INTERNSHIP OFFER

Energy-aware images for smartphones

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	Duration: 6 months, starting Feb. 2023.

This internship aims to assess existing approaches for producing energy-aware images. Such images have to consume less energy when displayed onscreen (e.g., smartphones and/or screen displays). In the meantime, the quality of experience (QoE), i.e., the overall quality perceived by users, should stay as close as possible to the QoE of original images. Beyond the assessment of existing methods, we aim to improve the most promising ones. Development of lightweight deep learning based versions of the methods will be investigated. The monitoring of the power consumption of the proposed method will be done directly on a smartphone.

Skills: The candidate will have a research background in signal processing and image processing. A research background in machine learning would be appreciated. Knowledge of deep learning techniques, python and one of the popular deep learning frameworks (Pytorch, or similar) would be greatly appreciated.
Expected outcomes: prototype, publication or patent.

Keywords: Computer vision, energy-aware images, energy consumption, image and video processing, deep learning