

Next Tuesday

Please register with john@latigooptics.com

[\(for food estimate – last minute walk-ins are completely welcome\)](#)

Those who have registered are listed at the bottom.



Co Presidents
Virginia Ford
Eric Ford

Vice President
Patrick Ford

Programs/News
John McDonald

Secretary
Fred Houston

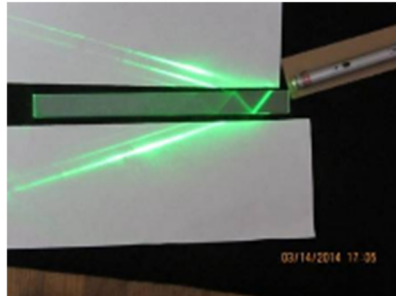
Treasurer
John Tardif

Arrangements
Chair
Fred Houston

Ventura OSA (CVOSA) Announcement for Tuesday **December 10, 2019** ([Please RSVP](#))

SIDE ILLUMINATED OPTICAL FIBER SENSORS: FROM BASIC RESEARCH TO A TECHNOLOGY PLATFORM

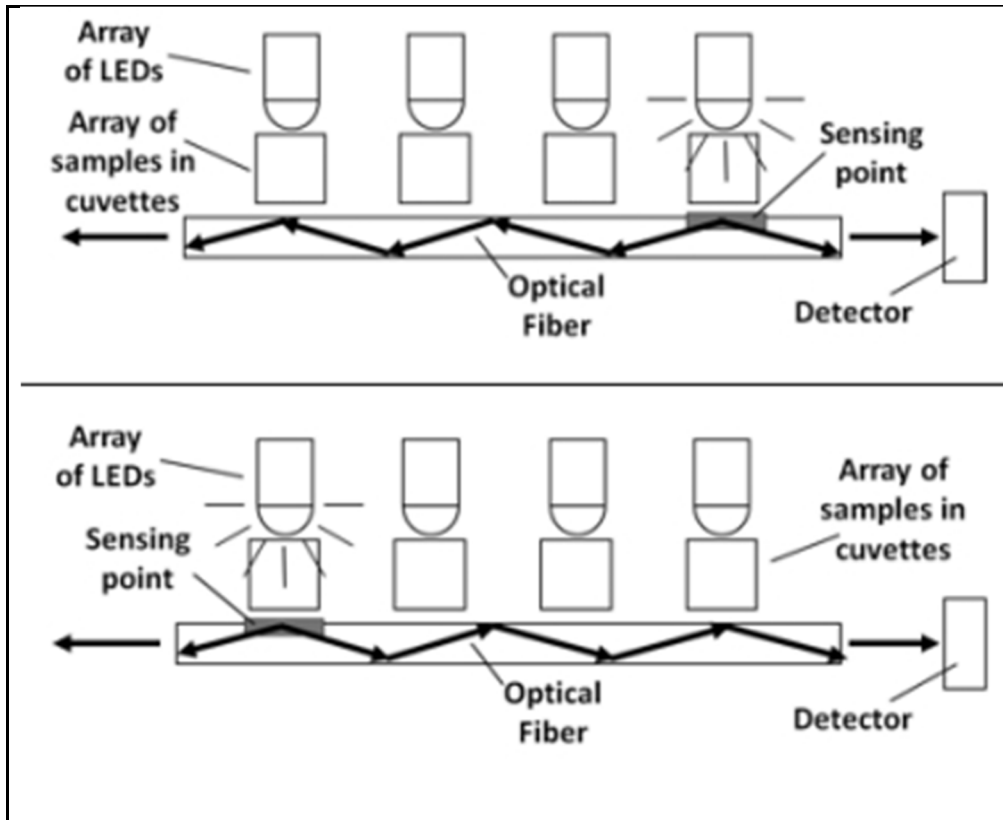
Claudio Oliveria Egalon, Ph.D.



Side illuminated waveguide.



Side illuminated tapered waveguide.



<https://www.laserfocusworld.com/test-measurement/research/article/16561234/sideilluminated-opticalfiber-technology-comes-to-fruitition-at-la-community-college>

Abstract

In 1989, a group of Bell Lab scientists, at Murray Hill, NJ, published a paper about the first side illuminated optical fiber sensor. At the time, this group recognized one of the advantages of this technology: a very high signal to noise ratio, SNR, if compared to its competing counterpart, axial illumination. Despite this recognition, these early pioneers abandoned their own creation and dedicated their efforts to the more established technique of axial illumination. As a result, the task of championing this technology ended up in the hands of the presenter who may also be counted among its earlier pioneers.

Despite side illumination's simplicity, reliability, low cost and high SNR, it did not get much attention in its first 15 years of life. This is very puzzling for the following reasons:

- Even today, optical fiber sensors based on axial illumination are plagued with a low SNR and expensive instrumentation and
- The technology required to commercialize optical fiber devices based on side illumination was available even before 1989: something we were able to recognize only recently.

In this presentation, we will cover the evolution of this concept: from its earlier laboratory experiments at AT&T Bell Labs, NASA Langley and Old Dominion University, its later reduction to practice and the present-day devices based on this technology. We will also cover the missteps taken along the way, the surprising revelations that, sometimes, were brushed aside, the lack of support for the continuing development of this technology, which still prevails today, and much of the drama that comes along with a technology that, for many years, remained hidden in plain sight.

Our meeting is At Cal Lutheran University
Room 128
3293 Mountclef Blvd, Thousand Oaks, CA



Enter the parking lot from Montclef –lots of easy parking. Park at the X, meet at the arrow.

GPS 34.224432, -

118.876235 <https://goo.gl/maps/7TWoMaUHRpM755x97>

6:00p Mixing and Stand Up Dinner

7:00p Speaker

\$25 donation on site (it is a donation for food, insurance and venue. If you need a no-food, student, pre-school, old age or other discount please give yourself one).



Claudio Oliveria Egalon, Ph.D.

Dr. Egalon has 30 years of experience in the field of side illuminated optical fibers. He pioneered and reduced to practice the first multi-point side illuminated optical fiber sensor and holds the title to more than 40 patents, in more than 20 countries, that cover this concept.

Dr. Egalon has a Bachelor degree in Physics from the Federal University of Rio de Janeiro, in Brazil, a Master and Ph.D. degrees in Physics from the College of William and Mary in Williamsburg, VA, and a second Ph.D. degree in Electrical Engineering from Old Dominion University in Norfolk, VA.

He worked under contract for NASA Langley Research Center, in Hampton, VA, as a Summer Faculty Research Associate for the Phillips Research Site (Phillips Lab) at Kirtland Air Force Base, in Albuquerque, NM and as a Senior Research Scientist for Intelligent Optical Systems, in Torrance CA.

His research has been funded by NASA, the US Air Force, the National Science Foundation (NSF), the National Institute of Health (NIH), the US Department of Agriculture and the Brazilian funding agencies FAPESP (the Research Foundation for the State of São Paulo) and FACEPE (the Foundation for Science and Technology of the State of Pernambuco).

If you want to be added or removed to/from our mail list please notify us at john@latigooptics.com

For our meeting (Ventura OSA) please register to john@latigooptics.com

RSVPs

1. Ginny Ford
2. Eric Ford
3. Fred Houston
4. John Tardif
- 5.