

Title (en)

ADVANCED CLOUD DETECTION USING NEURAL NETWORKS AND OPTIMIZATION TECHNIQUES

Title (de)

FORTSCHRITTLICHE CLOUD-DETEKTION UNTER VERWENDUNG NEURONALER NETZWERKE UND OPTIMIERUNGSVERFAHREN

Title (fr)

DÉTECTION AVANCÉE DE NUAGE À L'AIDE DE RÉSEAUX NEURONAUX ET TECHNIQUES D'OPTIMISATION

Publication

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Application

EP 19864631 A 20190924

Priority

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- US 2019052593 W 20190924

Abstract (en)

[origin: WO2020068744A1] Techniques for automatically determining, on a pixel by pixel basis, whether imagery includes ground images or is obscured by cloud cover. The techniques include training a Neural Network, making an initial determination of cloud or ground by using the Neural Network, and performing a max-flow, min-cut operation on the image to determine whether each pixel is a cloud or ground imagery.

IPC 8 full level

G06V 20/13 (2022.01); **G06N 3/04** (2006.01); **G06N 3/08** (2006.01); **G06N 5/00** (2006.01); **G06V 10/40** (2022.01); **G06V 10/44** (2022.01); **G06V 10/50** (2022.01); **G06V 10/54** (2022.01); **G06V 10/762** (2022.01); **G06V 10/772** (2022.01); **G06V 10/82** (2022.01)

CPC (source: EP US)

G06F 18/2323 (2023.01 - EP); **G06N 3/048** (2023.01 - EP); **G06N 3/084** (2013.01 - EP US); **G06V 10/454** (2022.01 - EP US); **G06V 10/50** (2022.01 - EP US); **G06V 10/513** (2022.01 - EP US); **G06V 10/54** (2022.01 - EP US); **G06V 10/7635** (2022.01 - EP US); **G06V 10/772** (2022.01 - EP US); **G06V 10/82** (2022.01 - EP US); **G06V 20/13** (2022.01 - EP US); **G06N 5/01** (2023.01 - EP)

Citation (search report)

- [I] US 2018150677 A1 20180531 - ASCHENBECK MICHAEL [US]
- [A] SHI MENGYUN ET AL: "Cloud detection of remote sensing images by deep learning", 2016 IEEE INTERNATIONAL GEOSCIENCE AND REMOTE SENSING SYMPOSIUM (IGARSS), IEEE, 10 July 2016 (2016-07-10), pages 701 - 704, XP032990407
- [A] ZENG XIAOSHUANG ET AL: "Cloud detection of remote sensing images on Landsat-8 by deep learning", PROCEEDINGS OF SPIE, TENTH INTERNATIONAL CONFERENCE ON DIGITAL IMAGE PROCESSING (ICDIP 2018), 108064Y, vol. 10806, 9 August 2018 (2018-08-09), XP060109674
- See references of WO 2020068744A1

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