

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

Jnana Sangama, Belgavi-590 018, Karnataka State, India



A PROJECT REPORT ON

“REAL-TIME ATTENTION SPAN TRACKING IN ONLINE EDUCATION”

Submitted on partial fulfillment of academic requirement for the academic year
2022-2023

BACHELOR OF ENGINEERING IN INFORMATION SCIENCE AND ENGINEERING

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2022-2023

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CERTIFICATE

This is to certify that the Project work entitled “**Real-Time Attention Span Tracking in Online Education**” is a work carried out by ADARSH K R (1SJ19IS002), RAKSHITHA H G (1SJ19IS128), G YOGA SAI GANESH (1SJ19IS036), GOVARDHAN J A (1SJ19IS038) respectively in partial fulfillment for the award of **Bachelor of Engineering in Information Science and Engineering**, from **Visvesvaraya Technological University, Belagavi** during the year of **2022-23**. It is certified that all corrections / suggestions indicated for internal assessment have been incorporated in the report. This project report has been approved as it satisfies the academic requirements in respect of project work prescribed for the said degree.

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Signature with Date

- 1.
- 2.

DECLARATION

We **ADARSH K R, RAKSHITHA H G, G YOGA SAI GANESH, GOVARDHAN J A**, the members of 8th Semester B.E Information Science and Engineering, S J C Institute of Technology, Chickkaballapur, hereby declare that the Project Work entitled “**REAL-TIME ATTENTION SPAN TRACKING IN ONLINE EDUCATION**” has been independently carried out by us under the supervision of our guide, **Prof. Ambika L G, Assistant Professor , S J C Institute of Technology, Chickkaballapur** and submitted in fulfilment for the award of degree in Bachelor of Engineering in Information Science and Engineering of Visvesvaraya Technological University, Belagavi, during the academic year 2022- 2023. We further declare that the report has not been submitted to any other university for award of any other degree.

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ABSTRACT

Over the last decade, e-learning has revolutionized how students learn by providing them access to quality education whenever and wherever they want. However, students often get distracted because of various reasons, which affect the learning capacity to a great extent. Many researchers have been trying to improve the quality of online education, but we need a holistic approach to address this issue. This paper intends to provide a mechanism that uses the camera feed and microphone input to monitor the real-time attention level of students during online classes. We explore various image processing techniques and machine learning algorithms throughout this study. We propose a system that uses five distinct non-verbal features to calculate the attention score of the student during computerbased tasks and generate real-time feedback for both students and the organization. We can use the generated feedback as a heuristic value to analyze the overall performance of students as well as the teaching standards of the lecturers.

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