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## Abstract

The best team selection is always the requirement of management in different domains and in different organizations including government, project, industry, business and sports. The traditional team selection process is really lengthy, awkward and unclear due to manual process and personal judgments; which may lead to a disaster. These conflicting constraints and personal judgments can be translated into software for better and quick solution. This paper presents a solution to this problem with the help of genetic algorithm to find the optimal solution for the problem of cricket team selection and formation. Our approach is the combination of the existing quantitative approaches with some new extensions such as attributes regarding personal performances, team performance and the combination of players. Secondly our method is just not specific for cricket team but it is converted to generic model for other

multiplayer games. We propose an adaptation of island genetic algorithm to optimize the selection of multiplayer sports team having multiple conflicting constraints with mixed crossover where the fitness of common solution is used to drive the selection.

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### Index Terms

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