

Application of large amount of data in real-time tracking system of marine organisms

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ABSTRACT

During the real-time tracking of marine organisms, due to the huge amount of data, the problem of not being able to upload data in time will occur. Therefore, the application of massive data in the real-time tracking system of marine organisms is studied. According to the overall design requirements of the system, the overall framework of the system is established. Based on the system construction, the hardware part of the design system is composed of multiple serial port MCU, sim808 module and camera module. The host of the marine biological positioning and tracking system is designed using the STC15W4K32S4 multi-serial single-chip microcomputer. The real-time positioning data is uploaded to the network through the host control program design, and the whole system is designed based on GPS module and GPRS module. The experimental results show that: The similarity between the proposed method and the actual trajectory is very high with and without interference. And the data transmission time of the method in this paper is up to 6 min, which shows that the method in this paper can upload data in time, with small error and good performance.

Keywords: Big data; Motion of marine organism; Trajectory tracking; System design

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