Anthropogenic activity is a source of environmental pollution. It is important to intensify research and inform the public about the state of air pollution and related health risks. It is important to intensify research and inform the public about the state of air pollution and its associated health risks. Magnetic measurements are notable among the recent developments to encounter the spatial distribution and level of environmental pollution and to apply the magnetic parameters as indicators of the presence of different environmental pollution. The present project aims towards characterizing the magnetic properties and polycyclic aromatic hydrocarbon (PAHs) pollution in granulometric fractions in street dust from Warsaw (Poland) to enlighten possible application of concentration-dependent magnetic parameters as indicators of PAHs pollution. The study material is solid particles deposited on the surface of roads and the road tunnels in Warsaw. Street dust samples will be collected in two selected *Areas* representing different dominant pollution sources i.e. traffic-related and low-stack emission. We will obtain 100 samples from each *Area*. These particles, known as 'road dust' or 'street dust', include natural ingredients (minerals from soil erosion and rock weathering, plant materials, etc.) and anthropogenic ingredients (particles from abrasion of road surfaces, wear of tires, brake discs, etc.). Street dust includes numerous components that constitute environmental pollution, e.g. heavy metals and Polycyclic Aromatic Hydrocarbons (PAHs). Numerous studies on the properties of road dust show that its components anthropogenic magnetic particles (AMP) show strong magnetic properties. Due to the proven dependence that in anthropogenic materials (e.g. street dust, air filters, polluted soils) the presence of AMP is associated with the presence of heavy metals, one of the basic parameters used in magnetic research, i.e. magnetic susceptibility is used as an indicator of metal contamination heavy. However, the problem of the relationship between the concentration/level of PAH and the magnetic properties of dust is rarely undertaken by research groups. There are indications that magnetic susceptibility will also be a good indicator of PAHs in road dust. Nevertheless, these issues require further detailed research in the context of linking the property of magnetic susceptibility to individual PAHs and conducting research on a statistically representative number of samples. The main objective of the project is to perform a qualitative and quantitative analysis of the magnetic properties and the analysis of the content of various types of PAH in road dust, the potential linkage of individual PAHs with magnetic properties, their local differentiation depending on the dominant source of pollution (low-stack emission, transport) and the assessment of the possibility of using magnetic susceptibility as a new potential indicator of PAH levels and the impact of PAH pollution on the natural environment and human health. Specific objectives of the project are to (a) conduct sampling campaigns of street dust in Warsaw (Poland) in two areas/districts within city; (b) to investigate the magnetic signature and the concentrations of PAHs (total and individual) in granulometric fractions of street dust samples collected in Warsaw, the most populated city in Poland, (c) to combine magnetic measurements and advanced chemical analysis techniques (High-performance liquid chromatography (HPLC) and Gas Chromatography Mass Spectrometry (GC MS)) with a view to indicating the most suitable magnetic parameters as an indicator of PAHs pollution in granulometric fractions material; (d) determination which magnetic parameters could be assigned to individual PAHs as the most accurate proxy of their presence in the street dust sample. The following magnetic parameters are planned to be obtained for all sampling sites and each of granulometric fractions: (1) low-field magnetic susceptibility (χ), (2) χARM susceptibility of anhysteretic remenent magnetization, saturation magnetization (M_s), saturation remanence magnetization (M_{rs}) and coercive field (B_c). Chemical analysis is divided into two parts. First focuses on the investigation of total PAH content, which enquires application of reversed-phase liquid chromatography (RPLC) technique. The second is devoted to tracking sources of PAH contamination, which will be performed using GC MS. In order to achieve the aims of the project, representative samples of road dust from Warsaw districts characterized by different predominant sources of pollution will be collected. Two sources of dust pollution dominate in Warsaw: road / rail transport and the so-called low emissions, i.e. combustion processes of liquid and solid fuels in buildings not connected to the centralized district heating system. In the central districts of Warsaw, pollution related to transport dominates, while in peripheral districts, such as Wawer and Rembertów, the influence of low emissions prevails. The results obtained in this project will contribute to increasing the basic knowledge on the identification of PAHs in road dust particle size fractions. The relationships between the magnetic parameters and the total concentrations and concentrations of selected PAHs derived from the projections can be used to develop the use of magnetic parameters as a method of preliminary testing of PAH samples for the concentration of harmful PAHs. The knowledge obtained as a result of the project may prove valuable in the future in the context of expanding the application of magnetic methods and conducting research on a large number of sets of samples. The project results have a chance to enrich not only Earth Sciences, but also other disciplines dealing with particulate pollutants in the environment.