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Dear Dr. Raychaudhuri, Dr. Banerjee, and the rest of the organizing committee

GNU Radio is used world-wide to research, prototype, and develop wireless and other signal processing systems. Its use and capabilities continue to grow and so likewise play large part in the development of the future communications systems. In the GNU Radio project community, we have witnessed how the project has changed the landscape of education, impacted how research labs work, and updated the models by which industry thinks about and uses the wireless spectrum.

GNU Radio, along with inexpensive hardware and cheap, low-power embedded platforms, provides significant benefits to our understanding of the wireless landscape. Hardware such as the Ettus Research USRP line or the RTL-SDR dongles are easy to obtain and easy to use. The GNU Radio software scales from high-power, multi-core servers down to single-board computers and Android phones. The scale of capabilities means easy trade-offs in cost, power, and capabilities depending on the research and development need.

I have been working with GNU Radio since 2004 during my doctoral studies in wireless communications. I then became the head of the project in 2010 and have worked to greatly improve its capabilities and usability. As head of the project, I spearheaded the GNU Radio Conference, GRCon, which is now draws hundreds of people representing academia, industry, government, and hobbyists in all areas of signal processing. I have consulted for and had discussions with groups of all kinds relating to wireless systems, signal processing, mathematics, and spectrum regulations all over the world.

Given the scope of the GNU Radio project, my access, discussions, and encounters as the project leader, and the capabilities and possibilities of this type of project, I have both a broad and unique viewpoint on the future of communications from technological, regulatory, and community building perspectives. My doctoral dissertation on wireless communications in 2007 was internationally recognized in the fields of math, science, and engineering, and I have continued to write, speak, and influence the research field in wireless, software radio, cognitive radio, and software engineering. I will be able to add to any conversation about the technical and cultural aspects on the future wireless cities.

Thomas W. Rondeau, Ph.D.

Maintainer and lead developer of the GNU Radio project
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