Foreword

We are happy to announce the publication of the 2023 Microsystems Annual Research Report, a joint publication between the Microsystems Technology Laboratories (MTL) and MIT.nano, for the academic year July 1, 2022 to June 30, 2023.

This annual report summarizes some of the many accomplishments of the MIT microsystems community during the last year. This fall we mark the 5th anniversary of MIT.nano and in 2024 we will acknowledge the 40th anniversary of MTL's founding. As we celebrate these milestones, we are proud to celebrate the many ways that we continue to promote and advance research in semiconductor materials, technology, devices, circuits, and systems, as well as other frontiers in nanoscale science and engineering. We are at a very exciting time for microelectronics, and we all have an important call to action to help push the field to new limits. MTL, in close partnership with MIT.nano and its amazing fabrication and characterization facilities, is ready for the challenge.

MTL has served as a model for interdisciplinary and collaborative research, education, and industrial outreach at MIT since its founding 40 years ago. This report summarizes this year's progress on more than 100 different research projects in many areas of micro- and nanotechnology from advanced semiconductor materials, new devices, integrated photonics, and circuits, to insect-scale micro robots, biomedical systems, and AI hardware accelerators, among many others.

On behalf of MTL and MIT.nano, we would like to thank every contributor to this year's Microsystems Annual Research Report, as well as the staff of both organizations who worked tirelessly to produce this exciting snapshot of our research.

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