

MATERNAL HEALTH RISK PREDICTION IN MACHINE LEARNING

A PROJECT REPORT

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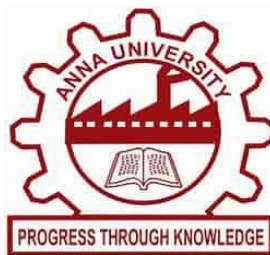
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ABSTRACT

Maternal mortality is a major, but often overlooked, public health problem and is unacceptably big nowadays. About 2,95,000 women died during and following pregnancy and childbirth in an average year. Most of these deaths (94%) occurred in low-resource settings, and most could have been prevented with proper care. Sub-Saharan Africa and Southern Asia accounted for approximately 86% (2,54,000) of the estimated global maternal deaths. Sub-Saharan Africa alone accounted for roughly two-thirds (1,96,000) of maternal deaths, while Southern Asia accounted for nearly one-fifth (58,000). At the same time, between 2000 and 2021, Southern Asia achieved the greatest overall reduction in MMR: a decline of almost 60% (from an MMR of 384 down to 157). Despite its very high MMR in 2021, sub-Saharan Africa as a sub-region also achieved a substantial reduction in MMR of nearly 40% since 2000. Additionally, four other sub-regions roughly halved their MMRs during this period: Central Asia, Eastern Asia, Europe and Northern Africa. Overall, the maternal mortality ratio (MMR) in less-developed countries declined by just under 50%. In this project, the primary goal is to predict and prevent the maternal mortality rate. This prediction includes use of Machine Learning techniques in data cleaning and processing, feature extraction, classification and data modelling. By achieving this we can be able to predict and prevent the maternal mortality during the CTG test with the help of FHR values.

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LIST OF ABBREVIATIONS

CTG	Cardio Toco Graphy
FHR	Fetal Heart Rate
XGBOOST	Extreme Gradient Boost
BPM	Beats Per Minute
EHR	Electronic Health Report
CSV	Comma-Separated Values

