



PhD Student Position at C-PARC - University of Tennessee Space Institute

The Combustion and Propulsion for Aviation Research Center (C-PARC) at the University of Tennessee Space Institute (UTSI) has one PhD Graduate Research Assistantship opening focusing on experimental and analytical hydrogen combustion with chemiluminescence diagnostic measurements, post-processing, and analyses.

The position is immediately available. This opening requires excellent education and technical capabilities background, good interpersonal skills to facilitate engagement with a diverse group of collaborators, sponsors and students.

Direct experience across one or more of the following areas is required:

- Experimental or numerical combustion,
- Gaseous hydrogen or hydrogen/fuel blend combustion,
- Swirl-stabilized premixed flame stabilization,
- Emissions characterization and measurements,
- Chemiluminescence diagnostics, laser diagnostics (PIV/PLIF) and high-speed camera systems,
- Spectroscopy measurements in reactive medium,
- Post-processing technics including POD/DMD and phase-locking.

Eligible candidates will have completed a master's in computer sciences, applied mathematics, physics, aerospace or mechanical engineering disciplines. Salary is competitive with similar positions in national universities and will be commensurate with the requirements of the position and the applicant's experience. Tennessee has no state income tax.

The C-PARC group is located at UTSI and is being founded by Dr. Paul Palies. The research program focuses on premixed combustion, the design, the development of injector and the stabilization of premixed flames operating with H₂. Revolving around these topics, applied mathematics and physics/chemistry research are conducted and are at the heart of this group. The C-PARC which stands for Combustion and Propulsion for Aviation Research Center oversees this research. The C-PARC is developing collaborations with several other organizations located in TN, in the USA and worldwide. More information on www.utsi.edu/cparc.

The UTSI campus is one of the most beautiful in the country, located on a peninsula surrounded by one of the regions many lakes. Outdoor recreational opportunities abound, including outstanding hiking, biking, camping, fishing, boating and golf.

The University of Tennessee Space Institute is an EEO/AA/Title VI/Title IX/Section 504/ADA/ADEA institution in the provision of its education and employment programs and services.

APPLICATION PROCESS: please send a CV to Dr. Palies at ppalies@utk.edu and cc: Mr. Andre Porter at aporter@utsi.edu to begin the process. A PhD application through the Graduate School at University of Tennessee, Knoxville will need to be completed after meeting with Dr. Palies.

Graduate School Application: <https://gradschool.utk.edu/admissions/applying-to-graduate-school/>