



FACULTY MENTOR

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PROJECT TITLE

Design optimization for metamaterial

PROJECT DESCRIPTION

Description: This project develops a computational method that automatically designs metamaterial, i.e. material with properties that do not exist in nature. Their precise shape, geometry, size, orientation and arrangement gives them their smart properties capable of manipulating electromagnetic waves: by blocking, absorbing, enhancing, or bending waves, to achieve benefits that go beyond what is possible with conventional materials. The computational method employs mathematical optimization to produce unintuitive and creative designs, which are now manufacturable by additive manufacturing.

INTERNS NEEDED

3 BS or MS

PREREQUISITES

Required Qualifications:

1. Experience with computer programming