

# Sustainable Geotechnics

**Date: 20.12.2018, Thursday**

**Time: 12.30**

**Room: Civil Engineering Conference Hall**

Large volumes of earthen materials are used in geotechnical construction each year in the world. In many cases, these materials can be replaced with suitable solid waste and industrial byproducts that are normally disposed in landfills. Legislations have been promulgated in many countries that remove barriers to large-scale beneficial reuse of industrial by-products. Reuse in construction has several benefits, including reduction in solid waste disposal costs incurred by industry, reduction in landfill requirements, minimization of damage to natural resources caused by excavating earthen materials for construction, obtaining added value from waste

materials, conservation of production energy, and ultimately providing sustainable construction and economic growth. On the other hand, leaching of undesired compounds from the industrial by-products has always been the primary concern for designers and engineers. This issue becomes more critical if recycled materials are used in critical applications or in construction of roadway at the vicinity of groundwater and surface waters. This seminar will profile several applications of recycled materials in geotechnical construction. The seminar will highlight the holistic approach, including the mechanical, environmental, geochemical, economic, as well as field and model-based approach to material utilization in such applications.



Prof. Dr. Aydılek, lisans derecesini 1993 yılında İstanbul Teknik Üniversitesi'nde, doktora derecesini ise 2000 yılında Wisconsin-Madison Üniversitesinde tamamladı. Halen Maryland Üniversitesi-College Park İnşaat Mühendisliği'nde öğretim üyesi olan Prof. Aydılek 130'un üzerinde çalışma yayınlamış, özel sektör ve devlet kurumları adına 40'in üzerinde araştırma projesi tamamlamış, ve bu alanlardaki katkılarından dolayı Amerika İnşaat Mühendisleri Odası (ASCE)'nden *Walter Huber Araştırma* (2011), *Wellington* (2006), *Collingwood* (2006), *Arthur Casagrande* (2006), ve *Mühendislik Başarı* (2002) *Ödülleri* ve Uluslararası Geosentetik Topluluğu'ndan *IGS Araştırma Madalyası* (2006), *Üstün Makale* (2013) ve *Üstün Başarı* (2004) *Ödülleri* almıştır. Lanzhou Institute of Technology'de misafir öğretim üyesi de olan Prof. Aydılek çeşitli teknik toplulukların aktif bir üyesidir ve halen *Geosynthetics International* (IGS) ve *Journal of Geotechnical and Geoenvironmental Engineering* dergilerinin Alan Editor'lüğünü yapmaktadır.