AMERICAN SEMICONDUCTOR ACADEMY

June 27, 2022

Chairwoman Haley Stevens
Subcommittee on Research and Technology
Committee on Science, Space, and Technology
House of Representatives
Congress of the United States
2321 Rayburn House Office Building
Washington, DC 20515-6301

Re: CHIPPING IN Act of 2022

Dear Chairwoman Stevens,

Thank you again for giving me the opportunity to testify at the hearing entitled "Strengthening the U.S. Microelectronics Workforce" on February 15, 2022. Your attention to the issue of talent and innovation for the microelectronics industry is very timely and much appreciated.

I write now on behalf of the Executive Committee of the American Semiconductor Academy (ASA) Planning Team to express enthusiastic support for new legislation authorizing federal funding to bolster microelectronics education and workforce development in the United States. Specifically, the bill you are introducing titled ''Creating Helpful Initiatives to Produce Personnel in Needed Growth Industries'' – the CHIPPING IN Act of 2022 – enumerates the key challenges for meeting domestic microelectronics industry workforce needs and identifies appropriate activities to bolster microelectronics education and workforce development to address these challenges.

In particular, support for the establishment of a national network for microelectronics education is critical for growing and diversifying the domestic talent pool with the speed and scale necessary to meet the workforce needs of a resurging U.S. microelectronics industry. This is because the network will facilitate curricular modernization, in alignment with industry workforce development needs, across all participating U.S. institutions of higher education and non-profit organizations; it will also increase access to training facilities and industry-standard tools and processes, and coordinate apprenticeships and internships for a larger number and diversity of students. Such a partnership between academia and industry will serve well to increase awareness of the microelectronics industry and career opportunities, including through public and K-12 outreach activities.

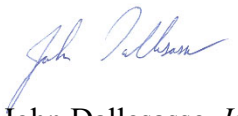
The funding authorized by the CHIPPING IN Act of 2022 will complement federal investments in microelectronics research and development activities authorized by the CHIPS for America

Act, as well as in related fields such as nanotechnology, quantum information science and technology, and artificial intelligence. To fully leverage those programs and to maximize return on investment, the microelectronics education and training activities described in Section 3(b) of the bill should be funded through the national network rather than directly by National Science Foundation. The evidence-based case for this is presented in a vision paper published by the ASA Planning Team and SEMI, available online at https://www.semi.org/en/workforce-development/ASA

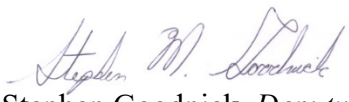
We hope that the CHIPPING In Act will soon be enacted by the Senate and House of Representatives of the United States of America in Congress assembled, to address the urgent workforce development need of the U.S. microelectronics industry and thereby fuel American innovation and economic growth.

Sincerely,

Tsu-Jae King Liu, *Dean* and *Roy W. Carlson Professor of Engineering*, University of California, Berkeley *Chair,* Executive Committee of the ASA Planning Team



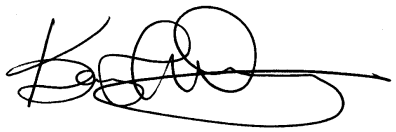
John Dallesasse, *Interim Associate Dean for Facilities & Capital Planning*
Grainger College of Engineering, University of Illinois at Urbana-Champaign



Stephen Goodnick, *Deputy Director*, LightWorks®, *David and Darleen Ferry Professor of Electrical Engineering,* Arizona State University

Quanxi Jia, *SUNY Distinguished Professor, Empire Innovation Professor,* and *National Grid Professor of Materials Research*, State University of New York at Buffalo

Mark Lundstrom, *Don and Carol Scifres Distinguished Professor of Electrical and Computer Engineering,* Purdue University



Kang Wang, *Distinguished Professor and Raytheon Chair in Electrical Engineering*
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