

Bachelor thesis, Master thesis, Study project Software-defined radios for NMR experiment

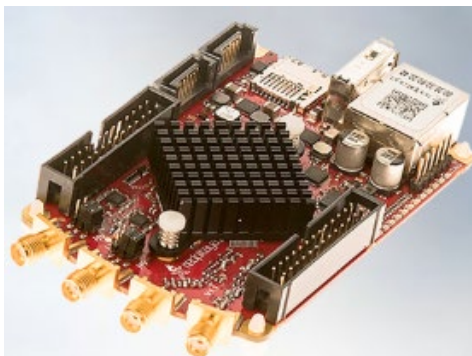
Nuclear magnetic resonance (NMR) spectroscopy is a very powerful diagnostic tool that uses nuclear spins as nanoscopic probes inside molecules to elucidate their structure and concentration in an unknown solution. At our Institute, we are working on the next generation of integrated NMR Transceivers for high- and low-field NMR.

Your task is to build up a low-cost NMR spectrometer using commercially available software-defined radio transceivers such as a LimeSDR or a red pitaya.

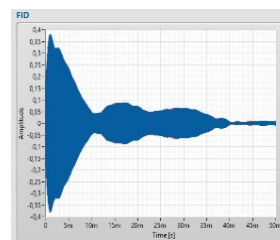
Requirements:

- ✓ Basic knowledge in software development (Python, Matlab)
- ✓ Basic knowledge in circuit design.
- ✓ Independent familiarizing into the chosen platform

Duration: 6 months (or upon agreement)



<https://www.redpitaya.com/>



<https://www.limemicro.com/>

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