



Corporate Internship Plasma Training in Alabama

Project Title: Multi-Dimensional and Multi-Species Laser Plasma Simulations with AMR Codes

Project Reference Code: Arslanbekov-CFDRC

Name of Project Leader: Dr. Robert Arslanbekov

Host Facility: CFD Research

Internship Location: 6820 Moquin Dr NW, Huntsville, AL 35806, <https://www.cfd-research.com/>

Host Facility Location: Huntsville, AL

Project Description (roughly 300 words):

CFD Research is seeking one intern with good knowledge of or willing to learn C, C++, Octave/Matlab programming languages or with skills to apply commercial software packages to multi-physics modeling. Some background knowledge of plasma, chemistry and laser physics and computational physics is a plus. The intern will learn how to program commercial quality, as well as research, software or to apply it to a variety of problems related to gas discharge and laser plasma physics in multi-dimensional and multi-species settings, and run software on Linux platforms in HCP environment. The intern will work closely with researchers from the EPSCoR institutions to apply the computational tools to various problems of interest. Some levels of qualifications are required in visualization & data exploitation on Linux and Windows platforms. Work experience with MS Office applications for reporting and presentation preparation is required.

Disciplines:

Gas Discharge Physics, Laser Physics, Computational Plasma Physics, Electrical and Computer Engineering

Importance:

Plasma and Laser applications are important for many laboratory and industrial applications.

Requirements:

- **Preferred Major**
 - Physics, Computational (CS/CE).
- **Class work**
 - Physics, math, or other background (list if specific level of classes are necessary)
- **Programming knowledge**
 - Linux/Windows.
- **Software knowledge**
 - C, C++, COMSOL and/or Octave/Matlab

Biography (roughly 100-150 words):

Dr. Robert Arslanbekov holds a PhD degree in Plasma and Computational Physics and is Senior Principal Scientist at CFD Research. His computational and experimental work related to plasmas includes various plasma devices ranging from fusion, high-temperature, plasmas to laboratory, low-temperature, plasma devices (lasers, arcs, light sources, material & medical treatment).



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Is U.S. citizenship required to participate in this project? No

Contact information:

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

Dr. Robert Arslanbekov, Robert.Arslanbekov@cf-d-research.com

Internship Coordinator/ HR manager:

Christal Smith

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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.