عنوان مقاله:

Extracting Dynamics Matrix of Alignment Process for a Gimbaled Inertial Navigation System Using Heuristic Dynamic Programming Method

محل انتشار:

تعداد صفحات اصل مقاله: 5

نویسنده:

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خلاصه مقاله:

In this paper, with the aim of estimating internal dynamics matrix of a gimbaled Inertial Navigation system (as a discrete Linear system), the discretetime Hamilton-Jacobi-Bellman (HJB) equation for optimal control has been extracted. Heuristic Dynamic Programming algorithm (HDP) for solving equation has been presented and then a neural network approximation for cost function and control input has been extracted to simplify the sloution of HJB. Design process of the optimal controller shows that we do not need to know the system matrix. This important isuue and convergence of the HDP algorithm to the optimal control policy makes possible the estimation of the internal dynamics matrix.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: