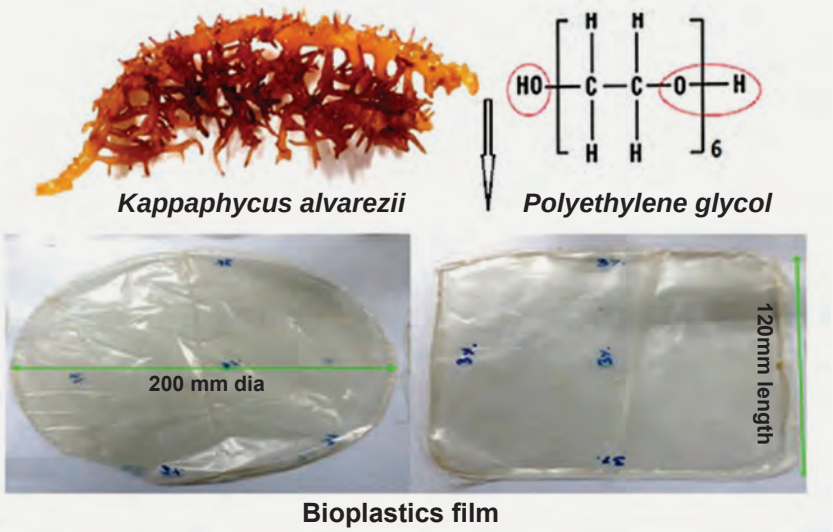
Biodegradable Plastic

THE National Institute of Ocean Technology (NIOT), Chennai, has developed a bio-plastic film using marine seaweed and PEG-3000 which could have a huge impact on limiting the usage of non-biodegradable plastics and a game-changer in the plastic industry. Bio-plastic films safely breakdown in the environment without leaving any toxicity. The physical and mechanical properties of bio-plastic film meet the properties of conventional plastics.

Source: India Science Wire

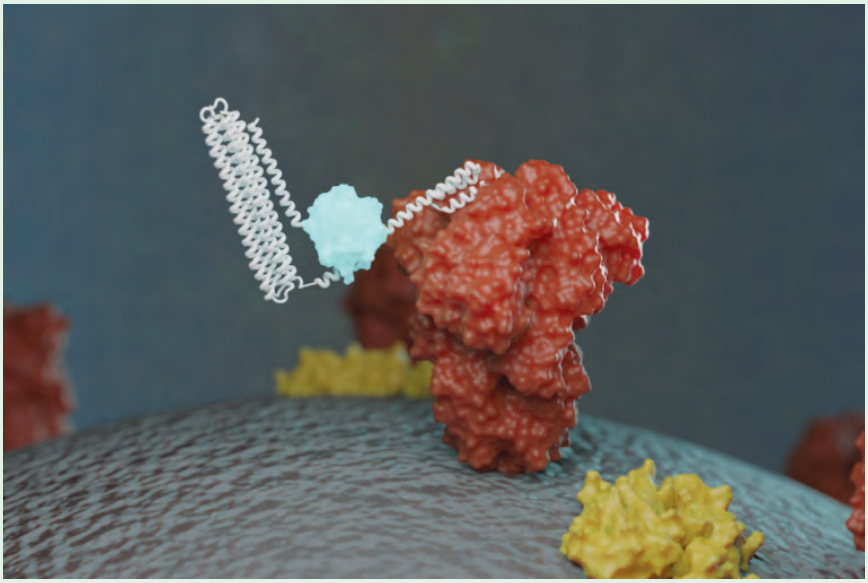


UAV-assisted 5G Infrastructure

RESEARCHERS from G S Sanyal School of Telecommunication at IIT Kharagpur have developed UAV-assisted communication infrastructure for 5G which can serve as an air-borne mobile telecom tower during emergencies. The developed system comprises an Android-based application fitted to a fleet of drones which are programmed to create emergency communication networks by extending cellular network coverage from the closest available mobile towers.

Source: kgpchronicle.iitkgp.ac.in

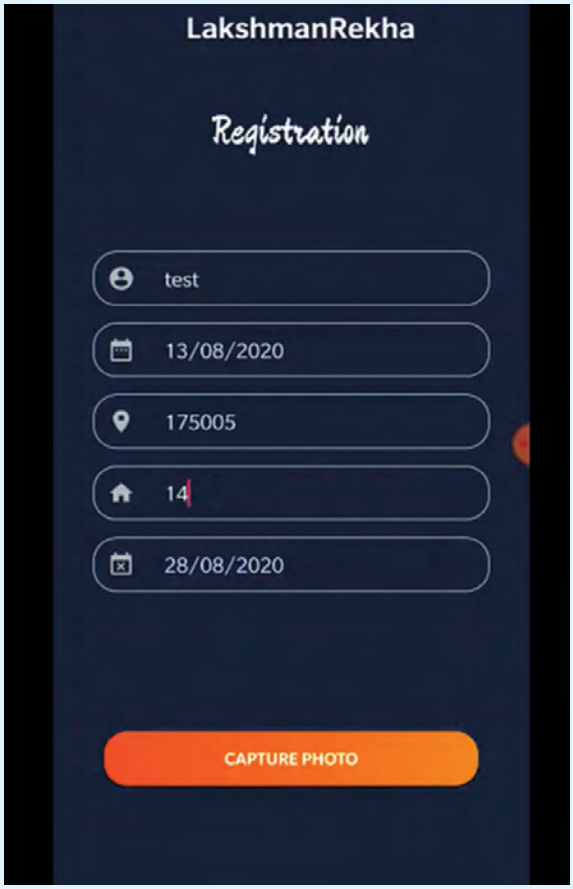
Biosensors to Detect Coronavirus Proteins and Antibodies



SCIENTISTS at the Institute for Protein Design, University of Washington, have developed protein-based biosensors that can detect the virus that causes COVID-19, and also antibodies against it. The sensors glow when mixed with components of the virus or specific antibodies. This advancement could lead to quick and more widespread testing in future. "These protein-based devices can recognize either a target protein from the virus or antibodies, bind to them, then emit light through a biochemical luciferase reaction," noted a release by the institute. The study was published in *Nature*.

Source: ipd.uw.edu

LakshmanRekha — AI-driven Home Quarantine Management Application for COVID Patients



RESEARCHERS at the Indian Institute of Technology Mandi have developed *LakshmanRekha*, an Artificial Intelligence — biometric-driven Home Quarantine Management Application (HQMA) for COVID patients. The developed application uses a combination of biometric verification, geofencing, and artificial intelligence, to continuously monitor and accurately detect the identity of a home quarantined person. In addition to the quarantine management, this application can also serve as an unbreachable mobile phone platform for normal (non-COVID) mobile users, situations like under curfew, or any national emergency, for identifying the violators or lawbreakers.

Source: IIT Mandi, Press Release