PRESS RELEASE

CEA-LETI TO PRESENT LATEST RESULTS & INSIGHTS ON 3D TECHNOLOGIES, POWER ELECTRONICS & QUANTUM COMPUTING AT IEDM 2020

Institute’s Experts to Host Online Tutorial on Qubit Figures of Merit And Short Course on 3D Sequential Integration

GRENOBLE, France – Nov. 9, 2020 – CEA-Leti will unveil its latest scientific results in 3D sequential integration for neural networks, 3D RRAM for in-memory computing and GaN-on-Si for power electronics at IEDM 2020, Dec. 12-16. The event will be held virtually because of the coronavirus pandemic.

Institute scientists are lead authors on four papers and contributing authors on five more that will be presented during the conference. Two of the four CEA-Leti papers discuss 3D technologies:

- “3D RRAMs with Gate-All-Around Stacked Nanosheet Transistors for In-Memory-Computing,” by Sylvain Barraud
  - Session 29.5: Thursday, Dec. 17 @ 9:40 am

- “High-Density Multi-Level-Cell 3D Sequentially Integrated 1T1R RRAM Array for Neural Networks,” by Eduardo Esmanhotto
  - Session 36.5: Friday, Dec. 18 @ 9:40 am

The other two CEA-Leti papers report work in GaN-on-Si and power electronics:

- “A Novel Insight on Interface Traps Density (Dit) Extraction in GaN-on-Si MOS-c HEMT,” by William Vandendaele
  - Session 23.5: Wednesday, Dec. 16 @ 9:40 am

- “Carbon-Related pBTI Degradation Mechanisms in GaN-on-Si E-mode MOSc-HEMT,” by Aby-Gaël Viey
  - Session 23.6: Wednesday, Dec. 16 @ 9:50 am

In addition, CEA-Leti will present a tutorial on quantum technology, which will be on demand starting on Saturday, Dec. 5.

**Tutorial 1:** “Quantum Computing Technologies,” by Maud Vinet

The tutorial will include a recap of quantum computing principles and will identify the qubit figures of merit required to build a quantum processor. It also will benchmark the experimental platforms and provide a system perspective on the challenges of reaching high numbers of qubits, e.g. more than 10,000.

A live Q&A will be held on Saturday, Dec. 12, from 8:00 to 8:45 am PST.

CEA-Leti will also host a Short Course on 3D Integration, which will be on demand starting on Sunday, Dec. 6.
Short Course Session 1: “3D sequential integration: opportunities, breakthroughs and challenges,” by Claire Beranger-Fenouillet

A live Q&A will be held on Sunday, Dec. 13 from 8 to 9 am PST

For more information about IEDM and to register, click here.

About CEA-Leti (France)
Leti, a technology research institute at CEA, is a global leader in miniaturization technologies enabling smart, energy-efficient and secure solutions for industry. Founded in 1967, CEA-Leti pioneers micro- & nanotechnologies, tailoring differentiating applicative solutions for global companies, SMEs and startups. CEA-Leti tackles critical challenges in healthcare, energy and digital migration. From sensors to data processing and computing solutions, CEA-Leti’s multidisciplinary teams deliver solid expertise, leveraging world-class pre-industrialization facilities. With a staff of more than 1,900, a portfolio of 3,100 patents, 10,000 sq. meters of cleanroom space and a clear IP policy, the institute is based in Grenoble, France, and has offices in Silicon Valley and Tokyo. CEA-Leti has launched 65 startups and is a member of the Carnot Institutes network. Follow us on www.leti-cea.com and @CEA_Leti.

Technological expertise
CEA has a key role in transferring scientific knowledge and innovation from research to industry. This high-level technological research is carried out in particular in electronic and integrated systems, from microscale to nanoscale. It has a wide range of industrial applications in the fields of transport, health, safety and telecommunications, contributing to the creation of high-quality and competitive products.

For more information: www.cea.fr/english