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Service in Engineering Technology

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Formerly, the execution of data control, counting, arithmetic sequencing, and handling required electrical engineers in various production industries to use manual designs in achieving the desired end product. However, the programmable logic controller (PLC) is a technology that has efficiently transformed and reduced the work done by the electrical engineers during production because the data control and handling are easily elaborately performed by the technology. Furthermore, PLC functions have also improved over the years because it has been able to relay control, including sophisticated motion control as well as process control, and distributive control systems (Engineering.ecokovation, 2018). In connection to the roles done by the electrical engineers, which includes designing, developing, and testing all power equipment and systems in the entire process of production in industries, PLC, therefore, effectively reduces the workload experienced by the engineers. The paper, therefore, examines how useful the automation and accuracy provided by programmable logic controller technology has assisted the electrical engineers during their service delivery at their workplaces to aid manufacturing and production in factories.

The PLC promotes automation and accuracy in manufacturing and production. The programmable logic controller is a system making machinery and systems function automatically by incorporating three significant components, which are features of input, process, and output. Electrical engineers ensure that they perfectly connect the system as required to enhance the needed harmonious result that promotes accuracy in data storage, control, and analysis. Due to its crucial importance to industries and organizations, PLC, therefore, is a vital system that must be installed well to avoid catastrophe and any fatality in production (Electrical4u, 2021). On the same note, building an intelligent industry requires applying a programmable logic controller,

which improves productivity (Dipslab, n.d). The PLC's accuracy importance over the old industrial control system is that the older one could use thousands of electromechanical relays to achieve the same purpose achieved by applying a single PLC (Engineering.ecokovation, 2018). This makes it timely, efficient, and accurate than the old control system, which involved so many applications to achieve a single purpose. The design of the PLC into ladder logic makes it easy to arrange inputs and outputs by giving it a resemblance to the schematic relay logic system (Mobileautomation, n.d). The PLC technology has a low cost compared to the old industrial control system of relay logic system. Electrical engineers, therefore, use the services of the programmable logic controller technology to enhance production by improving the speed, accuracy, and automation through the efficient data analysis of this data analysis. It requires less space to install but swifter in promoting industrial production.

Conclusively, the role of technology in engineering is to provide solutions in the improvement of efficiency of the particular engineering solution being sort. In this case, therefore, applying the programmable logic controller in electrical engineering ensures that efficiency is achieved during production through constant automation that the older relay logic system could not achieve. Electrical engineers have to ensure that the PLC system is correctly connected with all the input, process, and outputs components correctly configured to avoid system failure during the production time. The technology has increased production because, within a short time, it is capable of monitoring and controlling all the parts of production and also being able to solve and analyze the data due to production. The services of PLC in electrical engineering help the industries increase both the quality and quantity of their products.

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