IISER Bhopal develops AI-ML powered 'COVID Police' to ensure safety protocols

22 February 2021 | News

This AI-enabled device can replicate manual policing to ensure the COVID-19 prevention norms are being followed

Indian Institutes of Science Education and Research (IISER) Bhopal innovators have developed a low cost 'Crowd and Mask' monitoring system, to prevent the spread of COVID-19.

In an initiative to tackle the spread of COVID-19, Dr PB Sujit, Associate Professor, Department of Electrical Engineering and Computer Science, IISER Bhopal along with Dr Mitradip Bhattacharjee and Dr Santanu Talukdar, Assistant Professors, Department of Electrical Engineering and Computer Science, IISER Bhopal and Dr Venkateshwar Rao, Assistant Professor, Department of Chemical Engineering, IISER Bhopal, and BSMS Student Kasi Viswanath developed this AI-enabled device that can replicate manual policing to ensure the COVID-19 prevention norms are being followed.

Elaborating about this innovation, Dr Sujit said, "We wanted a simple advisory system to warn students of breaching social distancing norms at selected locations"

To achieve the desired outcome, the innovators used the principles of artificial intelligence and machine learning (AI-ML) in a high definition camera attached to a microchip computer and a 5V battery in a 3D printed case to monitor the movement of people in the campus. If the camera detects that the social distancing and mask norms were not being followed, the device starts alerting the crowd with a pre-recorded message.

The innovators deployed the device at the campus in October 2020 and continuously improved it till it became stable with minimum false alarms. The innovators are planning to open source the complete system along with a how-to-use tutorial for the betterment of society in such disruptive times.

"Given opportunity, this device can be deployed at various crowded public places to ensure that the basic safety rules are not violated in this tough time of Covid-19 pandemic," feels the IISER Bhopal team.