Cover page

Project Title: Salamo

Academic Year:2025/2026

Group Members: -Siwar Zaher Diab

-Sewar Maher Assad

Department Name: Computer Engineering

Supervisor Name: Samer Mayaleh

Format:

- Single space, Times New Roman.
- 12 pt,
- Maximum 1 page.

Abstract Body:

Items must be provided in the Abstract:

- Why do you think this project is important? Please explain the significance of this Project in brief.
- In your point of view what are the important aspects that should be covered in the project?
- Objective(s): In your view, please explain the main objectives of the project.
- Methodology: Give a brief outline of the application development process.
- Had this project been done before? Are there any similar applications available today?

- **Note:** Please deliver this abstract early to ensure that your Project has been approved by the department's projects committee. **Registration will not be done without this approval.**

Project's Abstract:

In recent years, events, product launches, and public gatherings have grown rapidly due to the influence of social media and content creation trends. One common and essential part of such events is the warm welcome of guests, by introducing a self-balancing robot that offers hospitality, this project merges technology with cultural values such as generosity and warm reception. It not only enhances the image of events but also reflects a futuristic approach to social interaction, making it significant both technologically and socially.

The main objective of this project is to design and develop an interactive self-balancing robot that can welcome guests in events in a modern and engaging way. The robot aims to replace traditional human greeters by combining automation, hospitality, and smart interaction.

The development process begins with designing the robot's mechanical and electrical systems, including the self-balancing structure and tray mount. After selecting and integrating key hardware components (motors, sensors, microcontroller,.), we will implement and test the balancing algorithm, that aims to design and implement a self-balancing two-wheel robot capable of maintaining its stability using real-time feedback control.

Finally, we will test and refine the robot in real-world scenarios to ensure stability, safety, and effective interaction.

Some similar Hospitality robots exist in the internet but not in our area, and it doesn't use the same technique that our project will have.