

AIMS² Research Project for Fall 2019 – Spring 2020

Title of Project: Use of magnetoelectric composites as magnetic sensors for two-dimensional magnetic field mapping

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Goals and Objectives of the Project, Expectations and Outcomes

The overall objective of this project is to quantify the feasibility of using magnetoelectric composites (ie. piezoelectric and magnetostrictive materials) as magnetic sensors for weak biomagnetic signals emanating from the body. Students involved in this project will fabricate magnetoelectric composites from piezoelectric fiber composites and Metglas and experimentally test the devices to quantify their sensing capabilities. Students with strong background using electronic equipment (ie. oscilloscope, function generators, etc.) and electronic prototyping experience are preferred. We are seeking two undergraduate students to work on this project. Please send a resume and/or a brief statement of your interest to john.valdovinos@csun.edu.