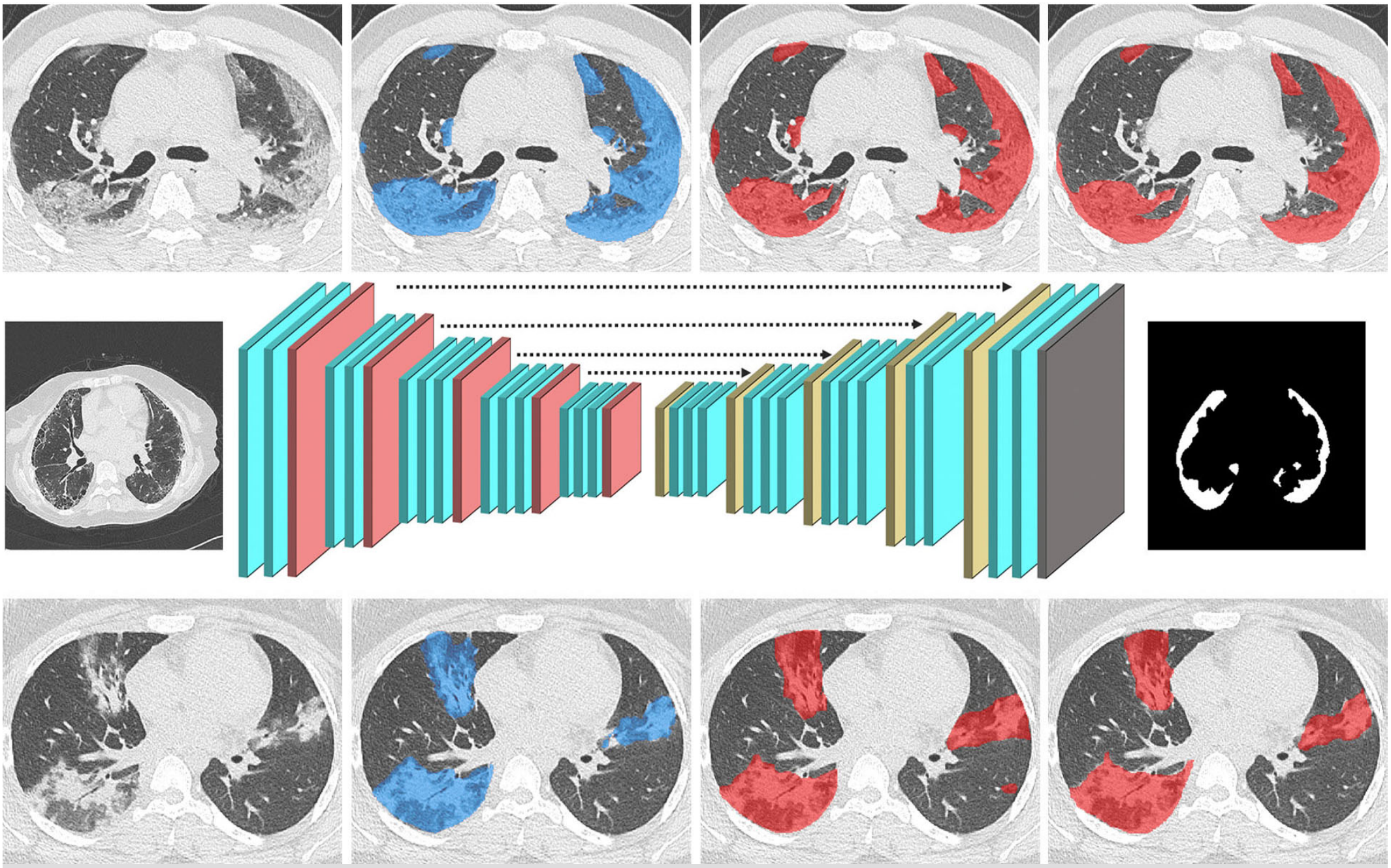

BME PARIS
BioMedical Engineering
MASTER'S PROGRAM

AI AND COVID-19 DETECTION

Open Your Mind Seminar

Friday, Dec 18 2020
1.30 pm – 3 pm

Online (Microsoft TEAMS)

Arts et Métiers Institute of Technology
Université de Paris
PSL Université Paris

How AI can improve chest imaging of COVID-19?

The occurrence of the COVID pandemic coincides with a new digital revolution in medical imaging. This new revolution consists in the growing adoption of artificial intelligence (AI) solution especially for the detection, quantification and characterization of abnormalities. Chest computed tomography (CT) play an important role in the diagnosis of patients with COVID-19. This was particularly the case during the first wave where there were shortages of PCR tests. In some countries, chest CT was used as a screening test. Thus, soon after the onset of the pandemic, several artificial intelligence-based solutions were proposed to improve and automate the diagnosis of COVID-19 pneumonia on chest imaging. Deep learning methods is been used for several years for lung segmentation but also for segmentation of lung anomalies such as interstitial lung disease which share some common imaging features with the COVID-19 pneumonia. It is therefore logical that these methods were used to rapidly develop tools to facilitate the task of radiologists and to propose new biomarkers for patient stagging. At last, AI has also been used to improve staging and prognosis assessment by combining disease extent with other imaging features and patient's comorbidities.

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