2023 Masao Horiba Awards Award Details

About Masao Horiba Awards

The Masao Horiba Award is an encouragement and recognition given to researchers and engineers who are making remarkable achievements in the field of science and technology related to analysis, measurement, and their applications at universities or public research institutions both domestically and internationally.

Eligible fields

Analytical and measurement technologies that contribute to the realization of next-generation semiconductor devices.

Comments

2023 Masao Horiba Awards Screening Committee Chairperson
SOMEYA Takao
Professor,
Department of Electrical and Electronic Engineering,
School of Engineering,
The University of Tokyo

Congratulations to the winners of the Masao Horiba Awards. As the Chairman of the Screening Committee, I would like to report the selection process. We received a total of 33 applications for this year's Masao Horiba Awards, 18 from Japan and 15 from abroad. We received many excellent applications from top ranked universities, and I believe that this shows the high level of interest in the Masao Horiba Awards from academia around the world. Seven screening committee members, including myself, scored all the applications according to the review procedure. The four main evaluation points were academic, novelty, originality, contribution to the research and development of next-generation semiconductor devices, the establishment of production processes, the applicant's future potential, and the interdisciplinary and overarching perspective of the submitted research. In addition, since this award focuses on analytical and measuring technologies, contribution to the creation of new analytical and measuring technologies was also an important point. After reviewing the papers, the screening committee held a face-to-face meeting and selected the three winners through a rigorous process. Moreover, two honorable mentions were given this year for outstanding research in the field of semiconductors and for applications that have great potential for future development in the field of analysis and measurement technology. The winners' research, ranging from excellent analysis and measurement technology to pioneering work guiding the future of basic research with AI, were selected for their promising potential in the field of semiconductors. Although unintended, the affiliations of the three winners spread across three geographical regions—Asia, Europe, and the United States. Serving as the Chairman of the screening committee allowed me to personally appreciate the significance of this international award, which has gained a history and tradition of 19 times. I would like to conclude this brief report by wishing all the award winners continued success in their future endeavors.

Screening Committee

Chairperson :	SOMEYA Takao	Professor, Department of Electrical and Electronic Engineering School of Engineering The University of Tokyo
Judges :	Yung-Fu CHEN	Professor, Department of Electrophysics National Yang Ming Chiao Tung University (NYCU), Taiwan
	FUJIMURA Norifumi	Professor, Physics and Electronics Physics of novel device group Graduate School of Engineering Osaka Metropolitan University
	KOBAYASHI Masahiro	Senior Fellow, Chief Engineer R&D Unit, Sumitomo Electric Industries, Ltd.
	MASAHARA Meishoku	Deputy Director, Device Technology Research Institute National Institute of Advanced Industrial Science and Technology
	TANAKA Satoru	Manager, Analytical Technology Division HORIBA Techno Service Co., Ltd.
	Fran ADAR	Principal Raman Applications Scientist Semi/Scientific Applications HORIBA Instruments Incorporated

Masao Horiba Awards Winners

Dr. ISHII Ryota
Assistant Professor
Department of Electronic Science and Engineering, Kyoto University
[Research Theme]
Exploring spatially and temporally resolved deep-ultraviolet spectroscopy toward understanding and controlling optoelectronic properties of ultrawide bandgap semiconductors

Dr. Naresh KUMAR
Senior Scientist
Department of Chemistry and Applied Biosciences, ETH Zurich
[Research Theme]
Nanoscale Chemical Characterization of Novel Semiconductor Materials using Tip-Enhanced Optical Spectroscopy

Dr. Ang-Yu LU
PhD Student
Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology
[Research Theme]
Unraveling the Correlation between Raman and Photoluminescence in Monolayer MoS_2 Machine Learning Models through Optical Spectroscopy

Honorable Mention Winner

Dr. TAKENAKA Mitsuru
Professor
School of Engineering, Department of Electrical Engineering and Information Systems
The University of Tokyo
[Research Theme]
Electro-photonic Integrated Deep Learning Processor using Si Photonic Integrated Circuits

Dr. KUSHIMOTO Maki
Associate Professor/ Lecturer
Graduate School of Engineering, Nagoya University
[Research Theme]
Development of a compact deep-ultraviolet laser source for precision microstructure measurement

Award ceremony Photo taken at Symposium Hall, International Science Innovation Building, Kyoto University, on October 17, 2023.

* Editorial note: This content in based on HORIBA's investigation at the time of the award unless otherwise stated.