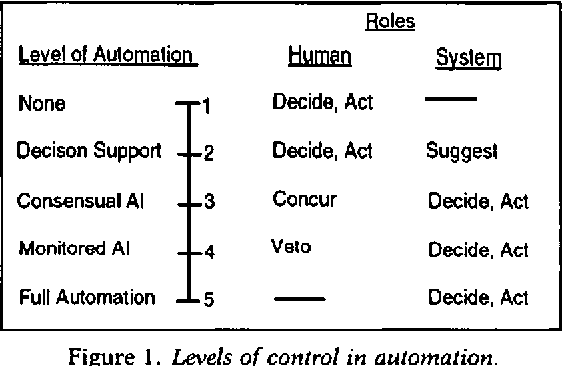
# Abstract

Industry 4.0 is the result of rapid technological advancement, dictated by Moore’s. Industry 4.0 seeks to enhance on Industry 3.0's automation by allowing devices to interact with one another, commonly known as the Internet of Things (IoT). Due to the widespread growth of IoT, various data from sensors is made accessible as what’s known as big data. Coupled with deep learning, these data are used to train machine models to make decisions. Resulting in an intelligent system that makes decisions without human involvement. Industry 4.0 has created an opportunity for a future where smart factories can leverage some of the most cutting-edge developing technology to automate and enhance many processes. Unmanned Aerial Vehicles (UAVs) is one such example. In Industry 4.0, UAVs have been deployed to perform task in smart factories that performs automatable and tedious tasks. Hence, this report aims to covers the usage and capabilities of UAVs in Industry 4.0. More specifically, the development and design of an intelligent UAV system for Industry 4.0.

# UAV in industry 4.0

In Industry 4.0, autonomous UAVs are used to achieve a wide range of missions. Missions include warehouse operations – Inventory management, indoor intra-logistics, and inspections and surveillance[1]. Manufacturing – Inspection and maintenance [2]. Surveillance -



# Proposal of UAV

# Mission of UAV

# Learning approach

# References

[1] L. Wawrla, O. Maghazei, and T. Netland, “Whitepaper-Applications of drones in warehouse operations Whitepaper Applications of drones in warehouse operations,” 2019, Accessed: Feb. 20, 2022. [Online]. Available: www.pom.ethz.ch

[2] M. Javaid, I. H. Khan, R. P. Singh, S. Rab, and R. Suman, “Exploring contributions of drones towards Industry 4.0”, doi: 10.1108/IR-09-2021-0203.