Department of Computer Science and Engineering

Certificate

Certified that the project work entitled **"RATING COMPUTATION BASED ON SOCIAL SENTIMENTS FROM TEXTUAL REVIEWS FOR RECOMMENDER SYSTEMS"** carried out by **KSHITIJ SETH (1SG13CS057), KAILASH KUMAR (1SG13CS052), HARMINDER RAINA (1SG13CS046), DEEPAK KUMAR GUPTA (1SG13CS036),** bonafide students of **this institute**, in partial fulfillment for the award of **Bachelor of Engineering** in **Computer Science and Engineering** of **Visvesvaraya Technological University**, **Belagavi** during the academic year **2016-17.** It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report deposited in the department library. The project report has been approved as it satisfies the academic requirements in respect of Project work (10CS85) prescribed for the said degree.

Signature of the Guide	Signature of the HOD	Signature of the Principal
Mr. Anoop Prasad	**Dr. Prashanth C.M**	**Dr. Aswatha Kumar M**
Assistant Professor	Professor & Head	Principal

Name of the Examiners	Signature with date
1.....	.....
2.....	.....

ABSTRACT

In recent years, A flourish of review websites is witnessed. It presents a great opportunity to share our viewpoints for various products purchased. However, the information overloading problem is faced. How to mine valuable information from reviews to understand a user's preferences and make an accurate recommendation is crucial. Traditional recommender systems (RS) consider some factors, such as user's purchase records, product category, and geographic location. In this work, a sentiment-based rating prediction method (RPS) is proposed to improve prediction accuracy in recommender systems. Firstly, a social user sentimental measurement approach is proposed and calculated each user's sentiment on items/products. Secondly, a user's own sentimental attributes is taken along with interpersonal sentimental influence into consideration. Then, product reputation is considered, which can be inferred by the sentimental distributions of a user set that reflect customers comprehensive evaluation. At last, three factors are fused-user sentiment similarity, interpersonal sentimental influence, and item's reputation similarity into our recommender system to make an accurate rating prediction. The sentiment can well characterize user preferences, which help to improve the recommendation performance.