

## Pengukuran konstanta laplace berbasis mikrokontroler

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Deskripsi Lengkap: <https://lib.ui.ac.id/detail?id=20181527&lokasi=lokal>

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### Abstrak

Telah dilakukan penelitian untuk membuat suatu alat ukur konstanta Laplace () yang dapat melakukan perhitungan secara otomatis dengan memakai tabung besi sebagai wadah dan gas udara sebagai objek yang diteliti. Alat ukur konstanta laplace ini berbasis mikrokontroler ATMEGA 16, merupakan suatu alat yang menggunakan sensor tekanan (MPX 5700) dan sensor temperature (LM 35) untuk penyensoran suhunya. Berdasarkan hasil uji coba yang sudah dilakukan, baik kinerja dari sensor tekanan dan sensor temperature maupun kinerja dari rangkaian secara keseluruhan berjalan dengan baik. Hasil yang didapat yaitu perubahan tegangan sesuai dengan tekanan yang terukur. Sedangkan hasil pengujian dari rangkaian secara keseluruhan yaitu dapat menampilkan tekanan dan suhu yang terukur pada LCD.

<hr>Was carried out by the research to make an implement measure the Laplace constant () that could carry out the calculation automatically by using the tube of the iron as the forum and air gas as the object that was researched. The implement measured the constant laplace this have as a base mikrokontroler ATMEGA 16, was an implement that menggunakan the pressure censor (MPX 5700) and the censor temperature (LM 35) for his temperature censorship. Was based on results of the test that has been carried out, both the achievement from the pressure censor and the censor temperature and the achievement from the series on the whole went well. Results that were received that is the change in the tension in accordance with the pressure that terukur. Sedangkan results of the testing of the series on the whole that is could put forward the pressure and the temperature that were measured to LCD.