## Industrial Process Automation

Industrial process automation is based on the integration of electrical systems and control devices in order to improve performance, safety, and productivity in industrial plants. In electrotechnical engineering, electric motors, variable speed drives, and transformers play a central role in energy conversion and distribution. In process engineering, sensors measure physical quantities such as temperature, pressure, and flow rate. This information is transmitted to a Programmable Logic Controller (PLC), which processes the data and controls actuators such as valves, pumps, and motors to maintain process parameters at optimal values. The use of control systems, such as PID controllers (Proportional-Integral-Derivative), makes it possible to automatically correct deviations between the measured value and the set point. This regulation improves process stability, reduces energy losses, and ensures better product quality. Therefore, the interaction between electrotechnical systems and process engineering is essential in modern industries such as petrochemicals, food processing, and power generation.

## Questions

1. What is the text about?
2. Which specialties are mentioned in the text?
3. Explain the interaction between electrotechnical and process engineering specialties.
4. Suggested 5-line Summary?