عنوان مقاله:
Marine Current Meter Calibration Using GNSS Receivers, a Comparison with Commercial Method

محل انتشار:
ژورنال مهندسی عمران (سال:4:2)

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خلاصه مقاله:
Getting information from marine current requires that accurate and calibrated current meter is used. Current meter calibration is carried out in accordance with specific standard in calibration laboratories. To evaluate the performance and health of a current meter, one should compares velocity and heading it with a velocity and heading reference. In this paper, the innovative method for evaluate velocity and heading resulted from impeller marine current meter is presented. In this method, current meter is to be attached to buoy that is installed on it tow GNSS receivers; and by towing it in a lake, simultaneous velocity and heading of the current meter are recorded. Also data position of buoy by GNSS is recorded. Accurately calculated velocity and heading of buoy by using GNSS data to be used as a criterion to evaluate the current meter velocity and heading. Finally, the calibration equation that is known as the final result of the calibration process was determined for velocity and heading of current meter with reasonable accuracy. Also, current meter is tested in this paper evaluated commercial method in calibration laboratory. The results were compared with the results of the proposed method. The results indicated the success of the GNSS-based method for the performance analysis of a marine current meter

کلمات کلیدی:
Current Meter Calibration; GNSS; Heading; Doppler Velocity; Relative Kinematic Positioning

لینک نتیجه نهایی مقاله در سایت سیویلیکا:
https://www.civilica.com/Paper-JR_CEJ-JR_CEJ-2-4_001.html

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