第一次修正給老師

The industrial model of production has changed gradually from mass-producing and foundry manufacturing to the smart factory which produces maximum customizations as a concept through the advancement of the technology nowadays. To achieve this purpose. Integrating the information from current devices or machines is needed. However, those current machines or devices cannot transmit the data because the models are old. Furthermore, the factory managers can only read machines’ information on the panel rather than monitor it on the remote. Besides, the machines made by different manufacturers may implement different communication standards. The lack of a unified communication standard makes data collection very difficult, which becomes a bottleneck in the development of smart factories.

This paper proposed a real-time information monitoring system, which based on an industrial communication standard: OPC UA protocol. By integrating the current machine with a sensor, the proposed system can control the sensor and read the collected data using the low-cost microcomputer. The data can then be shared via the wireless network. In this way, the proposed system breaks through the limited space of factories because the traditional machines are capable of transmitting data now. Factory managers and field operators can use smart mobile devices or webpages to monitor the machine information in real-time. Moreover, collecting and analyzing the historical data on the machines are useful to quickly understand the related information of the machine tools to achieve the purpose of a smart factory.

死狗修正

The industrial model of production has changed gradually from mass producing and foundry manufacturing to the smart factory which produces maximum customizations as a concept through advancement of the technology nowadays. To achieve this purpose. Integrating the information from current devices or machines is needed. However, those current machines or devices lack the ability to transmit the data because the models are old. On the other hand, the managers in factories are only able to receive information from the panel of the devices or machines when operating at the same time. There is no way to read the information from remote control, or those devices and machines are made by different manufacturers and they might be implemented in different communication standards. That is the reason why to collect the data has become a difficult issue and bottle neck of the smart factory.

This research proposed a real-time information monitoring system, which is based on an industrial communication standard: OPC UA protocol. Placing a sensor on the machines or devices to manage by a low-cost micro computer is how we have date. and the data can be shared via the wireless network. In this way, the proposed system breaks through the limited space of factories because the traditional devices or machines are now capable to transmit. In order to be a smart factory, Managers and Operators can use smart mobile devices or webpages to monitor the information of machines in real-time, and they can analyze the coming data immediately to achieve the purpose.

死狗朋友

The industrial production model has gradually changed from mass production and foundry manufacturing to the smart factory, which produces maximum customizations as a concept through advancement of technologies nowadays. To achieve this purpose, integrating the information from current devices or machines are necessary. However, those current machines or devices lack the ability to transmit the data because the models are old. On the other hand, the managers in factories are only able to receive the information from the panels of the devices or machines when they are in operation. There is no way to obtain the information remotely and those devices or machines are manufactured by different manufacturers as they might be implemented different communication standards. That is the reason why collecting the data has become a difficult issue and bottle neck for smart factory. This research proposed a real-time information monitoring system, which is based on an industrial communication standard: OPC UA protocol. Placing a sensor on the machines or devices managed by a low-cost microcomputer to load the data from the old machine, shared via the wireless network. Hence, the proposed system breaks through the limited space of factories because the traditional devices or machines are now capable of transmitting information. In order to become a smart factory, managers and operators can use smart mobile devices or webpages to monitor the information of machines in real-time, and they can analyze the incoming data immediately to achieve the purpose.

修正版

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死狗時態版

The industrial production model has been gradually changing from mass production and foundry manufacturing to the smart factory, which produces maximum customizations as a concept through advancement of technologies nowadays. To achieve this purpose, integrating the information from current devices or machines are necessary. However, those current machines or devices lacked the ability to transmit the data because the models were old. On the other hand, the managers in factories were only able to receive the information from the panels of the devices or machines when they were in operation. There was no way to obtain the information remotely and those devices or machines are manufactured by different manufacturers as they might be implemented different communication standards.

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