

[SURMA]

Announcement
SC: Public

RMK
9/24/09
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OPEN POSITION: MASTER'S THESIS ASSIGNMENT ON EXPLOSION RELATED CFD CALCULATIONS

Background

The progress of an explosion in air inside volumes of nontrivial geometries is such a complex phenomenon that its analysis requires application of computational fluid dynamics (CFD). However, most practical problems, e.g. dimensioning of blast loaded structures, dictate the use and development of faster and more simple methods. The current means of idealized blast pressure calculations are usually limited to simple rectilinear geometries, such as cubes and rectangles. The purpose of this assignment is to widen the scope beyond these restrictions.

Assignment

The scope of this assignment includes numerical simulation of blast pressure progress inside volumes of three different geometries. These simulations will be verified by small scale experiments, thus requiring the refinement of certain parameters and the rerun of the actual calculations. The final aim is to find the most essential parameters governing the simulated phenomenon and the possible general dependencies. In addition some limiting values regarding the practical accuracy for these calculations are needed.

Prerequisites

We expect the suitable candidate to be near the completion of M.Sc. studies on applicable field of engineering. Fluent command of spoken as well as written English is required. We appreciate the interest in research oriented work, the tendency to take the initiative and the ability to comply with new challenges. Unflinching work motivation is a valuable bonus.

The mission of Surma Ltd is to provide efficient tools for complete survivability assessment by naval designers. Surma also provides services for ship combat survivability assessment and calculations. We offer an interesting as well as challenging work opportunity in the field of naval architecture and software development. Any request for additional information about this assignment or Surma Ltd can be directed to Mr. Roope Kotiranta, tel. 050 359 2779, roope.kotiranta@survivalability.fi.

Applying

Our intention is to get this task initiated as soon as suitable person for the task is found. Applications can be submitted by email to surma@survivalability.fi. A transcript of completed courses and CV are expected as attachments.

[SAFE RETURN TO PORT]