

## **Prac 3 Conclusion**

- Through this practical session, we gained a fundamental understanding of Arduino architecture and basic programming. We learned about the Arduino Integrated Development Environment (IDE), its components, and its functionalities. By installing the IDE on our systems and connecting Arduino UNO boards, we were able to write and upload code to interact with hardware components.
- In the first experiment, we worked with LEDs, understanding how to turn them on/off and make them blink using Arduino code. This experiment provided us with insights into controlling simple actuators.
- The second experiment involved reading temperature and humidity data. We successfully interfaced temperature and humidity sensors with the Arduino board and displayed the collected data in the serial monitor of the IDE. This experiment demonstrated the capability of Arduino to interact with sensors and acquire real-world data.
- Finally, we explored Bluetooth connectivity by connecting our Arduino board with a mobile app (BlueTrem2). This experiment expanded our understanding of wireless communication and how Arduino can interact with external devices like smartphones.
- In conclusion, this practical session served as a foundational step in our journey to explore the Internet of Things (IoT) using Arduino. It equipped us with essential skills in hardware interfacing, sensor integration, basic programming, and wireless communication, laying a strong groundwork for further exploration and experimentation in IoT applications.