Abstract

Pregnancy outcomes rank the most pressing reproductive health problems in the world globally. Most maternal complications and deaths occur as a result of insufficient quality of care during pregnancy and labour. In most parts of the developing world, access to quality health care is limited and people depend on the health care providers who have limited training. Advancements in medical technology have drastically increased the quantity of data available in the healthcare industry, ranging from patient reports and genomic data to electronic medical records. These data can provide a wide scope of insights into patient cases for prevention and cure on health issues. Thus, this research aimed at designing a machine learning-based decision support system for maternal health care. The system is designed using Unified Modeling Language (UML) tools and a multi-class Support Vector Machine (SVM) was developed for the Decision Support System for Maternity Health Care (DSSMC). A Web-based
DSSMC was developed and tested to facilitate automatic diagnosis of patient and to solve the problem of human error and bias.

References


Index Terms

Computer Science

Artificial Intelligence

Keywords

Maternal Health, Diagnosis, Decision Support System, Machine Learning, Knowledge Management.