

FAQs – Computational Fluid Dynamics

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Can the ERDC funding be used to support Ph.D. students and are academic institutions eligible for this funding? If so, are there any guidelines about the budget, allowed IDC, and other costs?

Yes, academic institutions can be funded through the work and so can any associated PhD students. The funds can be used for indirect cost (IDC). However, the submitted pre-proposals are expected to have a cost breakdown of each task item, which outlines whether the funds are going to labor, acquisition, or other IDC items.

Can you define the acronyms included in this solicitation?

CFD - Computational Fluid Dynamics, a branch of fluid mechanics that uses numerical analysis and data structures to analyze and solve problems that involve fluid flows.

GUI - Graphical User Interface is a form of user interface that allows users to interact with electronic devices through graphical icons and visual indicators such as secondary notation.

IDC - Indirect costs are costs that are not directly accountable to a cost object. Indirect costs may be either fixed or variable. Indirect costs include administration, personnel, and security costs. These are those costs which are not directly related to production.

OpenFOAM - OpenFOAM is the free, open source CFD software developed primarily by OpenCFD Ltd since 2004. It has a large user base across most areas of engineering and science, from both commercial and academic organizations. OpenFOAM has an extensive range of features to solve anything from complex fluid flows involving chemical reactions, turbulence, and heat transfer, to acoustics, solid mechanics, and electromagnetics. Open Field Operation and Manipulation, is a C++ toolbox for the development of customized numerical solvers, and pre-/post-processing utilities for the solution of continuum mechanics problems, most prominently including computational fluid dynamics (CFD).