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RE: Available PhD Position at McGill for Fall 2024

Dear Colleagues,

One PhD position is available for Fall 2024 at McGill University in collaboration between *Advanced Multifunctional and Multiphysics Metamaterials Lab* (Department of Bioresource Engineering) and *Mine Multiphysics Lab* (Department of Mining and Materials Engineering). The research topic is on the area of **Architected Mechanical Metamaterials** for energy and electronics applications. Theoretical and computational multiscale modelling along with 3D printing and experimental characterization will be utilized for multiphysics design, analysis, and fabrication of rationally designed architected multifunctional materials. The candidate will work under the co-supervision of Dr. Hamid Akbarzadeh and Dr. Agus Sasmito at McGill University.

Required qualifications for the position are:

- (1) Strong background in Advanced mechanics of materials, Computational multiscale nonlinear mechanics, Architected metamaterials, and Multiphysics simulation and characterization.
- (2) Prior experience on Reconfigurable metamaterials design, Piezoelectric materials, Energy materials, Machine learning, and 3D printing of functional materials is highly desirable.
- (3) Proficiency in nonlinear finite element analysis and using commercial finite element packages such as ANSYS/ABAQUS or COMSOL is a must.
- (4) Excellent programming skills using MATLAB and/or Python/C.
- (5) Proficiency in English and high undergraduate and graduate GPA (**GPA>3.5** out of 4.0) are required for admission at McGill University.
- (6) Good publication records in well-respected journals.

Interested candidates should send their Cover letter (emphasizing on their prior experience on the aforementioned topics, specifically in the area of metamaterials), CV, and two representative publications (if available) to Prof. Hamid Akbarzadeh (hamid.akbarzadeh@mcgill.ca) and Prof. Agus Sasmito (agus.sasmito@mcgill.ca). We strongly encourage applications from women, persons with disabilities, indigenous peoples, and members of visible minorities.

Short-listed candidates might be asked to provide further information and they will be recommended to submit their complete application to McGill University by **January 15**.

Sincerely Yours,

Hamid Akbarzadeh, PhD, PEng, CRC

Canada Research Chair in *Multifunctional Metamaterials*
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Associate Member - Mechanical Engineering Department
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