

SEMICONDUCTOR SPECIAL INTEREST GROUP(SIG)


VISION


A CATALYST FOR THE DEVELOPMENT OF SEMICONDUCTORS ECO-SYSTEM IN INDIA




A CREDIBLE VOICE TO ENABLE POLICIES THAT SUPPORT SEMICONDUCTOR MANUFACTURING INDUSTRY




CREATE VALUE IN TERMS OF KNOWLEDGE, HUMAN RESOURCES, AND A VIBRANT BUSINESS ENVIRONMENT.




INITIATIVES THAT ENGAGE ALL THE STAKEHOLDERS



ROADMAP

1
Building a Resilient Global Supply Chain

2
Workforce development for Skilled manpower

3
Stakeholder Networking and Business Development

4
Policy Advocacy with Governments

5
Knowledge Sharing Sessions / Webinars/Tech Talks/ Publications

6
Standards handling (India and International)

Join ELCINA SIG for Semiconductor
To Register Scan the QR Code



Recent Activities



Organized by ELCINA, SOMI, and supported by IIT Bombay, IIT Madras, IIT Kharagpur, and IIT Guwahati.

Setting up the Stage for SEMICON

Logic Technology Roadmap for the Trillion Transistor Era

By Dr. Gaurav Prasad, Director, Process Integration, Applied Materials

March 17, 2024
 Venue: IIT Bombay, 4th Floor, Conference Room, Phase II
 Time: 12:30 PM - 2:00 PM

Abstract of the talk: Exponential progress in silicon transistor technology has been achieved by significant advances in hardware and software co-optimization. The current technology roadmap is set for the 10nm node of silicon High Performance, submicron, low-Delay, and low-power to market. Material, process, and equipment requirements in hardware require extensive energy increase in high-memory packaging and packaging building blocks. Addressing opportunities also set for yield stability and the localization of ecosystem.

The session will highlight:

- The current state of hardware and software
- Material, process, and equipment strategies
- How to drive design and fabrication on existing conditions for next generation transistor technology (e.g., 3D NAND, 3D DRAM, and 3D NAND)
- Comprehensive TET (TET)
- Novel hardware methods and integration software such as Machine Learning-Based Design
- Roadmap from 10nm to 10 billion transistor era

About the speaker: With 15+ years of experience in the semiconductor industry, Gaurav Prasad is Director, Process Integration at Applied Materials. He is a prolific inventor, holding 30+ US patents, and 40 publications, and is highly recognized for his innovative and significant contributions to semiconductor materials and device packaging technology. Gaurav has a Ph.D. in Electrical Engineering from Stanford University.



Organized by ELCINA and supported by EFY GROUP.

Webinar on Borophene

The New Wonder Material Going Beyond Graphene

9th June 2023 (Friday)
 3:30 - 4:00 pm • Online Webinar

REGISTER NOW

TechTalks

Today's Trends, Tomorrow's Technology

Borophene, a two-dimensional material composed of boron atoms, has emerged as a potential replacement for graphene as the next big thing in the field of nanomaterials. Borophene boasts remarkable properties such as high flexibility, conductivity, and strength, making it suitable for a wide range of applications in electronics, energy storage, and catalysis.

Speakers

- Dr. Pravey Ranjan**, Assistant Professor, Department of Metallurgical and Materials Engineering, IIT Jodhpur, India
- Dr. Devesh Singh Negi**, Assistant Professor, Department of Metallurgical and Materials Engineering, IIT Jodhpur, India
- Dr. Anshu Kumar**, Assistant Professor, Department of Metallurgical and Materials Engineering, IIT Jodhpur, India

Key takeaways from the webinar

- ✓ Insights into the latest research on borophene and its properties - An understanding of how borophene differs from graphene and other two-dimensional materials.
- ✓ Will learn about the unique properties of borophene, its synthesis methods, and possible applications.
- ✓ Potential applications of borophene in various industries and potential impact on various industries - Explanation of the current challenges in commercializing borophene and how to overcome them.
- ✓ The challenges and opportunities in commercializing borophene, and how it compares with other two-dimensional materials.
- ✓ Q&A session with the experts

Who should attend

This webinar is suitable for researchers, scientists, engineers, and professionals in the fields of materials science, chemistry, physics, and nanotechnology.

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55 years of DIGITALE INDIAN

WEBINAR

on

Market led manufacturing & design options for India

6th May 2024 | 3:00 PM - 4:00 PM

Strategies and approaches related to manufacturing and design | Tailoring production and design activities | Future trends and market opportunities

Eminent Panelists

Session Moderator

- Mr. Amrit Manwani**, MD, Sahara Electronics Pvt Ltd
- Dr. Ashwini Aggarwal**, Director - Core Affairs, Applied Materials
- Mr. Nishit Gupta**, Sankit E. Mohr & Director (Technology), InSilico Semiconductor Masking
- Dr. Anuj Grover**, Head, Center for Intelligent Product Development (CPI), IIT Delhi
- Ms. Savita Kashyap**, Senior Director, CDAC, Noida

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