

PERMANENT REFERENCE

**INTERFACING THE FRANCK - HERTZ APPARATUS  
WITH A PERSONAL COMPUTER**



BY

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**PROCESSED**  
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## Abstract

In the view of laboratory experiments, interfacing is the communication between an experimental set up and a microcomputer. It's most outstanding contribution lies in equipment control, on line sampling, storage and analysis of data. For certain experiments in physics teaching laboratories, the manual data collection is very difficult. Interfacing techniques give ways to collect data simultaneously and accurately within short time intervals.

One of the breakthrough experiment in modern physics, the Franck-Hertz apparatus, was interfaced with a personal computer in this project. An instrument was designed as prime part of this work. This instrument contains a dual power supplier, an linear integrator circuit, a current to voltage converter circuit and a potential divider. The applied voltage from the instrument and the anode current from the Franck-Hertz apparatus are fed into a personal computer via an analogue to digital converter. The experimental results are presented in the form of graph using a data logging software.

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