EE798R-Project

Joint RGB-Spectral Decomposition Model Guided Image Enhancement in Mobile Photography

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Goal

- ***To Leverage Spacial information of RGB images and spectral richness of Multi-Spectral images to enhance Mobile Photography***
- **To integrate Shading priors, Reflectance and Material semantic priors into HDRNet to promote dynamic range enhancement, color mapping, and grid expert learning**

Results

Model	PSNR	SSIM
HDRNet	27.75	0.939
Paper's	30.14	0.968
Mine	29.01	0.967
Mine (Modified)	29.13	0.967

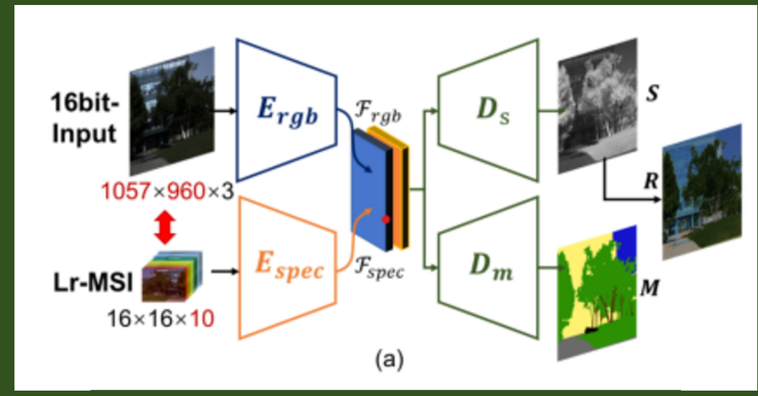
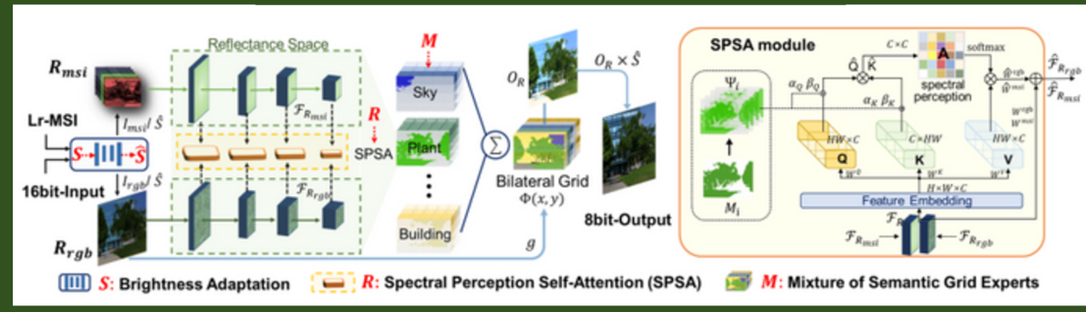
Stage-2: JDM-HDRNet

Model	Buil.	Plant	Sky	Trunk	Road	mIoU
Paper's	87.53	91.01	95.87	31.14	89.11	78.93
Mine	88.04	91.26	94.39	35.18	90.08	78.94
Mine (M)	88.38	90.08	84.22	24.57	84.76	74.4

Stage-1: Segmentation-JDM

Model Architecture

Stage-1: Segmentation-JDM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