

Innovative System for Measurement of Concrete Slump in a Tilt Drum Mixing Plant (Private contract with concrete industry client) – Measurement and control of water in concrete mixes, asphalt mixes and base materials has been a historic problem with a number of significant process and product ramifications. The in situ measurement of water content in a plant mixing drum is complicated due to drum rotations, the inability to utilize sampling techniques and the need to keep continuous, homogeneous mix flow across the sensing probe. In addition to the need to identify and design a feasible sensing device is the requirement for slip rings, telemetry, or similar techniques to transmit data in the presence of a hostile environment. Working closely with the customer, TransTech was able to develop an innovative sensor unit, based on its electrical impedance technology, capable of working under just such conditions. Unfortunately, due to internal and external business arrangements, the customer never went forward with this very promising technology.