DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

SCHOOL OF COMPUTING

ABSTRACT SUBMISSION FORM

10214CS701– MAJOR PROJECT

ACADEMIC YEAR: 2024-2025

SEMESTER: WINTER

Name of the Student	**Student 1**	**Student 2**	**Student 3**
VTU No	VTU19521	VTU19522	VTU19523
Reg. No	21UECS0254	21UECS0560	21UECS0454
Dept with Spl	CSE	CSE	CSE
TITLE OF THE PROJECT:	Prevention Of Cardio-Metabolic Risk Using Smart Gas Analyzer		

Name of the Supervisor : Dr.N.Gomathi

ABSTRACT : An Ai-Powered Smart Gas Analyzer Offers A Non-Invasive Approach To Early Detection And Prevention Of Cardio-Metabolic Diseases (Cmds). By Analyzing Volatile Organic Compounds (Vocs) In Exhaled Breath, The Device Can Identify Unique Patterns Associated With Various Cmds, Such As Coronary Artery Disease, Diabetes, And Metabolic Syndrome. Early detection and timely intervention are crucial for effective management and prevention of these diseases. . Advanced Machine Learning Algorithms Process Real-Time Breath Data To Provide Timely Alerts And Personalized Recommendations, Empowering Individuals To Make Informed Lifestyle Choices And Seek Appropriate Medical Intervention. The sensor array captures subtle variations in VOC concentrations, while the AI models analyze these patterns to identify unique signatures associated with specific CMDs, such as coronary artery disease, diabetes, and metabolic syndrome. By continuously monitoring individuals, the device can provide real-time feedback on their health status and risk factors. This Innovative Technology Has The Potential To Significantly Impact Public Health By Enabling Early Detection, Risk Stratification, And Targeted Treatment Strategies For Cmds.

STUDENT **PROJECT SUPERVISOR** **PROJECT CO-ORDINATOR**