**1.INTRODUCTION**

**1.1 INTRODUCTION:**

Automation is the technology by which a process or procedure is performed with minimal human assistance. Automation or automatic control is the use of various control systems for operating equipment such as machinery, processes in factories, boilers and heat-treating ovens, switching on telephone networks, steering and stabilization of ships, aircraft and other applications and vehicles with minimal or reduced human intervention.

Automation covers applications ranging from a household thermostat controlling a boiler, to a large industrial control system with tens of thousands of input measurements and output control signals. In control complexity, it can range from simple on-off control to multi-variable high-level algorithms.

In the simplest type of an automatic control loop, a controller compares a measured value of a process with a desired set value, and processes the resulting error signal to change some input to the process, in such a way that the process stays at its set point despite disturbances. This closed-loop control is an application of negative feedback to a system. The mathematical basis of control theory was begun in the 18th century and advanced rapidly in the 20th.

Automation has been achieved by various means including mechanical, hydraulic, pneumatic, electrical, electronic devices and computers, usually in combination. Complicated systems, such as modern factories, airplanes and ships typically use all these combined techniques. The benefit of automation includes labor savings, savings in electricity costs, savings in material costs, and improvements to quality, accuracy, and precision.

The World Bank's World Development Report 2019 shows evidence that the new industries and jobs in the technology sector outweigh the economic effects of workers being displaced by automation.

Job losses and downward mobility blamed on Automation has been cited as one of many factors in the resurgence of nationalist and protectionist politics in the US, UK and France, among other countries since 2010s.

The term automation, inspired by the earlier word automatic (coming from automaton), was not widely used before 1947, when Ford established an automation department. It was during this time that industry was rapidly adopting feedback controllers, which were introduced in the 1930s.

Automation has a single purpose: To let machines perform repetitive, monotonous tasks. This frees up time for fleshy humans to focus on more important tasks that require the personal touch. The end result is a more efficient, cost-effective business and a more productive workforce.

**1.2 PROPOSED SYSTEM:**

Here we proposed Automation with Alexa, to get work or task done thought with Alexa in easiest manner.

**1.3Advantages of Proposed System:**

* Increased throughput or productivity.
* Improved quality or increased predictability of quality.
* Improved robustness (consistency), of processes or product.
* Increased consistency of output.
* Reduced direct human labor costs and expenses.
* Installation in operations reduces cycle time.
* Can complete tasks where a high degree of accuracy is required.
* Replaces human operators in tasks that involve hard physical or monotonous work (e.g., using one forklift with a single driver instead of a team of multiple workers to lift a heavy object)
* Reduces some occupational injuries (e.g., fewer strained backs from lifting heavy objects)
* Replaces humans in tasks done in dangerous environments (i.e. fire, space, volcanoes, nuclear facilities, underwater, etc.)
* Performs tasks that are beyond human capabilities of size, weight, speed, endurance, etc.
* Reduces operation time and work handling time significantly.
* Frees up workers to take on other roles.
* Provides higher level jobs in the development, deployment, maintenance and running of the automated processes.