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Monitor Student Concentration Levels on Online Education Sessions

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Abstract : Monitoring student engagement has become a crucial part of the educational process and a reliable indicator of the capacity to retain information. As online learning classrooms are now more common these days, students' attention levels have become increasingly important, making it more difficult to check each student's concentration level in an online classroom setting. To profile student attention to various gradients of engagement, a study is a plan to conduct using machine learning models. Using a convolutional neural network, the findings and confidence score of the high accuracy model are obtained. In this research, convolutional neural networks are using to help discover essential emotions that are critical in defining various levels of participation. Students' attention levels were shown to be influenced by emotions such as calm, enjoyment, surprise, and fear. An improved virtual learning system was created as a result of these data, which allowed teachers to focus their support and advise on those students who needed it. Student participation has formed as a crucial component of the learning technique and a consistent predictor of a student's capacity to retain material in the classroom. Convolutional neural networks have a plan to implement the platform. As a preliminary step, a video of the pupil would be taken. In the end, researchers used a convolutional neural network utilizing the Keras toolkit to take pictures of the recordings. Two convolutional neural network methods are planned to use to determine the pupils' attention level. Finally, those predicted student attention level results plan to display on the graphical user interface of the System.

Keywords : HTML5, JavaScript, Python flask framework, AI, graphical user
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