

# Edgar Guevara Codina

PhD in Biomedical Engineering



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Full CV

## Research statement

Over 10 years of research experience in non-invasive medical diagnosis, using optical imaging (fNIRS), functional connectivity & spectroscopy

## Academic Experience

### Research Fellow, CONACYT-UASLP-CIACYT

- Line of research: biomedical optics
- 1 graduate course, 5 undergraduate courses and 3 workshops

### Associate Professor, Universidad de las Américas Puebla

- 13 different undergraduate courses

### Postdoctoral fellow, École Polytechnique de Montréal

- Research project: Real-time detection of epileptic seizures using fNIRS

### Teaching Assistant, École Polytechnique de Montréal

- Principles of Medical Imaging

### Teaching Assistant, Research Institute of Optical Communication – UASLP

- Electromagnetic Theory

### Student to Student Tutor, Technological Institute de San Luis Potosí

- Calculus and physics lessons

## Education

### Ph.D. in Biomedical Engineering, École Polytechnique de Montréal, 3.67/4.00 score

- Dissertation: “Functional Connectivity of the Rodent Brain Using Optical Imaging”.
- Professional License 09641885

### M.Sc. in Applied Science, Universidad Autónoma de San Luis Potosí, 9.65/10 score

- Thesis: “A novel non-invasive approach for glucose measurement”.
- Professional License 6251081

### B.S. Electronic Engineering, Instituto Tecnológico de San Luis Potosí, 92.4/100 score

- Top student in class
- Internship project: “PC based automation of a monochromator”.
- Professional License 4243697

## Awards and Honors

Member of the National System of Researchers (SNI Level I)

German Federal Ministry DAAD scholarship

Member of the National System of Researchers (SNI Level I)

Special mention of the jury for PhD dissertation

CONACYT PhD scholarship

SEP Complementary Scholarship

CONACYT Masters scholarship

Electronic Engineering top student in class of 1998 – 2003 (92.4/100)

## Skills

Design of optical imaging systems

Machine Learning Algorithms

Extensive programming experience (MATLAB, C, Python)

## Research impact

31 peer-reviewed papers

7 grants as technical leader

\$17.3 million secured in grant funding

52 conference presentations

258 citations (Scopus)

1 book

3 copyright registries

2 BEng thesis (advised)

4 BEng thesis + 1 Master + 1

PhD theses (in process)

October 2016 – Current position

August 2014 – September 2016

February – July 2014

January 2011 – May 2012

June - July 2007

January – June 2002

November 2013

September 2008

June 2003

January 2021 – 2023

May – December 2018

January 2015 – 2017

November 2013

January 2009 – December 2012

October 2010 – December 2011

September 2006 – August 2008

June 2003

## Languages

Spanish: Native speaker

English: Proficient: TOEFL 657, IELTS 8.0, CEFR **C1**

French: Proficient: DELF **B2**