

ACKNOWLEDGEMENT

We wish to express our sincere thanks and gratitude to all the compassionate personalities who are responsible for the successful completion of our project. We are extremely thankful to our beloved chairman sir **M.V. Koteswara Rao**, B.Sc., who has taken keen interest in us in every effort throughout this course. We express our sincere thanks to our beloved principal **Dr M. Sreenivasa Kumar**, M.Tech., Ph.D., MISTE., FIE(I), for his benevolent attention and priceless guidance throughout this course.

We express our sincere and deep-felt gratitude to **Dr S.N. Tirumala Rao**, M.Tech., Ph.D., Professor, Head, Department of Computer Science and our guide **M. Sireesha**, M.Tech.(Ph.D), of CSE department whose valuable direction and bountiful encouragement enabled us to accomplish our project in time.

We extend our gratitude to **Mrs. Sireesha.M**, M.Tech., Associate Professor and Project Co-Ordinator of the project for extending her great hand of support and encouragement. Their profound knowledge and willingness have been a source of continuous inspiration for us during the project work. We extend our sincere thanks to all the teaching and non-teaching staff in the department for their co- operation and co-ordination and encouragement throughout the span of our B. Tech course.

We are word-less to acknowledge love and care of our parents for being as a wall-of support in every phase of our life and encouraging us constantly.

We solicitously acknowledge the support and encouragement received from our friends and all the people who have been involved in clarifying our doubts with their valuable suggestions which in - turn has helped us successful completion of our project in time.

With due respect by,

Sk. Gouse Mastan Vali (17471A0502)

D. Krishna Vamsi (17471A0552)

A. Sai Ram (17471A0555)

K. Lakshmi Narayana (17471A0542)

ABSTRACT

Winning is the goal of any sport. Cricket is one the most watched sport now a days. Winning in Cricket depends on various factors like home crowd advantage, performances in the past, experience in the match, performance at the specific venue, performance against the specific team and the current form of the team and the player.

Here we predicts the score of first innings not only based on current run rate but also considers number of wickets fallen, venue, batting team, batsman, bowler, etc.. To predict the cricket score I have taken the dataset from [espn.cricksheet](https://www.espn.com/cricket)

In this Project, a model has been proposed that predicts the score in each of the innings using Linear Regression, Random Forest algorithm, Lasso, Support Vector Regression, Kneighbor, Decision Tree.

Cricket is being played in many countries all around the world. There are a lot of domestic and international tournaments being held in many countries which play cricket.

Cricket is a game played between two teams comprising of 11 players in each team. The result is either a win, loss or a tie(same score/weather). Moreover, this game is also extremely unpredictable because at every stage of the game the momentum shifts to one of the teams between the two.

A lot of times the result gets decided on the last ball of the match where the game gets really close.

Considering all these unpredictable scenarios of this unpredictable game, there is a huge interest among the spectators to do some prediction either at the start of the game or during the game.

So, keeping in mind all these possibilities, this report aims at studying the problem of predicting the game results before the game has started based on the statistics and data available from the data set.

LIST OF CONTENTS

1	Introduction	1
1.1	Introduction	1
1.2	Existing System	1
	Disadvantages	1
1.3	Proposed System	1
	Advantages	1
1.4	System Requirements	2
1.4.1	Hardware Requirements	2
1.4.2	Software Requirements	2
2	Literature survey	3
2.1	Machine Learning	
2.2	Some machine learning algorithms	3
	Supervised Learning	
	Semi-Supervised Learning	3
	Unsupervised Learning	
	Reinforcement Learning	
2.3	Applications of Machine Learning	4
2.4	Importance of Machine Learning in Sports	4
2.5	Regression	4
2.5.1	Machine Learning Algorithms for Regressions	5
	Decision Tree	
	Linear Regression	
	Random Forest	6
	KNN	
	Lasso Regression	7
2.6	Implementation of Machine Learning Using Python	7
	Numpy	8
	Scipy	
	Scikit-learn	8
	Theano	
	Thenos-Flow	8
	Keras	
	PyTorch	
	Pandas	
	Matplotlib	8
	Data Preprocessing	9
	Need of Data Pre-processing	10
2.7	Machine Learning Products	10

3	System Analysis	11
3.1	Scope of Project	
3.2	Analysis	2
3.3	Data Pre-Processing	13
3.3.1	Missing Values	13
3.3.2	Outliers	14
3.3.3	Feature Scaling	17
3.3.4	Correlation coefficient methods	18
	PCA	18
3.5	Implementation code	20
3.6	Result Analysis	23
4	Output screens	25
5	Conclusion	27
6	Future Scope	27
7	References	28

LIST OF FIGURES

Fig 1	Data Pre-Processing	10
Fig 2	Data set	12
Fig 3	Missing Values Visualization	13
Fig 3.3.2	Before Outliers Removed	14
Fig 3.3.3	After Outliers Removed	16
Fig 4	Heat map before removal of correlation attributes	19
Fig 5	Heat map after removal of correlation attributes	19
Fig 6	Comparison of 7 algorithms with PCA	23
Fig 7	Comparison of 7 algorithms after correlation	24
Fig 8	Comparison of 7 algorithms accuracy	24
Fig 9	Homepage	25
Fig 10	Predict Score Page	25
Fig 11	Predict Your Cricket Score	26
Fig 12	Prediction process	26

