

2021 "Best of West" Award Finalists: EVG, Edwards Vacuum, INFICON and Telit – December 7, 2021

Massive Reinvigoration of Semiconductor Industry Underway

SEMICONDUCTOR DIGEST

PETE SINGER, Editor-in-Chief

Joe Sawicki, Executive Vice President, Siemens EDA, provided a very optimistic view of the semiconductor industry's future on Monday, speaking at the Design Automation Conference (DAC), which is co-located at Moscone with this year's SEMICON West.

In his talk, titled "Digitalization—The Return to Outsize Growth for the Semiconductor Industry," Sawicki described how, in just one short year, a decade of digitalization occurred across all industries fueled by innovation in the semiconductor industry. Dramatic growth occurred in use of the cloud, work from anywhere and telemedicine, while online

collaborative tool usage increased a staggering 4000%.



"Impressive as this all is, it is just the beginning of a massive reinvigoration of the semiconductor industry. Emerging new compute and telecom Continued on page 3

DON'T MISS

December 7.

Tuesda

9:05 - 9:25 am Fireside Chat: Ajit Manocha, Pres-

Ident and CEO, SEMI in Conversation with **Don Graves**, Deputy Secretary, U.S. Department of Commerce Regarding The CHIPS Act.

9:25 - 9:55 am

EDWARDS

ELECTRONICS

KEYNOTE: Innovation Nation—How to Creatively Source and Accelerate Solutions to Our Most Significant Challenges, Megan Smith, 3rd U.S. Chief Technology Officer and Former Assistant to the U.S. President

9:55 - 10:25 am

KEYNOTE: Innovation Beyond Moore's Law: The New Era in Gaming Graphics, Rick Bergman, AMD

10:25 - 10:55 am

KEYNOTE: Changing the Paradigm— Speeding Innovation via Global Collaboration, Nate Baxter, TEL America

10:00 am - 5:00 pm Exhibits Open



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SEMI and Semiconductor Digest announced finalists for the Best of West award to be presented at SEMICON West 2021, December 7-9 at



the Moscone Center in San Francisco. Presented by SEMI and Semiconductor Digest each year, the Best of West award recognizes innovative new products or services that are significantly Continued on page 4



SEMICONDUCTOR DIGEST EDWARDS ELECTRONICS

Best of West

continued from page 1 advancing the electronics manufacturing supply chain

or a particular manufacturing capability.

The following Best of West 2021 finalists will be showcasing their products on the show floor at SEMICON West 2021:

EVG: LITHOSCALE

LITHOSCALE is a highly versatile maskless exposure lithography platform for a variety of microfabrication appli-

cations accommodating wafers up to 300mm. Its mask-free approach eliminates mask-related consumables, while the tunable laser source provides high redundancy and long life-time stability. Real-time digital processing enables immediate exposure from design file to substrate.

Edwards Vacuum: Recycling and Recovery of Hydrogen EDWARDS

A new hydrogen recovery subsystem (HRS,) currently under test

and evaluation, is designed to be added to integrated vacuum and abatement systems to recover and recycle hydrogen gas, which is used in large quantities by EUV lithography systems. Recovering/recycling hydrogen can reduce costs, carbon footprint, and associated hazards.

INFICON: FPS Jumpstart Program

FPS Jumpstart Program is a rapid deployment of a factory Digital Twin and Line Bal-

INFICON

ancing WIP Schedulers to

minimize factory bottlenecks and linearize WIP across the factory.

Telit: secureWISE

With semiconductors enabling many innovative products today, success is predicated on having a suitable digital platform. Through secureWISE, Telit provides remote

connectivity to equipment over private networks in a secure, configurable and conveniently accessible way.

Congratulations to each of the Finalists. The Best of West Award winner will be announced during SEMICON West on Wednesday, December 8th, 2021. 40

Collaboration Needed on Environmental Sustainability

PETE SINGER, Editor-in-Chief

The market drivers behind the semiconductor industry's explosive growth are well known: AI, 5G, cloud computing, super computing, the IoT, gaming, automotive, medical and smart manufacturing, and of course, the work from home trend driven by the global pandemic.

This growth has, in turn, created a true data explosion. Projections are that the world will be creating 13.8 zettabytes (ZB) of data in 2021, rising to 30 ZB in 2022 and --by 2025 - 57 ZB per year. One zettabyte is equal to one sextillion bytes or 1021 bytes. This explosion

is pushing the need for faster, higher-bandwidth communications to move that data around, and AI computing to make sense of it.

This sounds like great news --- what industry doesn't like to see explosive growth? The problem is that this huge amount of data processing consumes huge amounts of power. According to SRC's Decadal Plan for Semiconductors, the total energy consumption by general-purpose computing continues Continued on page 6

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