long span suspension bridge, a light railed transportation system, and several motorways. In academic life he taught in several universities starting with Middle East Technical University, serving in many cases as Department Head or Dean. Being a member of several technical and scientific international and national organizations, he is currently affiliated to Beykent University in Istanbul, Turkey, heading The Harzemli Artificial Intelligence Laboratory. His research interests include application of optimization techniques to engineering, application of Artificial Intelligence concepts to engineering, space civil engineering, nonlinear analysis of structures, engineering education and construction scheduling. He is the author of several books, book chapters and scientific articles. He has organized many congresses and served as keynote speaker in many international meetings. Dr. Toklu is the developer of the method “Total Potential Optimization using Meta-heuristic Algorithms (TPO/MA)” that gave way to the method Finite Element Method with Optimization (FEMO) which is shown to be more successful than classical methods, including the well-known Finite Element Method, in analyzing non-linear structural systems, under-constrained structures, unstable structures, degenerate structures and structures with non-unique deformed shapes. These methods, based on artificial intelligence techniques, form an important part in the 2021 book “*Metaheuristics for Structural Design and Analysis*” published by John Wiley and Sons.