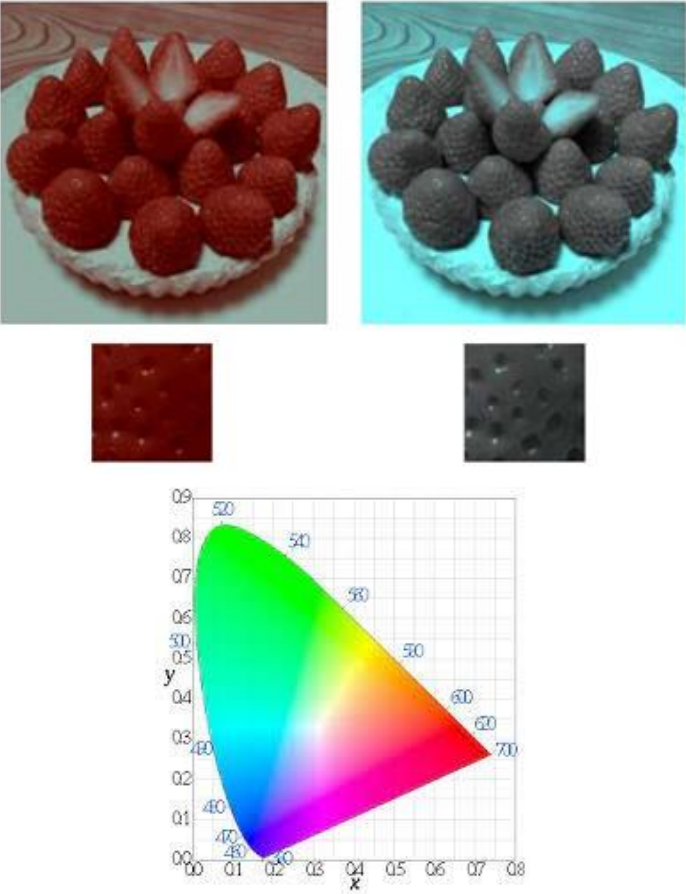**INTERNSHIP OFFER**
Color-based energy reduction for climate change

Supervisors	Laurent Blondé & Claire-Hélène Demarty laurent.blonde@interdigital.com claire-helene.demarty@interdigital.com
	Duration: 6 months, starting Feb. 2023

In the context of climate change, reducing the energy consumption of electronic devices is a requirement. As displays represent a large part of the consumption of such devices, they are a choice target to reduce our energy footprint.

This internship will investigate different chromaticity-based methods, derived from properties of the visual perception and its optical illusions, to reduce the energy needed to display images and videos onscreen. Besides the development of the methods through classic computer vision algorithms, a deep-learning based network could be developed to mimic the most promising investigated technique.

Expected outcomes: prototype, publication or patent.

Skills: computer vision, signal/color/image/video processing. Background in display physics and deep learning would be appreciated. Python. PyTorch or an equivalent deep learning framework.

Keywords: color, visual perception, energy reduction, energy aware images, computer vision, machine learning (deep learning).

InterDigital R&D France, SAS | 975 avenue des Champs Blancs | 35510 Cesson-Sévigné | France | T : +33 (0) 2 56 85 09 51

SAS au capital social de 15 000 000,00 € | 849 486 279 RCS Paris | France