

# Supplementary Material for Harmony in Diversity: Improving All-in-One Image Restoration via Multi-Task Collaboration

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## EXPERIMENT

### Implementation Details

In this study, we propose the Art, an enhanced all-in-one image restoration framework that incorporates an innovative active reweighting strategy. To demonstrate the superiority of our proposed framework, we conducted a series of experiments where we retrained four established baseline models—MiOIR, AirNet, TransWeather, and PromptIR—across four distinct all-in-one image restoration scenarios. For a fair comparison and to underscore the efficacy of Art, we employed the official implementations of each baseline model

and integrated our active reweighting strategy during the retraining process<sup>1</sup>. Specifically, for the AirNet model, which features a two-stage framework, we leveraged the pre-trained degradation encoder and fixed it to address the "haze-rain-noise" scenario, further tailoring it to meet the specific needs of this setting.

### Visual Results

More visual results are provided here, shown in Figure 1 and Figure 2.

<sup>1</sup>MiOIR: <https://github.com/Xiangtaokong/MiOIR/tree/main>, AirNet: <https://github.com/XLearning-SCU/2022-CVPR-AirNet>, TransWeather: <https://github.com/jeyamaria-jose/TransWeather>, PromptIR: <https://github.com/va1shn9v/PromptIR>

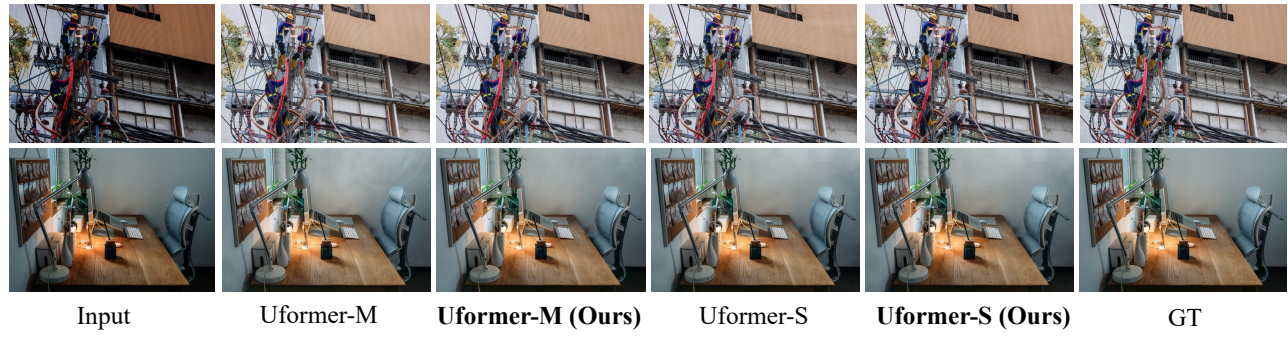


Figure 1: Visual results of Uformer and our retrained one on low-light enhancement.



Figure 2: Visual results of AirNet and our retrained one on image dehazing.