

CFD Analysis Engineer

Locations: Tyrone, GA, USA

Categories: Engineering and Sciences

Job Description

Corrdesa LLC deliver software tools and knowledge to help our clients make the best material choice decisions in implementing corrosion resistance design to ensure the robustness of their products during their whole life from design, through sustainment and to eventual disposal.

Established in 2011 Corrdesa is already executing a number of DoD contracts with the US Navy, Army and Air Force, as well as commercial projects in the aerospace, space, electronics and automotive sectors. Our award-winning galvanic corrosion risk software tool, Corrosion Djinn™, leverages our growing electrochemical database of modern materials and is rapidly being adopted by military and OEMs alike to more quickly assess and quantify corrosion risk.

For corrosion analysis on systems with more complex geometries and multiple coatings, Corrdesa makes extensive, expert use of CAE software tools such as CCM+, to predict current density, electrolyte thickness distributions and corrosion rates.

Corrdesa is currently seeking a CFD Analysis Engineer to construct electrochemical simulations in order to support client product material choices and design for reducing corrosion risk.

If you are a dynamic, successful, driven professional, Corrdesa as a young, growing company will further your experience and career growth. We offer a competitive salary, vacation allowance, medical benefits, IRS Simple contributions and flex-time system.

Overview:

Corrdesa is seeking a highly motivated CFD analysis engineer to work in the relatively new field of computational corrosion simulation applied to modern material systems including light alloys and carbon fiber composites at the macro scale, and paint systems at the microscale. The position requires a strong background in either finite element analysis or Computational Fluid Dynamics.

Customer base and typical projects:

- Corrdesa works with the US Department of Defense, aerospace, automotive, electronics, and other manufacturing companies, suppliers of coating technologies in the US and overseas
- Typical consultancy and R&D projects include: Corrosion analysis of air and ground vehicles, electronics, industrial equipment, development of corrosion modeling and prediction techniques, development of corrosion prediction software, modeling of metal-filled organic paints, sealing materials, etc., modeling of Electrochemical Machining (ECM), electrochemical coating and repair technologies for air and space vehicles, localized coating and anodizing for production and repair.

Responsibilities for this position include:

- Model formulation and solution using Siemens CCM+ CFD software.
- Reporting of analysis results in written and oral formats to deliver product design guidance
- Developing new methods of computational corrosion analysis and/or simulation that advance the state of the art

- Acting as a subject matter expert and peer reviewing of other analysts work
- Interfacing with internal/external customers and with support personnel in design and testing

Position Requirements:

- BS in Mechanical/Aerospace Engineering, Physics, or related fields, with 3-5 years related experience, or MS/PhD and 2+ years related experience
- Minimum of 2 years experience with finite element analysis or CFD, 1+ years with CCM+
- Demonstrated understanding of advanced simulation techniques
- Oral and written communication skills
- Ability to work in a fast-paced dynamic environment as part of a multi-discipline team
- US Citizenship preferred, Permanent Resident card (Green card) holder also suitable.

Experience Preferred:

- Electrochemistry or chemical reaction engineering/simulation
- Multiphase flow
- Advanced knowledge of CCM+ user programming and functions
- Experience with design optimization using Optimate™

Skills & Qualifications:

- Strong interpersonal skills with the ability to work with a team
- Excellent communication skills are required.
- Ability to make sound decisions
- Attention to details
- Ability to multi-task
- Ability to prioritize and manage time effectively

Corrdesa is applying entrepreneurial thinking and commercial practices to deliver reliable, innovative products and services to our customers and grow our core areas while harnessing new technologies that will take these offerings into the future. We are an equal opportunity employer and all qualified applicants will receive consideration for employment.

Job Type: Full Time

Travel: Yes

Years of Experience: 3+ years, 1+ with MS/PhD

Education: Bachelors, but preferred Master and/or PhD

Expertise: Engineering, Physics, Maths