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Project Title: Compilation of Technology Monitoring System for Renewable Energies in Iran-A Case Study in Photovoltaic Technology

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Project Necessity:


One of the major issues in technology strategy planning is short cycle life of an innovation which leads to difficulties of decision making in this area without sufficient understanding of current and future conditions. So, it is crucial to identify and create a network consisted of research and development stakeholders with using of monitoring and scouting of technological revolutions for the industry and science development which is significantly influential in the business portfolio.

Applying of efficient management tools and regulations of technology for development of pioneering industries abilities in presenting and improvement of technological products is unavoidable for nations. For this reason, technology monitoring is necessary as a stimulator tool for new and innovative products with aim of achieving a novel performances. The worthy of technology monitoring is revealed in decision making of the organization. The importance of technology monitoring then evolved in improvement in strategy planning, helping process management, identifying and prioritization of technology and its plans in combination of the main process of technology management and innovation including selection of technology to its supporting.

A monitoring system then is required for technology acquiring in its proper time which leads to challenging advantageous. In this regard, the time scale is very important in technology monitoring. The main challenges in this way are the quality of the results from data mining and its effectiveness.

Project Goals:

Since monitoring and technology scouting are the gates for market leadership in the future, decision making needs deep learning respect to the future changes and evolutions. Reaching to these goals required the following items:

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- Monitoring the trends of science, technology and innovations;
- Identifying of weak signals;
- Identifying of emerging issues

The main foals in the project are as follows:

- Avoiding double works to make the costs more efficient;
- Doing resaerch in a higher stage;
- Taking into account of new features of intellectual properties;
- Identifying of new products and emerged technologies;
- Understanding of market and technological trends in the other nationsp;
- Identifying of confirmed innovations as new events and
- Investigation of pas researches and finding novel solutions.

Abstract:


One of the main steps in every study for analyzing of a system is system requirement identification. Fpr this reason, the elements of innovation monitoring is determined. Then, the mission of the regulations will be processed and finally the specifications and abilities will be extracted from stakeholders' viewpoints. In the next step, the present status of the monitoring will be evaluated. With studying of previous data and methods it is possible to propose a newer methodology.

The worthy of technology monitoring is revealed in decision making of the organization. The importance of technology monitoring then evolved in improvement in strategy planning, helping process management, identifying and prioritization of technology and its plans in combination of the main process of technology management and innovation including selection of technology to its supporting.

In the second phase, the data flow and technical data for the different modules will be compared in order to determine the criteria for evaluation. At the final procedure, the processes and trends will be gathered and announcement will be done as a pattern for the other departments.

Steps and Methodologies:

- Analysing of system requiremets;
- Analysing of the Iran stations and requirements in energy sector;
- Literature review;
- Selection of the proper method for monitoring and technology inteligent.

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Main Results (technical outputs, patents, papers, books, reports, etc.):

The main outputs of the projects includes:

- Investigation and analysing of the renewable energies in technology monitoring and its elements;
- Providing a methodology for technology monitoring in renewable energies;
- Improving of relations between the other working groups including reseach and development, expert networks, policies and knowledge management in renewable energies;
- Networking with experts and players in the field of renewable energies monitoring;

Cooperation with other groups, institutes and universities to apply the system for technology intelligent in the field of renewable energies in Iran.