Special issue on "Biometrics at a distance in the Deep Learning era" - IEEE J-STSP

Call for papers

Biometrics at a distance (e.g., gait recognition, person re-identification, etc.) is a particular case of biometric analysis that usually does not require the conscious participation of the target subject, being non-invasive at the same time. However, the sample acquisition is almost always affected by adverse conditions, e.g., the lack of details due to the distance itself, so that the robustness to distortions of adopted biometric methods is of paramount importance. This is a well-established topic in the field of information forensics and security. With the arrival of the Deep Learning era, new approaches have started to emerge in dealing with this task. However, in contrast to other computer vision and machine learning problems, as general image/video classification, one of the main challenges that has to be addressed in this type of biometric problem, amongst others, is the lack or limited amount of available annotated data sets for effectively training deep models.
The aim of this special issue is to gather and promote novel deep-learning based approaches for addressing the task of biometrics at a distance. Specifically, we are interested in works that propose new methods to improve the recognition accuracy, the computational burden and/or the scalability of the domain of application for biometrics, being the application of the deep learning paradigm the main component. Special attention will be paid to privacy protection and data security in the context of biometrics. In addition, new large realistic annotated datasets for the related tasks are welcome.

Topics
The topics of interest for this special issue include, but are not limited to, the following ones:
* Gait recognition with Deep Learning
* Face recognition (low resolution) at a distance with Deep Learning
* Person re-identification with Deep Learning
* Soft biometrics at a distance with Deep Learning
* Multimodal biometrics at a distance with Deep Learning
* Heterogeneous and cross-modal biometrics at a distance with Deep Learning
* Information fusion for biometrics with Deep Learning
* Incremental learning for biometrics at a distance with Deep Learning
* Semi- and weakly-supervised learning for biometrics at a distance with Deep Learning
* Algorithms for effective transfer learning applied to biometrics at a distance
* Multi-task learning applied to biometrics at a distance
* Processing and enhancement of low-quality biometric data
* Privacy protection and data security applied to Biometrics at a distance

Submission Guidelines

Prospective authors can contact the Guest Editors to ascertain interest on topics that are not listed and should visit IEEE JSTSP webpages for information on paper submission. Manuscripts should be submitted using the Manuscript Central system and will be peer-reviewed according to the standard IEEE process.

Important Dates
* Paper submission due: **EXTENDED 31/August/2022**
* First review due: 30/September/2022
* Revised manuscript due: 30/November/2022
* Second review due: 15/January/2023
* Final manuscript due: 28/February/2023

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