

Advanced Deep Learning Technologies and Applications for COVID-19

Theme: The most serious issue that concerns the world during this period is the outbreak of the novel Coronavirus (COVID-19). The rapid spread of the virus around the world poses a real threat to all countries, as a result of that, researchers must pay attention to studying the details of this calamity. COVID-19 symptoms may be similar to other viral chest diseases in some of the symptoms that may cause the doctor's uncertainty in making the correct diagnosis decision due to the novelty of this virus. The recent diagnosis of COVID-19 is based on real-time reverse-transcriptase polymerase chain reaction (RT-PCR) and regarded as the gold standard for confirmation of infection. It has already been widely recognized that deep learning techniques can potentially have a substantial role in streamlining and accelerating the diagnosis of COVID-19 patients. Numerous open dataset enterprises have been set up over the past weeks to aid the researchers in developing and check methods that could contribute to countering the Corona pandemic. To report the above unique problems in diagnosis of COVID-19, pioneering techniques should be developed. This special issue focuses on novel deep learning imaging analysis techniques related to COVID-19. This special section provides a perfect platform to submit manuscripts that discuss the prospective developments and innovative ideas in deep learning techniques in the diagnosis of COVID-19.

This special section will focus on (but not limited to) the following topics:

- Advanced Deep Learning Techniques based medical image analyses of COVID-19
- Advanced Deep Learning Techniques based COVID-19 diagnostic systems
- Advanced Deep Learning Techniques for lung and infection segmentation
- Advanced Detection of COVID-19 disease based on Deep Features
- Advanced Deep Learning-based CT assessment
- Advanced Deep Learning techniques based on CT images
- Early prediction of COVID-19 based advanced deep learning methods
- Advanced Deep Learning techniques for tracking COVID-19
- Advanced Deep learning techniques for data mining in COVID-19
- Advanced Deep Learning techniques for managing COVID-19
- Advanced Deep Learning techniques for big data analytics in COVID-19
- Advanced Deep Learning techniques for predicting the long-term risk of COVID-19
- Advanced Deep Learning Systems to Screen Coronavirus Disease
- Advanced Novel applications by advanced deep learning for COVID-19

Manuscript Preparation and Submission

Follow the guidelines in "Information for Authors" in the IEEE Transaction on Industrial Informatics <http://www.ieee-ies.org/pubs/transactions-on-industrial-informatics>. Please submit your manuscript in electronic form through the Manuscript Central web site: <https://mc.manuscriptcentral.com/tii>. On the submitting page #1 in the popup menu of the manuscript type, select: SS on *Advanced Deep Learning Technologies and Applications for COVID-19*

Submissions to this Special Section must represent original material that has been neither submitted to, nor published in, any other journal. A regular manuscript length is 8 pages.

Note: The recommended papers for the section are subject to final approval by the Editor-in-Chief. Some papers may be published outside the special section, at the EIC discretion.

Timetable: Deadline for manuscript submissions August 30, 2020
Expected publication date (tentative) December 2020

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