AI for fight against COVID19

Interactive session: Questions and hints
(Concept map building exercise)

Date: 24th October, Time: 1500 to 1700
Session 3, Virtual one day workshop on AI for fight against COVID19

Following three sections will run simultaneously in three parallel zoom breakout rooms.

Section 1. 'Internet of Medical Things'

Q: How will the internet of Medical Things help COVID-19 pandemic in India?

Hint: Due to COVID-19 pandemic, several challenges and opportunities have emerged in the Indian eco system. IoMT is going to play a key role in enabling health applications and activate digital health awareness in Indian society. India has a huge population which brings limited health resources to an individual citizen. It is interesting to see how IoMT can reduce health care expenses and provide a good service to the patient. It is important that different skilled people like Biologist, Clinical staff, Mechanical Engineer, Computer Engineer can come under one umbrella and develop a unique solution for COVID-19 issues using IoMT for example, supervision of social distancing at public places, cross-contamination at hospitals, remote telehealth support for senior citizen, online consultations, air-ambulance, ICU on a wheel etc. Such issues will require interdisciplinary interactions and research which may solve the aforementioned problems.

Section 2. 'Computer vision and image processing'

Q: How will computer vision and AI based medical image analysis will help to fight COVID19?

Hint: The COVID19 caused by the SARS-COV-2 has disrupted the world and India. Especially with a dubious record of the country with the second-largest number of COVID cases in the world. Little is known about the virus, and more so about what treatment works best in the situation. It is essential to use all available modalities like RT-PCR test, antibodies test to quickly and effectively diagnose the disease. AI-based medical image analysis has shown significantly higher accuracy. Also, imaging technology is useful in the contactless acquisition of the data, considerably reducing the risk to frontline corona warriors. The AI-based image analysis can provide decisions not only related to diagnosis but also related to the prognosis of the disease.

Section 3. 'Covid19 recovery and advanced industries'

Q: How small/medium/large scale industries can fight against and recover from pandemics such as covid19? Also suggest, what can be considered as major achievements (include steps to achieve this) for such industries if they could be able to apply it in such times?

Hint: The principle of the survival of the fittest prevails. Industries must remain fit for such times in order to survive. Brainstorm various techniques industries can use to recover from this difficult time. One of the many major achievement would be resuming the work quickly and the steps for it could include smooth process for permission, execution and manufacturing.