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ACCEPTED MANUSCRIPT

Infrared Image Super-Resolution using Auxiliary Convolutional Neural Network and Visible Image under Low-Light Conditions

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Highlights

The proposed scheme focuses on SR of an NIR image, not a VIS image in a low-light environment.

The proposed scheme utilizes a VIS image, obtained at the same time as the NIR image, as auxiliary information.

The proposed scheme is based on a CNN structure that simultaneously receives the HF information of the NIR and VIS images.

The proposed scheme achieved a further performance improvement by employing an auxiliary CNN network.

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