



# Corporate Internship Program on Plasma Technology Applications



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**Project Title:**

Exploring Graphics Processing Units for Plasma Simulations

**Project Reference Code:**

CFDRC2

**Host Facility:**

CFD Research Corporation

**Host Facility Location:**

6820 Moquin Dr  
Huntsville, AL 35806  
<http://www.cfdrc.com/>

**Project Description:**

CFDRC is seeking a summer intern with good knowledge of CUDA and other programming languages to explore Graphics Processing Units (GPU) for simulations of low temperature plasma. The intern will learn how to program some plasma equations on GPU and apply available software packages to solve specific problems. Background knowledge of computer science and plasma physics is a plus. The intern will work closely with researchers from CFDRC and other ESPCoR institutions to develop and apply computational tools for solving plasma problems of interest. Some levels of qualifications are required in programming, visualization & data exploitation on Linux and Windows platforms. Work experience with MS Office applications for reporting and presentation of results is required.

**Disciplines:**

Graphics Processing Units, Computer Science, Computational Plasma Physics, Electrical and Computer Engineering

**Is U.S. citizenship required to participate in this project?**

Desired, but not required

**Name(s) of Mentor(s) and contact information:**

Vladimir Kolobov ([vik@cfdr.com](mailto:vik@cfdr.com))  
Robert Arslanbekov ([robert.arslanbekov@cfdr.com](mailto:robert.arslanbekov@cfdr.com))

**Internship Coordinator/ HR manager:**

Rick Wilbourn ([rick.wilbourn@cfdr.com](mailto:rick.wilbourn@cfdr.com))

The name and contact information of personnel at the host facility is provided for further assistance with questions regarding the host facility or the project.

Interns will not enter into an employee/employer relationship with the host facility. No commitment with regard to later employment is implied or should be inferred.