

## INTRODUCTION

A kind of artificial intelligence is machine learning. Its heart is algorithmic procedures, which allow the machine to solve issues without the need for specialist computer programming. The widespread use of ML in the medical industry promotes medical innovation, lowers medical expenses, and improves medical quality. Chronic Kidney Disease refers to the kidneys' inability to fulfill their normal blood filtration role and other functions. The term "chronic" refers to the progressive deterioration of kidney cells over time. Chronic kidney disease is a significant public health problem worldwide, especially for low and medium income countries. Chronic kidney disease means that the kidney does not work as expected and cannot correctly filter blood. About 10% of the population worldwide suffers from Chronic kidney disease, and millions die each year because they cannot get affordable treatment, with the number increasing in the elderly. This is a severe renal failure in which the kidney no longer filters blood and there is a significant fluid accumulation in the body. This causes an abnormally high level of potassium and calcium salts in the body. High quantities of these salts in the body cause a variety of additional problems.

The primary function of the kidneys is to filter excess water and wastes from the blood. This mechanism must work properly to balance the salts and minerals in our bodies. The proper salt balance is required to manage blood pressure, activate hormones, and create red blood cells, among other things. A high calcium concentration causes bone problems and cystic ovaries in women. Chronic Kidney Disease can also cause a sudden sickness or an allergy to specific medications. Acute is the medical term for this condition. To raise awareness and to encourage those who are most susceptible to the disease to perform the tests periodically, the disease can be detected with the least possible tests and at low cost. So, the objective of this research is to provide an effective model to predict the Chronic kidney disease by least number of predictors.