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Computing in physics education

Most of today's physics experiments are based on sensors converting physical parameters into electronic signals, which are then translated into binary numbers and read out by computers.

Today's microprocessors are used in almost all everyday devices and are therefore mass produced. This pushes prices to very low levels while their performance constantly increases. Microprocessors are ideally suited for small, low cost physics experiments and every physics curriculum should contain a course on interfacing them them with sensors and actuators and on programming them.

Unfortunately not many physics lecturers at African universities have experience in using these devices. Therefore we propose in this document a freely accessible experimental toolkit and information that would help prospective teachers in preparing and giving their lectures and exercises.

Primary Category

Computing & 4IR

Secondary Category

Physics Education

Subgroup categories

NONE

Did you / will you submit this LOI to another category?

YES

Additional Information

Relevant for any prospects concerning teaching, education

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