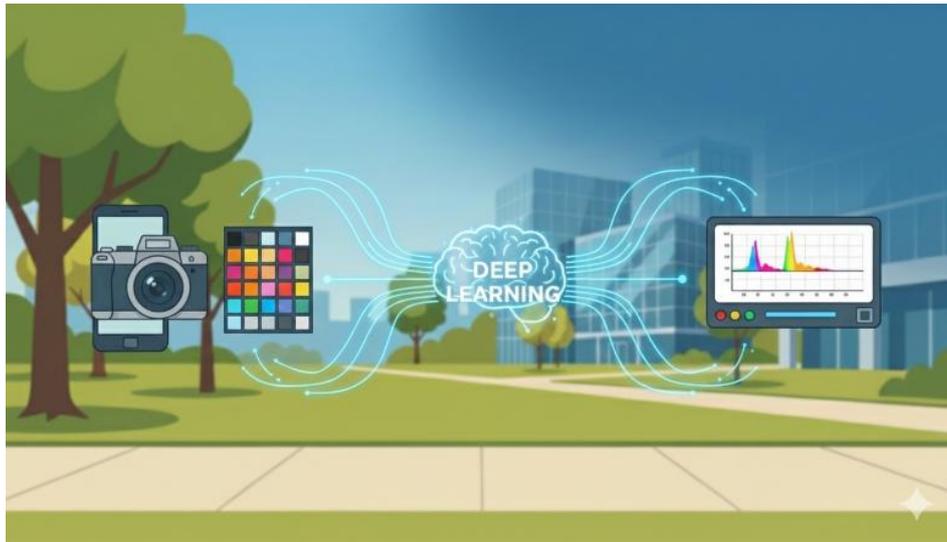# DEEP LEARNING SPECTRORADIOOMETER

GOAL

Build a virtual spectroradiometer based on a camera capturing a color chart by using deep learning technics.

HOW?

We want to define deep learning approaches using vector-to-vector regression to estimate illumination spectral power distribution (SPD) from RGB images of color chats.

RESEARCH TOPICS ASSOCIATED

COMPUTATION IMAGING

- Color sensor configuration
- Image Preprocessing

COMPUTER VISION

- Extract automatically the color char patches

DEEP LEANING

- Explore different deep learning architectures

AVAILABLE EQUIPMENT'S

- Multiple color camera
- Multiple color chart
- Spectroradiometers
- Telelumen Light Booths

Can we simply adapt the results to a different sensor?

Can we use camera pose estimation methods to map in 3D the lights SPD of a room?

GO FURTHER

Can we simply adapt the results to a different sensor?

Can we use camera pose estimation methods to map in 3D the lights SPD of a room?