

# AN ANALYTICAL STUDY OF USE AND EFFECTS OF WORKOUT TRACKER ON HUMANS

A Project Report submitted for the fulfilments of one of the requirements for the award of the  
degree of

Bachelor of Technology

In

Computer Science and Engineering

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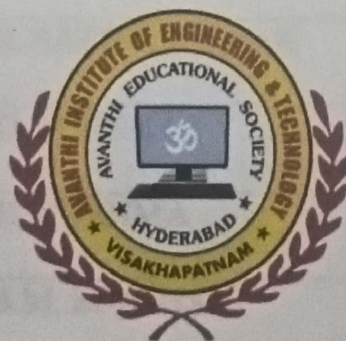
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**AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY**

(Approved by AICTE, New Delhi & Permanently affiliated to JNTUGV)

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MAKAVARAPALEM, NARSIPATNAM,

VISAKHAPATNAM-531113

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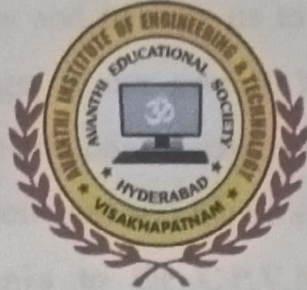
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## CERTIFICATE

This is to certify that the project entitled " AN ANALYTICAL STUDY OF USE AND EFFECTS OF WORKOUT TRACKER ON HUMANS" in partial fulfillment for the of degree of Bachelor of Technology in COMPUTER SCIENCE AND ENGINEERING, at AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, MAKAVARAPALEM, VISAKHAPATNAM is an bonafied work carried out by

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B. M. MADHAVI (20811A0521), D. RUSHMA (20811A0530) for fulfilling one of the requirements for the award of the Degree of Bachelors of Technology in Computer Science and Engineering. under the guidance and supervision during 2023-2024.

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## ABSTRACT

The growth of Workout tracking in recent years has changed the way people track and manage their health and wellness. This article presents results and analysis of a health search web application developed using the MERN (MongoDB, Express.js, React.js, and Node.js) stack. The aim of this study is to design and use a powerful and easy-to-use website that allows users to track their fitness activities, set goals, and check their progress over time. The web application uses the power of the MERN cluster to provide a great user experience and enable effective data management. MongoDB is used to store user data, exercise, and performance metrics.

Express.js supports the creation of RESTful APIs, enabling efficient communication between server and client. React.js is used to create dynamic and interactive user interfaces that allow users to easily access and view fitness data. Node.js runs as the server runtime to provide high scalability and performance.

Many features have been added to the web application, including all improvements, user registration and authentication, decision making, goal setting, visualization information and performance evaluation.

The results of the study demonstrate the success of the web application and its ability to track and monitor fitness activities. Application performance has been tested under different user loads and demonstrated high performance and performance.

research results highlight the importance of user-centered design and effective information management in raising awareness about educational relevance. Future work includes expanding the app's unique configuration, learning algorithms to deliver personalized recommendations, and conducting long-term studies to measure long-term user and behavior change.

Topics - Web applications, health monitoring, MERN cluster, MongoDB, Express.js, React.js, Node.js, user experience, data visualization, performance evaluation.

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