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M.P. Patelguda (V), Ibrahimpatnam (M), Ranga Reddy Dist - 501510, T.S.

We are glad to announce that **Ms.Vinuthna Amireddy** (18BT1AO-501) Final year student of Computer Science & Engineering, Visvesvaraya College of Engineering and Technology, Hyderabad has presented a paper titled **"Decision Support Tool for Medical Prediction System Using Multiplexed Machine Learning Techniques"** in **International Conference on Computational Intelligence and Sustainable Development** held on April 22 – 23, 2022 at Chaitanya University, Warangal.

Further the paper is selected to be published in **Elsevier's SSRN Indexed journal.**

The Elsevier's SSRN indexed Computer Science journal is **indexed in major scientific databases such as Scopus, Web of Science** CPCI, INSPEC and has a **CiteScore 3.0** and will be published open access in a dedicated online Procedia volume on **ScienceDirect**.

Visvesvaraya College of Engineering and Technology wish her great success in her Career.

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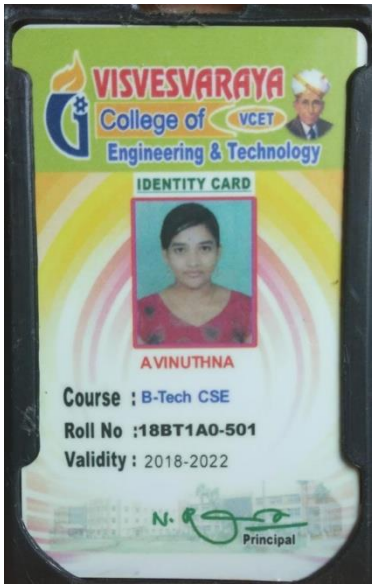
CERTIFICATE

This is to certify that Prof. / Dr. / Mr. /Mrs. Ms. *Selva kumar Subramanian, Mahesh Akuthota, Syed Thisin, Vinuthna Amireddy* has delivered an invited Talk / Presented a Paper / Participated in the "International Conference on Computational Intelligence and Sustainable Development - 2022" entitled DECISION SUPPORT TOOL FOR MEDICAL PREDICTION SYSTEM USING MULTIPLEXED MACHINE LEARNING TECHNIQUES during 22-23 April, 2022.

Convener

Conference Chair



DECISION SUPPORT TOOL FOR MEDICAL PREDICTION SYSTEM USING MULTIPLEXED MACHINE LEARNING TECHNIQUES

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Abstract

Medical information systems are used by large number of hospitals to control the patient data and clinical information. Typically, these systems produce enormous volumes of data in statistics, text, graphs, and images. Regrettably, these statistics are rarely utilized to assist clinicians in making clinical decisions. This problem can be solved using advanced techniques of machine learning. So, the main goal of the proposed study is to create a prototype of a Decision Support in Medical Prediction Systems using prominent and efficient machine learning techniques like Naive Bayes, ID3, and Compact Weighted Associative Classification. It can predict a patient's chance of developing cancer, HIV, diabetes, and heart attacks. The system's performance and accuracy are investigated and examined using various test plan scenarios. A group of related inquiries must be handled to achieve the appropriate decision-making solution from the revealing prediction system. One of the system's benefits is that it may be used as a module in a hospital management system. The inputs can be automatically given from the patient details, and they produce the exact results. Everyone can easily access it, even in their homes, when the system is spread online. The proposed approach was tested on the UCI machine learning dataset with the simulation environment. The objective of the research work is to create a web-based questionnaire application for Decision Support in Medical Prediction systems. It can retrieve hidden knowledge (patterns and correlations) linked with users' answers to the particular disease from a historical diseases database. This proposed system helps predict the patient's condition and achieve better results by comparing the performance of these algorithms and calculating their accuracy.

Keywords—Decision Support, Medical Prediction System, Machine Learning Techniques