<div class="resume-item">

<div class=project-image-box>

<img class=project-image src="assets/img/Optimization\_Schematic.png" alt="">

<img class=project-image src="assets/img/Optimization\_objective.png" alt="">

</div>

<h4>A Two-dimensional Inverse Heat Conduction Problem to Estimate the Surface Heat Flux</h4>

<h5>Oct. 2019 – Dec. 2019</h5>

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<p style="text-align: justify;">Inverse heat conduction problems (IHCPs) have numerous industrial applications. A jet flow on one side and a number of heaters on

the other side are utilized to fix the surface temperature of a cubic object at a specified value. This inverse heat conduction problem

was considered as an optimization problem in which the heat flux of heaters are utilized to minimize the differences between the

temperature profile of the object and desired temperature profile. CFD simulations were carried out to obtain the temperature profile

at each iteration, while genetic and conjugate gradient algorithms were developed from scratch for the purpose of optimization.</p>

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