Dear Colleagues,

We are pleased to announce that the Twenty-Fifth International Vacuum Electronics Conference (IVEC) will be held jointly with the Fifteenth International Vacuum Electron Sources Conference (IVESC) in Monterey, CA, on April 22-25, 2024. The conference will be an in-person event under the sponsorship of the IEEE Electron Devices Society (EDS). The meeting will be held at the Marriott Conference Center, and attendees from around the world will once again come to Monterey to interact with colleagues while immersing themselves in the natural beauty of the California coast and enjoying the local attractions.

The conference website is www.ieeeivec.org.

Plenary talks will provide insights into the history, the broad spectrum of fundamental physics, the scientific issues, and the technological applications driving the current directions in vacuum electronics research. Presentations will range from the fundamental physics of electron emission and modulated electron beams to the design and operation of devices at UHF to THz frequencies, theory and computational tool development, active and passive components, systems, and supporting technologies.

System developers will find that IVEC provides a unique snapshot of the current state of the art in vacuum electron devices. These devices continue to provide unmatched power and performance for advanced electromagnetic systems, particularly in the challenging frequency regimes of millimeter-wave and terahertz.

We invite you to submit papers on your work and experiences in vacuum electronics and electron sources. The meeting will efficiently disseminate useful information to device users, manufacturers, academics, and students. We encourage submission of papers from all groups and countries.

We will also have a one-day mini-course on April 22, 2024, to kick off the conference. Lectures and tutorials on different disciplines of vacuum electronics will be offered by international experts.

The John R. Pierce Award for Excellence in Vacuum Electronics, the Vacuum Electronics Young Scientist, and a Student Paper Award will be presented at the conference. As in past conferences, the meeting and social events will provide unique opportunities to renew or establish new friendships with colleagues, interact with customers and end-users, and meet students and academic researchers.

We hope to see you all at IVEC + IVESC 2024.

Sincerely

The IVEC 2024 Organizing Committee

Technical Subject Categories

1. Vacuum Electron Devices
   - Traveling-wave tubes (all types)
   - Crossed-field devices (oscillators and amplifiers)
   - Klystrons
   - Spatially distributed electron beam devices
   - Inductive output tubes
   - Fast-wave devices (gyrotrons, gyro-amplifiers)
   - Free-electron lasers and masers
   - Millimeter-wave and THz amplifiers and oscillators
   - Pulse compression devices
   - Plasma-filled amplifiers and oscillators
   - High-power microwave devices/RF directed energy
   - Triodes, tetrodes, and pentodes
   - Power switches
   - Vacuum nanoelectronics

2. Vacuum Electron Sources and Technologies
   - Thermionic emitters
   - Non-thermionic emitters (e.g., photocathodes, secondary emitters)
   - Field emitters/arrays
   - Materials and technology
   - Cathode design, fabrication, and characterization
   - Accelerator emission physics (breakdown, halo, emittance, etc.)

3. Systems and Subsystems
   - Transmitters
   - Microwave and millimeter-wave power modules
   - Electronic power conditioners, modulators, and supplies
   - Linearizers
   - Amplifier-antenna coupling
   - Device and system integration
   - Reliability

4. Technologies
   - Component parts (e.g., guns, circuits, windows, collectors)
   - Analysis and computer modeling
   - Novel materials (e.g., dielectrics, coatings, magnetic materials)
   - Metamaterials
   - RF breakdown and multipactor phenomena
   - Linearity, intermodulation, and noise
   - Novel measurement techniques and diagnostics
   - Miniaturization
   - Thermal power management and control
   - Sensors and detectors
   - Advanced manufacturing

5. Applications of Vacuum Electron Devices
   - Defense
   - Space
   - Radar
   - Telecommunications
   - Medicine
   - Particle accelerators
   - RF interference
   - Instruments and lithography
   - Materials processing
   - Electric propulsion
   - Energy

Additional Information
Please visit www.ieeeivec.org for current information about the conference.
Preparation of Abstracts
Prospective authors are invited to submit a 2-page abstract of the work including as many details as possible. The inclusion of figures, tables, and especially numerical data is strongly recommended.

The abstract submission deadline is December 22, 2023

Abstracts must be submitted as instructed at www.ieeevec.org (Click on Initial Abstract Submission under Author Info).

Authors will be notified by January 26, 2024, and accepted abstracts presented at the conference will be published by the IEEE. Abstracts and a conference schedule will be available via mobile app.

Authors of accepted papers will be required to resubmit their material, in IEEE compliant format, by February 23, 2024. The instructions for resubmittal will be included in author notification letters.

Questions on abstract submission should be directed to:
Bill Klein, Palisades Convention Management
Phone: +1 212-460-8090
wklein@pcm411.com

Presentations
Each paper selected for oral presentation will be allotted a total of 20 minutes, including 15 minutes for presentation and 5 minutes for questions and discussion. Regular poster presentations will be presented at the in-person event. Additionally, poster presenters will be asked to submit a 10-minute talk about their poster to be released on the virtual platform for remote attendees to view.

Awards
Nominations are solicited for the 2024 John R. Pierce Award for Excellence in Vacuum Electronics. The Pierce Award nomination deadline is January 26, 2024.

Nominations are also solicited for the 2024 Vacuum Electronics Young Scientist. The Young Scientist nomination deadline is December 11, 2023.

Any member of the vacuum electronics community may submit a nomination for either award as described at the Electron Devices Society Vacuum Electronics website: vacuumelectronics.org.

A prize for the best student paper will be awarded during the conference. To be eligible for the award, the first author of the paper must be a full-time student, and the paper must be identified as a student paper when the abstract is submitted.

Schedule
Submission of Abstract Dec. 2023
Notification of Acceptance Jan. 2024
Revised IEEE-Compliant Abstract Due Feb. 2024

Conference Organizing Committees
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