

## Post-Doctoral Research Associate 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) in Tullahoma, Tennessee has an opening for an exceptionally qualified candidate with expertise in experimental hydrogen combustion, optical diagnostic measurements, and post-processing.

The position is expected to start after October 1<sup>st</sup>, 2021, or a mutually agreed date. The position requires excellent technical capabilities, strong interpersonal skills to facilitate engagement with a diverse group of collaborators, sponsors, and students. The position is for a limited-duration period of 24 months with an option to extend for an additional year. Direct experience across one or more of the following areas is highly desirable:

- Experimental combustion,
- Gaseous hydrogen or hydrogen/fuel blend combustion,
- Swirl-stabilized premixed flame stabilization,
- 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.

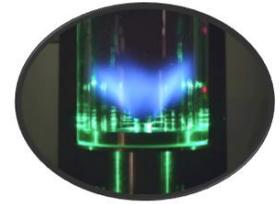
Eligible candidates will have completed (in the last 3 years) or will soon complete a doctorate in Aerospace or Mechanical Engineering or similar technical disciplines. Salary is competitive with similar positions in national laboratories / industry and will be commensurate with the requirements of the 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 and the development of injector and the stabilization of premixed flames operating with H<sub>2</sub>. 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 at UT/UTSI, in the USA and worldwide.

The University of Tennessee Space Institute (UTSI) is a graduate education and research institution situated on 376 acres in Tullahoma, TN adjacent to the Air Force Arnold Engineering Development Complex (AEDC). Since UTSI's inception in 1964, over 2,700 graduate degrees have been awarded, including more than 265 doctorates and MS degrees for 9 astronauts. UTSI alumni have become company presidents, chief scientists, engineering managers, and renowned scholars and scientists. Tullahoma is in Tennessee and is less than 75 miles from three neighboring major cities: Nashville, Chattanooga, and Huntsville, AL.

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, and golf.

**APPLICATION PROCESS:** Applicants must apply online through the UTSI Employment website ([UTSI Employment - UTSI](#)). Click on "External Applicants" in the left-hand column. Specify search criteria by entering Tullahoma in the Location box or Keyword 210000016J.



Click on position to view job description and/or apply. External candidates must create a new account to apply. Candidates must attach the following documents to their online application: (1) an introductory letter that includes a statement confirming that the candidate is eligible for employment (citizenship, visa status, visa needs), (2) a Curriculum Vitae, (3) a short statement of professional interests and future goals, and (4) the contact information for three references.

Screening of applicants will begin immediately and will continue until the position has been filled. Please direct any questions regarding this position to the University of Tennessee Space Institute Human Resources office by phone (931) 393-7226 or email [hr@utsi.edu](mailto:hr@utsi.edu).

*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. All qualified applicants will receive equal consideration for employment and admission without regard to race, color, national origin, religion, sex, pregnancy, marital status, sexual orientation, gender identity, age, physical or mental disability, genetic information, veteran status, and parental status.*