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## Design and development of computer controlled active SONAR system (Article)

## [Projekt i razvoj aktivnog sonarnog sustava upravljalog računalom]

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## Abstract

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Nowadays computerization is the most popular, reliable and flexible design for various types of control and communication systems. Sound navigation and ranging (SONAR) is a modern ultrasonic range finding technique used for collecting the information of a distant object without any physical contact. In this paper, a personal computer (PC) based active SONAR system is presented. The developed SONAR system contains both transmitter and receiver parts in the same module. A pair of 40 kHz piezoelectric ultrasonic transducers is used to transmit ultrasound toward the object and receive the reflected from the object respectively. A driver-software named CURF (Computerized Ultrasonic Range Finder) is developed for this system, using Turbo C language aimed at IBM PC and its clone machines. The CURF software provides necessary support for interfacing the developed hardware as well as desired calculations. A number of tests have been done and it is found that the performances of the developed system are good in terms of accuracy, simplicity, cost and power consumption.

## Author keywords

[ASDICS](#) [Computer interfacing](#) [Piezoelectric transducer](#) [RADAR](#) [SONAR](#) [Ultrasonic range finder](#) [Ultrasound](#)  
[Under water radar](#) [WPESS](#)

## Indexed keywords

Engineering controlled terms:

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