SANTHIRAM ENGINEERING COLLEGE: NANDYAL (AUTONOMOUS)

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**NH-40, Nandyal Dist.–518501, A.P**

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING(DATASCIENCE)**

**Title: Predicting customer churn in Telecom services**

**Abstract**

Telecom companies often face the challenge of customers switching to other service providers. Retaining existing customers is more cost-effective than acquiring new ones. This project focuses on predicting whether a customer is likely to leave a telecom service by analyzing their usage patterns and behavior. By identifying potential churners early, companies can take necessary actions to retain them. The system examines customer data, such as call and internet usage, payment history, and complaints. By recognizing patterns, it predicts which customers are at risk of leaving. The modules include Data Collection and cleaning, Feature Selection, Model training, Prediction and analysis,

Retention Strategies. The disadvantages includes requires large amount of data and customer preferences can change unexpectedly.

Tools and techniques used:Programming languages(Python,R), Machine Learning models(Decision Trees, Random Forest, Logistic Regression) and for Data Processing(Pandas, Numpy),Visualization(Matplotlib and Seaborn) and Dtabases used are SQL,NoSQL.

**BATCH NO: 16**

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