CALL FOR PAPERS

2020 IET Ph.D Candidates Academic Seminar (China) on Vacuum Electronics (PhASe-VE)

Conference Date:
27-28 Nov. 2020

Conference Venue:
Changsha

About the event

IET Ph.D Candidates Academic Seminar (China) on Vacuum Electronics (PhASe-VE) is initiated by Chinese scientists in the fields of vacuum electronics, with the aim to enhance the academic exchange among the Ph.D candidates, to boost the cooperation between IET and the Chinese Vacuum Electronics Community, to improve the academic level and English communication skills, to promote broader international academic exchanges, and to attract more young students to join this field which is the fundamental of many subjects and has many scientific and industrial applications in radar, communication, fusion energy, signal detection, medical treatment, etc. After previous seminars organized by University of Electronic Science and Technology of China in 2017-2018 and Beihang University in 2019, this PhASe-VE will be held by National University of Defense Technology in Changsha in November 2020.

Technical Scope

– Vacuum Electronic Device

1. Travelling wave tube (TWT)
2. Transverse field device (Oscillator and Amplifier)
3. Klystron, Extended interaction klystron (EIK)
4. Spatial distribution electron device
5. Inductive output tube (IOT)
6. Fast wave device (Gyrotron, Cyclotron amplifier)
7. Free electron laser (FEL)
8. Millimeter-wave and Terahertz amplifier and oscillator
9. Pulse compression device
10. Plasma filled amplifier and oscillator
11. High-power microwave device
12. Triode, Tetrode and Peniotron
13. Power switch
14. Ion driving device
15. Microwave and millimeter wave power module
16. Device and system integration
17. High-power microwave photonics
18. Wide bandgap optical semiconductor device
19. Hard-tube relativistic microwave source
20. Antenna
21. Beamless high-power microwave source

– Vacuum Electronic Technology

1. Vacuum electronic device components (gun, electron optical system, input/output window, and collector)
2. Analysis and computer simulation
3. Simulation tools
4. Radio frequency breakdown
5. Linearization
6. Intermodulation and noise technology
7. Novel measurement and diagnosis technology
8. Miniaturization
9. Thermal management and control

– Electron Emission Source

1. Thermionic cathode
2. Non-thermionic cathode
3. Field emission cathode
4. Material technology
5. Cathode design
6. Accelerator
7. High-power pulse generator
8. Display technology

– Millimeter-wave and Terahertz Device

1. Millimeter-wave and Terahertz radiation source
2. Millimeter-wave and Terahertz antenna
3. Metamaterials
4. Bio-sensor and detector
5. Waveguide, filter and transmission line
6. Active and passive device

Key dates

- Registration: 27 Nov. 2020
- Deadline for paper submission: 8 Nov. 2020
- Notification of acceptance: 15 Nov. 2020

Organizers

- College of Advanced Interdisciplinary Studies, National University of Defense Technology
- Beijing Vacuum Elecctroincs Research Institute
- The Institution of Engineering and Technology

Notes

- Master students, Ph.D candidates, and young researchers less than 30 years old are welcome to submit their papers and attend the conference.
- Manuscripts (more than 3 pages) must be written in English and submitted in both WORD and PDF formats. Please download the template from conference website.
- Participants can join the competition for the Best Paper Award and are invited to publish their work in IET Digital Library (Indexed by EI).
- No registration fee is needed. Accommodation fee will be paid by participants.

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