PRESIDENCY UNIVERSITY PRESIDENCY SCHOOL OF INFORMATION SCIENCE

MCA PROJECT 2024 ABSTRACT REVIEW FORM

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| Project No: PR213 | Name of the Team Leader: Shivshanth Patil | Section: 3MCA02 |
| Project Title: Diet recommender system using machine learning | | |
| **ABSTRACT (250 Words)** | | |
| In today's fast-paced world, maintaining a healthy lifestyle is increasingly challenging. A balanced diet plays a crucial role in promoting well-being and preventing chronic diseases. This paper introduces a Diet Recommender System leveraging machine learning algorithms to provide personalized dietary recommendations. The system analyzes factors such as age, gender, BMI, dietary preferences, health conditions, and activity levels to generate tailored meal plans.  The system employs data preprocessing techniques to manage missing data and outliers. Classification algorithms like Decision Trees, Support Vector Machines (SVM), and Neural Networks predict nutrient requirements. Collaborative and content-based filtering techniques recommend suitable food items. The system continuously learns from user feedback, enhancing recommendation accuracy over time.  Experimental results show that the machine learning-based Diet Recommender System effectively improves user satisfaction and supports health goals. Its scalability and adaptability make it suitable for diverse populations with varying dietary needs. This innovative approach holds significant potential for revolutionizing personalized nutrition and fostering healthier lifestyles. | | |
| **Keywords:** Machine Learning, Diet Recommender System, Personalized Nutrition, Nutrient Prediction, Classification Algorithms, Collaborative Filtering, Content-Based Filtering, Health Management | | |

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| **Criteria** | **Rating (1 to 5)** |
| Clarity of the Problem Statement |  |
| Relevance of the Project |  |
| Objectives |  |
| Innovation and Originality |  |
| Suitability for Research Publication |  |

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| **Overall Assessment** | **Comments** | | |
| Strengths of the Abstract: |  | | |
| Weaknesses or Areas for Improvement: |  | | |
| Recommendations | Approve |  | Revise Reject |
|  | | |
| Supervisor’s Signature with Name |  | | |
| Date: |  | | |