

Seminar

Tone Mapping for HDR Camera Sensors in Cars with Advanced Driver Assistance Systems and Autonomous Drive

Camera sensors are an important input to Advanced Driver Assistance Systems (ADAS) and Autonomous Drive (AD) of cars. A challenge for the camera sensors are the very high dynamic ranges of the input signal and the variation of the illumination of the environment. The candidate should work on understanding principles of high dynamic range (HDR) image capturing, different pixel technologies for HDR sensing, exposure control for HDR images, relations to LED flicker mitigation, algorithms to create HDR images from the captured input data and algorithms to compress the high dynamic range images to display the images to a human driver or vision processing system.

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