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Call for Papers

Announcing an Issue of the IEEE

JOURNAL OF SELECTED TOPICS IN QUANTUM ELECTRONICS on Hybrid Integration for Silicon Photonics

Submission Deadline: August 1, 2021

Hard Copy Publication: May/June 2022

The IEEE Journal of Selected Topics in Quantum Electronics (JSTQE) invites manuscript submissions in **Hybrid Integration for Silicon Photonics** which is an advanced field of modern photonic integrated circuit (PIC) development by large scale accompanied with the ever added functionalities through the heterogenous integration and packaging by incorporating various best in-class materials and chips/chip-lets in order to meet the future products with new application demands, beyond the current industry focus on optical-interconnects centric transceiver alike. The **IEEE Journal of Selected Topics in Quantum Electronics** (JSTQE) invites manuscript submissions in the area of **Hybrid integration for Silicon Photonics**. The purpose of this issue of JSTQE is to highlight the recent progress in both research and development trend and industrial product implementation prospects, challenges and opportunities ahead, especially the new application demands and requirements on hybrid photonics platforms. Areas of interest include (but not limited to):

- Silicon photonics hybrid integration and advancement
- Heterogeneous integration scheme, such as through: Growth, Bonding, Membrane Transfer, etc.
- Silica, silicon nitride-, AlN-photonics, etc.
- Hybrid Integrated materials, such as: InP, LiNbO_x, VO_x, Magneto-optic material, Phase-Change-Materials, etc.
- Optical-, Opto-Electronics interposers, and chip-lets, Co-Packaging
- Advanced Active Devices, e.g., Modulators, Tunable lasers
- Optical interconnects, telecommunications
- Microwave photonics
- Photonic sensors, LiDAR
- Optical Computing, AI and Deep-Learning
- Quantum Photonics and Applications
- Hybrid Integration and O/E IC Packaging (incl. Co-Packaging)
- Product Development effort and Status

The Primary Guest Editor for this issue is **Patrick Lo Guo-Qiang**, Advanced Micro-Foundry Pte Ltd, Singapore. The Guest Editors are: **Prof. Juejun Hu**, MIT/USA; **Dr. Xianshu Luo**, AMF/Singapore; **Prof. Joyce Poon**, Max Planck Institute of Microstructure Physics, Germany and University of Toronto/Canada; **Prof. Dries Van Thourhout**, Ghent University – IMEC/Belgium; **Prof. Fengnian Xia**, Yale University/USA.

The deadline for submission of manuscripts is **August 1, 2021**. Hardcopy publication of the issue is scheduled for **May/June 2022**.

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For inquiries, please contact: IEEE Photonics Society, JSTQE Editorial Office. Chin Tan Lutz. Phone: 732-465-5813, Email: c.tanlutz@ieee.org

The following documents located at <http://mc.manuscriptcentral.com/jstqe-pho> are required during the mandatory online submission.

1) PDF or MS Word manuscript (double column format, up to 12 pages for an invited paper, up to 8 pages for a contributed paper). Manuscripts over the standard page limit will have an overlength charge of \$220.00 per page imposed. Biographies of all authors are mandatory, photographs are optional. See the Tools for Authors link:

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