

<b>Web Page:</b>	<a href="https://studyinmexico.tec.mx/">https://studyinmexico.tec.mx/</a>
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### Undergraduate Research Program

<b>Project Name</b>	Simulation of the branched flow of light
<b>Campus &amp; Location in Mexico</b>	Monterrey
<b>Faculty</b>	Engineering and Sciences
<b>Research Area</b>	Optics and Photonics
<b>Research Responsible</b>	Dr. Dorilián López Mago
<b>Description of the Project</b>	The student will develop a numerical method to simulate light's propagation inside a thin soap membrane. The objective is to reproduce a recently-discovered optical effect known as optical branched flow. The results will support the experimental realization of this effect.
<b>Training Provided</b>	We will provide the main theoretical background and basic numerical methods. The student will join our research group and learn from the experience of its members.

### Offered during:

SUMMER

☒

WINTER

☐

SEMESTER

☒

### Student

<b>Tasks/Responsibilities</b>	The student will participate in our weekly seminars. At the end of the project, the student will present the project results and write a final report in the form of a research paper.
<b>Required Language Proficiency</b>	English 90%
<b>Required Skills and Abilities</b>	The student requires basic knowledge of optics and numerical methods.
<b>Other Documents</b>	<ol style="list-style-type: none"> <li>1) Being at least in your 2nd year of bachelor</li> <li>2) Accumulative grade point average (GPA) 2.5</li> <li>3) Official Transcript</li> <li>4) 2 letters of recommendation of faculty members</li> <li>5) Resume</li> <li>6) Letter of intention explaining the reason why you would like to participate in the research program</li> </ol>