

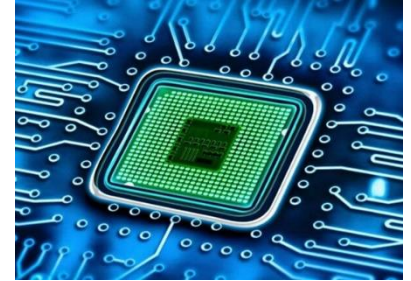


Seminar on Opportunities in Semiconductor Packaging for Bangladesh

Nanomaterials and Ceramic Engineering (NCE) Department, Bangladesh University of Engineering and Technology (BUET), Dhaka
January 08, 2025, 2:00 - 4:30 pm, Council Building, 1st Floor, BUET

INTRODUCTION

Discussions are ongoing in the country on developing semiconductor manufacturing, in order to diversify our economy and accelerate economic growth. The demand for semiconductor chips or integrated circuit (IC) chips is rising rapidly in this era of IR 4.0, IoT, AI, 5/6G, electric vehicle etc. The global semiconductor market is expected to double to about USD 1 trillion by the end of this decade. In Bangladesh, some IC design related activities have already started. But there are other opportunities in semiconductor manufacturing that this country should look into. In particular, it is worthwhile for Bangladesh to explore the semiconductor packaging sub-sector, where after wafer dicing IC chips are assembled, electrically connected, and protected from mechanical, thermal and chemical factors. This sub-sector is not as high-tech and investment-intensive as IC fabrication. This country has some inherent advantages including availability of cheap labour, young work force, and large number of science/engineering graduates; experience of the country in managing export-oriented industry in other sectors; and presence of semiconductor supply chain hub in our vicinity. Recent changes in the geo-political scenario in the world have been compelling the semiconductor manufacturing sector to diversify its supply chain and relocate some of the process steps to countries that pose lower risk. Bangladesh can be a beneficiary of this development. Time is ripe for this country to seriously explore the opportunity to be an active player in global semiconductor manufacturing.



OBJECTIVES

Semiconductor manufacturing constitutes probably the most technologically advanced and complex manufacturing value chain there is. Hence a thorough understanding is essential prior to exploring this sector of great promise. The first objective of this workshop is to introduce its participants to the technology, value chain and ecosystem of the entire semiconductor manufacturing sector in a simple manner. The second objective is to provide key insights into technical and business issues of semiconductor packaging, which is the focus of this seminar.

KEYNOTE PRESENTATIONS

There will be two keynote presentations in this seminar, followed by Q&A:

1. **Semiconductor Manufacturing Simplified: Technology, Value Chain and Ecosystem**

by Prof. Dr. A. S. M. A. Haseeb, Head, Nanomaterials and Ceramic Engineering Department, BUET

Highlights:

An overview of the semiconductor manufacturing process steps with brief explanation in layperson's term. Manufacturing value chain and ecosystem. Global nature of semiconductor manufacturing. Recent developments in semiconductor manufacturing world-wide: high demand, cost-cutting pressure, and geo-politics. Potential opportunities created for new players. Segments of value chain for Bangladesh to target.

2. **Strategy for a Successful Semiconductor Packaging Startup**

by Dr. Syed Samsul Amin, Principal Engineer and Packaging Architect, Intel Corporation, USA

Highlights:

Semiconductor packaging market segments and value proposition including ROI and other financials. Key players in this market and supply chain ecosystem. Strategy for a successful venture: Key risk areas and mitigation. Business growth and continuity model.

WHO SHOULD ATTEND

Both technical and nontechnical professionals will benefit from this workshop. The intended audience includes business leaders, decision makers in the government and private sectors, entrepreneurs, investors, bankers, engineers, media personnel reporting on business/technology, etc.

SPEAKERS

- **Prof. Dr. A. S. M. A. Haseeb**, currently a professor at the Department of Nanomaterials and Ceramic Engineering of BUET, has more than twenty five years of experience in teaching and research in electronic materials, semiconductor manufacturing and packaging. His research areas include interconnect materials and processing of high density flip chip assembly, nanocomposite solders, fine pitch copper pillar technology etc. He has more than fifteen years of experience in engaging - in the form of training of engineers/managers, joint R&D, product development, and reliability etc. - with the semiconductor industry in Malaysia e.g., NXP Semiconductors, On Semi, ST Microelectronics, Nexperia, Motorola etc. He is the Editor-in-Chief of the Encyclopedia of Materials: Electronics, Elsevier.
- **Dr. Syed Samsul Amin** is a Principal Engineer and a Packaging Architect at Intel Corporation with a vast experience of 17 years in the field of Assembly and Packaging. He has contributed to every packaging technology that is currently offered by Intel and influenced the massive growth in 2.5D and 3D packaging business in the last 5 years. Syed has managed a green field startup in Chengdu, China which is currently a 35k sqft assembly and packaging factory supporting client product portfolios. He has recently joined the technical committee of International Electronics Manufacturing Initiative (iNEMI) on behalf of Intel Corporation. Syed holds a PhD in Mechanical Engineering from UNCC and a MBA from UMASS. He is also the president of the non-profit organization called SONGJOGFOUNDAITON which is working to empower the underserved communities in Bangladesh via technology adaptation and skill development.



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Organized by of Nanomaterial and Ceramics Engineering (NCE) Department
Bangladesh University of Engineering and Technology (BUET), Dhaka
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Registration Form

Deadline for the submission of the filled-in form is Sunday, 05 January 2025.

The form can be submitted in hardcopy, or softcopy by email or WhatsApp

(Seats are available on a first come first served basis. Confirmation of acceptance of registration will be sent out prior to the seminar)

Name :

Designation :

Company Name :

Education, Work
experience :

Address :

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Mobile Phone :

Email :

Signature :

Date :

Contact Person:

Md. Bashir Ahammad, Department of NCE, Old Academic Building (West side), Ground Floor, BUET, Dhaka

Email: seminar.nce.buet@gmail.com

Land Phone: 02-961 5875

Mobile Phone: 016 1189 8788 (also available on WhatsApp)