

Title (en)  
DEEP LEARNING FOR RAIN FADE PREDICTION IN SATELLITE COMMUNICATIONS

Title (de)  
TIEFENLERNEN FÜR REGENFADING-VORHERSAGE IN DER SATELLITENKOMMUNIKATION

Title (fr)  
APPRENTISSAGE PROFOND POUR LA PRÉDICTION D'AFFAIBLISSEMENT DE PLUIE DANS DES COMMUNICATIONS PAR SATELLITE

Publication  
**EP 4374506 A1 20240529 (EN)**

Application  
**EP 22755037 A 20220715**

Priority

- US 202163203351 P 20210719
- US 202117453258 A 20211102
- US 2022073767 W 20220715

Abstract (en)  
[origin: WO2023004260A1] Predicting rain fade for a rain zone using a deep learning system may include: training a Neural Network (NN) by importing into the NN a training set of image information and beacon information, wherein the image information includes image datasets including of a cloud view of an Area of Interest (Aoi), a geolocation and a timestamp, and the beacon information includes beacon datasets including a beacon strength, a current rain fade state, a geolocation and a timestamp; pre-processing to homogenize and to extract spatially and temporally matching data for the Aoi from a live image information and a live beacon information; and forecasting a rain fade based on the data in a near-future. The geolocation of one or more of the beacon datasets is located within the Aoi, and the periodicity of the live beacon information and the live image information is less than or equal to five (5) minutes.

IPC 8 full level  
**H04B 7/185** (2006.01)

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Designated extension state (EPC)  
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