2022-02-28
Application ID: 111299

GLOBALINK RESEARCH INTERNSHIP AWARD
DISBURSEMENT INFORMATION AND PLACEMENT TERMS AND CONDITIONS

Dear Sai Ganesh Chidambaram Sivashankar,

Congratulations! You have been selected by Mitacs and Professor Ian Jeffrey from University of Manitoba – Winnipeg to receive a 2022 Globalink Research Internship award. You are therefore invited to participate in a research project at **University of Manitoba – Winnipeg**. **Pursuant to an agreement with University of Manitoba – Winnipeg, Mitacs will administer your funding grant.**

Mitacs Globalink Research Internship is a competitive program that pairs top-ranked international students with specific research expertise with faculty at Canadian academic institutions for a twelve (12) week research project of mutual interest between May and October 2022. You have been selected by your Canadian host faculty project leader due to your background and skills in the research area and the unique contribution you will be making to the research during your stay. **The skills required for your role (as described in the research description below) were found to clearly match your skills set, education, and research experience.**

Research internship details

University/Institution:	University of Manitoba – Winnipeg
Host professor:	Ian Jeffrey
Research project title:	Advances in Electromagnetic and/or Acoustic Imaging Algorithms
NOC code:	4012 Post-secondary teaching and research assistants
Research description:	This project falls within the scope of the Electromagnetic Imaging Lab (EIL) at the University of Manitoba. The EIL is a large open-space lab, with roughly 15 contributors (undergrad, graduate, and post-doctoral students). We focus on the design of electromagnetic and acoustic imaging systems and algorithms. This project is flexible: we have many potential opportunities for making advances in imaging algorithms including: - quantifying the confidence in an image using machine learning (Bayesian networks) - automating the calibration procedure using generative adversarial networks (GANs) or other modelling approaches - applying high-performance computing (distributed, shared-memory, or GPU computing) to accelerate imaging algorithms in the time- or frequency-domain - improving imaging algorithms through machine learning pre-processing/computing/post-processing - fusing electromagnetic and acoustic imaging modalities. - improving time-domain imaging algorithms through accelerated code and/or new formulations Project focus can be determined based on student interest. Our goal is to work with students to ensure that they have a project that: they will find challenging, they will enjoy doing, and that will develop their skills.