

## Risk Management in Industrial Supervision Projects

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**Abstract :** Several problems in industrial supervision software development projects may lead to the delay or cancellation of projects. These problems can be avoided or contained by using identification methods, analysis and control of risks. These procedures can give an overview of the possible problems that can happen in the projects and what are the immediate solutions. Therefore, we propose a risk management method applied to the teaching and development of industrial supervision software. The method is developed through a literature review and previous projects can be divided into phases of management and have basic features that are validated with experimental research carried out by mechatronics engineering students and professionals. The management is conducted through the stages of identification, analysis, planning, monitoring, control and communication of risks. Programmers use a method of prioritizing risks considering the gravity and the possibility of occurrence of the risk. The outputs of the method indicate which risks occurred or are about to happen. The first results indicate which risks occur at different stages of the project and what risks have a high probability of occurring. The results show the efficiency of the proposed method compared to other methods, showing the improvement of software quality and leading developers in their decisions. This new way of developing supervision software helps students identify design problems, evaluate software developed and propose effective solutions. We conclude that the risk management optimizes the development of the industrial process control software and provides higher quality to the product.

**Keywords :** supervision software, risk management, industrial supervision, project management

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