

IEEE Miami Section Invited Webinar Announcement

“Heterogeneous Integration: Road Mapping the Future”

Speaker: Ravi Mahajan

Date: April 22, 2021 @ 3 pm

Zoom Link: <https://fiu.zoom.us/meeting/register/tJwpdeqoqzorE9O-uirZC-uyHlnr2ouNOhQD>

Abstract:

Heterogeneous Integration (HI) is seen as a critical enabler for the progress of computing and communications in a wide variety of application environments including (but not limited to) HPC, IoT, Automotive, Networking, Medical, Aerospace etc. This talk will describe the value of packaging as an HI platform in the context of the HI Roadmap, an effort co-sponsored by societies within IEEE and ASME and by SEMI. Different packaging architectures will be compared primarily on the basis of their physical interconnect capabilities. Key features in leading edge 2D and 3D technologies, such as EMIB, Silicon Interposer, Foveros and Co-EMIB will be described and a roadmap for their evolution will be presented. Challenges and opportunities in developing robust advanced package architectures will be discussed. The talk will conclude with a broader and more open ended discussion on how technical and personal collaborations can strengthen and drive the progress of HI.



Speaker's Bio

RAVI MAHAJAN is an Intel Fellow responsible for Assembly and Packaging Technology Pathfinding for future silicon nodes. Ravi also represents Intel in academia through research advisory boards, conference leadership and participation in various student initiatives. He has led Pathfinding efforts to define Package Architectures, Technologies and Assembly Processes for multiple Intel silicon nodes including 90nm, 65nm, 45nm, 32nm, 22nm and 7nm silicon. Ravi joined Intel in 1992 after earning his Ph.D. in Mechanical Engineering from Lehigh University. He holds the original patents for silicon bridges that became the foundation for Intel's EMIB technology.

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