



Deep Depth Estimation from Thermal Image

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Summary 1. Multi-Spectral Stereo (MS^2) Dataset



Location: City (Day, Rain, Night)

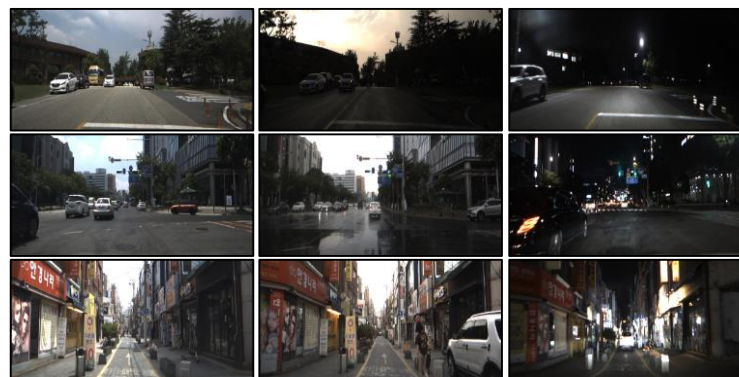


Location: Road1 (Day, Rain, Night)

Vehicular Sensor System for MS^2 dataset

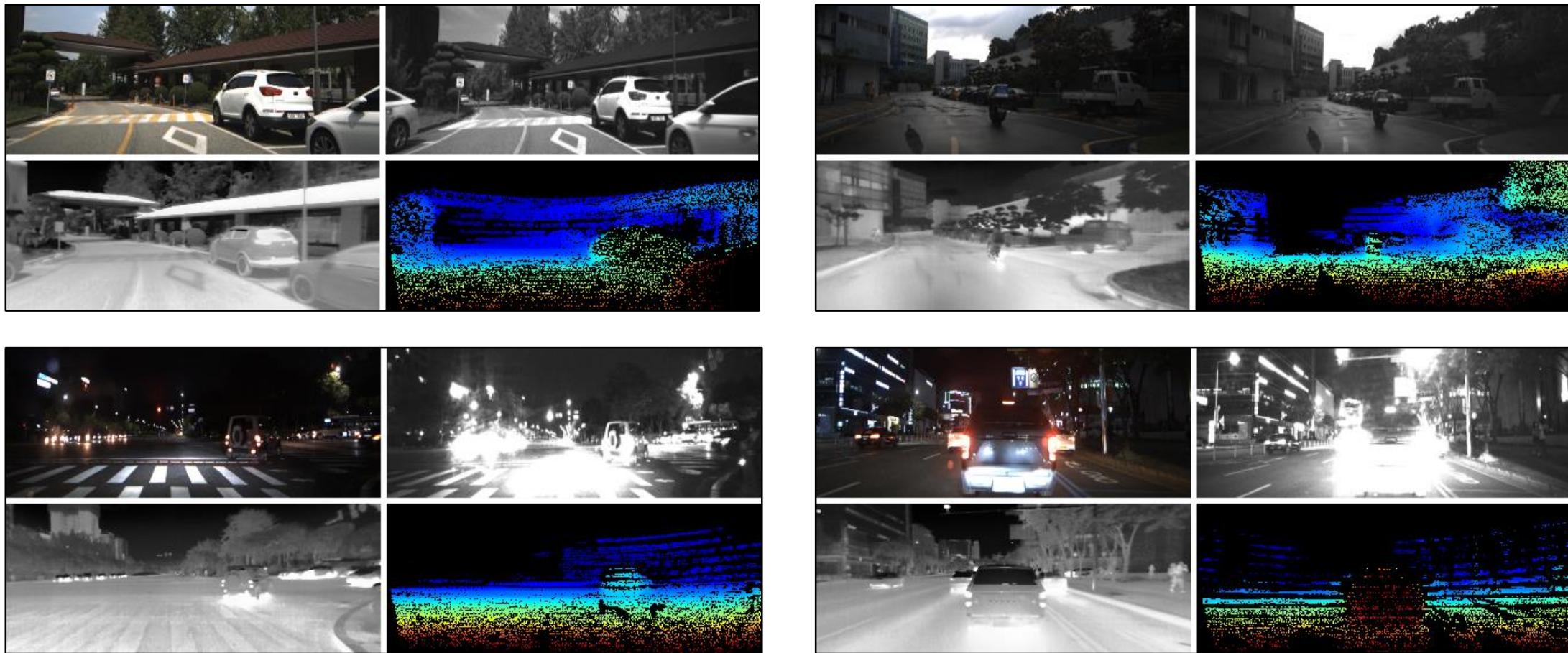
MS^2 Dataset's Features

- ✓ **Multi-sensor Stereo dataset**
 - Stereo RGB, Stereo NIR, Stereo thermal cameras
 - Stereo LiDAR, single GPS/IMU module
- ✓ **Synchronized + Rectified data pairs (180K ↑)**
 - Projected depth map (in RGB, NIR, thermal image planes)
 - Odometry data (in RGB, NIR, thermal, and LiDAR coordinates)
- ✓ **A number of places with various conditions**
 - Day/Night + Clear-sky/Cloudy/Rainy



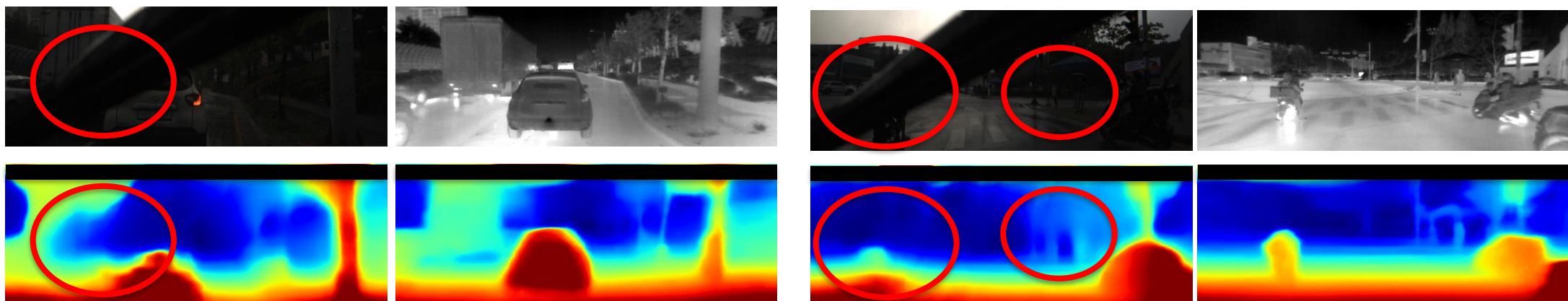
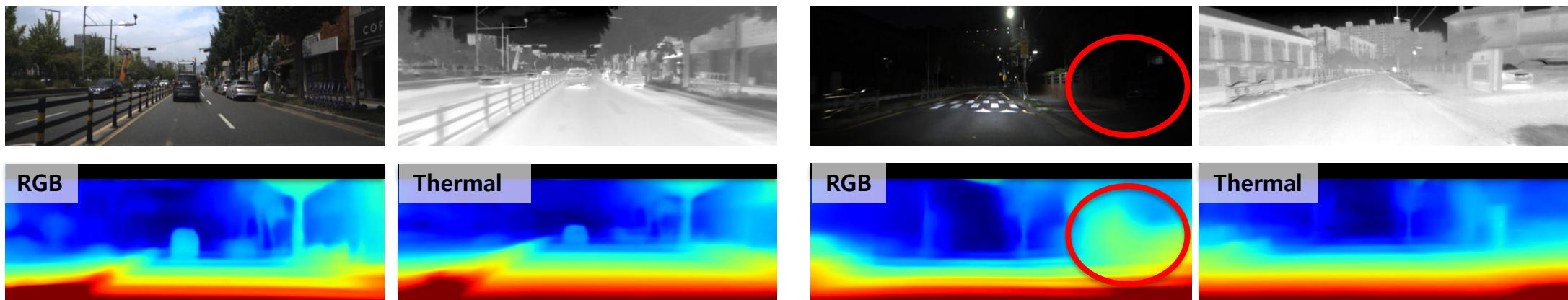
Same place with various conditions

Summary 1. Multi-Spectral Stereo (MS^2) Dataset



(Left) RGB image, (Left) NIR image
(Left) Thermal image, Projected depth map (in thermal camera's coordinate)

Summary 2. Depth Estimation from Thermal Image



Depth from thermal images consistently ensures reliable performance even in low-light and rainy conditions.

Thank you!

**For more dataset and benchmark results,
please visit our webpage!**

[https://sites.google.com/view/
multi-spectral-stereo-dataset](https://sites.google.com/view/multi-spectral-stereo-dataset)

