**Data Mining Techniques for the Location and Air-Cache Management Problems
(Project No: 102E201)**

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* ABSTRACT: The subject of this joint work is to study two fundamental issues arising in the context of the mobile environments:

1. Client mobility patterns
2. Air-Cache Management
with an emphasis to their interaction.

We are interested in studying the client mobility within a coverage region. In particular, we differentiate between two types of movements, namely inter-cell and intra-cell movements. We seek patterns of client mobility using data mining methodologies.

We also intend to study the management of the air-cache and in particular, the issues of the choice of the data items that will comprise the cache, the replacement policy, as well as the issue of cache relocation.

Of major concern to the undertaken research is the study and understanding of the interaction of client mobility and air-cache management. In this context, one goal of the research is to exploit the discovered mobility patterns in order to create an effective and efficient air-cache.
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