



SESHA



**46th Annual International High
Technology ESH Symposium & Exhibition**

CONFERENCE PROGRAM

April 22-25, 2024

Hilton Phoenix Resort at the Peak • Phoenix, Arizona



Sustainability & the Path to Net Zero



Microwave Plasma Gas Abatement:

- 🔗 BEST AVAILABLE TECHNOLOGY
- 🔗 NO FOSSIL FUEL
- 🔗 ELIMINATE CO₂ EMISSIONS
- 🔗 REDUCE NO_x EMISSIONS
- 🔗 REDUCE COST OF OWNERSHIP
- 🔗 SUITABLE FOR ALL CHEMISTRIES



SESHA 46th Annual International High Technology ESH Symposium & Exposition

Table of Contents

Week-at-a-Glance.....	3
Session/Event Grid	7
Exhibitors	16
Professional Development Courses	23
Hilton Phoenix Resort at the Peak Floorplan.....	24

Board of Directors

President

Jay McCroskey

President-Elect

Mark Fessler

Past-President

Steven Trammell

Treasurer

Troy McCuskey

Mollie Anderson

Kamran Azad

Susan Creighton

Josh Culp

John Marci

Hilary Matthews

Raymond McDaid

Matt Wyman

Executive Director

Brett Burk

Registration Hours:

Anasazi Lobby

Monday, April 22	7:00 AM – 5:30 PM
Tuesday, April 23	8:00 AM – 5:00 PM
Wednesday, April 24	8:00 AM – 3:00 PM
Thursday, April 25	8:00 AM – 12:00 PM

Exhibit Hall Hours:

Anasazi Ballroom Exhibit Hall

Tuesday, April 23	10:00 AM – 7:30 PM
Break & Raffle Ticket Distribution	10:00 AM – 10:30 AM
Lunch & Raffle Ticket Distribution/Drawing	12:15 AM – 1:15 PM
Break & Raffle Ticket Distribution	3:00 PM – 3:30 PM
Opening Reception & Awards Ceremony Ticket Distribution/Drawing.....	5:30 PM – 7:30 PM
Wednesday, April 24	9:00 AM – 4:00 PM
Break & Raffle Ticket Distribution	9:45 AM – 10:00 AM
Lunch & Raffle Ticket Distribution/Drawing .	12:30 PM – 1:30 PM
Break & Raffle Ticket Distribution/Drawing	3:15 PM – 3:45 PM

Thank you to the following SSHA Sponsors

TITANIUM



PLATINUM



GOLD



SILVER



BRONZE



Week Schedule-at-a-Glance

All Sessions take place in the Hilton Phoenix Resort at the Peak

MONDAY, APRIL 22

Registration

7:00 AM – 5:30 PM Anasazi Lobby

Coffee Break

7:00 AM – 8:00 AM Anasazi Lobby

PDC #1 – Bootcamp

8:00 AM – 5:30 PM Navajo

PDC #2 – State of PFAS

8:00 AM – 12:00 PM Geronimo

PDC #3 – Hazard Analysis & Risk Assessments: Concepts and Methodologies

Brian Desrosiers, Steve Hawkins

8:00 AM – 12:00 PM Pima

Coffee Break, sponsored by ASM

9:45 AM – 10:45 AM Anasazi Lobby

PDC #1 – Bootcamp 101

10:00 AM – 4:30 PM Navajo

PDC #1 – Bootcamp 201

10:00 AM – 4:30 PM Hopi

PDC #4 – Battery Energy Storage System Workshop

Jihan El Ouaragli, Jacob Epstein, Francisco Joglar

1:30 PM – 5:00 PM Pima

Coffee Break

3:00 PM – 4:00 PM Anasazi Lobby

FRESH to SESH(A) Mixer

5:30 PM – 6:30 PM Fountain Terrace

TUESDAY, APRIL 23

Registration

8:00 AM – 5:00 PM Anasazi Lobby

Coffee Break, sponsored by tsmc Arizona Corporation

8:00 AM – 9:00 AM Anasazi Lobby

Opening Ceremony

Jay McCroskey (Outgoing SESH(A) President)

9:00 AM – 9:30 AM Navajo

Keynote Presentation – The CHIPS Act: Challenges and Opportunities for the Semiconductor ESH Community

Dave Isaacs

9:30 AM – 10:00 AM Navajo

Exhibits

10:00 AM – 7:30 PM Anasazi Ballroom

Coffee Break, sponsored by Benchmark Gensuite – Raffle Ticket Distribution, 10:00 AM – 10:30 AM

Anasazi Ballroom

Concurrent Sessions

10:30 AM – 11:30 AM Various Locations

Complimentary Lunch, sponsored by UL Solutions – Ticket Distribution/Drawing

12:15 PM – 1:15 PM Anasazi Ballroom

Concurrent Sessions

1:30 PM – 3:00 PM Various Locations

Coffee Break, sponsored by DOD Technologies, Inc. – Raffle Ticket Distribution

3:00 PM – 3:30 PM Anasazi Ballroom

Concurrent Sessions

3:30 PM – 4:15 PM Various Locations

Opening Reception & Awards Ceremony, sponsored by Airgard – Ticket Distribution/Drawing

5:30 PM – 7:30 PM Anasazi Ballroom

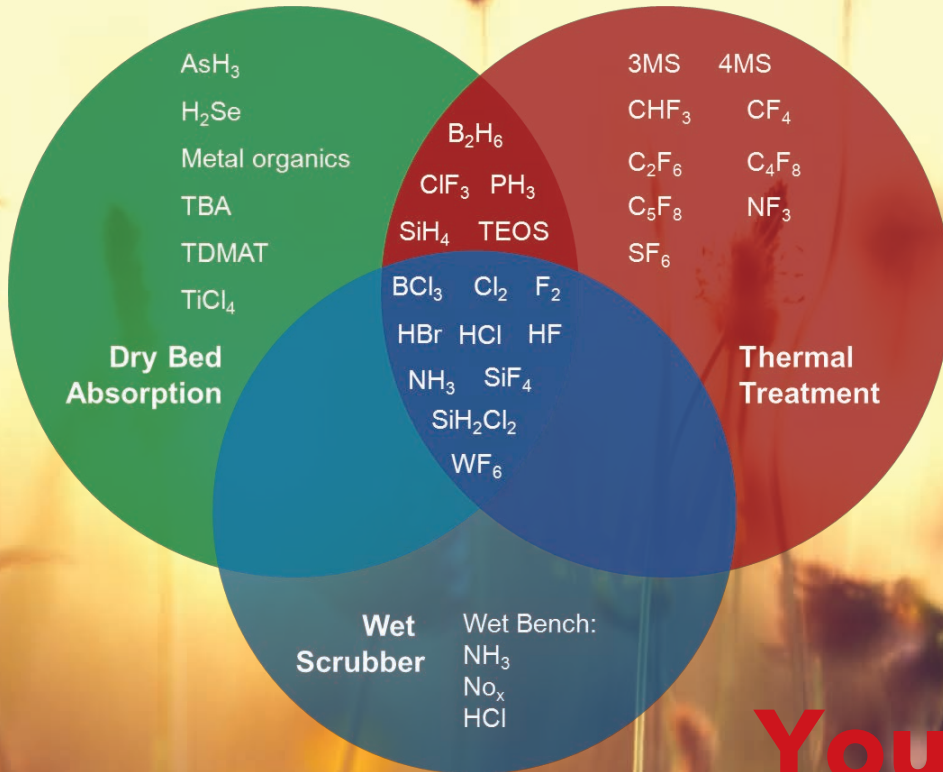
Environmental Compliance...



centrotherm
clean solutions

SESHA 2024

Booth # 6



You Got this...

Gas & Wastewater Treatment

www.centrotherm-cs.de/en/

Week Schedule-at-a-Glance

WEDNESDAY, APRIL 24

Piestewa Peak Hike

6:00 AM Offsite

Registration

8:00 AM – 3:00 PM Anasazi Lobby

Keynote Presentation – Five Trends for the Future of EHS and the New Value of Safety

John Dony
9:00 AM – 9:45 AM Navajo

Exhibits

9:00 AM – 4:00 PM Anasazi Ballroom

Coffee Break, sponsored by Edwards – Raffle Ticket Distribution

9:45 AM – 10:00 AM Anasazi Ballroom

Concurrent Sessions

10:00 AM – 12:30 PM Various Locations

Complimentary Lunch, sponsored by Benchmark – Raffle Ticket Distribution & Raffle Drawing *Gensuite*

12:30 PM – 1:30 PM Anasazi Ballroom

Concurrent Sessions

1:30 PM – 3:15 PM Various Locations

Coffee Break, sponsored by Ebara Technologies, Inc. – Raffle Ticket Distribution & Raffle Drawing

3:15 PM – 3:45 PM Anasazi Ballroom

Concurrent Sessions

3:45 PM – 5:15 PM Various Locations

THURSDAY, APRIL 25

5K Run

6:30 AM – 7:00 AM Offsite

Registration

8:00 AM – 12:00 PM Anasazi Lobby

Concurrent Sessions

9:00 AM – 9:30 AM Various Locations

Coffee Break, sponsored by Centrotherm (A Busch Group Company)

9:30 AM – 10:00 AM Anasazi Lobby

Concurrent Sessions

10:00 AM – 12:30 PM Various Locations

Complimentary Lunch

12:30 PM – 1:30 PM Anasazi Courtyard

Concurrent Sessions

1:30 PM – 4:30 PM Various Locations

Coffee Break

3:15 PM – 3:45 PM Anasazi Lobby

Closing Ceremony

Mark Fessler (*Incoming SESHHA President*)
4:40 PM – 5:00 PM Navajo


Closing Social, sponsored by ASM

5:00 PM – 6:30 PM Anasazi Courtyard

Elevate Your EHS & Sustainability Programs With Simplified Forms and Seamless Workflows

Benchmark Gensuite facilitates the shift from manual, spreadsheet-based processes to an automated digital system.


Streamline compliance and enhance supplier management with our cloud-based platform. Designed with the functional leader in mind, our organically developed solutions integrate environmental, health, safety, sustainability, and product stewardship into one unified system. Our platform not only ensures adherence to regulatory frameworks but also extends capabilities to manage supplier relations effectively, providing key metrics analysis and automated notifications to drive decision-making and close action items efficiently.

Unified Platform and IT Integrations
Superior user experience with an integrated platform for all solutions



Collaborative Innovation Groups
Be a part of product advancements and rapid innovation through subscriber collaboration



Cloud-Based and Flexible
Benefit from a version-less platform, pre-built with powerful configurations

Take charge of your data and drive continuous improvement

Features & Benefits



Drive Data-Backed Improvements



Consolidate Disparate Data



Best-in-Class EHS Mobile App



Learn more or request a demo on our website

Visit us at Booth #32

SESHA Schedule – 2024 Annual Symposium

All Sessions take place in the Hilton Phoenix Resort at the Peak.

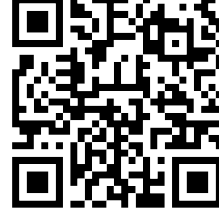
MONDAY	
7:00 AM – 5:30 PM	Registration. Anasazi Lobby
7:00 AM – 8:00 AM	Coffee Break. Anasazi Lobby
8:00 AM – 5:30 PM	PDC #1 – Bootcamp. Navajo
8:00 AM – 12:00 PM	PDC #2 – State of PFAS. Geronimo
8:00 AM – 12:00 PM	PDC #3 – Hazard Analysis & Risk Assessments: Concepts and Methodologies. Brian Desrosiers, Steve Hawkins. Pima
9:45 AM – 10:45 AM	Coffee Break. Sponsored by ASM. Anasazi Lobby
PDC #1 – BOOT CAMP 101 - Navajo	
10:00 AM	Overview and applicability of EHS regulatory requirements and industry best practices. <i>John Visty</i>
10:30 AM	Semiconductor EHS Hazards Overview. <i>Doug Thornton</i>
1:00 PM	Semiconductor EHS Hazards Overview, Continued. <i>Doug Thornton</i>
2:00 PM	Introduction to Exhaust Management, Abatement, and Air Emissions. <i>Jesse Gonzalez, Ben Hubertus</i>
3:30 PM	Risk management and emergency response. <i>Sue Creighton, Doug Thornton</i>
PDC #1 – BOOT CAMP 201 – Hopi	
10:00 AM	The chemistry of semiconductor precursors. <i>Joe Van Gompel</i>
1:00 PM	Fire and Gas Safety. <i>Matt Wyman</i>
2:00 PM	Product Safety for Wafer Processing Equipment. <i>Mark Fessler</i>
3:30 PM	Environmental Considerations. <i>Wendy Tredway</i>
10:00 AM – 4:30 PM	PDC #1 – Boot Camp 101. Navajo
10:00 AM – 4:30 PM	PDC #1 – Boot Camp 201. Hopi
1:30 PM – 5:00 PM	PDC #4 – Battery Energy Storage System Workshop. <i>Jihan El Ouaragji, Jacob Epstein, Francisco Joglar. Pima</i>
3:00 PM – 4:00 PM	Coffee Break. Anasazi Lobby
5:30 PM – 6:30 PM	FRESH to SESH(A) Mixer. Fountain Terrace

Registration Hours: Anasazi Lobby

Monday, April 22	7:00 AM – 5:30 PM
Tuesday, April 23	8:00 AM – 5:00 PM
Wednesday, April 24	8:00 AM – 3:00 PM
Thursday, April 25	8:00 AM – 12:00 PM

Convention Hotel

Hilton Phoenix Resort at the Peak
 7677 N 16th St
 Phoenix, AZ 85020
 Phone: 602-997-2626



Important CM Point Information

A certificate of participation will be emailed out via the Whoava conference app following the symposium. These may be eligible for ABIH and BCSP CM credit. See ABIH website (www.ABIH.org) and BCSP website (www.BCSP.org) for CM credit criteria.

This event contains the following technical content hours. PDCs are additional.

Tuesday – 6 technical hours
 Wednesday – 6 technical hours
 Thursday – 4 technical hours

For more information about the sessions, scan the QR Code or visit: sesha.org/event/sesha-symposium-2024/

ANGUIL™

ENVIRONMENTAL SOLUTIONS *for the* SEMICONDUCTOR INDUSTRY

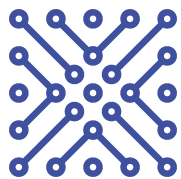
Custom RCTO, Thermal, and Catalytic Abatement Systems for Wafer Fabrication, Chip Production, Lithography, and LCD Coating

CHALLENGES SOLVED:

- Large Process Volume
- 24/7 Operation
- Large Wafer Size
- SiO₂ Applications
- Corrosion Resistance
- Advanced Controls
- Up to 99.5% VOC Removal
- Secondary Heat Recovery
- Higher VOC Loads



www.anguil.com



SESHA

SAVE THE DATE

SESHA 47th Annual International High Technology ESH Symposium & Exposition

April 14–17, 2025 • Omni Tempe • Tempe, AZ

Join us for five days of education, networking, and professional development



SESHA Schedule – 2024 Annual Symposium (continued)

All Sessions take place in the Hilton Phoenix Resort at the Peak.

Zuni		Hopi		Pima		Navajo	
8:00 AM – 5:00 PM	Registration. Anasazi Lobby	10:30 AM	How to be Proactive in a Reactive World. <i>Kristen Cederlind</i>	10:30 AM	Is it an H-Occupancy? <i>Jeff Tarter, Mez Roohian</i>	10:30 AM	PFAS & the Semiconductor Industry: What are the Challenges (Part 1 of 2). <i>Elizabeth Denly</i>
8:00 AM – 9:00 AM	Coffee Break, sponsored by tsmc Arizona Corporation. Anasazi Lobby	11:30 AM	Laboratory Chemical Safety Overview. <i>Ron Scholtz</i>	11:30 AM	Challenges of lithium-ion batteries. <i>Veronica Kimmerly</i>	11:30 AM	PFAS & the Semiconductor Industry: What are the Challenges (Part 2 of 2). <i>Elizabeth Denly</i>
9:00 AM – 9:30 AM	Opening Ceremony. <i>Jay McCroskey (Outgoing SESHA President), Navajo</i>	1:15 PM	Freeze Frame: What's Wrong With this Picture? A Photographic Audit. <i>Susan Reynolds, Michele Shepard, Joshua Humilhanz</i>	1:15 PM	Update to OSHA 1910.156 Proposed Rule. <i>Dan King</i>	1:15 PM	Semiconductor PFAS Consortium Roundtable. <i>Laurie Beu, Steve Trammell, Melissa Gresham, Ryan Fortino</i>
9:30 AM – 10:00 AM	Keynote Presentation – The CHIPS Act: Challenges and Opportunities for the Semiconductor ESH Community. <i>Dave Isaacs, Navajo</i>	2:15 PM	Work Planning and Control (WPC). <i>Ron Scholtz</i>	2:15 PM	Mitigation Strategies for Lithium-Ion Battery Energy Storage Systems. <i>Denise Beach</i>	2:15 PM	Considerations for PFAS Comprehensive Risk Management Strategies. <i>John Goetze</i>
10:00 AM – 7:30 PM	Exhibits. Anasazi Ballroom	3:30 PM	Laser Safety Lessons Learned - It Only Takes a Second. <i>Al Roth</i>	3:30 PM	LSS of the Future for Emergency Response. <i>Matt Wyman, Tom Cantos</i>	3:30 PM	TPFAS Regulations, Treatment, and Permitting - An Overview and Two Case Studies. <i>John Merrill</i>
10:00 AM – 10:30 AM	Coffee Break, sponsored by Benchmark Gensuite – Raffle Ticket Distribution. Anasazi Ballroom	4:30 PM	A Practical Approach Conducting Effective Hazard and Risk Assessments for Automation Machine Applications. <i>Mark Huang</i>	4:30 PM	ASM measuring safety performance above and beyond recordable rates using a smart Database. <i>Alessandro Petracca</i>	4:30 PM	Testing of PFAS releases from F-gas Abatement Systems. <i>Chris Jones</i>

TUESDAY

SESHA Schedule – 2024 Annual Symposium (continued)

All Sessions take place in the Hilton Phoenix Resort at the Peak.

Zuni		Hopi		Pima		Navajo	
6:00 AM	Piestewa Peak Hike. Offsite Registration. Anasazi Lobby	10:00 AM	Applying FTIR gas measurement technology to solve air quality issues in the Semiconductor Industry. <i>Jim Cornish</i>	10:00 AM	Waste Collection System Projects: Integration of EHS Requirements Part 2. <i>David Hoffman</i>	10:00 AM	PFAS Air Testing for Stationary Sources. <i>Jesse Rocha</i>
8:00 AM – 3:00 PM	Registration. Anasazi Lobby	11:00 AM	Decommissioning and Site's Approach. <i>John Marci</i>	11:00 AM	Strategic EHS Enterprise Risk: An Options Analysis. <i>Terry Mars</i>	11:00 AM	Understanding and Treatment of PFAS in Semiconductor Manufacturing. <i>Cathy Swanson</i>
9:00 AM – 9:45 AM	Keynote Presentation – Five Trends for the Future of EHS and the New Value of Safety. <i>John Dony</i> . Navajo Exhibits. Anasazi Ballroom	12:00 PM	Science of the Subfab – Vacuum Pumps. <i>Matthew Kowalski</i>	12:00 PM	AI for EHS & Sustainability – Zeroing in on Practical Positive Impact. <i>Donavan Hornsby</i>	12:00 PM	Study on Hybrid Methods for Measuring Fluorinated Gas Emissions in Taiwan's Electronics Industry. <i>Joey Lu</i>
9:00 AM – 4:00 PM	Coffee Break, sponsored by Edwards – Raffle Ticket Distribution. Anasazi Ballroom	1:30 PM	Safety Aspects and Environmental Considerations for Vacuum and Exhaust Management of Silicon Carbide Epitaxy Processes. <i>Steve Cottle, Alan Brightman</i>	1:30 PM	How Management Systems and ISO Standards Accelerate ESG Maturity. <i>Kristi Hames</i>	1:30 PM	Green House Gas (GHG) Sampling: FTIR Air Emissions Testing - Best Practices on Point of Use (POU) Systems. <i>Blake Ericson</i>
9:45 AM – 10:00 AM	Coffee Break, sponsored by Edwards – Raffle Ticket Distribution. Anasazi Ballroom	2:30 PM	Implementing System Safety Lessons Learned. <i>Kelsey Forde, Timothy Stirrup</i>	2:30 PM	Advancements in Fire Safety for People and Property. <i>Chris Hasbrook</i>	2:30 PM	Comparison Between Emissions of Fluorinated Heat Transfer Fluids Reported by Semiconductor Manufacturers and Suppliers of Fluorinated Heat Transfer Fluids Reported by Suppliers Under the Greenhouse Gas Reporting Program. <i>Deborah Ottinger</i>
10:00 AM – 12:30 PM	Concurrent Sessions. Various Locations	3:45 PM	Management of Change: Techniques for a Living Hazards Analysis. <i>Kelsey Forde, Timothy Stirrup</i>	3:45 PM	Shock Sensitive Chlorosilane Polymers: Journey Towards Identifying Acceptable Risk Mitigations. <i>Tyler Tolman</i>	3:45 PM	Transition from Carbon-based to Carbon-free Abatement Systems. <i>Bryan Swain</i>
Complimentary Lunch, sponsored by Benchmark Gensuite – Raffle Ticket Distribution & Raffle Drawing. Anasazi Ballroom		4:45 PM	Process Cooling Water (PCW) Reliability Improvement. <i>Brian Jenkins, Heather Reese</i>	4:45 PM	Electrical Safety Issues in Lab Areas. <i>Ron Scholtz</i>	4:45 PM	Solvent Recycling Explained: Finding Value Upstream. <i>Derek Nelhuebel</i>

WEDNESDAY

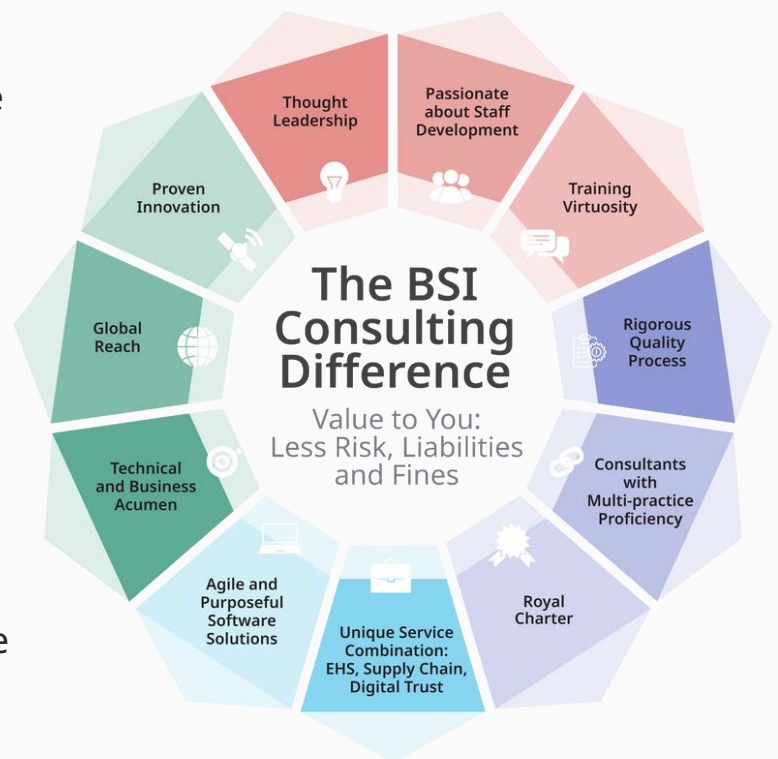


BSI Consulting Services and Solutions

The symbiotic relationship between EHS and Sustainability enables our world class environmental, health, safety and sustainability consultants to guide clients to:

- Assess and manage risks
- Protect employees
- Be socially and globally responsible
- Achieve sustainable environmental, social, and economic value

BSI Consulting provides a comprehensive range of strategic, management and technical consulting solutions. We take a partnership approach to our client engagements to ensure we meet the needs of our clients at the scale they require. Our deep bench of technical experts maintain the latest credentials and training in Environmental, Health, Safety, Supply Chain, Sustainability, and Digital Trust to ensure our client's achieve the highest levels of confidence and versatility.



Request more information:
Call: +1 408-790-9200
Email: consulting@bsigroup.com
Visit: www.bsigroup.com/consulting-us

Culture matters. Working for purpose matters.



Interested in working to improve people's lives and protect the health & safety of our planet? Scan the QR code to see our open positions in EHS, Well-being, Sustainability, Supply Chain, and Digital Trust.

DOD Technologies

The Leader in Low-Level Gas Detection



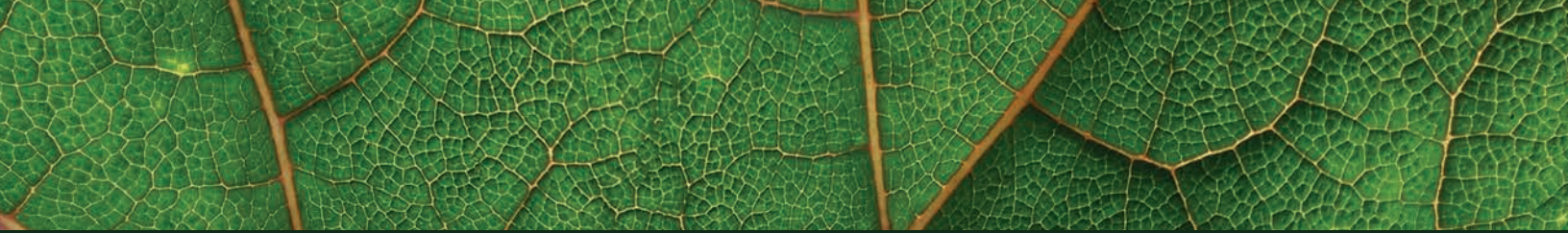
For over 20 years, DOD Technologies has been the source for low-level gas detection. We supply the semiconductor industry with technologically advanced, systems and services to help keep employees safe and operations efficient.



Visit us at the SSHA Symposium, Booth #17.

815-788-5200

DODtec.com



Sustainability is our business.

For the past 20 years, ERM has been a trusted partner in helping the semiconductor industry build sustainable semiconductors and develop safe manufacturing practices. ERM encourages our clients to move beyond traditional compliance and corrective programs toward transitioning to the sustainable workplace of tomorrow. We see the drive to change to human-centric health and safety to maximize the return on our clients' investments in safety —to safeguard lives, protect assets, and strengthen their reputation.

ERM's tightly connected global H&S practice helps clients transition to the workplace of tomorrow.

HEALTH

Establishing a healthy, motivated, and thriving workplace and organization



Occupational Health and Industrial Hygiene



Psycho-social Risk



Security to Thrive

SAFETY

Strengthening understanding, behaviors, systems, processes, plants, and technologies



Technical and Functional Safety



Media and Events Safety



Contractor Safety Management



Safety Technology and Digital Safety

LEADERSHIP, CULTURE, AND CAPABILITY DEVELOPMENT

Transforming safety performance



Human Performance, Safety Culture Transformation



Capability Development

For more information, contact your current ERM consultant or any of our experts:

Michael Lewman

Regional Service Leader
michael.lewman@erm.com

Brian Desrosiers

MBA, CSP, OHST, CPSA
Technical Community Lead
brian.desrosiers@erm.com

Mark Huang

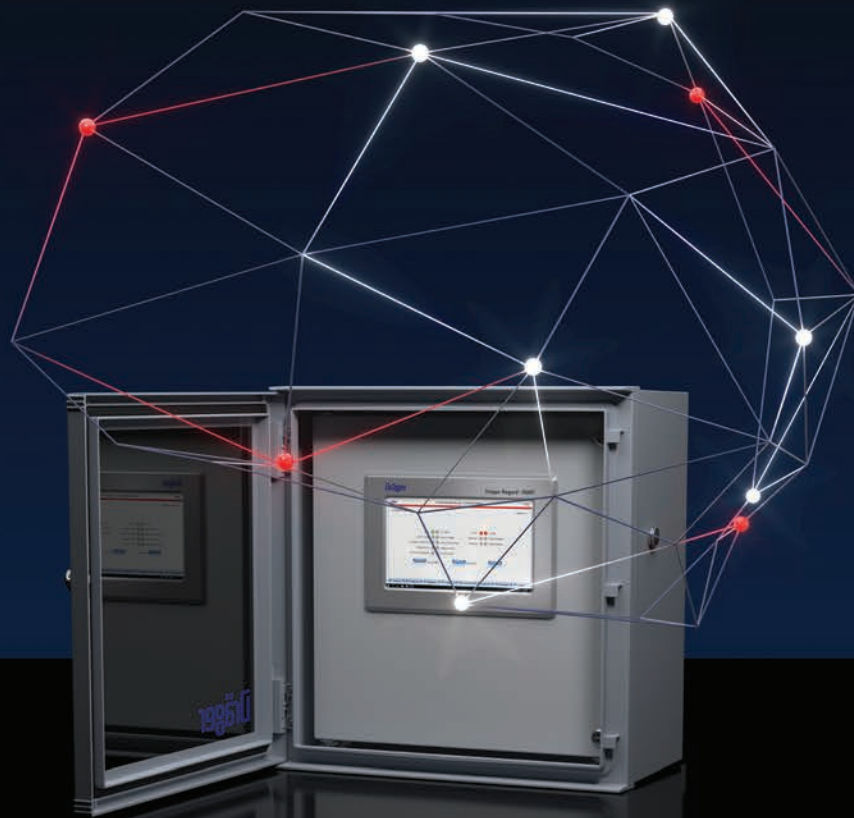
CIH, CHMM, CMSE®, QISP
Partner
mark.huang@erm.com



erm.com

Dräger

Technology for Life



REGARD® 7000F

BOOTH #19

A COMBINATION
FIRE AND GAS
DETECTION SYSTEM

NFPA 72
Compliant

UL 864
10th Edition

SESHA Schedule – 2024 Annual Symposium (continued)

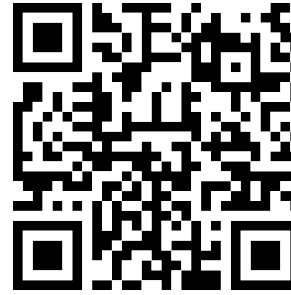
All Sessions take place in the Hilton Phoenix Resort at the Peak.

THURSDAY		Zuni	Hopi	Pima	Navajo
6:30 AM – 7:00 AM	5K Run. Offsite			12:30 PM – 1:30 PM	Complimentary Lunch. Anasazi Courtyard
8:00 AM – 12:00 PM	Registration. Anasazi Lobby			1:30 PM – 4:30 PM	Concurrent Sessions. Various Locations
9:00 AM – 9:30 AM	Concurrent Sessions. Various Locations			3:15 PM – 3:45 PM	Coffee Break. Anasazi Lobby
9:30 AM – 10:00 AM	Coffee Break, sponsored by <i>Centrotherm (A Busch Group Company)</i> . Anasazi Lobby			4:40 PM – 5:00 PM	Closing Ceremony. <i>Mark Fessler (Incoming SESH President)</i> . Navajo
10:00 AM – 12:30 PM	Concurrent Sessions. Various Locations			5:00 PM – 6:30 PM	Closing Social, sponsored by ASM. Anasazi Courtyard
9:00 AM	Abatement of GaAs/InP MOCVD process exhaust gases. <i>Andreas Feller</i>	9:00 AM	Air Dispersion Modeling for Semiconductor Manufacturing Plants. <i>Qi Zhang</i>	9:00 AM	9:00 AM
10:00 AM	Benefits of Industrial-Municipal Synergy in Wastewater Design and Permitting. <i>Jacob Spicer</i>	10:00 AM	Engineering Safety in Semiconductor Manufacturing: An Exploration of the Top 5 OSHA Citations in the Industry. <i>Khara Huhta</i>	10:00 AM	10:00 AM
11:00 AM	Considerations and Challenges for a Robust Air Permitting Strategy. <i>Camille Ponce</i>	11:00 AM	OASIS: ASM's 3rd Generation of the Risk Assessment Database. <i>Jennifer Stratton</i>	11:00 AM	11:00 AM
12:30 PM	Overview of Revisions to the Federal GHG Reporting Rule for Electronics Manufacturing. <i>Benjamin Hubertus</i>	12:00 PM	Ambient Gas Detection Technologies Advantages & Disadvantages. <i>Philipp Zeissig</i>	12:00 PM	12:00 PM
1:30PM	Emissions of HFCs, PFCs, and NF3 from U.S. Fluorochemical Production Facilities. <i>Deborah Ottinger</i>	1:30 PM	OSHA PSM and EPA RMP Rulemaking Update. <i>Bernie Frist, Steve Trammel</i>	1:30 PM	1:30PM
3:45 PM	Environmental Compliance – Best Practices and Lessons Learned from Recent Inspections. <i>Anthony Damitio</i>	2:30 PM	The Potential Impact on U.S. Fluorinated GHG Emissions of Increases in Semiconductor Production. <i>Deborah Ottinger</i>	2:30 PM	2:30 PM
		3:45 PM	NFPA 318 - 2025 Edition. <i>Vincent DeGiorgio</i>		

Exhibitors & Exhibitor Floor Plan

Thank you for Sponsoring!

Lunch	Notebooks
UL Solutions	Nalco Water
Benchmark Digital	
Exhibit Reception & Awards	Pens
Airgard	ASM
Coffee Breaks	5K T-shirts
ASM	Anguil Environmental Systems, Inc.
Benchmark Gensuite	ASM
Centrotherm	BSI
DOD Technologies, Inc.	ERM
Edwards	Highvac
Ebara Technologies Inc.	UL
tsmc Arizona Corporation	
Lanyards	Golf
NREL	Centrotherm
Tote Bags	Pure Air
DOD Technologies, Inc.	
Beverage Bottles	Raffle Prizes
Centrotherm	CS Clean
	Ebara
	RKI
	Benchmark



View the latest floorplan and company profiles on your phone or tablet. Scan the QR Code to download the mobile app.

Exhibit Hall Raffle

We will be holding a raffle with some very nice prizes in the Exhibit Hall on Tuesday and Wednesday. Starting Tuesday you will be able to get tickets by visiting each exhibit booth.

You must be present to win.

Exhibit Hall Hours: *Anasazi Ballroom*

Tuesday, April 23 10:00 AM – 7:30 PM

Break & Raffle Ticket Distribution	10:00 AM – 10:30 AM
Lunch & Raffle Ticket Distribution/Drawing	12:15 AM – 1:15 PM
Break & Raffle Ticket Distribution	3:00 PM – 3:30 PM
Opening Reception & Awards Ceremony	
Ticket Distribution/Drawing	5:30 PM – 7:30 PM

Wednesday, April 24 9:00 AM – 4:00 PM

Break & Raffle Ticket Distribution	9:45 AM – 10:00 AM
Lunch & Raffle Ticket Distribution/Drawing	12:30 PM -- 1:30 PM
Break & Raffle Ticket Distribution/Drawing.....	3:15 PM -- 3:45 PM

Exhibitors

Alliance Technical Group

255 Grant St. SE, Suite 600
Decatur, AL 35601
alliancetg.com
256-351-0121

Booth: 21

Bronze Sponsor

Alliance Technical Group is an environmental testing, monitoring, and analysis company. Through the delivery of multiple service lines – Stack Testing, LDAR, CEMS, Combustion, Analytical, Ambient Air Monitoring, and Environmental Consulting Services – Alliance is a trusted partner providing premier technical solutions that support the full spectrum of our customers' environmental needs.

Anguil Environmental Systems, Inc.

8855 N. 55th St.
Milwaukee, WI 53223
anguil.com
414-365-6400

Booth: 28

Silver Sponsor

Anguil Environmental provides highly-engineered, environmental equipment and service solutions for semiconductor fabricators and chip manufacturers that solve complex industrial air and water challenges across the globe. On air pollution control applications, Anguil manufactures abatement systems for the destruction of fab process emissions. For wastewater treatment applications, the company provides turnkey systems that target solid or liquid pollutants with proven techniques to meet specific site requirements.

Antea Group

5910 Rice Creek Parkway, Suite 100
Shoreview, MN 55126
us.anteagroup.us
800-477-7411

Booth: 11

Antea®Group USA is an environment, health, safety and sustainability consulting firm. Through services spanning environmental remediation, regulatory compliance, worker safety, mergers and acquisition support and sustainability strategy, we partner with clients to create a cleaner, safer, more sustainable world.

Benchmark Gensuite

5181 Natorp Blvd Suite 610
Mason, OH 45040
benchmarkgensuite.com
513-774-1000

Booth: 32

Diamond Sponsor

Benchmark Gensuite® enables companies to implement robust, cross-functional digital systems for EHS, Sustainability, and ESG Reporting through a unified digital platform—locally, globally and across diverse operating profiles.

BSI

4150 Drinkwater Blvd.
Scottsdale, AZ 85251
www.bsigroup.com
480-577-3566

Booth: 18

Platinum Sponsor

BSI provides a comprehensive range of strategic, management and technical consulting solutions, partnering with clients to achieve their environmental, health, safety and sustainability goals.

Centrotherm, A Busch Company

3950 NE 30th Ave
Hillsboro, OR 97124
centrotherm-cs.de/en/contact-general
831-601-3000

Booth: 6

Platinum Sponsor

Centrotherm Clean Solutions is now part of the Busch Group of companies. Centrotherm is a leading global supplier of equipment and technology for the treatment of gaseous, liquid, and solid pollutants with the goal of protecting the environmental health and safety of others. Customer satisfaction is the most important benchmark for us. We successfully treat the most difficult abatement processes worldwide. With more than 60 years of providing our customers with sustainable exhaust gas solutions, new abatement challenges are a welcome opportunity. From large volume VOC treatment to PoU treatment for Semiconductor, PV, FPD, LED and R&D, we have the perfect solution. Engineered and manufactured in Germany with support locations worldwide.

Claros Technologies

1600 Broadway St NE
Minneapolis, MN 55413
Clarostechnologies.com
612-564-7050

Founded from technical research developed at the University of Minnesota, ClarosTech is harnessing green chemistry and advanced material science to solve our global planetary and human health PFAS pollution crises. Claros offers a closed-loop PFAS destruction and defluorination system that permanently destroys all types of PFAS.

Booth: 36

Colden Corporation

11 Round Lake
Ballston Lake, NY 12065
www.colden.com
215-496-9237

Colden's board-certified industrial hygienists and board-certified safety professionals provide compliance audits, safety and health risk assessments, program development, industrial hygiene sampling and customized training. Our experienced team of specialized consultants provide business-oriented solutions to address health, safety, and environmental concerns.

Booth: 15

Bronze Sponsor

CS CLEAN SOLUTIONS Inc

26 Commerce Drive
Danbury, CT 06810
www.csclean-usa.com
203-797-8155

CS CLEAN SOLUTIONS® is the global leader in dry-bed abatement systems for hazardous gas streams using passive, chemisorption-based technology to treat gas streams to outlet levels below TLV. Using proprietary granulate formulations, the systems operate at ambient temperature to abate toxic, corrosive and pyrophoric chemistries. Fuel gas, high voltage electrical power, water and acid waste neutralization are not required, providing extremely low operating cost with minimal maintenance and downtime compared to other abatement technologies. CS CLEAN also offers a new plasma abatement system for Fluorinated Greenhouse Gases, and a plasma abatement system for GaN deposition abatement of N₂ and NH₃.

Booth: 22

Bronze Sponsor

DAS Environmental Expert USA Inc.

23439 N 35th Dr, Ste 7
Glendale, AZ 85310
www.das-ee.com/en-us
844-862-1662

With innovative technologies for waste gas and water treatment, DAS creates balance between industrial growth and preservation of natural resources. Since 1991 DAS has developed and produced client specific point of use facilities for waste gas treatment in the global high-tech industries.

Booth: 26

Bronze Sponsor

Depisteo

309 East Paces Ferry NE, suite 400,
Atlanta, GA 30305
depisteo.com
800-496-8290

Depisteo LLC specializes in the production of advanced medical devices, focusing on vision screeners and spirometers. Their innovative solutions are designed for healthcare professionals, aiming to enhance diagnostic accuracy and patient care efficiency. With a commitment to quality and technology, Depisteo is a trusted name in medical diagnostics.

Booth: 2

DOD Technologies, Inc.

675 Industrial Drive, Bldg. A
Cary, IL 60013
DODtec.com
815-788-5200

DOD Technologies is the leader in low-level semiconductor gas detection, providing technologically advanced products, repair, and preventative maintenance services. We offer a range of fixed and portable solutions – as well as flexible service options – to meet your facilities' life safety needs. Call or visit us today at DODtec.com.

Booth: 17

Platinum Sponsor

Draeger, Inc.

7256 South Sam Houston West Parkway
Houston, TX 77085
www.draeger.com
800-437-2437

For over 130 years, Dräger products have protected, supported and saved lives through innovative solutions and technology.

Booth: 19

Bronze Sponsor

Ebara Technologies Inc.

Booth: 3

51 Main Ave
Sacramento, CA 95838
www.ebaratech.com
916-920-5451

Silver Sponsor

Ebara Technologies Incorporated's Components Division supplies advanced vacuum and abatement technologies focused on semiconductor, photovoltaic and R&D. Components Division products: Dry Vacuum Pumps, Turbomolecular Pumps, Point-of-Use Abatement, Exhaust Heaters, Vacuum Traps, Vacuum Hardware, Parts Cleaning Services.

EcoSys Abatement LLC

Booth: 34

7380 W. Sand Lake Road, Ste 500
Orlando, FL 32819
ecosysabatement.com
408-477-0706

Bronze Sponsor

Since 1984 EcoSys has been the leader in toxic gas abatement systems innovation. Our new microwave plasma/wet integrated scrubber, the M91A, treats all process chemistries without fuel gas eliminating CO2 emissions while reducing NOx and cost of ownership. We also offer burn/wet, optional pre-wet, thermal oxidizers and water scrubbers.

Edwards

Booth: 9

6220 NE Century Blvd
Hillsboro, OR 97124
www.edwardsvacuum.com
503-710-1077

Platinum Sponsor

Edwards is a global leader of vacuum and abatement. We are proud to lead the industry, pushing the boundaries of science to deliver innovative products which are intrinsic to everyday life, working in partnership with our customers and continually setting new standards.

Gasmet Technologies Inc.

Booth: 27

5865 McLaughlin Rd. Unit #1
Mississauga, ON L5R 1B8 Canada
www.gasmet.com
866-685-0050

Gasmet designs and manufactures gas analysis systems and emission monitoring solutions to measure gaseous emissions from industrial processes, gases released from natural sources into atmosphere, and gases present in working environments – enabling fast problem-solving, decision-making and the ability to stay on top of things by knowing what's in the air.

GfG Instrumentation, Inc.

Booth: 14

1194 Oak Valley Dr. Ste. 20
Ann Arbor, MI 48108
www.gfgsafety.com/us-en
800-959-0329

For over 62 years GfG Instrumentation has provided a wide range of gas detection solutions. GfG develops and manufactures an advanced product line of portable gas detectors, fixed systems, and respiratory airline monitors. Our commitment is the protection of life from combustible and toxic gases, and oxygen hazards.

GreenSoft Technology, Inc.

Booth: 7

155 S. El Molino Ave., Ste. 100
Pasadena, CA 91101
www.greensofttech.com
323-254-5961

GreenSoft Technology is a leading provider of environmental compliance data services and software for electronics manufacturers, offering hands-on supply chain data collection covering EU REACH, EU RoHS, Conflict Minerals, Proposition 65, Full Material Declaration and more. Plus, GreenData Manager software for due diligence reporting and centralized substance database management.

Highvac Corporation

Booth: 12

4710 N Chestnut Street
Colorado Springs, CO 80907
www.highvacgroup.com
719-260-1185

Bronze Sponsor

HIGHVAC'S EcoGuard™ SGS point of use abatement system maintains total separation of effluent gas streams from multiple process chambers. The EcoGuard™ PoU abatement systems are highly configurable to accommodate multiple applications. Our commitment is to find the best solution for your application and provide continued support to our customers.

Honeywell Sensing & Safety Technologies

Booth: 30

855 S Mint Street
Charlotte, NC 28202
www.honeywell.com/us/en

Silver Sponsor

Honeywell offers a comprehensive range of gas and flame detection solutions to help protect your workers and facility. We manufacture portable, fixed, commercial, high-tech & semiconductor detection and gas cloud imaging solutions for a wide variety of industries around the globe.

ISN

Booth: 10

2447 Pacific Coast Highway
Hermosa Beach, CA 0254
isnetworld.com
561-376-9338

ISN is the leader in contractor and supplier management, with over 20 years of experience connecting 800 Hiring Clients with over 80,000 contractors and suppliers to promote workplace safety, health and sustainability. ISN's platform, ISNetworld, includes data-driven insights and tools that help companies mitigate supply chain, regulatory and ESG risks.

KFPI

Booth: 4

10351 Olympic Dr.
Dallas, TX 75220
www.kfpi.com
469-329-5628

Diamond Sponsor

KFPI is a premier semiconductor company specializing in fire and gas safety solutions. KFPI provides fire and gas safety systems including consulting, design, product, installation, integration, certification, training, service, and support. KFPI specializes in performance-based solutions with focus on reliability, uptime, chemical compatibility, and longevity. In addition, KFPI offers compliance guarantees with SEMI S2, FM, & NFPA. KFPI recommends and provides the best gas detection technologies to protect your personnel and operations against hazardous chemical leaks. KFPI developed LCAS – the first and only complete automatic fire safety prevention system for bulk delivery cabinets using pyrophoric chemistries. LCAS safely contains and abates any size leak without fire, particle exposure, or damage to the fab. KFPI is a global leader with offices throughout the USA, Taiwan, Japan, China, Korea, Singapore, & Europe.

Montrose Environmental

Booth: 1

5120 Northshore Drive
North Little Rock, AR 72118
www.montrose-env.com
501-900-6400

Our Stack Testing experts ensure compliance with emission limits on regulated air pollutants. With comprehensive guidance and innovations at every stage of the process, our industry-leading applications and services help you stay ahead of emerging regulations surrounding GHGs, PFAS, and more, ensuring continued compliance with CEMS and PEMS certification.

N. Weiss Associates, Inc.

Booth: 35

PO Box 71790
Phoenix, AZ 85050
www.nweissassoc.com
602-770-1880

N. Weiss Associates, Inc. is an environmental, health, and safety compliance services company established in 1996. Clients include Fortune 100 companies, small businesses, and government agencies. Approximately 80% of our work is from the high-technology semiconductor industry. Other sectors include manufacturing, aerospace, mining, utilities, recyclers, legal, and tribal agencies.

Nalco Water, an Ecolab Company

Booth: 23

1601 W. Diehl Rd
Naperville, IL 60563
630-305-1000
www.nalcowater.com

Silver Sponsor

A global leader in water and process management solutions, Nalco Water, an Ecolab company, works with customers across a wide range of industries to help minimize water and climate impacts while maximizing outcomes at an optimized total cost.

New Pig

Booth: 13

One Pork Avenue
Tipton, PA 16684
www.newpig.com
855-493-HOGS

PIG is the #1 trusted brand worldwide, and we vow to wow you with products that won't disappoint. Every item in our lineup is designed to help you get the job done right. We're the world's #1 absorbent brand, and if something's not up to snuff, it doesn't make the cut!

Precision Sensors Division

Booth: 24

340 Woodmont Rd
Milford, CT 06460
www.precisionsensors.com
203-877-2795

Bronze Sponsor

Precision Sensors, a division of United Electric Controls, designs and manufactures various types of switches and sensors for use in critical aerospace, defense and semiconductor applications. Precision Sensors provides its customers with the highest quality, most cost effective and reliable solutions for the safeguarding of people, equipment and processes.

PureAire Monitoring Systems Booth: 31

1140 Ensell Road
Lake Zurich, IL 60047
www.PureAireMonitoring.com
847-726-6000

PureAire is a leading global provider of high-quality oxygen deficiency and toxic gas monitoring equipment for numerous industrial applications, including semiconductor, aerospace, additive manufacturing, and biotechnology. Our customers rely on PureAire's state-of-the-art technological solutions to ensure the integrity of their products and the ongoing safety of their employees and facilities.

RKI Instruments

33248 Central Avenue
Union City, CA 94587
www.rkiinstruments.com
800-754-5165

RKI is an US subsidiary of RIKEN KEIKI Japan, manufacturer of Gas sensors & Gas detectors since 1939 (84 years experience). The wide range of target gases in High Tech industries are detectable with Multi-point / Single point fixed gas detectors, Portable gas detectors.

Salus Engineering International

3004 Scott Blvd
Santa Clara, CA 95120
salusengineering.com
408-235-8831

Salus Engineering International is located in Santa Clara, California, USA and has a well established US client base as well as extensive international clientele. It provides engineering services to some of the largest manufacturers of semiconductor fabrication equipment in the world.

Spectrum Environmental Solutions

2335 Kramer Lane, Suite A
Austin, TX 78758
www.spectrumenvsoln.com
512-646-4555

Spectrum Environmental Solutions is a leader in optical spectroscopy based monitoring technologies. Our turnkey, custom engineered solutions and consulting assist customers in process monitoring, emissions testing, and environmental compliance for an ever-changing world.

Trinity Consultants

12700 Park Central Drive, Suite 600
Dallas, TX 75251
trinityconsultants.com
972-661-8100

Founded in 1974, Trinity Consultants helps organizations overcome complex, mission-critical challenges in EHS, engineering, and science through expertise in consulting, technology, training, and staffing. We support clients in geographies worldwide and across a broad range of sectors including industrial, energy, manufacturing, mining, life sciences, and commercial/institutional.

Booth: 16

Bronze Sponsor

UL Solutions

5000 Meridian Blvd., Suite 600
Franklin, TN 37067
www.ul.com/services/ehs-online-safety-training-courses
714-223-3659

UL Solutions has developed training courses to provide a comprehensive safety training foundation for SESH partners and industry workers. A collection of 18 modules, a bootcamp suite, and OSHA 10 course designed by safety experts and adult learning specialists. Contact UL Solutions to learn more.

Booth: 29

Platinum Sponsor

Veolia

53 State Street, 14th Floor
Boston, MA 02109
www.veolianorthamerica.com
617-849-6600

Veolia is a valued partner to the semiconductor industry delivering a wide range of solutions. Services include beneficial reuse, solvent recycling, on site labor, incineration and lab packing. Veolia can be a part of your environmental program with service and treatment and disposal facilities located throughout the U.S.

Booth: 8

Watlow Electric Manufacturing Company

12001 Lackland Road
St Louis, MO 63146
watlow.com
800-928-5692

A global industrial technology company providing advanced thermal systems to the world's leading companies. Customers leverage our solutions wherever thermal is critical, as we offer proven technology that helps our customers thrive. Since 1922 Watlow continues to grow with over 1,100 patents, 13 manufacturing facilities and 9 technology and development centers worldwide.

Booth: 33



SESHA Symposium

Join us on our official event app

We're using *Whova* as our official event app to facilitate networking, host the event agenda, distribute documents, and send announcements!



Having trouble joining? Search for our event and enter the invitation code: SESH2024az

Professional Development Courses

All Sessions take place in the Hilton Phoenix Resort at the Peak

MONDAY, APRIL 22

PDC #1 – Bootcamp

08:00 AM – 05:30 PM

Navajo

Bootcamp 101 and 201 have new topics, with more time for in-depth discussions, along with updated and expanded content lead by industry experts. Whether you're new to the industry and SESH, or have a designated parking spot at your fab due to your tenure, you've got the opportunity to customize your Bootcamp experience by moving between the tracks at a pace that is adapted just for you. Bootcamp takes place the day before the Symposium (Monday, April 22), and is FREE with a full conference registration! Take a look at the sessions and we'll see you there. Remember, we're having a welcome reception right after.

PDC #2 – State of PFAS

Dave Speed

8:00 AM – 12:00 PM

Geronimo

PDC #3 – Hazard Analysis & Risk Assessments: Concepts and Methodologies

Brian Desrosiers, Steve Hawkins

8:00 AM – 12:00 PM

Pima

Semiconductor manufacturing is a hazardous business. Facilities require the use of highly hazardous chemicals to ensure they deliver quality products and be at the forefront of innovation. Although these chemicals have their use, they can also present a significant hazards to our workforce, the environment, and the community if not properly managed. So what can we do to ensure our risks are managed? Well luckily, we have plenty of tools for evaluating these risks based on the complexity of the process. This presentation will cover these various tools at your disposal for hazard identification / risk assessment. The goal will be to familiarize you with the benefits of various methodologies, how do use them, tips for recommendations resulting from these assessments, scoping the risk assessment, and more. Through a robust risk assessment process, we can ensure that recognized risks associated with our process are managed within our risk tolerances. Once you finish the workshop you will feel better equipped for bringing these concepts to your plants.

PDC #4 – Battery Energy Storage System Workshop

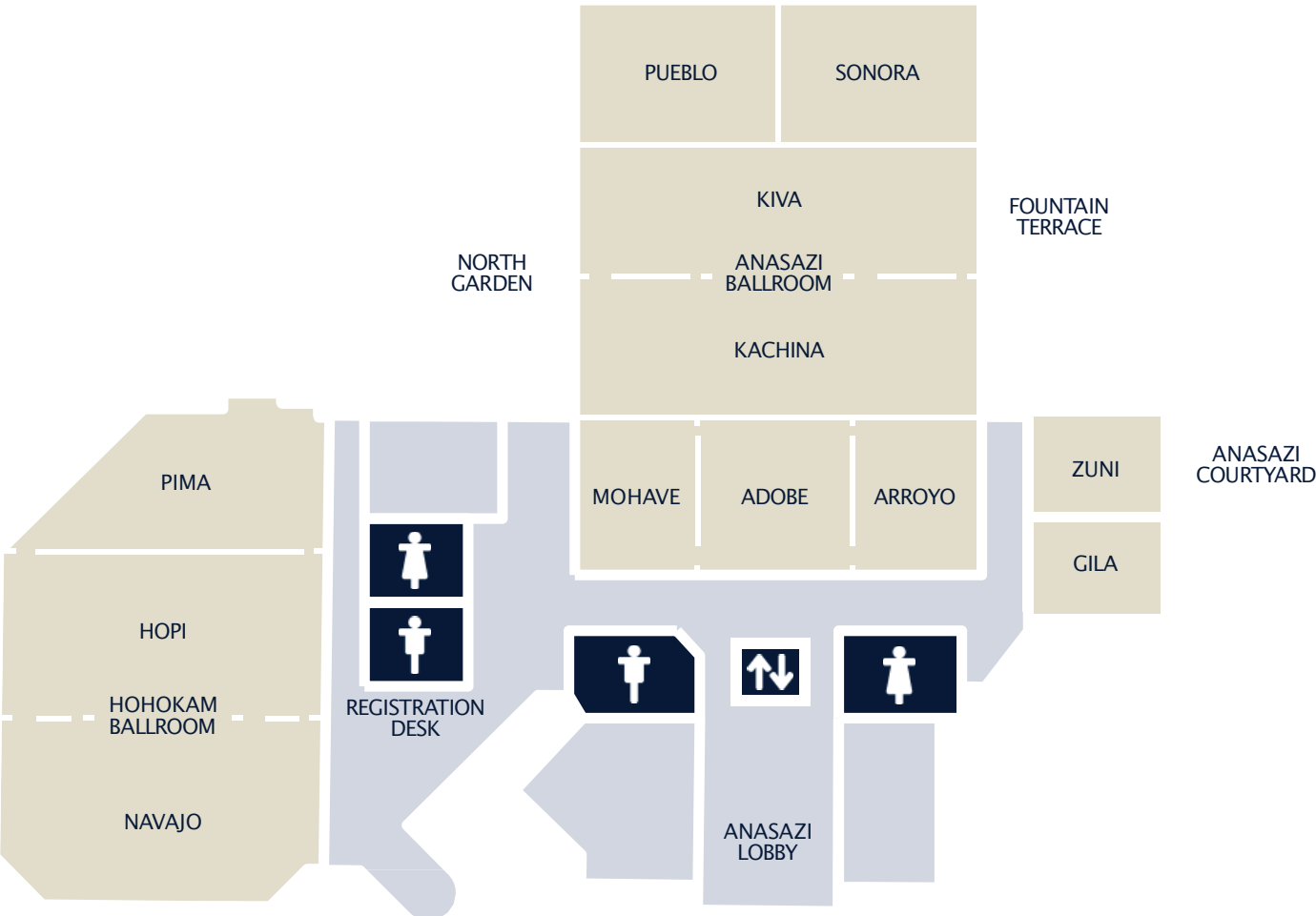
Jihan El Ouaragli, Jacob Epstein, Francisco Joglar

1:30 PM – 5:00 PM

Pima

Hilton Phoenix Resort at the Peak Floorplan

Convention Center First Level





HOW CAN A SEMICONDUCTOR MANUFACTURER ENSURE THE SAFETY OF THE SUBFAB?



The SubFab environment, the utility room that houses all the equipment to keep a Fab's clean room up and running, can be a hazardous one. One of the risks is posed by energetic materials, a by-product of some semiconductor processes.

When you design a SubFab, you should leave nothing to chance. By using the SEMI S30 guideline as the foundation and applying Edwards' know-how to design the most appropriate installations, we can build the safest SubFabs in the world.



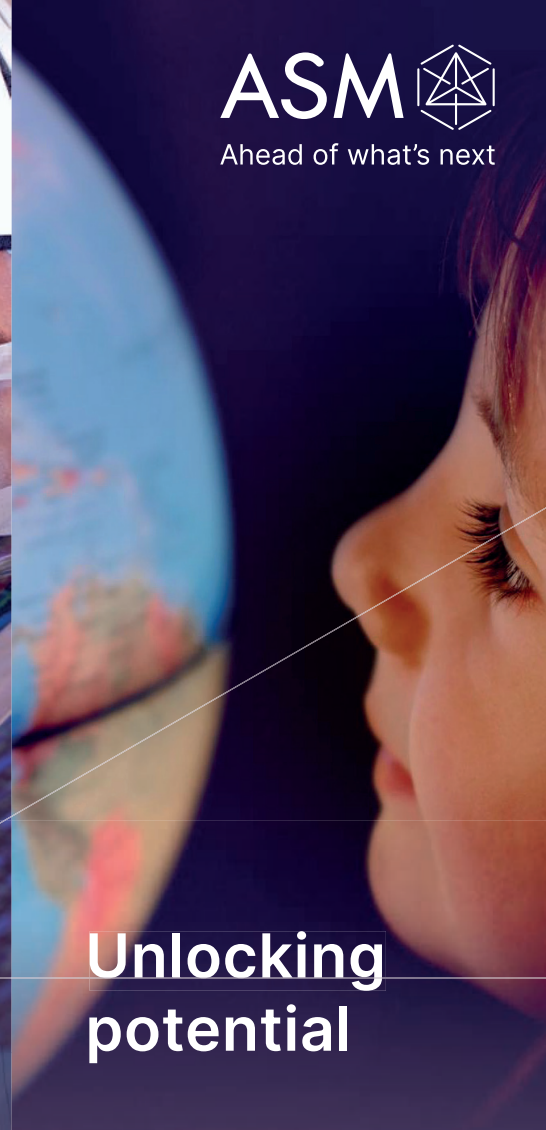
Scan the QR code and learn more about the Edwards' knowledge on SEMI S30



**Improving
lives**



**Advancing
technology**



**Unlocking
potential**

ASM is a leading, global supplier of semiconductor wafer processing equipment. Our smart and ambitious team is dedicated to delivering innovative technology solutions to the world's leading semiconductor manufacturers.



Follow us



ASM



ASMOfficialcompany



ASMOfficialcompany



ASM_official



asm.com



careers.asm.com