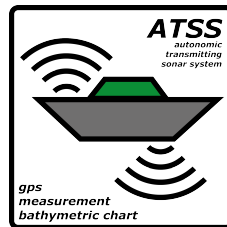

Entwicklung einer autonomen, mobilen Messplattform für limnologische und hydrographische Einsatzbereiche

Development of an autonomic measurement platform for limnological and hydrographical fields of application

ATSS - autonomic transmitting sonar system



Abstract

The goal of this diploma is to build a prototype which autonomously collects hydrographic and limnologic data of lentic waters in order to create bathymetric charts and graphs with a related software solution. The measurement platform can be configured to autonomously follow a GPS-route, alternatively it can be controlled by a remote control.

A typical case of application is the mapping of artificial lakes in order to control siltation. The solution is low in costs compared to current mapping methods and does not pollute the waters as it uses batteries as energy source.

It could be shown that the mapping is possible and creates accurate results even when controlled autonomously. The software is in a stable state and works flawlessly. The testing phase indicated an easy handling of the prototype, almost no intervention was required.
