

## Intelligent Software Architecture and Automatic Re-Architecting Based on Machine Learning

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**Abstract :** Software system is the combination of architecture and organized components to accomplish a specific function or set of functions. A good software architecture facilitates application system development, promotes achievement of functional requirements, and supports system reconfiguration. We describe three studies demonstrating the utility of our architecture in the subdomain of mobile office robots and identify software engineering principles embodied in the architecture. The main aim of this paper is to analyze prove architecture design and automatic re-architecting using machine learning. Intelligence software architecture and automatic re-architecting process is reorganizing in to more suitable one of the software organizational structure system using the user access dataset for creating relationship among the components of the system. The 3-step approach of data mining was used to analyze effective recovery, transformation and implantation with the use of clustering algorithm. Therefore, automatic re-architecting without changing the source code is possible to solve the software complexity problem and system software reuse.

**Keywords :** intelligence, software architecture, re-architecting, software reuse, High level design

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