Electrical Engineering graduate student Highlight

Joe Register is a recent graduate from the University of South Florida obtaining his Doctorate degree in Electrical Engineering in 2014. The main focus of his work was using SiC for optical sensing and brain machine interfaces for improved *in vivo* sensors to be implanted into the human body. While at USF he also founded the successful student organization “Xlabs” which inspires young students and teaches engineering principals through hands-on education.

Since graduating he has gone on to open his own business “E5 Engineering” located here in the Tampa Bay area. His company helps early-stage hardware startups with technology product development. His company consults with businesses ranging from Silicon Valley clients to local Tampa Bay startups. E5 Engineering provides design services, market analysis, R&D planning, and engineering management services. This provides a much-needed spark in the Tampa technology ecosystem.

An example of their work is the 2.4 Ghz wireless mesh networking system. A local public safety company desired a meshing alarm box that would extend the range of their current product. E5 Engineering implemented a 2.4 Ghz wireless mesh networking system to “hop” messages from one alarm to the next thereby allowing for extremely large networks (100+ Alarm Units) without the added expensive infrastructure. Solar options and rechargeable batteries were also offered to the client for a reconfigurable system. Custom PCB boards, assemblies, and cable harnesses were made for a deployable, outdoor, solution.

Joe Register is one example of successful graduates that have graduated from the Electrical Engineering department here at the University of South Florida. He has been a valuable resource to our community while he was at USF and since he has been gone, and has done a great job with his new company. We wish him the very best in his future pursuits in Electrical Engineering!