

Study on the Innovation Model of Mechanical Engineering Technology

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Abstract

At present, with the advancement of China's industrialization and the advancement of science and technology, mechanical engineering technology is also constantly innovating and improving, and is widely used in various industries. However, with the advancement of modern technology, traditional mechanical engineering technology can no longer meet the needs of the development of modern society, making mechanical engineering technology face new challenges. In practical work, due to the popularity of intelligent and automated technology, the level of mechanical engineering technology has been further improved. But at present, China's mechanical engineering technology is intelligent and automation technology is in the stage of innovation and reform, and it needs continuous improvement to meet the needs of mechanical engineering technology development. Therefore, this study is mainly aimed at the analysis of mechanical engineering technology innovation model, in order to carry out a review.

Keywords

Mechanical Engineering Technology; Innovation Mode; Research.

1. Introduction

At present, modern mechanical engineering technology is a technology based on the combination of experience and practice based on natural sciences, which mainly solves the problems encountered in design, installation and maintenance. Therefore, there are many types of mechanical engineering technology, including Design, manufacturing, mechanical and electronic design, etc. [1]. At the same time, it occupies an important position in the process of economic development. It is also an important part of China's basic industry and a prerequisite for the development of the engineering industry. However, due to the influence of different factors, such as the influence of man-made and environment, it is necessary for mechanical engineering technology to continuously innovate its model, which lays a good foundation for further improving industrial development.

2. Necessity of Mechanical Engineering Technology Innovation

At present, most mechanical engineering relies on labor, equipment needs human control, products need manual sales, and production requires personnel arrangement. The popularization of intelligent and automated technologies has changed the status quo of human control, effectively reduced the demand for mechanical engineering labor, and turned mechanical engineering into automation. Without the help of external forces, it completed a series of standard work processes. Mechanical intelligence is the application of a set of intelligent systems to collect data and make corresponding processing to guide automated pipeline production to improve production efficiency. Therefore, automation and intelligence in mechanical engineering technology have become an important standard for the

modernization of mechanical engineering technology. Therefore, it is very necessary for mechanical engineering technology to carry out automation and intelligent innovation.

3. Choice of Mechanical Engineering Technology Innovation Model

Mechanical engineering technology innovation is an enterprise that uses innovative knowledge and technology to apply new production methods and management models to improve product quality. At the same time, new technical innovations can develop new products and provide new services, thereby increasing market value.

3.1. Mechanical Engineering Technology Innovation Model

Independent innovation: In mechanical engineering technology innovation, independent creation is based on its own research and development, to achieve the industrialization, commercialization, and internationalization of achievements, and to achieve the purpose of commercial interest innovation. Independent innovation has precedence. In independent innovation, the accumulation and breakthrough of internal technologies belong to core technologies, such as Intel Corporation of the United States and Founder Electronic Publishing System of Peking University, all of which belong to independent innovation.

Imitation and innovation: It refers to a method in which new subjects innovate in the process of imitation through learning. This method involves introducing and purchasing the core technologies and secrets of pioneers, and using this as a basis for improvement. Innovation is not an invention, so there can be imitated innovation. At present, the creation of Moxin belongs to an innovative behavior commonly adopted by various enterprises.

Cooperative innovation: Cooperative innovation is a method of innovation between enterprises or between enterprises and scientific research units. Cooperative innovation is generally used in the field of emerging technologies and high-tech innovation, with cooperation, R & D and development as the main focus. And cooperative creation is the basis of a common economic enterprise, which is premised on resource sharing and complementary benefits, has a common cooperation goal and deadline, and jointly invests in all links of technological innovation, joint participation and risk sharing [2].

3.2. Principles of Mechanical Engineering Technology Selection

In the technical innovation of mechanical engineering, it is necessary to grasp the advantages and disadvantages of the main body of innovation, develop strengths and avoid weaknesses, and on the basis of knowing yourself, find a technological innovation model suitable for you. When choosing an analysis model, it is necessary to combine the overall market development trend and position. At the same time, the innovation model also needs to be guaranteed by a corresponding system, perfect the actual mechanism, and achieve the purpose of innovation.

4. Mechanical Engineering Technology to Achieve Innovative Mechanism

4.1. Establish A Technological Innovation Mechanism

In mechanical engineering technology innovation, the operation mechanism is the most complicated, which includes the process of input to output, including optimization of institutions, management mechanisms, talent management, and innovative capital systems.

In mechanical engineering technology, the incentive mechanism belongs to the driving force of innovation, including companies in pursuit of maximum benefits, in the process of technological innovation, the application of correct and positive ways to encourage people engaged in technological innovation. There are two major sources of corresponding technological innovation incentives, one is economic benefit, and the other is social benefit. Incentives need to be combined, dynamic and hierarchical. It includes spiritual and material incentives, as well

as a good atmosphere of respect for talent and knowledge. Therefore, to further complete the internal incentive mechanism of the enterprise, lay a good foundation for mechanical engineering technology innovation.

In the analysis of mechanical engineering technology, the dynamic mechanism is another driving force of technological innovation. When innovation has great value and benefits, people will pursue technical utilitarianism, thereby seeking more benefits, which is the main driving force for mechanical engineering technology innovation.

Mechanical engineering technology innovation is centered on social activities, and needs to be organized and planned. Within the enterprise, technological innovation also needs the support of the cooperation of the enterprise organization and corporate culture in order to promote internal mutual trust and improve the effect of mechanical engineering technology innovation.

5. Mechanical Engineering Technology Innovation Direction

5.1. Automation Innovation

In mechanical engineering technology innovation, the virtualization technology in automation innovation can save material resources, financial resources, and energy, and to a large extent, improve market competitiveness.

Integrated automation technology in automation innovation can rely on computer technology to reform and optimize automation technology so that it can better apply mechanical engineering behaviors, complete integrated automation technology, realize the purpose of automated management of mechanical engineering equipment, and maximize the mechanical Engineering work efficiency [3].

At present, in the development stage of China's mechanical engineering technology processing innovation, rigid development can no longer meet the actual needs, so it has turned into flexible automation development, which plays an important role in improving the efficiency of mechanical engineering.

5.2. Intelligent Innovation

At present, the traditional management mode in each industry relies on manual operation, and the manual processing link of the subway station has a lag, which makes the management personnel unable to adjust the production plan in the first time, affecting the production and sales of mechanical engineering. The intelligent management may collect data accurately and efficiently, adjust the actual problems in production, and carry out intelligent management.

With the improvement of people's living conditions, the demand for products is becoming more and more intelligent. At this time, mechanical engineering technology is required to continuously innovate technologies and production models to meet consumer needs.

6. Conclusion:

To sum up, before mechanical engineering technology innovation is necessary for the development of an enterprise, regardless of which direction to start from, it is necessary to achieve technological innovation, such as innovation mechanism, innovation direction, etc., all of which require actual modernization needs to achieve enterprise development the road.

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