iROADS Dataset
(Intercity Roads and Adverse Driving Scenarios)

Mahdi Rezaei, Mutsuhiro Terauchi
m.rezaei@auckland.ac.nz

Abstract

As part of the published research [1]:

Mahdi Rezaei, Mutsuhiro Terauchi, "Vehicle Detection Based on Multi-feature Clues and Dempster-Shafer Fusion Theory", *Image and Video Technology*, Springer, Volume 8333, pp 60-72, 2014.

we release the **iROADS** as a comprehensive vehicle-dataset with 4656 image frames, in 7 categories, recorded from moving vehicles on the roads under various weathers and challenging lighting conditions:

Condition	No. of Frames
Daylight	903
Night	1050
Rainy day	1049
Rainy night	431
Snowy	569
Sun strokes	307
Tunnel	347

The dataset may be used as a unique reference for benchmarking and/or classifier-training purposes.

A non-compressed BMP format of the dataset can be found in
https://www.cs.auckland.ac.nz/~m.rezaei/Publications.html

Technical Specifications

Sequence Length (Frames)	4656
Colour / Grey	Colour
Colour Depth	24-bit
Resolution (pixels)	640 x 360
Stereo Rectified	NA
Ego-motion data	NA

Terms and Conditions

1- **Modification and Commercial Use:** The database, in whole or in parts, may not be modified or used for commercial purposes.
2- **Research Purpose:** The database is provided to aid researchers in the general areas of computer vision, image processing, and more specifically vehicle detection and driver assistance systems.
3- **Indemnification:** The researcher who use this dataset agree that the collected dataset-iROADS is solely provided for research purposes and the providers will not be responsible for any kind of losses, expenses, damages, demands and/or claims based upon usage of the provided dataset.

Sample Images

14 samples images (two from each category):


Figure 1: Daylight condition.


Figure 2: Night condition.


Figure 3: Rainy day condition.

Figure 4: Rainy night condition.

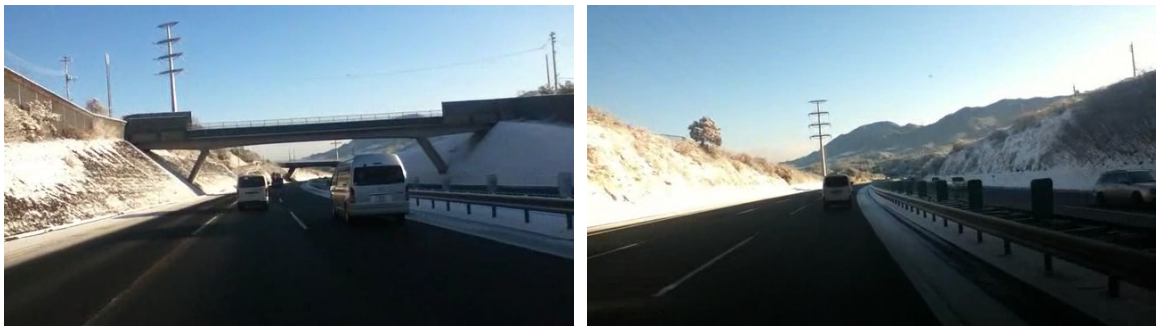

Figure 5: Snowy condition.

Figure 6: Sun strokes.

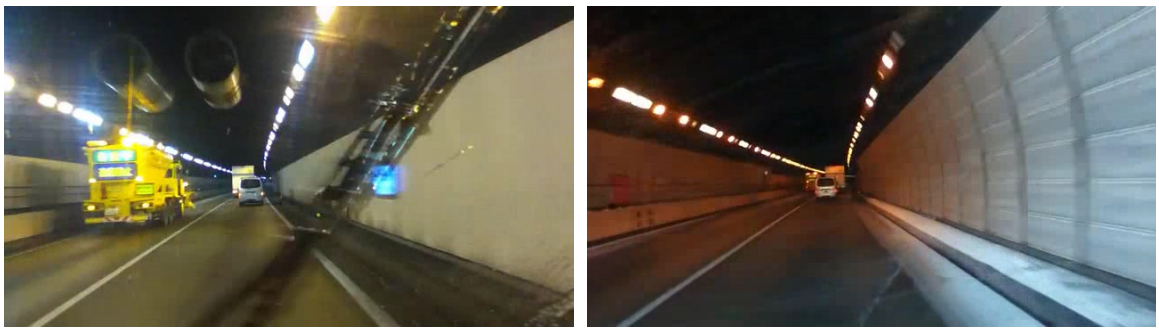

Figure 7: Tunnel.

References

[1] Mahdi Rezaei, Mutsuhiro Terauchi, "Vehicle Detection Based on Multi-feature Clues and Dempster-Shafer Fusion Theory", *Image and Video Technology*, Springer, Volume 8333, pages 60-72, 2014.