



President's Column

Alan E. Willner



“Dear LEOS, Happy 30th Anniversary! Let’s Celebrate.”

“[An anniversary is] a celebration of yesterday’s dream fulfilled, tomorrow’s promise renewed.”
Unknown.

We have been a society since 1977, although our history started as a multi-society IEEE group roughly ten years earlier as the Quantum Electronics Council. Most of us take for granted the wonder of the laser, and yet it is still a relatively young invention. When LEOS was only ten years old, it might have seemed premature to thump our chests in celebration of our past and of our important future. However, at the age of 30, we can proudly proclaim our relevance: We made a difference, and our future is bright!

The laser itself has been hailed as one of the greatest technological inventions of the past century. Whereas it began as somewhat of a curiosity, its technical and economic impact can be felt across many engineering disciplines. It is inspiring to contemplate the question: What would fields such as communications, data storage, medicine, manufacturing, semiconductor fabrication, displays and lighting be like without the laser?

Should I add to these topics? We, as a community, certainly will. This list only grows in breadth and depth with each passing year!

Commemorating an anniversary is important since it provides us with an opportunity to reflect on and define who we are as a community. As Thomas Peters has said, “Celebrate what you want to see more of.”

An unattributed quotation states that “an anniversary is a time to celebrate....:

(a) the joys of today: Our largest conferences host thousands of attendees and hundreds of exhibiting companies. Our journals publish thousands of submitted manuscripts annually from all over the globe. The economics of our field even propelled one of our members, Greg Olsen, into outer-space. Moreover, we go to meetings and interact with colleagues that we have known for years and truly consider our friends.

(b) the memories of yesterday: Do you remember trying to answer a family member’s question as to “will this thing you are working on ever be useful?” Do you remember the first time someone asked you to explain the magic of stimulated emission, and you struggled to truly believe it yourself? Do you remember discussing over lunch as to whether the semiconductor laser would ever produce CW light at room temperature? Do you remember when the loss of the optical fiber was brought below 20 dB/km? Do you remember the standing-room-only excitement when the Erbium-doped fiber amplifier burst onto the scene to rapidly produce record-breaking applications results?

(c) and the hopes of tomorrow.”: We have emerged from a devastating “bubble bursting” with a renewed sense of excitement about the future. Early “hope” gave way later to “hype,” but it has now become clear that our technologies are critically important to the core infrastructure of many industries. The question isn’t “will our technologies be used?”, but rather “what innovations will advance our technologies in order to produce a better cost/performance ratio?” As a professor, I have no doubt or hesitation that I am training students for a bright future in an exciting field.

The traditional gift for a 30th year anniversary is the pearl. After reading an article in Wikipedia, I couldn’t resist but mentally draw the parallels between a pearl and a semiconductor laser:

(i) Pearls are formed as a response to an irritant inside the mollusk’s shell. Typical stimuli include damage that displaces mantle tissue. [DOPANT?]

(ii) Small particles enter the animal when the shell valves are open for respiration.

[DIFFUSION?]

(iii) The luster depends upon the reflection and refraction of light from the translucent layers and is finer in proportion as the layers become thinner and more numerous. [OPTICAL CONFINEMENT?]

(iv) The value of pearls is determined primarily by its luster. [COHERENCE?]

YEAR OF CELEBRATION

“Let us celebrate the occasion with wine and sweet words.” Plautus

Volunteers and staff have planned a series of special activities to celebrate our anniversary year. These activities will occur in different parts of the world, at different times, and for different topics. We will involve many of LEOS' key resources, including publications, conferences, and membership. For example:

(a) We will host a series of receptions (i.e., “wine”) and symposia (i.e., “sweet words”) at several conferences, including OFC, CLEO, CLEO PacRim, ECOC, OECC, and AOE.

(b) The Newsletter will publish a series of articles that target items of historical interest as well as the impact that the most highly-cited LEOS articles have had on our community.

(c) We have a 30th Anniversary emblem that will grace most of our paraphernalia during 2007. I emphasize that we welcome suggestions as to ways to help celebrate our anniversary year.

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I want to particularly thank Henry Kressel (LEOS' first President) and Gordon Day (LEOS President 2000) for their invaluable time, energy and insight towards the planning of our events. Additionally, Rich Linke and Gail Walters of the LEOS Executive Staff have embraced this celebration with enthusiasm and excitement!!

I look forward to 2027, at which time we will celebrate our Golden 50th Anniversary together. I wonder what our technologies will look like then?

NEW LOGO

Many of you might have already noticed that LEOS has modified its logo. Following an overwhelmingly positive vote by the Board of Governors, LEOS' tagline is now “The Society for Photonics.” The general sentiment seems to be that the word “photonics” helps to market LEOS to a slightly different and broader community that might not identify itself strictly with Lasers and Electro-Optics. It should be noted that the word photonics is certainly not new to LEOS, given that one of our flagship journals is named Photonics Technology Letters and our only signature IEEE Field distinction is called the IEEE Photonics Award. We are now simply responding to the fact that the wider community has embraced the word photonics as partially defining our field.

I want to express my sincere gratitude to Rich Linke for proposing this change and for producing the first design draft.

NEW EDITOR-IN-CHIEF OF LEOS NEWS

After several years of outstanding volunteer service, Mary Lanzerotti has finished her term as Editor of the LEOS Newsletter. I don't think anyone can disagree that she has done a fabulous job and has significantly raised the quality of our key membership publication. LEOS is indebted to you!

With this issue, Krishnan Parameswaran takes over the helm from Mary. I have known Krishnan for several years, and he is a very impressive and collegial person. I encourage all members to become involved with writing articles, short and long, for the Newsletter. I'm sure that Krishnan will be very engaging and receptive to you!

To start, I am making an open invitation to all members during this year of celebration to send Krishnan and any story that you think might be of interest to our members. (Katrina Edsell, LEOS Newsletter, k.edsell@ieee.org)

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