Contribution ID: **471**   Type: **Poster presentation**

Cascading Sensor Network Clock Synchronization Scheme

Tuesday 12 June 2018 15:55 (15 minutes)

In this paper, we propose a hybrid clock synchronization architecture for a cascaded sensor network based on GPS time service and synchronous frame protocol. The sensor's upper-level unit is called sensor management unit (SMU) which synchronizes the local clock with the GPS and then use the broadcast sync frame to synchronize the clock of the sensor chain. In this paper, we build a link of 20 cascaded sensors to measure the center frequency and clock stability. The results showed that the center frequency deviation was 0.037 Hz and the stability was 0.045 ppm to 0.066 ppm .The stability of GPS is 0.06ppm, the scheme has achieved the effect similar to installing GPS chip on every sensor.

Minioral

No

Description

clock Synch

Speaker

Meng ZHOU

Institute

USTC

Country

China

Author: Mr ZHOU, Meng

Co-authors: Prof. WU, Jie; Mr LIU, Xuesong

Presenter: Mr ZHOU, Meng

Session Classification: Poster 1

Track Classification: Fast Data Transfer Links and Networks