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Research Assistant Position Available – Development of a Cold Spray-Friction Stir Additive Manufacturing Repair System (Post-doctoral Fellow Opportunity)

The Position

Dr. André McDonald of the Department of Mechanical Engineering at the University of Alberta invites applications and queries for a 12-month Post-doctoral Fellow (PDF) position in the area of **Development of a Cold Spray-Friction Stir Additive Manufacturing Repair System**. This position may be renewed for an additional year. The position will be open to candidates who possess a Doctoral degree in either Mechanical Engineering or Materials Science. Applicants with expertise and experience in cold spraying, thermal spraying, materials science, or particulate-reinforced composite materials are highly encouraged to apply. The successful candidate will be required to work independently and must communicate well in English. The successful candidate will be financially supported. This position is available to Canadian citizens, permanent residents of Canada, and international applicants. It is expected that the successful candidate will take up the position anytime between November 2019 and January 2020. Interested candidates may wish to visit <https://sites.ualberta.ca/~andre2/> to learn more about the Advanced Heat Transfer and Surface Technologies Laboratory.

The Project

The proposed research project seeks to develop a fundamental understanding of the materials development of cold-sprayed-friction stir processed additive manufacturing repair. The outcomes of the project will be to produce a high-performance wear resistant materials system and inform on the development of a localized in-field deposition system.

Training and Professional Development Opportunity

The training of research assistants and fellows is paramount. The selected candidate will receive formal training in the following practical areas: (i) surface preparation, (ii) high-quality overlay development, (iii) equipment handling, and (iv) safety. The PDF will have opportunities to participate in national and international conferences and receive exposure to Dr. McDonald's expansive professional network.

Application Procedure

Candidates are asked to submit complete applications, which include: (i) a cover letter; (ii) a detailed curriculum vitae highlighting career achievements, areas of research, a list of publications, awards and honours, and a list of three professional references; (iii) a statement of research interest, expertise, and experience (maximum 1 page); and (iv) three samples of the candidate's most significant scholarly work. Additional documents may be requested upon submission of the aforementioned documents.

The review of applications will begin immediately and applications will be accepted until the position has been filled.

Interested candidates should send their completed application packages and direct queries to **Dr. André McDonald** at **andre.mcdonald@ualberta.ca**.