TJNU Multimodal Ground-based Cloud Database Agreement

Introduction

The TJNU multimodal ground-based cloud database (MGCD) is collected in Tianjin, China from 2017 to 2018. It contains 8000 multimodal ground-based samples which are divided into seven sky types: 1) cumulus, 2) altocumulus and cirrocumulus, 3) cirrus and cirrostratus, 4) clear sky, 5) stratocumulus, stratus and altostratus, 6) cumulonimbus and nimbostratus, 7) mixed cloud. The MGCD is composed of 4000 training samples and 4000 test samples from seven classes, and each sample comprises one ground-based cloud image and a set of multimodal cloud information which are one-to-one correspondence. The cloud images are captured by a sky camera with fisheye lens and stored in JPEG format with the pixel resolution of 1024×1024. The multimodal cloud information collected by a weather station includes temperature, humidity, pressure and wind speed, and is stored in a vector with four elements. All the samples are cooperatively annotated by the meteorologists and the ground-based cloud researchers. The MGCD will be provided free of charge to cloud-related researchers in order to promote research. This agreement is granted by the providers in College of Electronic and Communication Engineering, Tianjin Normal University, Tianjin, China, and Meteorological Observation Centre, China Meteorological Administration, Beijing, China.

Content

The researcher(s) agrees to the following restrictions and requirements on the TJNU multimodal ground-based cloud database (MGCD):

1. Redistribution: Without prior approval from the providers, the MGCD, in whole or in part, will not be further distributed, published, copied, or disseminated in any way or form whatsoever, whether for profit or not. This includes further distributing, copying or disseminating to a different facility or organizational unit within the requesting university, organization or company.

2. Modification: Without prior approval from the providers, the MGCD, in whole or in part, will not be modified.

3. Commercial Use: Without prior approval from the providers, the MGCD, in whole or in part, will not be used for commercial use. Any commercial use of the database is strictly prohibited.

4. Publication Requirements: In no case should the samples be used in a way that could reasonably cause the original subject embarrassment or mental anguish.

5. Acknowledgment: In all documents and papers that report experimental results based on the MGCD, a citation of this dataset should be added into the references or acknowledged in the acknowledgement.

6. Indemnification: Researcher agrees to indemnify, defend and hold harmless Tianjin Normal University, Tianjin, China, and Meteorological Observation Centre, China Meteorological Administration, Beijing, China, and their officers, employees and agents, individually and collectively, from any and all losses, expenses, damages, demands and/or claims based upon any such injury or damage (real or alleged) and shall pay all damages, claims, judgements or expenses resulting from researcher's use of the MGCD.

7. Legal Disclaimer: The MGCD is granted without any warranty. The providers shall not be held responsible for any damage (physical, financial or otherwise) caused by the use of the database. The providers shall not be held responsible of any illegal or criminal use of the database by the End-User. Any illegal or criminal use of the database by the End-User is strictly prohibited.

If you use this dataset in your research, please cite our work as,

@article{liu2020ground, author = {Liu, Shuang and Li, Mei and Zhang, Zhong and Cao, Xiaozhong and Durrani, Tariq S.},
title = {Ground-Based Cloud Classification Using Task-Based Graph Convolutional Network}, journal = {Geophysical Research Letters}, volume = {47}, number = {5},
pages = {e2020GL087338}, year
= {2020}, publisher={Wiley
Online Library}
}

@article{liu2020multi, title = {Multi-evidence and Multi-modal Fusion Network for Ground-based Cloud Recognition}, author = {Liu, Shuang and Li, Mei and Zhang, Zhong and Xiao, Baihua and Durrani, Tariq S.}, journal = {Remote Sensing}, volume = {12}, number = {3}, pages = {464}, year = {2020},
publisher = {Multidisciplinary Digital Publishing Institute}
}