Informatics Institute of Technology

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Injury Prediction on Elite Cricket Fast bowlers

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Abstract

Cricket is the 2nd most famous sport in the world after football. The game was developed, and It was successfully introduced all around the world. The immense popularity and the competitive nature of this sport made it possible to have tournaments throughout the year. Due to busy schedule of the players, they are at a higher risk on getting injured frequently. Cricket injuries are one of the most common problems in every international cricket team. By conducting research and observing journals, the fast bowlers particularly can be considered as getting injured at a higher risk than the other roles in the cricket team. The fast bowler has higher workload compared to other roles and they can easily get injured due to tight match schedules and the excessive workload. For a team, a good performing fast bowler getting injured is a disadvantage. Therefore, keeping a bowler without getting injured for a long duration is crucial for the bowler and the team as well. In this research, the relationship with the bowler workload and the cricket related injury epidemiology will be analyzed. In the proposed application, a machine learning approach will be focused on achieving the aim of this research. Decision tree algorithm will be selected to classify the workload data of the bowler and some more relative attributes as well. Expert knowledge was taken to consideration on this project such as medical experts, professional cricket players and experts in IT field. The results of this research are promising, and it paves way for furthermore investigation.

Keywords: Cricket, Machine learning, Decision tree algorithm, injury epidemiology