

# JUAN M. MARIN

King Abdullah University of Science and Technology – H4109B-101 – Thuwal, Saudi Arabia  
(+966) 568673638 – juan.mosquera@kaust.edu.sa

## EDUCATION

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<b>King Abdullah University of Science and Technology</b> Ph.D. Electrical Engineering	<i>Jun. 2023 - Present</i> Thuwal, Saudi Arabia
<b>King Abdullah University of Science and Technology</b> MSc. Electrical Engineering	<i>Aug. 2021 - May 2023</i> Thuwal, Saudi Arabia
<b>National University of Colombia</b> BSc. Electronics Engineering	<i>Aug. 2014 - Dec. 2020</i> Bogota, Colombia

## RESEARCH INTERESTS

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- Fiber Optic Sensing
- Machine Learning
- Optical Networks
- Power Over Fiber
- Energy Harvesting

## SELECTED PUBLICATIONS

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### JOURNAL ARTICLES

Y. Guo\*, **J. M. Marin\***, I. Ashry, A. Trichili, M.-N. Havlik, T. K. Ng, C. M. Duarte, and B. S. Ooi, "Submarine optical fiber communication provides an unrealized deep-sea observation network," **Scientific Reports** 13, (2023).

**J. M. Marin**, I. Ashry, O. Alkhazragi, A. Trichili, T. Khee Ng, and B. S. Ooi, "Simultaneous distributed acoustic sensing and communication over a two-mode fiber," **Optics Letters** 47, 6321 (2022).

**J. M. Marin**, I. Ashry, A. Trichili, O. Alkhazragi, C. H. Kang, T. K. Ng, and B. S. Ooi, "Energy Recycling From Distributed Fiber-Optic Sensors," **IEEE Photonics Technology Letters** 35, 994–997 (2023).

### CONFERENCE PROCEEDINGS

**J. M. Marin\***, D. Briantcev\*, C. H. Kang, O. Alkhazragi, T. K. Ng, I. Ashry, A. Trichili, and B. S. Ooi, "Hybrid distributed acoustic sensing and Kramers–Kronig communication system over a two-mode fiber," **Optical Fiber Communication Conference (OFC)**, San Diego, USA (2023).

**J. M. Marin**, I. Ashry, A. Trichili, C. H. Kang, O. Alkhazragi, T. K. Ng, and B. S. Ooi, "Energy harvesting over a fiber-optic distributed acoustic sensor," **Photonic Instrumentation Engineering X**, San Francisco, USA (2023).

## SCIENTIFIC AND PROFESSIONAL MEMBERSHIPS

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- Student Member of Institute of Electrical and Electronics Engineers (IEEE)
- Student Member of The Optical Society (OSA)
- Student Member of Society of Photo-Optical Instrumentation Engineers (SPIE)

## AWARDS AND SCHOLARSHIPS

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**Top 10 GPA Award per Program** , *National University of Colombia* *Dec. 2014*  
Tuition fee exemption granted to high performing students.

**Dean's List Award** , *King Abdullah University of Science and Technology* *Aug. 2023*  
Recognition of Students for Outstanding Contributions and Academic Performance.

## SKILLS

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### **Programming Languages and Frameworks:**

- Python
- Matlab
- C/C++
- Java
- HTML
- R
- Verilog
- L<sup>A</sup>T<sub>E</sub>X

### **Experience:**

- *Field Deployment:* Demonstrated expertise in conducting field experiments involving the deployment of optical fibers for Distributed Acoustic Sensing in both terrestrial and underwater environments. Experienced in promptly troubleshooting on-site issues, including the identification and resolution of bending losses and the skillful execution of fiber splicing.

- *Illustration:* Capable of leveraging diverse graphic tools to develop comprehensive and visually accessible scientific illustrations and schematics.

- *Scientific Divulcation:* Proficient in communicating research findings, innovative ideas, and complex technical concepts to diverse audiences, including scientists and industry professionals, driving scientific advancements through collaboration.

### **Languages:**

- Spanish (Native)
- English (Proficient)
- Portuguese (Intermediate)