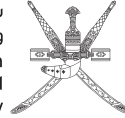




INTERNATIONAL
SEMICONDUCTOR
EXECUTIVE SUMMITS



سلطنة عُمان
وزارة النقل والاتصالات وتقنية المعلومات
Sultanate of Oman
Ministry of Transport, Communications and
Information Technology



استثمر في عُمان
Invest OMAN

ISES

MIDDLE EAST 2023

EVENT BROCHURE



● DATE

Feb 22-23

● LOCATION

Oman

WWW.ISESGLOBAL.COM

CONTENTS

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I.S.E.S MIDDLE EAST



For the first time in the Middle East, The Sultanate of Oman hosts the International Semiconductors Executive Summit.

To further enhance, strengthen and expand the global semiconductor ecosystem, the International Semiconductor Executive Summits (ISES) launches the First Ever Semiconductor Event to ever be hosted in the Middle East: International Semiconductor Executive Summits (ISES) Middle East will be held in Oman, Muscat on February 22nd-23rd.

The first Semiconductor event hosted in the GCC will take place in Muscat, Oman on February 22-23, 2023, combining an international executive audience, very important topics and exclusive access to incredible cultural highlights for all attendees. For more information and to register for the Summit, please visit <https://isesglobal.com/events/ises-middle-east/>

The Ministry is the responsible body for formulating and implementing the government digital strategies and programs in the Sultanate of Oman. Its main mission is to raise the level of efficiency in government performance, support innovation in service delivery, and enhance spending and economic growth through the use of information and communication technology.

“Oman is the perfect hub for the creation of semiconductor design and infrastructure in the GCC. It is home to a young, prosperous and highly educated population. In the global and regional hunt for tech talent, Oman will become a primary destination for leading tech companies establishing global development centers, and for local champions expanding internationally.”

International Semiconductor Executive Summits (ISES) Middle East offers full membership benefits to both local and multinational companies within the country through this platform. International Semiconductor Executive Summits (ISES) Middle East members will have access to the rich, open dialogues with subject matter experts on the industry, technologies, markets, business practices and business models with personalized, local representation, advocacy and highly-curated events.

DR. Ali bin Amer Al-Shidhani, Undersecretary for the Ministry of Transport, Communications and Information Technology, said “This summit will be organized to implement Oman Vision 2040 aims according to the ministry interest to bring more investment projects in communications and information technology sector in the Sultanate of Oman and attract global companies in the semiconductors industry. That’s will enhance economic diversification and provide job opportunities to Omani youths”

“The International Semiconductor Executive Summits (ISES) advisory board members, members and community and I are committed to continually improving and reimagining how we expand to further serve and engage a more comprehensive value chain. In rapidly growing and emerging markets, like the GCC, we need to use our resources to stay ahead of the curve by delivering a valuable, neutral platform to maximize and grow the supply chain,” said Salah Nasri, President of the International Semiconductor Executive Summits (ISES).





1 • AGENDA

DAY 1 - 22 Feb 2023

07:30 - 08:30

Registration

09:00 - 09:10

Welcome Speech

Dr. Ali Amur Ali Al Shidhani

Undersecretary of Communications and Information Technology at MTCIT



09:10 - 09:30

Salah Nasri

President of the International Semiconductor Executive Summits

- Topic: Global Semiconductor Overview & Landscape Understanding



09:30 - 10:00

GSME

Farhat Jahangir

CEO



Co-Presenters

Maryam Al-Bulushi

Senior Manager Business Operations & Corporate Affairs

Ammar Al-Kalbani

Lead IC Design & Verification Engineer

- Topic: "Why Oman" - GSME's Journey in Search of New Talent & Hub for Semiconductor Design & Manufacturing.

● LOCATION Oman

● PANEL DISCUSSION
10:00 - 10:50

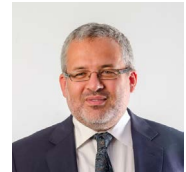
Semiconductor Leaders – Mindset of creating a Global Leading Semiconductor Organisation

● PANELISTS

Innoscience
Denis Marcon
General Manager



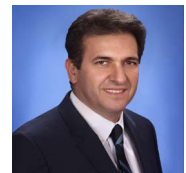
Goodix
Amr Hafez
General Manager



SiWare Systems
Dr. Hisham Haddara
CEO



Applied Materials
Kamel Ait-Mahiout
VP Advanced Packaging Corporate Business



10:50 - 11:05

Coffee Break

11:05 - 11:35

Banyan Technologies
Asif Arfi
Consultant

- Topic: Closing the Gap: The Importance of a Design Ecosystem for Global Semiconductor Supply Chain



THEME: MARKET TRENDS

11:35 - 12:00

Boston Consulting Group

Dr. Karl Briedenbach

Associate Director, Operations
Practice, Management Consulting

- Topic: Next generation
Semiconductor Management



12:00 - 12:25

M2 Technologies LLC

Dr. Doug Sparks

President

- Topic: MEMS Global Landscape
Overview and Challenges



12:25 - 13:25

**Networking Session & Exhibitor Visits
Lunch**

13:25 - 13:50

Neumonda

Marco Mezger

EVP & COO

- Topic: Challenges of Semiconductor
Manufacturing – Design & Test
Perspective in a Diversifying Market
(Memory Case Study)



13:50 - 14:15

Westerwood Global

Geoffrey Stoddart

VP

- Topic: Alternative Career Paths
Help the Semiconductor Industry
Meet Workforce Needs



● LOCATION Oman

14:15 - 14:35

**Ministry of Transport,
Communications and
Information Technology**
Fahad Sultan AlAbri

DG of ICT Stimulation & Future Skills

- Topic: ICT investment opportunities in Oman



14:35 - 14:55

OPAZ

Thuraiya Al Zarafy

Investment Promotion & Business
Development - Acting Manager

- Topic: The Special Economic Zones, Free Zones and Industrial Zones in Oman



14:55 - 15:15

**Ministry of Commerce, Industry
& Investment Promotions**

**Mohammed bin Ali bin
Mohammed Al Lawati**

Director of Investment Promotion
Department by Delegation

- Topic: Invest in Oman



15:15 - 16:15

Exhibitor Tour

16:15 - 18:00

Rest and Refresh

18:30 - 21:30

Royal Opera House Tour and Dinner

DAY 2 - 23 Feb 2023
09:00 - 09:20

InchFab
Mitch Hsing
 CEO

- Topic: Semiconductor Ecosystem Accelerator


09:20 - 09:50

SiWare Systems
Dr. Hisham Haddara
 CEO

- Topic: Challenges and Opportunities of the Semiconductors Industry in the MENA Region: An Egyptian Perspective


09:50 - 10:10

Silicon Austria Labs
Dr. Mohssen Moridi
 Head of Research Division
 Microsystems

- Topic: Leading a World Class Research Institute


10:10 - 10:30

Innoscence
Denis Marcon
 General Manager

- Topic: Mass manufacturing 8-inch GaN-on-Si Power Devices: the Next Generation of Power Switching Technology


10:30 - 10:45
Coffee Break
10:45 - 11:15

iontra
Sunil Banwari
 COO

- Topic: Doubling Charge Speed and Cycle Life Of The Most Common Batteries With A Revolutionary Charging Algorithm, Enabled By Semiconductors Technologies.



11:15 - 12:00

ASPEED
CJ Hsieh
COO



Vizzio
Jon Lee
Founder & CEO



- Topic: The LIVE 3D Digital Twin for the GCC

12:00 - 13:00

Exhibitor Visit & Networking Break
Lunch

13:00 - 13:20

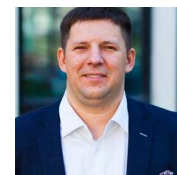
SIMEU
Robert Quinn
CEO



- Topic: Semiconductors: Powering the Future and Driving the Global Economy

13:20 - 13:40

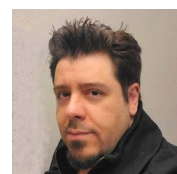
ATLANT 3D
Maksym Plakhotnyuk
CEO



- Topic: Transforming industries at the atomic scale: The Power of Atomic Scale Advanced Manufacturing and the Advanced Innovation Ecosystems.

13:40 - 14:00

Silicon Dynamix
Dr. Siavash Pourkamali
CEO & Founder



- Topic: The Camera Module Industry and the Opportunity for MEMS and Micro-Manufacturing

● AGENDA

I.S.E.S MIDDLE EAST

● DATE

Feb 22-23

14:00 - 14:20

PlasmaTherm
Yannick Pilloux
VP EMEA

- Topic: US Based Equipment Manufacturer For Compounds Semiconductor Applications



● PANEL DISCUSSION

14:20 - 15:30

History and Future of the Semiconductor Industry in the MENA region: A Benchmark from the Semi Ecosystem in Egypt

● MODERATOR

Salah Nasri
President of the International Semiconductor Executive Summits

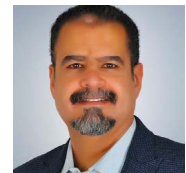


● PANELISTS

SiWare Systems
Dr. Hisham Haddara
CEO



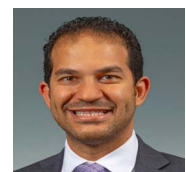
Pearl Semi
Ayman Ahmed
CEO



Silicon Vision
Mohamed Mohsen
CEO



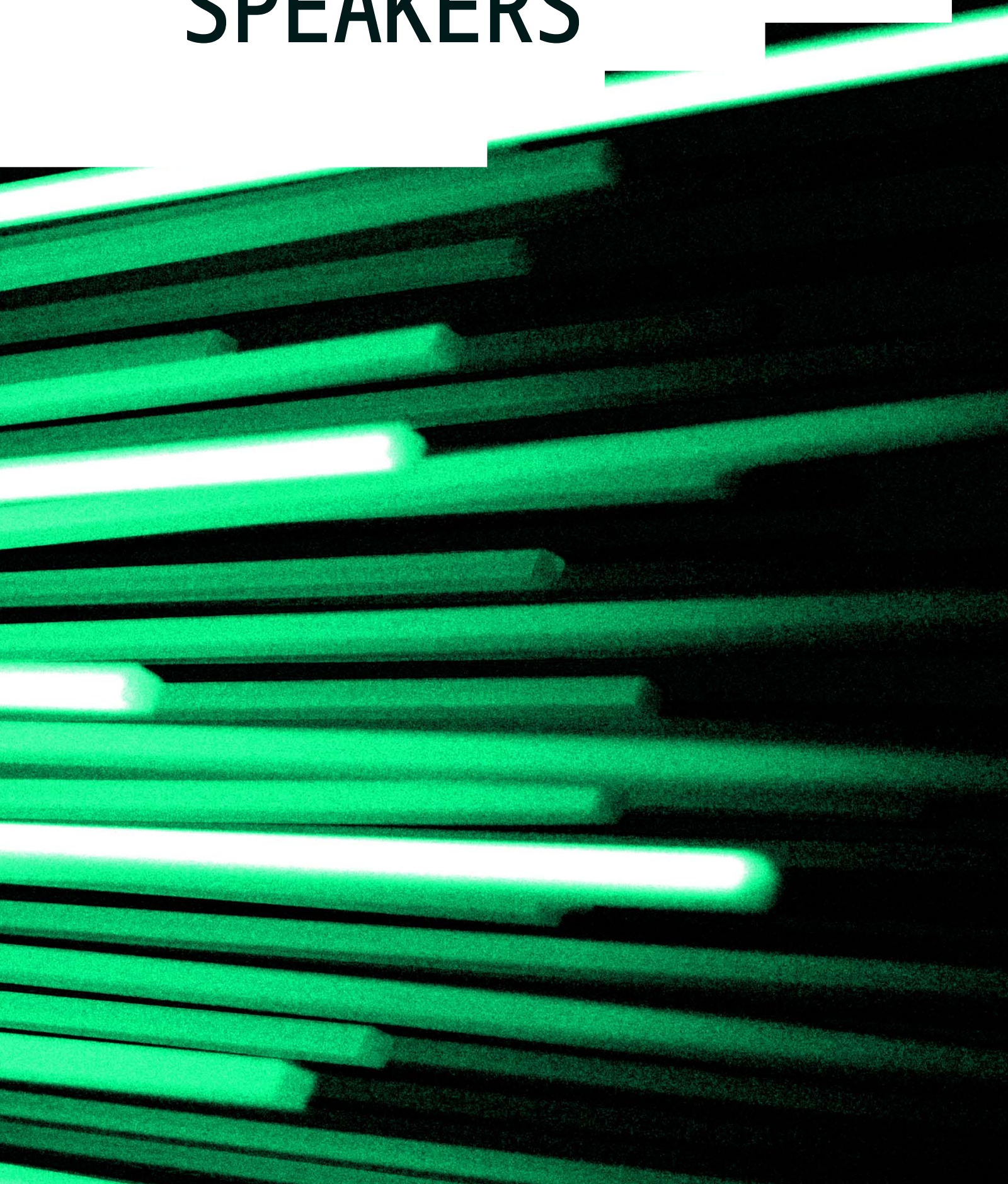
Pulsar Microelectronics
Ahmed El-Shennawy
Co-Founder and Managing Director



15:30 - 17:00

Exhibition Tour

2 • CONFIRMED SPEAKERS



Dr. Ali Amur Ali Al Shidhani

Undersecretary of Communications and Information Technology - Ministry of Transport, Communications and Information Technology



سلطنة عُمان
وزارة النقل والاتصالات وتقنية المعلومات
Sultanate of Oman
Ministry of Transport, Communications and Information Technology



Fahad Sultan AlAbri

Director General of ICT Stimulations & Future Skills - Ministry of Transport, Communications and Information Technology



سلطنة عُمان
وزارة النقل والاتصالات وتقنية المعلومات
Sultanate of Oman
Ministry of Transport, Communications and Information Technology



TOPIC

ICT Investments Opportunities in Oman

ORGANIZATION PROFILE

The Ministry of Transport, Communications and Information Technology supervises a number of national projects Such as, the ports and airports that connect the Sultanate with the world and contribute to diversifying the sources of income and achieve sustainable development in various economic, industrial, commercial, tourism and other fields.

These efforts are accompanied by the Ministry's relentless strive to make the transport and logistics sectors in the Sultanate have a global reputation, to be the second source of national income and within the top ten in logistics performance at the international level by 2040.

At the local level, side by side with all these projects, The Ministry works to regulate land and sea transport industries by issuing the needed legislations.

The Ministry is also the responsible body for formulating and implementing the government digital strategies and programs in the Sultanate of Oman. Its main mission is to raise the level of efficiency in government performance, support innovation in service delivery, and enhance spending and economic growth through the use of information and communication technology.

Mohammed bin Ali bin Mohammed Al Lawati

Director of Investment Promotion
Department by Delegation.- Ministry
of Commerce, Industry & Investment
Promotions



Sultanate of Oman سلطنة عُمان
وزارة التجارة والصناعة وترويج الاستثمار
Ministry of Commerce, Industry & Investment Promotion



TOPIC

Invest in Oman

ORGANIZATION PROFILE

The ministry was established by the Royal Decree No. 40/74 in 1974 as Ministry of Commerce and Industry.

In 2020, Royal Decree No. 97/2020 was issued amending the name of the Ministry of Commerce and Industry to the Ministry of Commerce, Industry and Investment Promotion, defining its functions of reference, approving its organizational structure.

The Ministry of Commerce, Industry and Investment Promotion has various responsibilities such as supervising commercial, industrial, investment activities and developing exports; where it will to strengthen the national economy via promoting the business environment. It also aims to diversify and sustain the economy in line with Oman Vision 2040.

Thuraiya Al Zarafy

Investment Promotion & Business
Development - Acting Manager - OPAZ



الهيئة العامة للمناطق الاقتصادية الخاصة والمناطق الحرة
Public Authority for Special Economic Zones and Free Zones
Sultanate of Oman



BIOGRAPHY

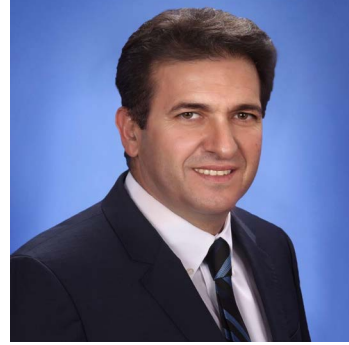
Thuraiya is an experienced marketer with a demonstrated history of working in the Investments, Telecommunications and FMCG industries in the UAE and Oman. Skilled in branding, marketing, go to market strategy, sales, and product launches. She was selected to be a part of the three year Unilever Future Leaders Programme and has held various roles leading campaign development both locally and regionally. Thuraiya is a strong sales and marketing professional with a Bachelor of Business and Commerce and a double degree in Marketing and International Business from Monash University Australia having worked previously in Ooredoo and Unilever. She currently is working at the Public Authority for Special Economic Zones and Free Zones Investment Promotion team.

TOPIC

The Special Economic Zones, Free Zones and Industrial Zones in Oman.

Kamel Ait Mahiout

VP Advanced Packaging Corporate
Business - Applied Materials



● BIOGRAPHY

Kamel Ait Mahiout. joined Applied Material on the advance packaging corporate business, prior to that he served as CEO of Unity SC, inspection, and Metrology company where he reengineered the company from the product and organization to alignment with tiers 1 customers,

Prior Unity, Kamel Served Amkor Technology as a president and General manager for Europe & Singapore over 18 years aligning and growing the company with European key players and starts up.

Started in the industry over 30 years ago as RF and Microwave R&D Engineer designing product & Modules for Aerospace, Military, and telecom markets, then served managing internal and external operation

Kamel holds a Bachelor in Electronics from University HB in Algeria and a Master in Electronic from Reims University in France.

● COMPANY PROFILE

We are the leader in materials engineering solutions used to produce virtually every new chip and advanced display in the world. Our expertise in modifying materials at atomic levels and on an industrial scale enables customers to transform possibilities into reality. At Applied Materials, our innovations Make Possible® a Better Future.

CJ Hsieh

COO - ASPEED Technologies



BIOGRAPHY

Experiences:

- Advisory board, ISES Taiwan
- Co-chair of Test Committee, SEMI Taiwan
- General Manager, INTEL Innovation Tech. Ltd.
- Spokesperson, INTEL Taiwan
- Consulting Committee, National QUEMOY University
- VP of Global Operations, LANTIQ Deutschland GmbH
- GM & VP of Professional Services Lab, SPIROX Corp.
- AVP of ASIC Design Services and Production Turnkey, FARADAY Tech. Corp.
- Technical Manager of CPU / Memory Design, UMC
- Project Leader of EDA DFT, SYNTTEST Tech. Ltd.

Education:

- MSEE, University of Southern California, Los Angeles, USA.

COMPANY PROFILE

Founded in 2004, ASPEED Technology Inc. is a leading fabless IC design company headquartered in Hsinchu, Taiwan. With a focus on niche markets, ASPEED specializes in Cloud & Enterprise Solutions, including Baseboard Management Controller (BMC) SoC, Bridge IC, and PFR SoC, and Smart AV Solutions, including AVoIP SoC, Cupola360 spherical image stitching processor and Cupola360+

Software Kit.

ASPEED is devoted to developing innovative technologies in order to quickly respond to customer needs. In 2016, ASPEED acquired Broadcom's Emulex Pilot™ remote server management chip business and it's currently the world's No. 1 BMC SoC provider. Also, ASPEED expanded its product portfolio by launching Cupola360 spherical image stitching processor and Cupola360+ software solutions in 2018.

Recognized as a trusted and reliable partner for customers, ASPEED has been awarded "Forbes Asia's 200 Best Under a Billion" for nine consecutive years since 2014. The company was also recognized as "Taiwan Best-in-Class 100" by Taiwan Institute of Directors and CDRC Consulting Group in 2022.

For more information, please visit <https://www.aspeedtech.com/> and <https://cupola360.com/>.

Jon Lee

Founder & CEO - Vizzio



● BIOGRAPHY

Dr. Jon Lee completed his Ph.D. in Computer Science at Cambridge, specializing in machine learning, computer graphics, embedded systems and parallel processing. He is also the inventor of over 300+ patents filed to date with the USPTO and China PTO. Trying to put real-world cities into Minecraft piqued Jon's interest in making immersive copies of the real world. His research centers on applying the algorithmic lens to interdisciplinary problems. Jon's interest in semantic modeling of built environments stemmed from a desire to automatically simplify models of real-world landmarks while preserving their iconic features.

● COMPANY PROFILE

VIZZIO is a leading 3D EARTH & SPACE TECHNOLOGY Company based in Singapore, with clients regionally and globally. Vizzio has mapped 89 3D earth cities, covering more than 29.4 million square kilometers of land area.

VIZZIO's planetary-scale "3D-Mapping" ability turns current satellite, aerial and geospatial data into a semantic, machine-readable database and photorealistic synthetic 3D WGS84 georeferenced environments for simulation, visualization, and wider industrial and enterprise applications. Our deep learning algorithms pre-process satellite imagery and other geospatial data sources and create 3D models out of flat satellite images, combining real-time ray-tracing and advanced graphics rendering engine to create a photorealistic 3-D world.

Our AI-based real-time 3D reconstruction approach solves global pose alignment and obtains dense volumetric reconstructions from 2D satellite images at a level of quality and completeness that was previously only attainable with human intervention and expensive photogrammetry methods. Previously, city modeling and reality capture relied on manual, labor-intensive processes - spanning months or even years. We can now create detailed geo-specific, accurate, high-resolution 3D geographic models and terrains of cities in just a fraction of the time needed.

Vizzio has been spearheading the adoption of dimensionally accurate and immersive 3D capture and visualisations for Singapore's leading government agencies and companies including Singapore Civil Defense Force (SCDF), Government Technology Agency of Singapore (GovTech), National University of Singapore (NUS) and SMRT Corporation (SMRT) as well as Singapore based companies such as CapitaLand, SATS, StarHub, DP Architects, Singapore Police, Saudi Government, Hong Kong Police, among others.

CJ Hsieh

COO - ASPEED Technologies



Jon Lee

Founder & CEO - Vizzio



TOPIC

The LIVE 3D Digital Twin for the GCC

ABSTRACT

ASPEED's unique and patented image stitching algorithm, integrated on-chip, generates high-quality panoramic images in under 10ms. Besides, VIZZIO create 3D models of cities from aerial to indoor views using 2D satellite images and a patented deep learning AI pipeline, without the need for drones or complex surveying methods. We can model any city worldwide anytime, anywhere. We create real-time LIVE 3D digital twins of any physical place by combining ASPEED's and VIZZIO's special technologies.

The integration of these fusion technologies will lead to numerous innovative applications. The application of these technologies can also enhance the efficiency of government services through the provision of accurate information and faster service delivery. For instance, the government will have a comprehensive 3D models of all cities, enabling them to protect citizens more effectively. The affordability of these technologies will facilitate greater accessibility to immersive experiences of the cultures of GCC countries for a larger global audience, and enhance remote education by delivering a more interactive and superior learning experience compared to in-person education. Furthermore, the use of live and immersive real estate tours will provide busy, high net-worth global buyers with the ability to view properties and make informed bids in a streamlined and efficient manner.

Maksym Plakhotnyuk

Founder & CEO - ATLANT 3D

ATLANT
3D NANOSYSTEMS



BIOGRAPHY

Inventor of first-ever atomic layer advanced manufacturing technology that enables materials, devices, and microsystem development and manufacturing with atomic precision.

A scientist with a Ph.D. in Nanotechnology and Photovoltaics with expertise in nanotechnologies, renewable and exponential technologies, and deep knowledge of photovoltaics, semiconductor processing, solid-state physics, and material science.

Member of Forbes Technology Council, Hello Tomorrow Grand Winner, Fulbright scholar, and proud Ukrainian.

TOPIC

Transforming industries at the atomic scale: The Power of Atomic Scale Advanced Manufacturing and the Advanced Innovation Ecosystems.

ABSTRACT

The cutting-edge technology developed by ATLANT 3D revolutionizes the electronics, optics, and photonics industries through atomic-scale advanced manufacturing. ATLANT 3D develops the technology equipment, processes, and services and a new business model to enable innovation of new advanced electronics and functional applications without geographical restrictions and through the whole value chain from lab to fab. ATLANT 3D model of advanced manufacturing hubs – A- Hubs – will create a novel network-centric innovation ecosystem with a goal to speed up the development of critical micro and nanosolutions with faster go-to-market and simple or even impossible previous functionality. Vertical-oriented The vertical or geographically oriented A-Hub model can speed up innovation and create strong economic growth, or the geographically oriented A-Hub model can speed up innovation and create strong economic growth nevertheless of global reality.

COMPANY PROFILE

Nanosystems is a Danish deep-tech startup that develops a unique atomic layer advanced manufacturing technology for on-demand electronic materials development and microdevice manufacturing. ATLANT 3D technology combines thin film deposition with an additive manufacturing approach to selectively deposit material one atomic layer at a time. This is the first-ever concept to be realized in such a way and the uniqueness of the technology is that it can print directly different materials on flat and complex surfaces combining different materials with atomic precision and micro resolution. It opens opportunities for innovation in the electronics space.

Asif Arfi

Consultant - Banyan Technologies



BIOGRAPHY

My name is Asif Arfi. I am a Management and Engineering Professional with a Master's in Engineering and over 25 years of experience in high-tech environment running multiple operational functions across global organizations. Worked in various functions in different roles, developing solutions and tools that result in streamlining complex organizational needs into successful solutions. Have worked with cross-functional teams globally and managed the life cycle of semiconductor products from conception to completion, managed vendor-partner relationships, drove long term revenue and business strategy. Worked in high tech companies like Micron, Infineon, Spansion (AMD spinoff), Freescale, NXP, Verisilicon and in consulting.

These companies range from memory to mixed signal to Service provider and IP solutions. Over the duration of my work in the semiconductor industry, I have built leadership, management, technical expertise, and industry relationships. Outside of work, I like to cook, travel, and play sports sometimes. My cooking includes various cuisines from Indian curry to Chinese rice and Italian pasta. My kids love my cooking and my wife, I guess, likes it too.

TOPIC

Closing the Gap: The Importance of a Design Ecosystem for Global Semiconductor Supply Chain

ABSTRACT

The invisible semiconductor war has led to a change in semiconductor supply chain of global proportions and has led to a frenzy of fabs mushrooming around the globe. US, Europe, Taiwan, India, Japan, Korea and others are investing in fabs to become independent. Numerous amounts of fab capacity will be added globally in the next few years. However, no design ecosystem is being added to fulfill the semiconductor capacity of tomorrow.

This presentation specifically outlines, the need to create a design ecosystem in the region bringing semiconductor excellence and close the gap between fab capacities and design of new products to utilize the capacity, nourish the fabs of tomorrow and keep them fully fed. The devices and systems need to be designed with cutting edge technologies and simultaneous consideration of the semiconductor supply chain. Accelerating the next and future generations of semiconductor products will impact all aspects of modern life. The semiconductor excellence in the region will drive design and deployment of new semiconductor products through the development of design ecosystem and engaging the full spectrum of talent in the academic community. The goal is to cultivate a broad coalition of training in semiconductor design across engineering communities to utilize a co-design approach including education and training, to enable rapid progress in regional semiconductor excellence.

Details regarding design ecosystem creation with support from industry experts and training of locals on actual projects and return of investment in 2 to 3 years with plans to double the investment and positive ROI. Your support is vital in bringing semiconductor excellence to the region.

Dr. Karl Breidenbach

Associate Director, Global Lead
Semiconductor Procurement - Boston
Consulting Group



● BIOGRAPHY

Dr. Karl Breidenbach has more than 15 years of experience in the high-tech industry and is an expert in semiconductor management. He leads Boston Consulting Groups (BCG) semiconductor procurement consulting activities globally and is a core member of BCG's Operations practice, as well as an adjunct member of BCG's Semiconductor practice.

Dr. Breidenbach specializes on large-scale transformations in technology-driven supply chains, with a focus on complex outsourcing engagements in semiconductors, software, and cost reductions in R&D-focused products. He has experience in leading large-scale post-merger integrations, with a focus on synergy generation and supply chain optimization. He has also developed semiconductor management programs across automotive and industrial companies, including redesign, platform strategies, and operating model evolution.

Prior to joining BCG, Dr. Breidenbach was a Senior Director at Infineon Technologies AG where he was heading semiconductor outsourcing business development with silicon foundries and OSATs companies across all product lines and technologies. He started his career at IBM as a consultant in the Strategy and Transformation Division, where he supported clients in automotive, electronics and the process industry on IT-driven supply chain optimization.

Dr. Breidenbach holds a PhD from Bundeswehr University Munich, M.Sc in Supply Chain Management from Dublin City University & NEOMA Business School France, BA in Information Technology and International Business from Cooperative State University Stuttgart and Open University. He is also a co-author of several books and publications on operations and automotive semiconductor management and regularly lectures at international universities.

Dr. Karl Breidenbach

Associate Director, Global Lead
Semiconductor Procurement - Boston
Consulting Group



● TOPIC

Next generation Semiconductor Management

● ABSTRACT

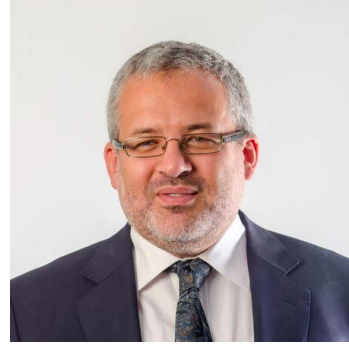
The global semiconductor market is forecast to become a trillion-dollar industry driven by digital transformation, electrification and automation across all industries. However, the recent chip crunch and supply chain disruptions have revealed structural vulnerabilities in the electronics value chain. This presentation will discuss best practices in semiconductor management and explore how companies like Tesla and Apple have developed resilient, yet highly innovative strategies to secure their semiconductor supply. The presentation will cover topics such as modular technology architectures, optimized mix between custom developed and standardized components, transparency in the bill-of-material, supplier relationships across multiple tiers, and data-driven market intelligence. The goal is to help organizations rethink their approaches to managing their semiconductor supply and achieve the highest levels of efficiency, growth and customer service. With mega-trends such as autonomous vehicles, smart homes, and an ever-increasing proliferation of AI and cloud computing, the demand for semiconductors is only going to increase. Therefore, it's crucial for organizations to develop a semiconductor management strategy that allows them to flexibly adapt to changes in supply and demand.

● COMPANY PROFILE

Boston Consulting Group (BCG) is a global consulting firm that partners with leaders in business and society to tackle their most important challenges and capture their greatest opportunities. We are a leading consulting firm for the Semiconductor industry having conducted more than 400 projects over past 10 years, serving players across the entire semiconductor value chain. Beyond that we have lead extensive semiconductor-related work for leading companies in Data Center/Cloud, Mobile, Consumer Electronics, Auto, Industrial and Life Sciences. As a thought leader we have co-published research papers with SIA, as well as dedicated work on topics such as the reinvention of the software-defined vehicle, 5G, AR/VR and the Metaverse. www.bcg.com,

Amr Hafez

General Manager - Goodix Egypt



● BIOGRAPHY

Dr. Hafez is an international semiconductor expert with experience spanning multiple domains and geographies. He has founded and is currently the General Manager of Goodix's design center in Egypt, leading a multidisciplinary team in working across sites, delivering complex SoCs for the mobile market. Prior to that, he led the ASIC Solutions business unit of Si-Ware Systems, a pioneer in the vibrant Egyptian semiconductor landscape. During that time he led his team in delivering cutting edge products to customers and partners in the US, Europe, China and the Gulf. Prior to Si-Ware, Mr. Hafez was an RFIC leader at PMC-Sierra and Blackberry in Canada.

Mr. Hafez holds a Ph.D. from the University of Waterloo, Canada, has published several patents and technical papers and teaches analog and RF circuit design at Cairo University.



Farhat Jahangir

CEO - GS Microelectronics



● BIOGRAPHY

Farhat serves as the CEO at GS Microelectronics. Prior to joining GSME he was serving as VP & GM of Manufacturing at Onsemi, where he was managing ON Semiconductor's largest 300mm Fab in East-Fishkill, New York for over two years. Farhat joined ON Semiconductor through Quantenna Communication acquisition in March 2019 where he was serving as SVP of Manufacturing, Operations & Quality for six plus years. Farhat played a pivotal role in making Quantenna successful through manufacturing optimization, process & yields improvements, cost reductions, & significant margins improvement. Farhat's efforts enabled Quantenna's successful IPO in October 2016.

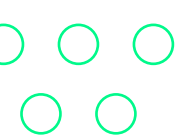
Farhat has over 25 years of successful experience in global manufacturing, Fab & OSAT operations, supplier management, building partnerships, and the assurance of quality & reliability processes. Prior to joining ON Semi/Quantenna Communications, he headed semiconductor manufacturing operations and quality functions at Synerchip Corporation (acquired by Silicon Image) & SiTime (a MEMS based timing solution company). His contributions towards building and restructuring company's lower margin product lines to higher margins, enabled market penetration and corporate margins growth in the companies he served. Farhat also held various engineering and management positions in the areas of semiconductor manufacturing in companies like Texas Instruments, Cypress Semiconductor, Silicon Image & IDT.

Farhat holds a Master of Science degree in Electrical Engineering from University of Arkansas at Fayetteville.

● COMPANY PROFILE

Global Semiconductor Microelectronics, Inc. provides seamless semiconductor manufacturing solutions. Founded in 2021 by a select group of Silicon Valley's semiconductor veterans and visionaries with the focus on cutting-edge technology for next-gen applications and cost-effective manufacturing solution for SoC designs at advanced process nodes.

GSME is a global provider of customizable silicon design, complete manufacturing operations, and comprehensive quality services for IC design companies developing complex high-volume ASICs and SoCs. The company services high-end GPUs, specialized CPUs, low power FPGAs, solid-state LiDAR, LP-IoT, and a variety of wireless product technologies. provides an end-to-end tape-out flow, package design, test hardware/program development, & product qualification, factoring faster time to market for products.



Farhat Jahangir

CEO - GS Microelectronics



CO-PRESENTERS

Maryam Al-Bulushi

Senior Manager Business Operations &
Corporate Affairs - GS Microelectronics

Ammar Al-Kalbani

Lead IC Design & Verification Engineer
- GS Microelectronics

TOPIC

Why “Middle East” GSME’s journey in search of new talent & hub for Semiconductor Design & Manufacturing

ABSTRACT

Semiconductors are the backbone of 4th industrial revolution enabling us to live in a smart & connected world. Connected world, Digitizing Auto Industry, social-media revolution, industrial automation, & AI decision making is spiking the demand of Integrated Circuits. Now when semiconductors are becoming the new “Oil”, fight over its control is also getting intense. Trade-war between US & China is drifting to become China-vs-West issue to gain controls over semiconductor manufacturing market. Semiconductor industry is experiencing shortage of skilled engineers in the field of microelectronics, IC design & manufacturing. GSME started its efforts over a year ago to identify & establish new hubs to support semiconductor ecosystem. GCC countries in Middle East can play a significant role in filling in the gap industry is experiencing.

Mitchell Hsing

CEO - InchFab



● BIOGRAPHY

Mitchell Hsing, is the Co-Founder and CEO of InchFab, a low-cost, fast-cycle-time foundry solution for sensors and actuators. InchFab was born out of frustration from Mitchell and his co-founder's struggles with the lack of access and high barrier of entry needed to make microdevices. Innovators at heart, Mitchell's aim is to lower the barrier of entry and enable more people to innovate on the microscale. Mitchell holds, S.M. and Ph.D. degrees in Electrical Engineering from MIT and B.S. degrees in Physics and Electrical Engineering from the University of California, Irvine.

Company bio: InchFab uses an ultra-low-cost scalable "micro-sized" fab platform. Today InchFab uses this platform to provide highly flexible and cost effective MEMS foundry services to its customers and partners.

● TOPIC

Semiconductor Ecosystem Accelerator

● ABSTRACT

Accelerating the development of a new semiconductor ecosystem requires the establishment of a new manufacturing paradigm. In an ever-more interconnected world, powered by IoT chips, new application-specific technologies are rapidly growing. A new agile manufacturing paradigm is needed to fabricate these devices with their unique requirements. InchFab has developed a modular fabrication platform which accelerates the development of new devices which will enable a new era of microfabrication innovation.

● COMPANY PROFILE

InchFab uses an ultra-low-cost scalable "micro-sized" fab platform. Today InchFab uses this platform to provide highly flexible and cost effective MEMS foundry services to its customers and partners.

Denis Marcon

General Manager - Innoscience



● BIOGRAPHY

Denis Marcon received a M.S. degree from the University of Padova in 2006. Subsequently, he received the degree of Doctor in Engineering (Ph. D.) from the Catholic University of Leuven and imec with the thesis entitled “Reliability study of power gallium nitride based transistors” in 2011. He is leading author or co-author of more than 50 journal papers or international conference contributions.

After his Ph.D. graduation, he has been leading projects aiming to develop GaN HEMTs for several applications (RF and power switching). Thereafter, he has joined the business development team of Imec where he was directly responsible for the partnerships with imec in the field of GaN power electronics as well as on dedicated development and manufacturing of Si-based devices, MEMS, sensors and micro-systems,

Today he is the General Manager of Innoscience Europe (subsidiary of Innoscience) and he is directly responsible for Innoscience’s GaN business in Europe.

● COMPANY PROFILE

Innoscience is an Integrated Device Manufacturer (IDM) founded in December 2015 with investment from CMBI, ARM, SK and other prestigious investors. With the development of new technologies, the electric power grid and power electronic systems across the world are undergoing a massive transformation. Our vision is to create an energy ecosystem with effective and low-cost Gallium-Nitride-on-Silicon (GaN-on-Si) power solutions. In November 2017, Innoscience first established a mass production 8-inch wafer line for GaN-on-Si devices in Zhuhai. In order to fulfill the rapidly growing power demands, Innoscience has inaugurated a new facility in the Suzhou in September 2020. As a cutting-edge GaN technology provider, Innoscience’s 1,400+ employees and over 300 R&D experts are dedicated to delivering high performance and high reliability GaN power devices that can be widely used in diverse applications including cloud computing, electric vehicles (EV) and automotive, portable devices, mobile phones, chargers and adapters. For more information, please visit www.innoscience.com.

Denis Marcon

General Manager - Innoscience



● TOPIC

Mass manufacturing 8-inch GaN-on-Si Power Devices: the Next Generation of Power Switching Technology

● ABSTRACT

Power conversion systems are all around us and they are responsible, for example, for converting the AC power coming from the grid to a continuous power (DC) to charge-up batteries. Or, they convert high voltage DC (e.g. 48V) to a low voltage DC (e.g. 5V or 1V) needed to run electronics.

Any power conversion needs to be performed effectively so energy (and thus money) is not wasted in heat.

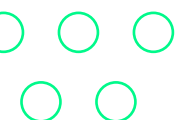
GaN-based power transistors have proven to outperform standard Si-based transistors in both AC-DC and DC-DC applications thus representing the next generation of power switching devices. GaN-based power conversion systems are more efficient, more compact and lighter than to what is possible with traditional Silicon devices.

The GaN's power device market is booming and yet we believe that their penetration was so far limited due to a restricted supply of GaN device production at a competitive price point and in mass volume.

In this talk, we will present Innoscience's 8-inch GaN-on-Si e-mode technology and how we tackled the two points above by building up two large 8-inch fabs fully dedicated to the (mass) production of GaN-on-Si power devices.

We will also discuss that to bring GaN power devices into mainstream high-volume end-products, including mobile phones, only a true integrated device manufacturer with high volume 8-inch internal manufacturing fully focused on GaN is necessary.

We will conclude the talk by giving an overview of applications where Innoscience's GaN devices (InnoGaNTM) have been used and the benefit of using InnoGaNTM transistors instead of traditional Silicon devices.



Sunil Banwari

COO - iontra

iontra



BIOGRAPHY

Sunil boasts 30 years of U.S. and international experience in electronics and semiconductor multi-site manufacturing. He is recognized for delivering top results in positions of increasing responsibility at the executive level at companies including Intel Corp (20 yrs) and ON Semiconductor (7yrs). He maintains a high profile within the Asia technology sector and has served on industry association boards in the Philippines, India, Taiwan and China. Sonny hold a BS in Physics and an MSEE from Arizona State and a certificate from MIT Sloan on “Artificial Intelligence and Business Strategy.” An Industry 4.0 consultant, Sonny is now leading the business development for Advantest’s cloud solutions business. He is multi-lingual (English, Japanese, Spanish, Hindi) and has held expat assignments in Japan, India, Costa Rica and Philippines.

TOPIC

Doubling Charge Speed and Cycle Life Of The Most Common Batteries With A Revolutionary Charging Algorithm, Enabled By Semiconductors Technologies.

ABSTRACT

Constant current/constant voltage (CC/CV), step-charging, and DC charging are common methods for charging lithium-ion batteries, but result in damage to the batteries, lowering cycle life and charge speed. Much of this damage occurs due to non-uniform current density on the electrode surfaces, which causes electrolyte degradation, dendrites, and lithium plating. Therefore, there is a need for innovation in battery charging methods to address the limitations of existing charge technologies. New charging algorithms that adjust charging to maintain maximum current uniformity can provide much faster charging of batteries while simultaneously extending battery cycle life.

This presentation will provide conclusive electrochemical data showing how Iontra achieves double the charge speed and double the cycle life on today's commercial cells with their proprietary, scalable charging technology that is implemented on charge control MCUs. Iontra has spent the past few years in stealth mode understanding how batteries want to be charged, then providing them with charging that results in minimal degradation, maximum cell health, faster charging, longer life, and lower temperature charging. Iontra is fresh off the back of a \$38M Series B and moving toward further capital raises to support expansion of their technology for various industries including consumer electronics and electric vehicles.

Dr. Douglas Sparks

President - M2N Technologies LLC

Micro 2 Nano Technologies



BIOGRAPHY

Dr Douglas Sparks is the founder of M2N Technologies LLC. M2N Technologies is a consulting firm specializing in the MEMS and Semiconductors technology, product and process commercialization and supply chains. Dr. Sparks has international business experience in these fields in the US, China, Japan and Europe in medical, industrial, aerospace, semiconductors, consumer and automotive applications. He has worked at large MEMS IDMs, start-ups and MEMS foundries. Doug was the CTO of Hanking Electronics which built the first 200mm pure MEMS wafer fab in China. He also led technology acquisition, foundry process and MEMS related product development at Hanking. He founded a microsensor packaging company called NanoGetters, which was acquired by Materion. He was the EVP at Integrated Sensing Systems where he launched multiple microfluidic sensor products, including an FDA approved MEMS drug infusion device and industrial products acquired by Endress + Hauser. Doug worked in automotive sensors and semiconductor fabs with Delphi. Dr. Sparks holds a PhD in materials engineering from Purdue University and has published more than 120 technical papers and has 70 issued patents.

TOPIC

MEMS Global Landscape Overview and Challenges

ABSTRACT

The requirements for a successful semiconductor ecosystem will be discussed along with the global distribution of CMOS and MEMS foundries and OSAT packaging participants in the industry. A cost breakdown for the wafer fabrication, packaging and test of typical MEMS products will be overviewed. A Case Study of the speaker's experience in starting up a MEMS semiconductor industrial park and high-volume 200mm wafer fab in China will be outlined. The element required to design, construct, staff and equip this wafer fab will be part of the Case Study. Applying the lessons learned in China to starting a similar foundry facility in Oman will be covered, as will potential strategies for building a local semiconductor ecosystem in the Gulf region. Comparison in capabilities and development strategies between similarly sized Asian countries like Singapore and Malaysia and that of Oman's will also be discussed.

COMPANY PROFILE

M2N Technologies LLC provides MEMS, semiconductor and sensor consulting and development services. Areas covered include fab selection and MEMS/Semi supply chain improvements & strategies, acquisition due diligence, MEMS hermetic packaging and process development and wafer process integration. Micro 2 Nano Technologies develops new sensors like pressure, flow, optical sensors and resonators, MEMS and 3D printed-based products.

Marco Mezger

COO & Executive Vice President -Neumonda
CEO & Founder - APIS4



● BIOGRAPHY

Marco Mezger is a global entrepreneur, investor, and advisor with over 25 years of experience in the semiconductor industry. Born in Germany and based in Taipei, Marco has a unique understanding of global semiconductor businesses with their challenges, resulting in a track record at various companies and as a matchmaker in the industry. As a thought leader focusing on memory technology, Marco has a sizeable global follower base on LinkedIn. He is also a regular guest on the business TV program "Taiwan Talks" commenting on the semiconductor industry news and market trends.

● TOPIC

Challenges of Semiconductor Manufacturing – Design & Test Perspective in a Diversifying Market (Memory Case Study)

● ABSTRACT

Shrinking modern Semiconductor Technologies and Geometries at the limit of Physics requires huge investments and economy of scales in multi billion dollar factories. Aside of inherent technical risks of operating at the limit of physics in sub 10nm technologies new challenges arose through geopolitical tensions as well as diversifying markets and applications. This presentation highlights such challenges. Future trends from a design & test perspective will be discussed how such risks could be managed and mitigated to achieve economically successful operation of such mega investments. Semiconductor Memory representing 30% of today's and future semiconductor sales will be used as a case study!

● COMPANY PROFILE

www.neumonda.com

Neumonda has been founded with profound know how and the 'DNA' of former German memory powerhouse 'Qimonda'. It has the ability to provide memory and storage solutions to worldwide customers, especially targeting the industrial and specialty market segments.

"Deep understanding of the technical/supply chain aspects of product design and developments, in addition to sales and marketing are building the foundation of the the global management team to serve these markets with real 'Memory Competency'."

www.apis4.com

APIS4 wields decades of executive experience across the global markets of Europe, the Middle East, and Africa (EMEA), Asia Pacific (APAC), and the Americas (AMER). From our headquarters in Taiwan, we operate both domestically or internationally to lead you into your newest horizons.

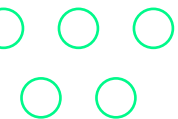
Ayman Ahmed

CEO - Pearl Semiconductor



● BIOGRAPHY

With a genuine passion for entrepreneurship, Ayman accumulated +28 years of engineering and managerial experience in the semiconductor industry. As one of the co-founders of Si-Ware Systems in 2004, he assumed several roles including VP of ASIC Engineering and VP of ASIC Marketing & Business Development before starting the Timing BU and then spun it out as Pearl Semiconductor in 2020. Ayman has notable contributions in the Timing industry such as leading the MEMS-Based Programmable Clock Generator Development program for Discera (Microchip) and a CMOS only LC-Based Self-Compensated Oscillator (SCO). Ayman holds 10 patents and received his B.Sc. and M.Sc. degrees in electronics and communication engineering from Ain-Shams University, Cairo, Egypt in 1994 and 2002 respectively.



Ahmed El-Shennawy

Co-Founder and Managing Director -
Pulsar Microelectronics



● BIOGRAPHY

Ahmed is a technology professional with more than 15 years of experience in the semiconductors industry. As one of the first employees in Si-Ware Systems, he contributed to the company's development throughout its different growth stages until it successfully grew in value and scale. Ahmed started his career as an A/MS designer and was part of a talented team who developed several high-performance ASICs and IPs. In 2011, he initiated the Application Engineering function to support the business development of the ASIC business unit and managed his team to sell to over 30 customers across the globe. After the acquisition of the Si-Ware ASIC business unit in 2019 by Goodix, Ahmed led the application engineering team serving products targeting smartphones.

In 2021, Ahmed co-founded Pulsar Microelectronics, a company that offers A/MS design services leveraging two decades of deep expertise in several domains, including power harvesters, SerDes, timing solutions, and sensors interfacing.

Ahmed has an MBA from China Europe International Business School in Shanghai and B.Sc. and M.Sc. in Electronics Engineering from Ain Shams University in Cairo and holds 4 US patents

Yannick Pilloux

VP EMEA - PlasmaTherm



● BIOGRAPHY

Yannick Pilloux is Executive Sales Manager for EMEA. Prior to Plasma-Therm, Yannick was Product Manager at Tegal Corporation in California and Alcatel Micro Machining System in France for about 13 years, leading the DRIE technology for MEMS Industry, as well as TSV applications. He holds a Master degree in Business development from CESI Lyon-France. Yannick develops strong experience in MEMS industry where he is co-writer for multiple papers and co-author of Intellectual patent.

● TOPIC

US Based Equipment Manufacturer For Compounds Semiconductor Applications

● ABSTRACT

Plasma-Therm is a global manufacturer of advanced plasma processing equipment. Its tools and processes are used to support manufacturing needs in etch, deposition, rapid thermal processing, and plasma dicing technologies. The company serves the semiconductor and compound semiconductor industries in developing solutions for the wireless, power device, MEMS, photonics, advanced packaging, and data storage markets. With locations in North America, Europe, and Asia-Pacific, Plasma-Therm meets the diverse needs of its customers with exceptional customer service.

● COMPANY PROFILE

Established in 1974, Plasma-Therm is a global manufacturer of advanced plasma processing equipment, providing tailored solutions to the specialty semiconductor markets, including wireless, power devices, photonics, sensors, and MEMS, advanced packaging, memory, and R&D. Plasma-Therm's products have been adopted globally and have earned their reputation for value, reliability, and world-class support. Sales and service locations throughout North America, Europe, and Asia-Pacific meet the diverse needs of Plasma-Therm's global customer base.

www.plasmatherm.com | Phone: +1 727-577-4999 or information@plasmatherm.com

Company Product

Plasma-Therm's product portfolio includes single wafer, batch, and cluster solutions for Etch (ICP, RIE, DSE, IBE, ALE); Deposition (PECVD, HDPCVD, F.A.S.T); Material Modification (HDRF, RTP); and Die Singulation Applications (PPDOT). Sales and service locations throughout North America, Europe, and Asia-Pacific meet the diverse needs of our global customer base.

Dr. Mohssen Moridi

Head of Research Division Microsystems
- Silicon Austria Labs



● BIOGRAPHY

Mohssen Moridi received the master's and Ph.D. degrees in microtechnology from École Polytechnique Fédérale de Lausanne (EPFL) in Switzerland. After finishing his PhD he had several research positions in Switzerland. In 2016 he moved to Austria as a head of Microsystem division at CTR AG to establish a MEMS department and to manage a new cleanroom dedicated to industrial R&D. Since 2019 he is a part of Silicon Austria Labs and recently became the Head of Research Division Microsystems. He is currently managing more than 40 researchers with the focus on Thin Film Technologies, Integrated Photonics, Magnetic and Piezoelectric Microsystems. Mohssen has more than 20 years of experience in development of MEMS devices.

● TOPIC

Leading a World Class Research Institute

● ABSTRACT

Being a technological backbone of digitization Silicon Austria Labs (SAL) is conducting research in the areas of Microsystems, Sensor Systems, Power Electronics, Intelligent Wireless Systems and Embedded Systems. Key industry players, science and research are brought together by SAL for significant expertise and know-how. The Microsystems and Sensor Divisions at SAL are committed to the development of beyond state-of-the-art technologies for novel micro-electromechanical systems (MEMS) and sensor devices. The core competences and interdisciplinary skills of SAL employees expand the boundaries of current technologies contributing to innovation and groundbreaking ideas. Close collaboration with our industrial and scientific partners has a great impact on the creation of cutting-edge technology from design and proof-of-concept to product prototypes.

● COMPANY PROFILE

Silicon Austria Labs (SAL) has been founded to be a top European research center for electronic-based systems. In the network of science and economy, we carry out research at a global level and create the basis of groundbreaking products and processes.

Robert Quinn

Founder of SIMEU, and Founder of Quinns Media - SIMEU & Quinns Media



● BIOGRAPHY

Robert Quinn is a highly respected figure in the semiconductor industry, known for his expertise and influence as a social media influencer and thought leader. He is the founder of Quinns Media, a successful semiconductor industry social media marketing agency, and the founder of the nonprofit organization SIMEU (Semiconductor Industry Mobile Education Unit). SIMEU aims to promote education and training within the next generation through a mobile education unit that will travel to schools across the nation, building the next generation of semiconductor professionals with the knowledge and skills they need to succeed. With over 20 years of experience in the field, Robert's unique insights and innovative ideas have established him as a leading voice in the industry. He is highly active on social media, posting daily updates on the latest industry news and trends, and is also a skilled content creator, producing podcasts, speaking at events, blogging, and authoring books on the subject. He is dedicated to sharing his knowledge and experience with others in the industry, and to making a positive impact through his work as a thought leader and through his leadership of SIMEU.

● TOPIC

Semiconductors: Powering the Future and Driving the Global Economy

● ABSTRACT

Semiconductors are the backbone of modern electronics and have unique electrical properties that allow for the regulation of electricity flow, enabling the creation of sophisticated devices such as computer chips, transistors, and diodes. They are critical in shaping our digital world and driving technological advancements, from AI and IoT to autonomous vehicles and renewable energy. The semiconductor industry ecosystem is complex and involves chip manufacturers, equipment suppliers, material providers, design and software companies, with a constant need for innovation and R&D investments. The industry is highly competitive with major players vying for market share and technological dominance, yet the global semiconductor market continues to grow driven by increasing demand for electronics and the growth of the technology industry. The semiconductor industry is on track to go from a 500-billion-dollar industry to a trillion-dollar industry by 2030 or sooner, further emphasizing its importance and impact on the global economy.

Mohamed Mohsen

CEO - Si-Vision



● BIOGRAPHY

Mr. Mohamed Mohsen is an entrepreneur and semiconductor professional holding BSc and MSc degrees in Electronic & Communication Engineering; with strong business, management, and entrepreneurial expertise in the semiconductor for more than 18+ year.

Mohamed is the Co-Founder & CEO of Si-Vision LLC; founded in 2007, delivering state-of-the-art Intellectual Properties (IPs) to Tier-1 customers across the globe; including but not limited to low power wireless, high speed interfaces, high speed memory interfaces and other advanced solutions and serving customers across the globe delivering cutting-edge semiconductor ASICs and IPs.

In July 2015 Mr. M Mohsen and the team were able to achieve one of the remarkable success stories in region for the technology and semiconductor industry, when Synopsys, Inc. the world's leading provider of EDA and Interface IP acquired Silicon Vision leading Bluetooth® Smart wireless technology enabling Synopsys today to be leading IP provider for the LP wireless across the globe, while starting a new era for Si-Vision as the exclusive IP strategic partner of Synopsys Inc. [Nasdaq:SNPS] in the region.

Today Si-Vision fast growing team is the biggest Analog/Mixed Signal and RF team in the Middle East with more than 550+ designers delivering of state-of-the-art technologies and serving customers across the globe.

In addition to his role in Si-Vision LLC, Mr. M Mohsen is the CEO & Chairman for SiVT LTD in Hong Kong, delivering innovative Electronic Systems to the education market with strategic partnership with the No.1 Tech-education leader Promethean Limited (UK).

Mr. M Mohsen is also Board Member & Managing partner for couple of Private Equity ventures in the UK & UAE in addition being Mentor/Board member for multiple technology startups in MENA and Asia. Mr. M Mohsen has been always a major stakeholder in the electronics community in Egypt, where he is currently severing as Board Member for Eitesal NGO since March 2022. In addition to being on the MCIT advisory committee working together to shape the strategic path of the electronics industry in Egypt.

Dr. Siavash Pourkamali

Founder & CEO - Silicon Dynamix



BIOGRAPHY

Siavash Pourkamali is the founder and CEO of Silicon Dynamix, Inc., a US-based start-up developing chip-scale micromechanical actuators to address the needs of the state-of-the-art highly integrated optical modules including compact camera modules. He is also a professor of Electrical Engineering at the University of Texas at Dallas. He received the BS degree in electrical engineering from Sharif University of Technology, Tehran, Iran, in 2001, and the MS and the PhD degrees in electrical engineering from Georgia Institute of Technology, Atlanta, GA, in 2004 and 2006, respectively. He has co-authored over 150 publications in international journals and conferences in the area of micro-electromechanical systems and micromachining.

TOPIC

The Camera Module Industry and the Opportunity for MEMS and Micro-Manufacturing

ABSTRACT

The compact camera module (CCM) industry has a 35+ billion-dollar market size with close to 10% annual growth rate. Despite significant advances in the CCM for smartphones and digital cameras, including CMOS Image Sensor and lens manufacturing technologies, the opto-mechanics in the CCM is still based on the 150 year old voice coil motor (VCM) technology. The undesirable form-factor, high power consumption, low speed, low accuracy, and magnetic susceptibility of the VCM present bottlenecks for further advancement of the CCM. This presents an opportunity for the silicon-based MEMS (Micro-Electro-Mechanical Systems) and micromanufacturing technologies to offer a more efficient, compact, and higher performing alternative solution with a multi-billion-dollar potential market.

In this talk a brief overview of the state of the CCM industry is presented followed by a discussion of the electromechanical aspects of the inner workings of a camera module. Emerging new technologies and companies developing such are introduced and challenges and opportunities for manufacturing such new MEMS products are discussed.

Dr. Siavash Pourkamali

Founder & CEO - Silicon Dynamix



● COMPANY PROFILE

Silicon Dynamix is a US-based start-up company developing silicon chip-scale micromachined actuators to address the mechanical actuation needs in the state-of-the-art highly integrated compact camera modules (CCM). Compact camera modules have become an integral component of smartphones and tablets, while supporting emerging devices and applications such as AR/VR headsets, self-driving cars, drones, etc. Millimeter-scale electromechanical actuators are utilized in advanced CCMs for Auto-Focusing (AF) and shake cancellation via Optical Image Stabilization (OIS). Currently the actuation need in CCMs is met by Voice Coil Motors, electromagnetic actuators comprised of current carrying windings interacting with permanent magnets. Several micro-assembled components in such actuators make them relatively heavy (slow), costly, bulky, power hungry and prone to failure. Silicon Dynamix chip-scale actuators can replace several components present in current CCM assemblies integrating both auto-focusing and OIS functionalities in a single batch fabricated silicon chip.



Dr. Hisham Haddara

Chairman and Founder - SiWare Systems



● BIOGRAPHY

Hisham Haddara is the founder of Si-Ware Systems (SWS), a leading fabless semiconductor company in Egypt. Prior to founding SWS in December 2003, he was with MEMScAP from May 2000 as EVP and President of MEMSCAP Egypt and was co-founder and first GM of ANACAD Egypt in 1994. By the end of 1994, ANACAD was acquired by Mentor Graphics Corporation (MGC) where he worked till May 2000 as GM of Mentor Graphics Egypt.

Hisham has been a professor of microelectronics at Ain-Shams University, Cairo till 2016. He has authored and co-authored two books, several patents and more than 100 scientific publications in International Journals and Conferences. He received his Ph.D. degree in Microelectronics from the National Polytechnic Institute, Grenoble, France in 1988. His Ph.D. research work won the best Ph.D. thesis award for the years 1987-88, awarded by the French National Scientific Research Center (CNRS).

Hisham is the founding chairman of the GSA-Egypt chapter and board member of EITESAL, (Egyptian Information, Telecommunications, Electronics & Software Alliance), the biggest technology NGO in Egypt. He is also a board member of the IT Industry Development Agency, ITIDA.

Hisham is currently leading a team to develop a national strategy for the semiconductors industry in Egypt under the umbrella of the Ministry of Communication and Information Technology.

Hisham serves as advisor to the Minister of Scientific Research on innovation and heads a team to develop a national innovation policy for Egypt. He has been an expert on innovation with the ESCWA UN organization and is currently enrolled in the MIT REAP program at the MIT Sloan school of management as part of a national team to accelerate the innovation and entrepreneurial ecosystem in Cairo.

He currently serves on the board of directors of the National Science, Technology & Innovation Funding Authority and the board of and Zewail City for Science and Technology. He has also served as a member of the steering committee of Egypt-Japan University for Science and Technology as well as a member of the Engineering Education committee of the Supreme Council for Universities.

Hisham is chairman of the board and co-founder of Si-Ware Systems, Pearl Semi and Fab-Minds.

● TOPIC

Challenges and Opportunities of the Semiconductors Industry in the MENA Region An Egyptian Perspective

Dr. Hisham Haddara

Chairman and Founder - SiWare Systems



● ABSTRACT

The semiconductors industry global supply chain is undergoing major transformations due to several recent and current events such as the COVID pandemic, the US-China technology trade war, and the Ukrainian war. As a result, several important dynamics have emerged and may prove highly valuable in enabling countries of the MENA region to put themselves on the map of this industry if such countries manage to act fast and smart. Indeed, the world is moving from a globalization model that has prevailed for decades to a model where manufacturing is more regional and distributed. Many players are starting to establish regional manufacturing facilities in contrast to depending on the Far East and specifically China as the World's major manufacturer of electronics. This is driven by geopolitical reasons as well as security of supply chain and avoiding its disruption as has been the case in recent years. In addition, one important reason to move manufacturing facilities to regions closer to big markets is to minimize the cost of transportation and its negative impact on the environment. On the design side, many global players are looking for talent around the world to augment their resources and their ability to develop and produce new products in time. Such global companies will establish Offshore Design Centers (ODCs) wherever they find critical mass of talent that they can tap into.

Egypt has made significant strides in developing its semiconductor industry in the last two decades and this has been recognized by the Global Semiconductor Alliance (GSA) by launching a local Chapter of the GSA in Egypt in June 2022. This talk will present the Egyptian semiconductor ecosystem, how this industry emerged in Egypt and its strategy for the future. The talk will also present a holistic approach for accelerating the development of this industry in the whole MENA region in an integrative and collaborative manner.

● COMPANY PROFILE

Si-Ware was founded in 2004 by leading-edge scientists and entrepreneurs who developed the world first alignment-free, calibration-free, and shock-resistant MEMS based Fourier Transform Near Infra-Red (FT-NIR) spectrometer on a chip. This was and still is the smallest FT-NIR MEMS spectrometer in the world.

In 2014, Si-Ware won the prestigious Prism Award from the International Society for Optics and Photonics (SPIE) for our first-generation technology. Since then, Si-Ware has continued to innovate scoring more than 100 patents and a large number of research papers that represent our technical advancements in FT-IR spectroscopy.

Now, Si-Ware provides end-to-end FT-NIR solutions under the brand name NeoSpectra. This combines portable FT-NIR Analyzers with intuitive software and a powerful cloud to quickly analyze samples with speed and precision across almost all industries. Si-Ware brings highly accurate, on-site material analysis within reach for all through affordable and accessible technology. We have redefined NIR performance and use through unique FT-NIR technology that enables simultaneous analysis of multiple parameters with greater accuracy, across practically all industries and scientific applications.

Si-Ware, an independent fabless semiconductor company that fosters silicon innovation, employs more than 100 engineers, and has commercial sites and development centers in Cairo, Egypt and Paris, France as well as in California and Boston area in the USA.

Geoffrey Stoddart

Commercial Director - Westerwood Global



BIOGRAPHY

Geoffrey Stoddart is Commercial Director at Westerwood Global, a leading provider of Managed Workforce solutions, where he leads strategic direction of business development and marketing. Formerly with VP Marketing with Edwards Vacuum, he has over 38 years of experience in the semiconductor industry living in and working in countries such as the US, UK, Taiwan, Japan, and Singapore.

Geoffrey started in the industry as an Engineer Apprentice and subsequently grew into senior management roles in Field Service, Business Development, and Sales & Marketing. With a foundation in engineering and decades of experience in management roles around the world, Geoffrey brings a multifaceted perspective to advancing workforce development in the semiconductor industry.

Geoffrey has been a member of the ISES Advisory Board since 2018

TOPIC

Alternative Career Paths Help the Semiconductor Industry Meet Workforce Needs

ABSTRACT

We're facing an unprecedented demand for resources within our industry. Our existing workforce is retiring, we're building more manufacturing capacity than ever before and together with the impact caused by the pandemic we find ourselves with a challenge that is undoubtedly going to be the number one issue in the coming years and that is talent. With experienced individuals leaving the workforce and not enough new people joining, the talent pipeline is not meeting current demand. In this session, we will discuss these challenges and how a more collaborative partnership model might be the right approach for businesses looking to fill staff vacancies and for individuals looking to start their careers in this exciting industry.

COMPANY PROFILE

Westerwood Global is a leading provider of workforce solutions and trusted partner to high tech manufacturing industries including Semiconductor, Battery & Storage, LED, Solar and Flat Panel Displays. Our Managed Workforce Services and Technical Staffing capabilities provide a true value add for all outsourced requirements. With unrivalled knowledge, our management, engineers, maintenance and manufacturing technicians have a deep understanding and expertise in all the industries we serve.

Beyond operational expertise, staffing is a core competency with a robust database of suitably qualified skills globally ensuring the right people for the right job. Continuous improvement while delivering performance through a focus on quality, high productivity, cost efficiencies and flexible service offerings makes Westerwood Global a partner of choice. Rapid availability of trained staff helps manage the load across industry cycles and an ideal solution for long term sustainable activity as well as equipment installation, capacity ramp or other times of peak manpower constraints guaranteeing performance delivered.

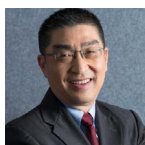
3 • ADVISORY BOARD MEMBERS

ISES Advisory Board Members



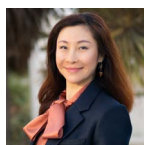
SUNIL BANWARI

COO



XIAONING QI

CEO



JENNIFER ZHAO

GM & EVP for Advanced Optical Sensors Division



VINCENT DICAPRIO

VP Advanced Packaging and ICAPS / Head of Business and Corporate Development



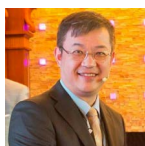
CJ HSIEH

COO



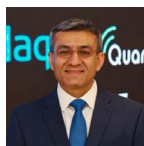
QINGCHUN ZHANG

Professor



ANDY CHUANG

VP Business Development



FARHAT JAHANGIR

CEO and Co-Founder



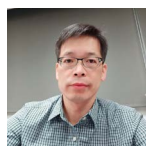
VANCE WANG

Formerly VP New Fab Project at GTA



CHANG FU

Advanced Module R&D Dep., Deputy Director



IAN HSU

Director IC Packaging Technology Development



RYAN CHEN

General Manager of Computing and AI Technology Group



AKSHAY SINGH

VP, Advanced Packaging Technology Development



THY TRAN

VP DRAM Process Integration



JY ZHANG

Chairman & CEO



TIM YEH

Technical Director of Power BU



ERIC LEE

President of Sales Group



JOSEPH CHOU

GM



YONGXIANG WEN

Process Technology Director



YU-PO WANG

VP Corporate R&D Center



CHRIS CHERN

Director, Manufacturing Technology Center



KAM LEE

Senior Director, Deputy Head of TSMC Advanced Packaging Technology and Service



SHAOJUN WEI

Professor



YENS HO

R&D Director



WEI WANG

Assistant President; Director of Strategy Development





General Chair

HAMID AZIMI

Corporate VP, Director of
Substrate Packaging TD



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Member of Executive Board



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CEO



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and Optoelectronic System
Research Laboratories



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VP Global Sales



YAOJIAN LIN

VP, GM of Technology
R&D Center



ORESTE DONZELLA

EVP of Electronics,
Packaging and
Components



NAVEED SHERWANI

Chairman Of OSFPGA
Foundation
Chairman & CEO of
Rapid Silicon



JIAN ZHANG

VP Product Test
Engineering



EDWARD WEI

Senior Adviser to
President



SHU-MING LIU

VP



LUBA TANG

Founder & CEO



ANDREW PENG

Formerly VP BD
Greater China at Spin
Memory



JASON ZEE

Global Vice President, General
Manager of the Storage and System
Level Test Group at Teradyne,
China Managing Director



KEY CHUNG

Advanced Packaging
CTO



PRIMIT PARIKH

Co-founder, President
& COO



YC LEE

CEO



GEOFFREY STODDART

Commercial Director



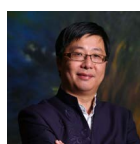
WEIHUA CHENG

COO



SANTOSH KUMAR

Director & Principal Analyst



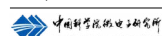
WEI LI

Chairman



TIANCHUN YE

Secretary General of China Integrated Circuit
Innovation Alliance
Academician of the International Eurasian Academy
of Sciences
President of IC branch of China Semiconductor
Industry Association





INTERNATIONAL
SEMICONDUCTOR
EXECUTIVE SUMMITS

ISES MIDDLE EAST 2023

- **DATE** 22-23 February
- **LOCATION** Oman

ISES USA 2023

- **DATE** 07-08 March
- **LOCATION** Phoenix, Arizona

ISES TAIWAN 2023

- **DATE** 09-10 May 2023
- **LOCATION** Taipei

ISES EU POWER 2023

- **DATE** 14-15 September
- **LOCATION** Italy


ISES CHINA 2023

- **DATE** 17-18 October
- **LOCATION** China

ISES SEA 2023


- **DATE** 7-8 November
- **LOCATION** Penang, Malaysia


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