

عنوان مقاله:

Reducing Vibration Related Error in INS Performance by Limiting Measurement Bandwidth

محل انتشار:

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نویسندگان:

S.H Taghavi - *Department of Electrical and Computer Engineering Shahid Rajaei University Lavizan, Tehran, Iran*

A Abdoli - *Department of Electrical Engineering Iran University of Science and Technology Narmak, Tehran, Iran*

خلاصه مقاله:

In this paper, random vibration trial, as the most important environmental test for an inertial navigation system (INS), was investigated from the navigation point of view. Effect of random vibration test on INS performance was inspected to specify how random vibration increased the navigation error. A simple practical solution was proposed to decrease the vibration-related error in position and velocity estimation. Proposed method was simple, compatible, and real-time and had a hardware implementation without needing extra computations and accessories. Side effects of the proposed technique were examined; it was proved that they did not cause any restriction and had no disruptive effect .in practice. Actual data of navigation grade INS were used to prove these claims

کلمات کلیدی:

Strapdown INS, random vibration, measurement bandwidth, low-pass filter

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