CHAPTER 1.0

INTRODUCTION

1.1 PROJECT SUMMARY

This project “IPL Winner Prediction” is a web application which intends to predict the winner of match using various factor affecting cricket. Statistical modeling has been used in sports since decades and has contributed significantly to the success on field. Various natural factors affecting the game, enormous media coverage, and a huge betting market have given strong incentives to model the game from various perspectives. However, the complex rules governing the game, the ability of players and their performances on a given day, and various other natural parameters play an integral role in affecting the final outcome of a cricket match. This presents significant challenges in predicting the accurate results of a game. In this project used toss decision and the venue of the match, along with the relative team strength, and adopt supervised learning algorithms to predict the winner of the match.

1.2 PROJECT PURPOSE

Statistical modeling has been used in sports since decades and has contributed significantly to the success on field. Cricket is one of the most popular sports in the world. This project is used to predict the winner of match using various factor like venue, toss discission, and previous records of particular team against particular team.

1.3 PROJECT SCOPE

The goal of the project is to predict the result of the match beforehand by taking into consideration the data and the results of the previous matches played between the two teams. The software is quite simple to use and can be used by any person. This project is also useful for management to take decision of team and toss.

1.4 PROJECT OBJECTIVE

- To predict the results of the cricket match by not only taking factors like toss, venue, but also by considering factors like team composition, the batting and bowling averages of each player in the team, the performance of the team in their past few matches, the probability of winning by batting first at a specific venue against a specific team
- To assist the team management for taking decision of toss like bet first or field first.

1.5 TECHNOLOGY AND LITERATURE REVIEW

A Kaluarachchi, SV Aparna (2010).A classification based tool to predict the outcome in cricket.

According to this factors contributing to winning games are imperative, as the ultimate objective in a game is victory. The aim of this study was to identify the factors that characterize the game of cricket, and to investigate the factors that truly influence the result of a game using the data collected from the Champions Trophy cricket tournament. According to the results, this cricket tournament can be characterized using the factors of batting, bowling, and decision-making. Further investigation suggests that the rank of the team and the number of runs they score have the most significant influence on the result of games.

Tejinder Singh, Vishal Singla, Parteek Bhatia (2015).Score and Winning Prediction in Cricket through Data Mining

In this a model has been proposed that has two methods, first predicts the score of first innings not only on the basis of current run rate but also considers number of wickets fallen, venue of the match and batting team. The second method predicts the outcome of the match in the second innings considering the same attributes as of the former method along with the target given to the batting team. These two methods have been implemented using Linear Regression Classifier and Naive Bayes Classifier for first innings and second innings respectively. In both methods, 5 over intervals have been made from 50 overs of the match and at each interval above mentioned attributes have been recorded of all non-curtailed matches played between 2002 and 2014 of every team independently. It has been found in the results that error in Linear Regression classifier is less than Current Run Rate

method in estimating the final score and also accuracy of Naive Bayes in predicting match outcome has been 68%.

Sasank Viswanadha, Kaustubh Sivalenka, Madan Gopal Jhawar,Vikram Pudi(2006). Dynamic Winner Prediction in Twenty20 Cricket: Based on Relative Team Strengths. proposes a model to predict the winner at the end of each over in the second innings of an IPL cricket match. Our methodology not only incorporates the dynamically updating game context as the game progresses, but also includes the relative strength between the two teams playing the match. Estimating the relative strength between two teams involves modeling the individual participating players' potentials. To model a player, we use his career as well as recent performance statistics. Using the various dynamic features, we evaluate several supervised learning algorithms to predict the winner of the match. Finally, using the Random Forest Classifier (RFC), we have achieved an accuracy of 65.79% - 84.15% over the course of second innings, with an overall accuracy of 75.68%.