عنوان مقاله:

The Improvement of Air Traffic Control UsingMachine Learning Algorithms Based on ADS-B OutData

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خلاصه مقاله:

An ADS-B Out system effectively manages airtraffic by using the information it receives from the installedsystems on airplanes and satellite systems and providing it to theair traffic controllers (ATCs). The ADS-B Out system sendsinformation such as position, altitude, heading, ground speed,vertical speed, call sign, and other information about theaircraft in certain intervals of time to ground receivers andother aircraft. The availability and savings in receiving andprocessing data of the ADS-B Out system promise to improveaccess to a wide range of information about aircraft. By usingthe machine learning (ML) algorithm, many operational detailscan be decoded from the ADS-B Out system data, which areused to improve the air traffic control process. In this paper byusing ADS-B Out system data and ML techniques, severalsolutions are introduced for predicting the process of aircraftlanding, optimizing the occupancy of flight sectors, predictingflight paths, and identifying flight stages.

کلمات کلیدی:

ADS-B Out, machine learning, neural network,air traffic management, air traffic control.

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