Analysis of PCOS using Machine Learning

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Abstract*: Polycystic Ovary Syndrome (PCOS) is a common endocrine disorder affecting women of reproductive age. Early detection and diagnosis of PCOS is crucial for the timely management of symptoms and prevention of long-term health complications. In this research paper, we propose an Android application for the detection of PCOS using Support Vector Machine (SVM) and data mining techniques. The proposed application will collect various physiological and demographic data of the user, such as age, height, weight, blood pressure, and menstrual cycle history. This data will be used to train an SVM model that will predict the likelihood of the user having PCOS. The application will also use data mining techniques to identify any patterns and trends in the collected data. To evaluate the performance of the proposed PCOS detection application, we will conduct a study using a sample population of women with and without PCOS. The collected data will be used to train and test the SVM model, and the accuracy, precision, recall, and F1-score of the model will be calculated. The proposed PCOS detection application will provide a non-invasive, cost-effective, and user-friendly tool for the early detection of PCOS. This application has the potential to improve the diagnosis and management of PCOS and ultimately improve the health outcomes of women with PCOS*

Keywords: Polycystic Ovary Syndrome

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