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A MICRO PROJECT REPORT ON
"An advanced reflective colour sensor system for different applications"

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CERTIFICATE

This is to certify that the Micro-Project entitled **"An advanced reflective colour sensor system for different applications"** has been Successfully Completed by

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The bonafide students of **Department of Basic Sciences, Alva's Institute of Engineering and Technology,** affiliated to VISVESVARAYA **TECHNOLOGICAL UNIVERSITY, BELAGAVI,** during the academic year 2020–2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The report has been approved as it satisfies the academic requirements in respect of Micro-Project work prescribed for Bachelor of Engineering.

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ABSTRACT

In many industries, the ability to sense colour precisely can be crucial. In this paper, a novel reflective colour sensing system is presented for process monitoring and control applications textile industries. The system is developed using a solid state RGB sensor and a smart signal processing algorithm implemented on micro-controller architecture. A hybrid neural network comprising Self organizing mapping and Back propagation architecture is used for colour zone classification and exact colour identification of papers. Demonstrator applications and simulation results are discussed to highlight the importance of sensor and accuracy in measurement.