

## Nonlinear Radar

### Background

A nonlinear radar has been widely used in a high-clutter environment and it has many advantages and applications. To obtain distance information, many techniques have been reported such as PRN-coded. In this thesis, a nonlinear radar will be studied, simulated and implemented.

### Tasks

Investigate, implement and measure a prototype of a nonlinear radar.

The tasks may involve :

- Link budget calculation and system simulation using Matlab / Keysight ADS
- RF circuit design and implementation
- Measurement
- Radar DSP using FPGA and/or MCU



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