

Igor Povarich  
CE 5430  
Semester Project Proposal  
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Project Type: Simulation of existing schemes/protocols

My proposed project for this semester is to use GNU Radio to simulate an IEEE 802.11p framework such as those used in VANETs (Vehicular Ad Hoc Networks). The goal would be to first build a transceiver or similar in GNU Radio as described in the paper linked below. If that is successful, I will try to compare the performance of different receive algorithms toward the application of use in a VANET.

[1] B. Bloessl, M. Segata, C. Sommer and F. Dressler, "Towards an Open Source IEEE 802.11p stack: A full SDR-based transceiver in GNU Radio," 2013 IEEE Vehicular Networking Conference, 2013, pp. 143-149, doi: 10.1109/VNC.2013.6737601.