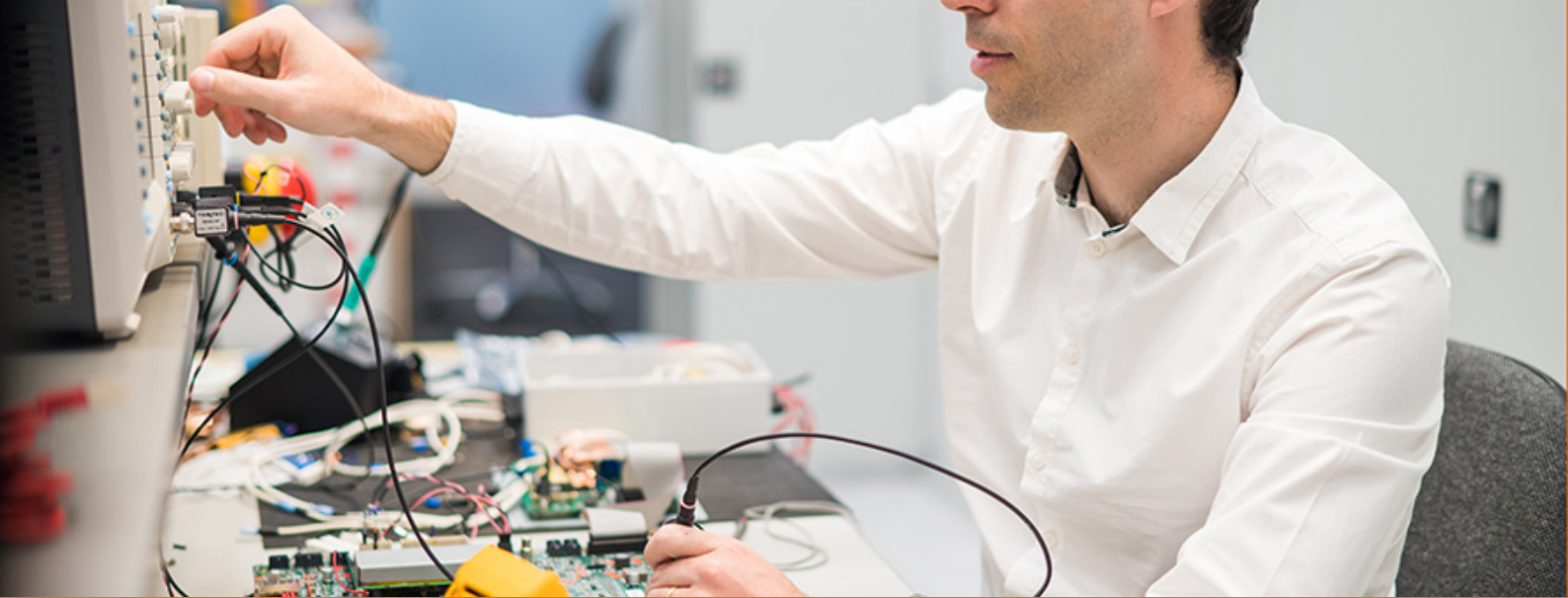




BUILD A FREQUENCY RESPONSE ANALYSIS TOOL

Context

Frequency Response Analysis (FRA) is a tool that is useful in the verification of many electronic designs. Examples are characterization of analog or digital filters, assessing control loop stability of power supplies or mechatronic systems.

Setting up a frequency response analysis is often cumbersome. It requires setting up a signal generator and an oscilloscope, and manually changing inputs and reading outputs to plot them. Having a tool that can easily and automatically create frequency response plots of any system would be a valuable design and verification tool for many projects.

Internship overview

- Bachelor Student
- Graduation Assignment
- Electronics
- Location: Eindhoven

Technologies

- Bode Plot Analysis
- Lab Equipment
- Control Loops
- Automation Scripting

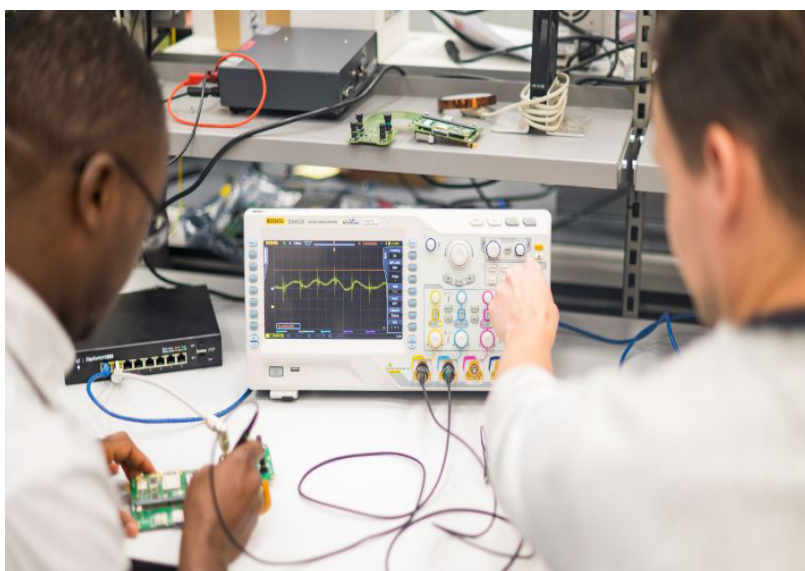


Assignment.

Design and create a device, tool or set of tools that can automatically analyze the frequency response of existing (electronic) designs. A completely new tool could be designed, including signal generation and readout. It is also possible to achieve this by interfacing with existing equipment (e.g. signal generators and oscilloscopes), and write the software needed to make these devices work in unison.

The tool should be designed, created, and tested. Ideally the tool is also used in other projects to gather user feedback and improve the usability. Activities during this assignment are:

- Gaining an understanding of the testing needs of the electronics design department.
- Brainstorming possible solutions, and picking the best solution in terms of development effort, cost price and performance.
- Design, build and test this solution.



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- Working on innovative technology
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Get in touch!

Would you like to know more about this student assignment?

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