



UNMANNED AERIAL VEHICLE PATH PLANNING BASED ON TLBO ALGORITHM

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Abstract- Path planning of unmanned aerial vehicle (UAV) is an optimal problem in the complex combat field environment. Teaching-Learning-Based Optimization (TLBO) algorithm is presented under the inspiration of the teaching-learning behavior in a classroom. In this paper, this algorithm is applied to design a path by the search angle and distance, by which a better path at higher convergence speed and shorter route can be found. Finally experimental comparison results show that TLBO algorithm is a feasible and effective method for UAV path planning.

Index terms: Unmanned Aerial Vehicle (UAV), Path planning, Teaching-Learning-Based Optimization (TLBO), Optimization problem.