Ph.D. Position in Quantum
University of South Carolina

Job Title	Ph.D. Position in Quantum
Department	Mechanical Engineering
Institution	University of South Carolina Columbia , South Carolina
Date Posted	Jul. 15, 2024
Application Deadline	Open until filled
Position Start Date	Available immediately
Job Categories	Graduate Student
Academic Field(s)	Mechanical Engineering Engineering Physics Electrical and/or Electronics Computer Engineering Aerospace/Aeronautical/Astronautics Engineering - Other
Apply By Email	

Job Description

Are you intrested in doing a Ph.D. in quantum sensing? If you have not thought about quantum sensing (or don't know what it is) do you have expertise in analog RF signal processing (filtering, amplification, mixing, etc), analog mixed-signal processing, FPGA-system development, or laser-based diagnostics? The ARTS-Lab at the University of South Carolina is looking for a single Ph.D. student to work on a range of projects focused on a next-generation NMR system with quantum sensing abilities. The ideal candidate should be able to develop analog (RF) and digital (FPGA) solutions using a systems-level approach. This work will involve creating an NMR system with embedded computing capabilities, enabling AI/ML at the edge using this novel hardware for a range of sensing applications.

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We expect well-positioned candidates to have an M.S. in Physics, Electrical Engineering, Computer engineering, or Mechanical Engineering. All quality candidates will be considered. The Ph.D. position will be within the Department of Mechanical Engineering.

If you are interested in such a challenging position, please do two things. First, read these papers https://shorturl.at/VZpPM and https://shorturl.at/55z2C and look in detail at this GitHub repository https://shorturl.at/DQfqG. If the development of these systems is of interest to you and you possess some of the skills listed above, please reach out to me at austindowney@sc.edu. Please put "Quantum Ph.D. Position" in the subject line and send me your application documents as you see fit. GRE scores are encouraged but not required. please provide one paragraph on how your skills align with the project, using The desired skills and background in this post as a starting point. We are looking for a student to start January 2025 or May 2025.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

Contact Austin Downey
Mechanical Engineering
University of South Carolina
Columbia, SC

Contact E-mail austindowney@sc.edu