PROJECT: Structural Health Monitoring of the Tall Piers of Metamorfosi Interchange, Nea Attiki Odos

SCIENTIFIC DIRECTOR: Vasileios Gikas

DURATION (MONTHS): 36 months

DEPARTMENT: Department of Topography

FINANCIER: Nea Attiki Odos S.A.

DESCRIPTION: The project aims at the continuation of maintaining and operating the structural health monitoring system installed on the roadway overpass at Metamorfosi interchange Nea Attiki Odos SA, (branch 8 and 9). The project is undertaken in the frame of good practices and predictive maintenance policy of the bridge owner. Specifically, the project includes data collection and analysis of the long-term variations (i.e., fine displacements and rotations) in the geometric setting of seven tall piers and selected parts of the bridge girder. Also, it includes studying the vibration response of the two tallest piers (i.e., acceleration and frequency spectra) to compute critical parameters of the dynamic performance of the structure and their correlation to meteorological conditions, potential seismic effects and operational loads.