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## A new approach to control a population of mobile robots using genetic programming

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### ↑ ABSTRACT

This paper describes a new Evolutionary Control System (ECS) able to control a population of mobile robots. The system has two main modules: the first one, called EMSS (Execution, Management and Supervision System), is the system responsible for managing all the evolutionary process that takes place in an embedded fashion in each robot. The second module, called DGP (Distributed Genetic Programming), is an extension of classical Genetic Programming algorithm to support the control system evolution for the robots that are part of the mobile robots population. Simulation experiments of the DGP algorithm are presented and their results are compared with the classical GP algorithm.

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Note: OCR errors may be found in this Reference List extracted from the full text article. ACM has opted to expose the complete List rather than only correct and linked references.

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