

C-PARC

Combustion and Propulsion for Aviation Research Center



ENGINEERING

WHAT IS C-PARC?

C-PARC (Combustion and Propulsion for Aviation Research Center) is a growing research group founded by Associate Professor Paul Palies focused on innovating national and global initiatives to spearhead research and development for future zero-emission aircraft. C-PARC's approach integrates disruptive computational tools based on a novel flow decomposition with hydrogen-based aircraft design to substantially increase efficiencies and meet the nation's zero emissions goal by 2050. The group's research focuses on premixed combustion, the development of injector, and the stabilization of premixed flames operating with hydrogen, as well as system-level approach for future thermal-powered hydrogen aircraft.

Benefits

Fully funded graduate research assistantships (GRAs) are immediately available.



Tuition waiver



Monthly Stipend



Student Health Coverage



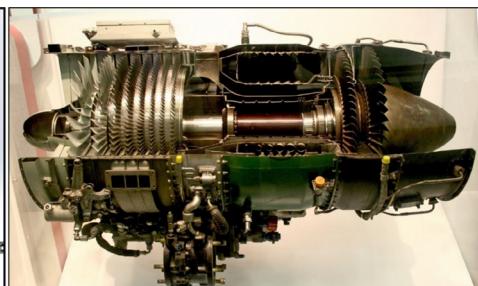
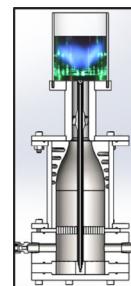
Opportunities to write papers, present at conferences, & work on sponsored research

Research Areas

- ▶ Experimental and numerical hydrogen combustion
- ▶ Optical diagnostic measurements
- ▶ Post-processing and analyses
- ▶ Flame stabilization
- ▶ Gas turbine, combustor, and propulsion
- ▶ Static/dynamic component decomposition

WANT TO JOIN US?

C-PARC is seeking highly motivated MS and PhD students who would like to use and develop theoretical work, computations, experiments, and design to find solutions to issues of significant national and societal impact.



- Worldwide collaborations
- Strong multi-discipline integration
- Experimental and computational research
- Growing center with \$1M in startup funding
- Significant national and societal impact
- Member of International Civil Aviation Organization Global Coalition for Sustainable Aviation



INTERESTED?

- 1 Reach out to UTSI's Graduate Recruiting and Admissions Office at admit@utsi.edu.
- 2 Contact one of the C-PARC faculty members and schedule a visit. See utsi.edu/cparc.
- 3 Apply for admission to the UT Graduate School at apply.gradschool.utk.edu/apply/ and select the program marked **Space Institute**.





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