The Uses of Data in Semiconductor Test

Ken Butler

IEEE Electronics Packaging Society
Distinguished Lecture

Contact

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Bio

Ken Butler is a semiconductor industry consultant with WattsButler LLC. Prior to that, he was with Advantest Cloud Solutions (ACS) for four years in both applications marketing and business development roles, and for 36 years with Texas Instruments working in DFT and test generation, semiconductor reliability, analog product and test engineering, and data analytics. Ken has a BS from Oklahoma State University and an MS and PhD from the University of Texas at Austin, all in electrical engineering. He is a Fellow of the IEEE, a Golden Core member of the IEEE Computer Society, and a Senior Member of the ACM. Ken also co-leads the EPS Heterogeneous Integration Roadmap chapter on test technology.

Event Information:

Date: **April 20**
Time: **11:00 AM – 12:00 PM** (Pacific Time)
Location: **Virtual (Zoom)**
Zoom Meeting Link:
https://csus.zoom.us/j/82082839160
Meeting ID: 820 8283 9160

Abstract:

Modern semiconductor manufacturing generates large volumes of data throughout the test flow, from wafer sort to final package testing. This lecture provides an overview of how test data is produced, analyzed, and leveraged to improve product quality, yield learning, reliability assessment, and test efficiency.

Emphasis is placed on practical strategies for using data-driven methods to optimize semiconductor test operations, particularly in the context of advanced packaging and heterogeneous integration.

The talk also highlights emerging opportunities for analytics and machine learning techniques to enhance decision-making in semiconductor test and manufacturing environments.