



# Seventeenth IEEE International Vacuum Electronics Conference IVEC 2016

April 19 – 21, 2016  
<http://ivec2016.org>

Marriott Conference Center  
Monterey, CA 93940

## Call for Papers

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### Dear Colleagues,

We are pleased to announce that the Seventeenth International Vacuum Electronics Conference (IVEC) will be held in **Monterey, California** on **April 19-21, 2016**. The conference website is <http://ivec2016.org>. The meeting will be held at the Marriott Conference Center under the sponsorship of the IEEE Electron Devices Society (EDS). Visitors from around the world come to Monterey to experience its natural coastal beauty, visit the renowned Monterey Bay Aquarium, and experience its rich historic past memorialized in the novels of John Steinbeck.

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. Technical 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 THz electronics.

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.

The John R. Pierce Award for Excellence in Vacuum Electronics 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 2016.

Sincerely,

The IVEC 2016 Organizing Committee

*Sponsored by the IEEE Electron Devices Society*



“System Excellence through Vacuum Electronics”

<http://ivec2016.org>  
<http://vacuumelectronics.org>



**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  
mm-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

**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)  
Flat panel displays

**3. Systems and Subsystems**

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  
Linearity, intermodulation, and noise  
Novel measurement techniques and diagnostics  
Miniaturization  
Thermal power management and control  
Sensors and detectors

**5. Applications of Vacuum Electron Devices**

Defense  
Space  
Radar  
Telecommunications  
Medicine  
Particle accelerators  
RF interference  
Instruments and lithography  
Materials processing  
Electric propulsion

**Additional Information**

Please visit <http://ivec2016.org> for current information about the conference.

**Preparation of Abstracts**

Prospective authors are invited to submit a 2-page abstract of the work to be reported including as many details as possible. The inclusion of figures, tables and especially numerical data is strongly recommended.

The deadline to submit abstracts is **December 23, 2015**.

Abstracts must be submitted as instructed at <http://ivec2016.org> (Click on the Abstract Submission link).

Authors will be notified by January 22, 2016, and accepted abstracts presented at the conference will be published by the IEEE. A USB memory stick containing the published abstracts will be distributed at the meeting.

Authors of accepted papers will be required to resubmit their material, in IEEE compliant format, by February 19, 2016. The instructions for resubmittal will be included in author notification letters.

Questions on abstract submission should be directed to:

**Ms. Alicia Waldron**  
**Palisades Convention Management**  
**411 Lafayette Street, Suite 201**  
**New York, NY 10003**  
**Phone: +1 212-460-8090 ext 216**  
**Fax: +1 212 460 5460**  
**AWaldron@pcm411.com**

**Oral 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. To maintain the session schedule, authors are asked to ensure that their presentations conform to these time constraints.

**Awards**

Nominations are solicited for the 2016 John R. Pierce Award for Excellence in Vacuum Electronics. Any member of the vacuum electronics community may submit a nomination as described at the Electron Devices Society Vacuum Electronics website: <http://vacuumelectronics.org> (click on the John R. Pierce Award link).

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	December 23, 2015
Notification of acceptance	January 22, 2016
Revised IEEE-compliant abstract due	February 19, 2016