

## INFORMATICS INSTITUTE OF TECHNOLOGY

In Collaboration with

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## ParaPredictor: MEDAL WINNING POSSIBILITY PREDICTION FOR DISABLED ATHLETES IN PARALYMPICS

Mr.Piumal Fernando

Supervised by

Mr.Deshan Sumanathilake

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## Abstract

The Paralympic Games is the Second Largest Sporting event happening around the world. These games involve athletes with a wide range of physical and intellectual disabilities including impaired muscle power, Impaired passive range of movement, Limb deficiency, Leg length difference, Short Stature, Hypotonia, Athetosis, Vision impairment and Intellectual impairment. With the competitiveness and toughness of Paralympics at present it is very important to predict the possibility of a participating athlete in these games to win a medal before the upcoming Paralympic games take place. However, it is unclear which techniques and data attributes would provide the most accurate prediction results for Paralympics wins. This study will aim on analyzing and identifying the most suitable machine learning techniques and the data attributes that would bring out the most accurate results and information about the Paralympic medal wins. The most suitable data attributes will be selected by thorough research and the selected attributes will be trained using machine learning and deep learning techniques. The results of this study can be used to predict the accurate medal winning possibility of athletes in Paralympics in which it can help the athletes, coaches and national sports authorities to make correct and effective decisions to bring out the best of the athlete.

Keywords: Paralympics, Medal Prediction, Medal winning