

**BALLARI INSTITUTE OF TECHNOLOGY AND MANAGEMENT**

**Project title : DEVELOPMENT OF A YOGA POSTURE COACHING SYSTEM  
USING MACHINE LEARNING**

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# **DEVELOPMENT OF A YOGA POSTURE COACHING SYSTEM USING MACHINE LEARNING**

## **Abstract**

Yoga is a beneficial kind of exercise that emphasizes links between the body, mind, and spirit. However, engaging in yoga while adopting poor postures might result in health issues like muscle discomfort and sprains. In this project, we are creating an interactive display for a yoga posture training system. The various yoga positions (such as Bhujangasana, Padmasana, Shavasana, Tadasana, Trikonasana, and Vrikshasana) are taken into consideration. The project introduced a yoga posture coaching system that may help users to prevent bad postures by recognizing their yoga posture movement in real time following the chosen yoga posture guidance. The project will also display the accuracy of how well the position is been performed so they can improve the areas where they are lacking behind. This project will be developed by using machine learning algorithms and python modules like OpenCV to get accurate results.

## **Vision**

To create a website that will be able to help users in training yoga postures.

## **Mission**

To train/develop a machine learning model that predicts the accuracy of the posture.

## **Objectives**

To design a system that takes webcam feed as a data inputs.

To develop a machine learning model that predicts the accuracy of the posture in yoga.

To provide a website that has integrated the trained model and helps user to perform yoga properly.