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CHENNAI

DECLARATION

I hereby declare that the thesis entitled Hardware Accelerated Signal Processing for a Differential Pressure Speedometer Sensor submitted by Atman Utkarsh Kikani (22BRS1253) for the award of the degree of Bachelor of Technology in Computer Science and Engineering with specialization in AI and Robotics, Vellore Institute of Technology, Chennai is a record of bonafide work carried out by me under the supervision of Dr. Harini Sriraman.

I further declare that the work reported in this thesis has not been submitted and will not be submitted, either in part or in full, for the award of any other degree or diploma in this institute or any other institute or university.

Place: Chennai

Date: 5/11/2025

A handwritten signature in black ink, appearing to read "Atman" or "Atman Kikani".

Signature of the Candidate



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School of Computer Science and Engineering

CERTIFICATE

This is to certify that the report entitled "Hardware Accelerated Signal Processing for a Differential Pressure Speedometer Sensor" is prepared and submitted by Atman Utkarsh Kikani (22BRS1253) to Vellore Institute of Technology, Chennai, in partial fulfillment of the requirement for the award of the degree of **Bachelor of Technology in Computer Science and Engineering with specialization in AI and Robotics** is a bonafide record carried out under my guidance. The project fulfills the requirements as per the regulations of this University and in my opinion meets the necessary standards for submission. The contents of this report have not been submitted and will not be submitted either in part or in full, for the award of any other degree or diploma and the same is certified.

Signature of the Guide: S. Harini

Name: Dr. Harini Sriraman

Date: 31.10.25

Signature of the Examiner

Name: L. MAY SHAHALA

Date: 5-11-2025

Signature of the Examiner

Signature of the Examiner

Name: Dr. Nisha VM

Date: 5/11/25

Signature of the Examiner

Approved by the Head of Department,
Computer Science and Engineering with specialization in AI and Robotics

Name: Dr. Harini Sriraman

Date: 30.10.25