

# LEONARD CHEN

Director for Technology Strategy, Raytheon, an RTX Business

## Education

PhD and MS in Electrical Engineering, University of California at Berkeley

BS in Electrical Engineering, California Institute of Technology

## Technical Activities/Interests

- Technology strategy
- Optical sensors (e.g., visible and infrared focal plane arrays and cameras)
- Integrated circuits, ASICs
- Photonic integrated circuits
- Optoelectronics
- Lasers (range finding and high energy)

## Service to the Technical Community

- Sensors and Instrumentation Technical Advisory Committee (SITAC) member (Bureau of Industry and Security, U.S. Department of Commerce)
- Member IEEE
- Steering Committee Member for Army Research Lab's Center for Semiconductor Modeling (CSM)
- Raytheon advisor for University Outreach
- STEM Coach for 4th, 5th, and 6th grade math teams

## Service to SPIE

- SPIE Corporate and Exhibitor Committee - Chair (2014-2016, 2019-2021)
- SPIE Board of Directors (2020)
- Committee Member, SPIE Infrared Technology and Applications XLVI Conference (2019-Present)
- SPIE Fellowship Committee Member (2023-Present)
- SPIE ESTeP Committee Member (2017-2021)
- SPIE Strategic Planning Committee Member (2017, 2019-2021)
- First Industry Panel, SPIE DSS 2014

## Professional Honors

- Fellow of SPIE
- SPIE PRISM Award (2015)

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## Election Statement

I feel greatly honored to have been nominated as a candidate for SPIE's Board of Directors in the 2024 election. SPIE has been a large part of my career, and I am very excited at the possibility of serving the Society in this role.

As many of us know, the prominence of Photonics has grown significantly in the last several years, with numerous global efforts. SPIE has been at the forefront in promoting awareness, collaboration, and innovation for the entire community. As a Board member, I can help to grow this momentum.

## There are at least three areas where I could help the Board:

- 1. Future Direction** – SPIE fosters the Photonics community in many ways, including altruism, networking opportunities, and sharing of information. We need to explore new and novel implementations such that these efforts continue to be effective as technologies and global interactions change. I will provide insight into similar activities happening among companies as well as the constraints on what is feasible. I would also draw from my experience as an Advisor to the Board during my 2 terms as Chair of the Corporate and Exhibitor Committee (CEC) and being on the Strategic Planning Committee. As CEC Chair, I brought several concerns and suggestions to the Board from Exhibitors, which have resulted in better show experiences.
- 2. Increasing Awareness of Photonics and SPIE** – Photonics has gained recognition as a being a force multiplier in much of the world's current technological advances; however, much more awareness is still needed. My current role in developing Technology Strategy allows me to draw parallels where I can help the Board to find more ways to broaden the message about Photonics and SPIE's role. This starts from the early education institutions, continuing to the professional level. As a couple examples, I have helped to bring awareness of Photonics to elementary schools in my local area as well as procuring my company's support for Photonics at several universities.
- 3. Enhancing Collaboration** – Whether it's conferences, exhibit halls, Grand Challenges (e.g. LADAR), or student chapters, SPIE offers many avenues to collaborate. And yet, I believe even more interaction is needed. I will help the Board explore more ways to foster such environments. Much will stem from my experience with University outreach and partnerships. Of course, we will need to be mindful of intellectual property and budgetary constraints that everyone faces. It is important to identify common Photonics-related technology issues that affect disparate organizations. This will facilitate a broader solution space for these problems. At the professional level, I have been able to promote collaboration among scientific laboratories and various companies.

My experience with SPIE started more than 20 years ago when I gave my first professional paper at an SPIE Aerosense Symposium. Since then, I have given additional presentations and led my company's exhibit booth for several years at SPIE conferences. I have also served on several committees, which include the Infrared Technology and Applications XLVI Conference, ESTeP, Strategic Planning, and the Corporate and Exhibitor (CEC) committees. What I have enjoyed most is the opportunity to work with people from such diverse backgrounds and experiences. As such, I am very familiar with SPIE's mission, strategic goals, and the issues that face the Society.

I am excited about the opportunity to work more with the Board and other parts of SPIE and would greatly appreciate your support. I know I can help to affect and facilitate new strategies for a brighter future (pun intended).