**An Intelligent Fake News Detection Framework using Machine Learning and Sentiment Analysis for Social Media Applications.**

**ProblemStatement:** The widespread use of digital media and social networking platforms has made it extremely easy to share information instantly with a global audience. While this has many benefits, it has also given rise to the massive spread of misinformation, rumors, and fake news. Fake news not only misguides people but also creates social unrest, political instability, economic losses, and health-related dangers, as seen during global crises such as the COVID-19 pandemic.Traditional methods of fact-checking and content moderation are often manual, slow, and unable to handle the high velocity and volume of data generated daily. Moreover, fake news articles are often written in a way that closely resembles legitimate news, making it difficult for humans to distinguish between true and false content.﻿ This growing challenge highlights the need for advanced computational solutions that can detect and classify fake news automatically. By applying Artificial Intelligence (AI) and Machine Learning (ML) techniques—especially Natural Language Processing (NLP), sentiment analysis, and deep learning models—fake news can be identified with higher accuracy, speed, and scalability.