

How to open a local electronics laboratory for remote access Part 4

Hands-on session

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2008-10-19

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Outline

- Introduction
- Basic experiments on an op. amp
- Experiments involving a fixed circuit

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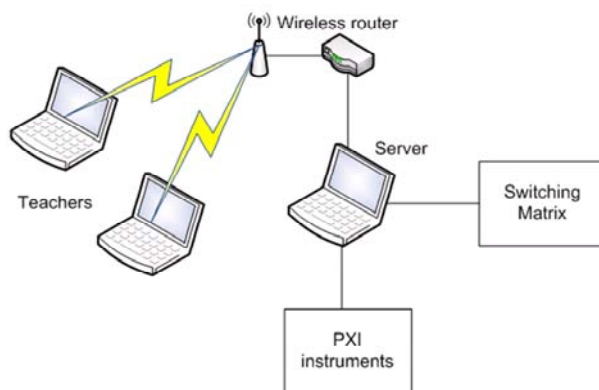


Introduction

- A laboratory is set up in this room
- It is connected to an open WLAN
- If you want to perform experiments using your laptop you will receive
 - excerpts from two lab instruction manuals
- The experiments will be those we have prepared in earlier parts



Laboratory configuration



Practical details

- The LAN is not connected to the Internet
- A common account has already been activated for you: teacher@bth.se
- The password for all is: password

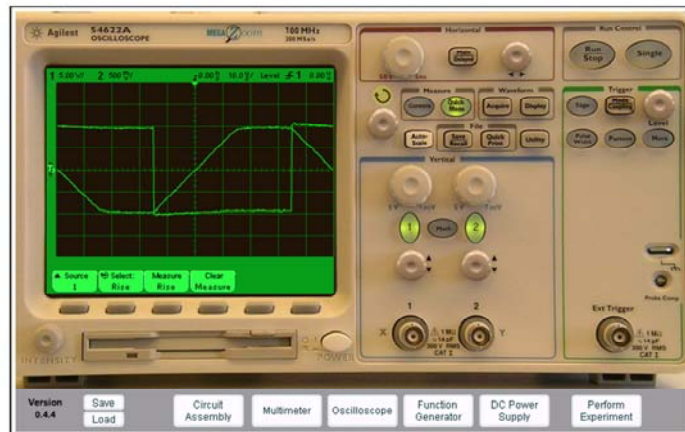
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Laboratory 1

- Basic experiments on the uA741 op. amp.
- Measure for example the slew rate



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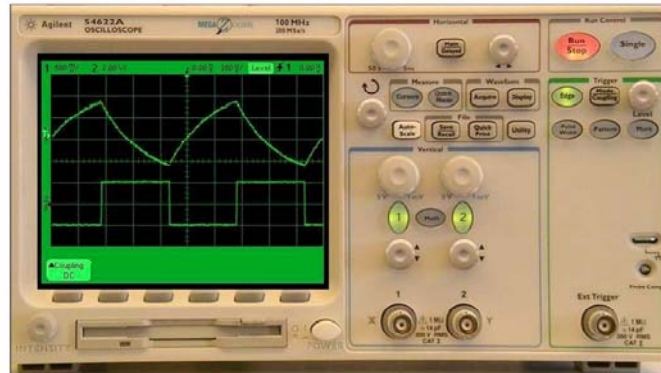
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The oscilloscope is showing a typical result when measuring the slew rate.

Laboratory 2

- Experiments on a fixed circuit, an ideal integrator
- Make it a real integrator



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The oscilloscope is showing a typical result of an integrator experiment when the feedback resistor is too small.

Conclusions

- The workbench supplements the local laboratory in the following ways
 - The students on campus or off campus can work in the laboratory 24/7
 - The students can, for example, learn how use the instruments at home
- It should be possible to produce engineers with solid and documented lab experience with low additional costs

