"Strategic Methods for Multi-Criteria Decisions Using Web Applications for Predictive Analytics"

Abstract

English

Research is the key for innovation. For IT development, for new techniques of optimizing scripts or new architectures, for understanding new possible features from a project management perspective, research has a very important role. The thesis presents research results, analyzes and original solutions in the following chapters: Decision Making using Forecasting Methods for IT Management, BI and Investments, Big Data in Reporting Business Intelligence Applications, IT Management in Business Intelligence, Reporting and Analytics Software Solutions, Isab Methods for Predictive Analytics and Strategies Development, IT Management Methods and Strategies Development, Project management methods for IT, Technical Practical IT Applications.

The original methods I developed based on research are: 1. "Isab Quick Progress Project Management Method", 2. "Isab Goals Targeting Using 70% Of Daily Energy Method" and the two methods used in investing research and analysis -3."Isab Factors Stock Forecast Method" and 4. "Isab Multiplier Stocks Investing Method". The project management methods utilized in creating software application and security - Agile, Scrum, Kanban, Extreme Programming and my project management method "Isab Quick Progress", together with the decision making methods support organizing, planning and the development of the projects on time and under budget. In Business Intelligence department, technical challenges of information having Big Data size - with increasing data volume, the number of users and connections among servers, the development of security for protecting the systems and ensuring the accuracy of the transactions in real time, as well as improving the metrics by monitoring and implementing the applications for business analysis, represent the center of continuous development and research. The case studies presented in the thesis are: 1.Calculations using decision tree in choosing the software to develop, 2. Decision making in choosing the BI technology using decision table, 3. Predictive analytics determining forecasted data and charts, 4. Analysis of big data volume graphic evolution similar to Fibonacci Series, 5. Decision making in investing for building a stocks portfolio. The practical technical applications developed to sustain the research results and methods implementation are: the Progresser Dashboard for books webstore analytics using charts, 2. the Bee Distributed Database and 3. the website Rochamps.com. Combining innovation with technology and the research with experience in development, the results will be with continuous improvements.

Keywords:

Business Intelligence, Innovation, Research, Fibonacci, Quick Progress, Project Management, Isab Methods, Investments, Stocks, IT Management, Agile, Big Data, Hadoop, Distributed Databases, Data Analytics, Cloud, Webstore, Statistics, Forecast, SWOT, Case Study, Predictive Analytics.