# Literature review of Dynamic Vehicle Routing Problem and future perspectives

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## Abstract

The Vehicle Routing Problem VRP determine a rational allocation of routes to an homogeneous fleet of vehicles (with the same capacity) in order to serve a set of customers geographically scattered from a central depot. Each customer is characterized by known demand. The VRP was introduced by Dantzig and Ramser in 1959 and formulated as a graph by Clark and Wright in 1964.
Since its introduction, the popularity of Vehicle Routing Problem has been steadily increasing in the scientific community. The principal's axes of research are: The design of the variants translating the real problems, their modeling under mathematical problems, the development of the resolution's algorithms and/or the construction of the instances used to compare the effectiveness of the presented solutions.
Our paper presents the state of art of DVRP as taxonomy where each extension is treated in detail. The most recently papers published in scientific journals with a high impact factor are processed and analyzed. Each part dealing with a particular extension (variant) is concluded by a comparative and summary balance of the papers analyzed. The conclusion justifies the relevance of treatment of the variant of Dynamic Vehicle Routing Problem as a theme of our research.

**Keywords**
Dynamic Vehicle Routing Problem, Taxonomy, State of art, variant.

## Biographies

**Yahia KAADIRI** is a young research engineer in the Engineering, Management and Systems Optimization laboratory at the Mohammadia School of Engineers, Rabat, Morocco. He is doing his research on Vehicle Routing Problem especially the dynamic variant.

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