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A Survey of Risk Management in Software Development with Artificial Intelligence

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ABSTRACT: Software development has the most important role in the field of IT industry. The risk occurs in every field of developments. So, also a software risk occurs in the software development which is perceived by a collection of performance efficiency, robustness, transaction risk and security occurring in the system. In this review paper some of the software risk management methods have been discussed which have been successfully solved in their work for decreasing the effect of risk associated with the software project. The lack of research in the field of software management is not being using by many of the firms. So, in today's technology oriented generation is a need to create a fast software, efficient and with enough features as required as possible. The goal of this paper is to give them some ideas to use the artificial techniques that can apply to solve the problem associated with software development processes.

KEYWORDS: Risk management, software development, techniques, and Artificial Intelligent.

I. INTRODUCTION

Artificial Intelligent used in future development will occur in industry, this implies that in advance technology work on long-term, Artificial Intelligence has been used in academic or theoretical forums. The long-term, AI concern in order to the development of risk management approach [1]. In today's world there are various software developments for project management. In the fast world, all works are done by online and all these work that use software development. Every aspect of learning or any other features of intelligence that are precisely describing the machine can be made to simulate it. But all these development, there are some of the risk associated with software project development which may losses occur in the company by the lack of time, information, and resources. Therefore, software risk management method have been introduce to solve the problem of risk associated with project, analyze it and take a proper step to reduce those risks. There are some artificial techniques to avoid risks in software development. Counterfeit consciousness is the field of software engineering that means to make canny machines. Manmade brainpower (AI) is characterized as knowledge displayed by a manufactured element to tackle complex issues and such a framework is by and large thought to be a PC or machine. Counterfeit consciousness is a reconciliation of software engineering and physiology Insight in basic dialect is the computational piece of the capacity to accomplish objectives on the planet.

II. RELATED WORK

Hany M Ammar, Walid Abdelmoez and Mohamed Salah(2012) [2], in this paper on the current state and open problem in the software development using Artificial Intelligence discuss about artificial intelligence technique such as KBS, CBR, Fuzzy logic and automated programming tools help to solve the problem associated in tradition software development.

K. Hema Shankari Int. Journal of engineering research and application (2104) [3], discuss about the using artificial intelligence techniques like KBS, Neural network, and Genetic algorithm to solve the problem of risk in software development project.

Shabnam Ozlati, computer science and engineering, university of Louisville [1], discuss about the AI safety to avoid risks management and also discuss AI safety standards.

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Farah Naaz Raza (2009) Artificial Intelligence Techniques in software engineering (AITSE) [4], they can discuss the techniques developed in AI from standpoint of their application in software engineering.

Jonathan Onowakpo Goddey Ebbah (2002) introduced paper on Conveying Manmade brainpower Procedures in Programming Designing in this paper means to audit the methods created in computerized reasoning (AI) from the outlook of their application in programming building. Specifically, it centers around methods created (or that are being produced) in counterfeit consciousness that can be conveyed in taking care of issues related with programming designing procedures.

Parveen Ranjan Srivastava and Tai-hoon Kim (2009) talk about the use of Hereditary Calculation in Programming Testing and this paper obviously says that the GA is utilized for the change of the product testing productively.

III. SOFTWARE DEVELOPMENT AND ARTIFICIAL INTELLIGENCE

Software development problem include conceptual specifying, designing, testing the conceptual construct and representation of problems that comprising representing software and testing the reliability of a representation [4].

In Software development, every company constructs many projects that need planning managing, and monitoring. In all of these the tools can be used to do often complicated, designed for specialist and do not do much as they could to remind about potential problems. Then Artificial intelligence take a decision in support of successful project by decreasing costs, any mistake, analysing risks, and making project more efficient or keeping things on time and on budget.

IV. AI SOLVE THE RISK IN SOFTWARE PROJECT DEVELOPMENT

Lives make easier by using technologies. Our individual lives and our civilization as a whole are conducted to an ever increasing measure by algorithm and domain specific artificial intelligence [5].

There are some techniques like automation is solving the problem that can be accurately removed from a person to a machine. Manufacturing has seen marvellous development due to automation, and now there are various opportunities for automation in project management to make our lives easier. They are already making progress in automating things like tracking time, updating estimates and reporting schedule progress. When put together, they have possible to decrease the meeting time and improve accuracy [6].

In Artificial Intelligence, some project receives shipment notification to alert them to problem before they disclosed. Use of machine learning in artificial intelligence, they increase the outcomes of project using data that estimate the project completion rate of the team and conclude the possibility of delivering on time. Some of artificial intelligence tool, such as predictive maintenance can help projects more profitable and reliable. That's why, it accept that artificial intelligence will help to decrease the risk in projects. AI can help in step of progress and performance, especially in the project development.

Artificial Intelligence can remove the risk of slowly ramping trends in that stream of data are important but difficult to see- or easy for human to ignore even if they see them [7]. Reason and common point that belief for which AI method, tools and techniques are applicable to software engineering [8]. These are as follows:-

-> Automation programming in artificial intelligence is compatible with software engineering and this present a new model for S.E in the future works.

-> Expert System automation sufficiently successful and complete enough to give significant solution to certain aspects of software engineering process and problems.

-> Artificial Intelligence techniques and approach can be applied to the software project development.

For consider in this field, there is need of comprehension at what level the correspondence is done between two regions of specialization. For instance, programming building is a field and target of this field is to studying, building and enhancing the great quality programming. Therefore, the effective programming can be worked in less time and cost. These destinations raise some issue like efficiency, support, dependability and reuse of programming. Like the product

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building, the computerized reasoning has likewise targets and issues. Specialists have done research which center around determination of these issues which prompts arrangement of an issue. The level of correspondence between these fields is at the level of target and issues not at the level of arrangements [9].

V.FUTURE WORK

When human can write a code then occur various types of problems and some risk also but Deep Coder can write code after searching through a huge code of database. In merger with other appearing and converging technologies, Artificial Intelligence has possible to convert our society through better decision making and improvements to the human condition. Remember that the increasing combination of technology in society, these method concise grounds the present excitement around artificial intelligence in an objective analysis of capacity movement before summarizing observed benefits and risks [10].

VI. CONCLUSION

In today's computing world, gives a lot of benefits and techniques from various approaches. In the field of software project development, artificial intelligence techniques decrease the amount of risk occurs in software development. Artificial intelligence is also useful in real time system because of fast response and computational time which work in parallel architecture. The study suggests that there is a good progress in software development by using artificial intelligence techniques. Hazard administration techniques use parcel of designer time and in programming advancement stages there is a connection between every one of the stages by presenting a detachment stage among the stages we can lessen the time being developed by returning to each stage after changes in necessities. By utilizing AI based framework with the assistance of automated tools or automated programming tools can wipe out risk assessment phase saving time in software development.

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