

Lecture Notes in Networks and Systems 1045

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Debashis De *Editors*

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Debasis Giri · Swagatam Das ·
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Editors

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Predictive Modeling of Maternal Child Health Challenges Through Machine Learning Analysis



Anupam Baidya, Subhrangsu Chandra, Pabitra Kumar Dey ,
and Dipendra Nath Ghosh

Abstract Children are recognized as a nation's invaluable assets, playing a pivotal role in its development. The progress of nations is intricately linked to the well-being and advancement of children, who represent the most precious resources for future economic prosperity. Consequently, safeguarding their nourishment is of utmost importance, and it is imperative not to compromise on ensuring their proper care. It advocates for a collective effort from countries to establish an environment conducive to the sustainable growth of children, starting from the early stages of pregnancy. The paper proposes the development of a maternal child health prediction system that considers various factors such as gestational days, maternal age, weight, and height. This system aims to assess a baby's condition during pregnancy, foresee potential health issues, and identify complications. By adopting a proactive approach, the predictive system enables the implementation of preventive measures, thereby either entirely avoiding problems or mitigating their impact to some extent. The overall objective is to ensure the proper care and nourishment of children, viewing them as invaluable assets crucial to the progress of nations.

Keywords Maternal child health · Machine learning · Decision-Tree-Classifier · Random-Forest-Regressor

1 Introduction

The opening of the research paper draws attention to the vital role that child well-being plays in the overall prosperity of a nation, likening it to the essential nature of a healthy seed for the growth of a robust tree. Acknowledging this, it becomes

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