

# SOUTHERN ARIZONA TECH + BUSINESS EXPO 2023

SOUTHERN ARIZONA

TECH +  
BUSINESS  
EXPO



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COUNCIL

a place to connect and grow



# Southern Arizona: Where business and culture collide.

**Bold and exciting advancements are happening in Southern Arizona.**

The Arizona Commerce Authority is proud to present the 11th Annual Southern Arizona Tech + Business Expo in partnership with the Arizona Technology Council to celebrate the region's industry leaders that are developing emerging technologies of the future. Top-tier talent is abundant with Tucson ranked a Top 6 Millennial Magnet according to the Business Facilities Magazine. With a lifestyle that allows talent to achieve their personal goals with endless outdoor activities, vibrant arts and culture, easy commutes, and affordable housing, Southern Arizona offers the perfect balance that makes life better here.

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### Welcome and Thank You for Attending the **2023 Southern Arizona Tech + Business Expo** Showcasing Technology and Innovation!

**This year marks our 11th annual Southern Arizona Tech + Business Expo.** Thanks for joining us for the largest tech event in Southern Arizona! We are deeply grateful to our sponsors, supporters, exhibitors, company innovator presenters, Expo organizing committee and to you! We hope you enjoy this year's program, that you create valuable connections and discover opportunities to grow your personal and professional circles of influence.

The Arizona Technology Council strongly supports the technology sector of our state's economy and hosts over 100 events each year. **Our vision is to be the driving force behind making Arizona the fastest growing technology hub in the nation!**

The best way to enjoy your membership and to create opportunities for your business is to get involved!

Here is a partial list events coming up in 2024:

- Monthly after5 Tech Mixers
- Arizona Photonics Days - January 24-26
- 14th Annual Southern Arizona Golf Tournament
- Women in the Workforce Series Presentations
- Cybersecurity Summit
- MedTech Conference
- Smart City & IoT Conference
- Aerospace, Aviation, Defense and Manufacturing Conference
- Governor's Celebration of Innovation

Our members know that active engagement in AZTC committees lead to connections on an even higher level. There are many specialized committees. We'd love you to get involved and create even more value from your membership.

The Tech Council is committed to supporting you! Please contact me if we can help.

Again, welcome and thank you for your involvement. We hope you enjoy the 2023 Southern Arizona Tech + Business Expo.

Sincerely,



**Karla Morales**  
Vice President,  
Southern Arizona Regional Office  
Arizona Technology Council



# Innovation is anything but business as usual.

Growing AZ Tech Companies can now get  
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In partnership with the Arizona Technology Council (AZTC), Blue Cross® Blue Shield® of Arizona (BCBSAZ) has created exclusive medical and dental plans available only to AZTC members. This association health plan provides access to comprehensive healthcare benefits with an expansive network of Arizona providers that are typically only available to large employers.

## ELIGIBILITY REQUIREMENTS

- Be an AZTC member with a business headquartered in Arizona.
- Have two or more employees with at least one common law (W-2) employee who is not a spouse or child enrolling in the plan.

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# AGENDA



12:00pm — Registration & Networking

1:00pm – 1:20pm — Welcome & Opening Remarks

1:20pm – 2:20pm — Keynote Fireside Panel Chat: "Unlocking the Power of AI"

- Patrick Marcus (*Moderator*) - Marcus Engineering
- Helen Goldstein - Procopio
- Ash Black - UA Institute for Computation & Data-Enabled Insight
- Aaron Eden - Brain Bridge
- Nichola Lubold - Honeywell Aerospace

2:20pm – 2:50pm — Company Innovator Presentations

- Mary Darling - Darling Geomatics
- Todd Pereira - South32 / Hermosa
- Dr. Bashar Rizk - UA College of Science Lunar & Planetary Lab

2:50pm – 3:00pm — Annual Awards Presentation

3:00pm – 6:00pm — Expo, Networking, and Cocktail Reception

THANK YOU TO THOSE WHO MADE THE  
2023 TECH + BUSINESS EXPO POSSIBLE

## Co-Chairs

**Chris Morrison**

In-Position Technologies

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UA Center for Innovation



## Committee

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# MODERATOR



**Dr. Patrick Marcus**  
**President**

Dr. Patrick Marcus is the president of Marcus Engineering, LLC, an electronics engineering firm, in Tucson, AZ. Marcus Engineering is expert in regulated electronics products for, Medical, Military, Aerospace, Mining and other industries where design quality is critical. Patrick earned his PhD in Biomedical Engineering and BS in Electrical Engineering with Honors, Cum Laude from the University of Arizona. He is a graduate of the prestigious McGuire Entrepreneurship, as well as the Goldman Sachs 10KSB program out of Babson College. Dr. Marcus regularly mentors engineers and entrepreneurs and is tirelessly dedicated to local business leadership and Arizona's Entrepreneurial Economy.

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Our region's workforce needs are changing rapidly, and at Arizona Western College, we knew that our role in preparing workers and supporting industry partners had to evolve as well. We met with employers from around our two-county service area and saw that we needed an innovative approach to provide flexibility and a rapid response to meet real-time industry needs, while also maintaining AWC's standard of excellence.



**Arizona Western Entrepreneurial College** brings together healthcare, career & technical education, small business development, and corporate contract training to create a reliable pipeline of qualified workers with industry-recognized knowledge, experience, and the necessary credentials and certifications.

One example is how the shift to cloud-based computing in recent years dramatically increased the need for trained and certified IT professionals. On top of our existing data analytics certificates, Informatics program, and stackable Google and Amazon Web Services certifications, Arizona Western Entrepreneurial College has collaborated with industry leader Fortinet for cybersecurity training and certification, including a dedicated lab that will be online in the spring.

**Interested in partnering with us?  
We'd love to hear from you.**

**Reetika Dhawan**

*Chief Executive Officer, Entrepreneurial College & Vice President of Workforce and Healthcare Programs*

**Phone: 928-344-7567**

**Email: [Reetika.Dhawan@azwestern.edu](mailto:Reetika.Dhawan@azwestern.edu)**



## Keynote

# PANELIST



## Helen Goldstein

### Associate

Helen Goldstein is an Attorney at Procopio, Cory, Hargreaves & Savitch LLP, Attorneys at Law. Helen represents life sciences, technology and other industry clients with a variety of corporate law matters,

including mergers & acquisitions, corporate governance, and commercial contracting. She advises companies from their earliest stages in which intellectual property protection and regulatory compliance are critical to success. Helen works closely with attorneys across the firm's practices to ensure smooth transactions for her clients, bringing project management experience and a reputation for developing "out of the box" solutions to novel challenges. Due to this creative nature, Helen has been at the cutting edge of developing new concepts and processes for companies who are operating and transacting in the artificial intelligence space.

## Keynote

# PANELIST



Institute for Computation  
& Data-Enabled Insight

## Ash Black

### Lecturer and AI Consultant

Ash Black is a creative technologist specializing in web applications development, data visualization and virtual reality in the context of teaching and student

engagement. As a technologist who began programming at an early age, Ash has worked as a professional and entrepreneur in tech since the early 1990s, establishing a web design studio in Santa Fe, a first-generation coding bootcamp in Indonesia and a big data engine in Phoenix. Since 2013 he has worked in higher education and is at home in the social sciences with an advanced degree in archaeology, comfortably blending futurist thinking with an anthropological perspective emphasizing the profound relationship between humankind and our propensity for solving problems through tool creation and use. Today he pilots and directs the innovative Tech Core student engagement experience, eagerly working to mentor next-generation technologists in the art of bringing about first-of-its-kind creations, hopefully in a way that inflects a sense of humanity, humor and grit into their work. Since joining Eller, Ash has worked as a member of the Faculty Technology Innovation Team to bring productive change in how technology is encountered in the classroom and is a mentor-in-residence teaching in the McGuire Center for Entrepreneurship.

# Connect with the Global Optics Industry at our 7th Arizona Photonics Days, January 24-26, Tucson

## 3 Days and 5 Conference Sessions:

- Biomedical Technology
- Astronomy
- Sensing and Metrology
- Laser Technology
- Quantum Information Science

Register: [opticsvalleyaz.org](http://opticsvalleyaz.org)



Optics Valley is a committee of the Arizona Technology Council.

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## Keynote

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## Honeywell

### Dr. Nichola Lubold

Senior Research Scientist - Human-Machine Systems

Dr. Nichola Lubold is a principal investigator in Advanced Flight Deck Systems at Honeywell Aerospace. She currently leads several research programs with DARPA, IARPA, the FAA, and the Department of Defense. These programs focus on understanding the human component in complex human-machine systems through applications of artificial intelligence. This includes modeling the human physiological and cognitive state and identifying the contributions and complications that result from how different people interact with intelligent technology in different ways. This is achieved through unique sensors, applications of natural language processing, signal processing, and machine learning. Dr. Lubold has publications in top peer-reviewed journals and holds several patents. She obtained her B.S. in Computer Engineering from the University of Notre Dame and her PhD in Computer Science and Human-Computer Interaction from Arizona State University.

## Keynote

## PANELIST



### Aaron Eden

Startup Founder, Brain Bridge

Aaron is a technology leader with 30+ years of experience leading innovation. As Principal Business Systems Analyst at Intuit, he focuses on Robotic Process Automation and Artificial Intelligence to streamline operations. He is also co-founder and advisor of Brain Bridge, a platform that helps businesses retain and access knowledge to increase productivity, improve decision-making, and create more efficient workflows.

Throughout his career, Aaron has led impactful transformation programs for dozens of Fortune 500 companies. He is passionate about rapidly experimenting with emerging technologies to enable continuous improvement. As an Innovation Catalyst, Aaron thrives on creating human-centered solutions that deliver tangible impact.



# OUR TALENT IS FINDING YOURS



Axis Recruiting Solutions was started with a simple thought: connecting the greatest candidates with the greatest companies. Our CEO, Martin Granados, built the organization off the idea that staffing and recruiting organizations either acted with urgency or some would offer quality candidates. He realized that choice companies had to make wasn't a choice he was willing to offer. He realized that every company is different, every position is different, so he chose to do things differently.

At Axis Recruiting Solutions, we place the best candidates in organizations with the goal of assuring they will further the goals and play integral roles in the success that we go above and beyond to understand. It isn't enough to place a person in a position; to be called a successful placement, all stakeholders have to realize a "WIN"!



## THAT IS THE **AXIS** WAY!

**Melanie Hoffman**  
Business Development Manager  
Axis Recruiting Solutions- Arizona

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Innovator

# PRESENTER



**Mary Darling**

**M.S., J.D. CEO and Principal Owner**

Mary Darling, M.S., J.D. is the CEO and a founding principal owner of Darling Geomatics, participating in a broad range of UAV, 3D laser scanning, land surveying and environmental projects throughout the United States, Mexico and Turkey. She is also the company's technology lead, driving innovation and growth through specialized expertise in digital twins and AI. Ms. Darling is an FAA Part 107 licensed UAV pilot and the current co-chair of the Arizona Technology Council AI Ecosystem Committee. She is also a current Board Member and two term Past President of the Southern Arizona Post of the Society of American Military Engineers (SAME) and a former National Association of Women Business Owners (NAWBO) Board Member. She holds a master's degree in wildlife and fisheries biology and a law degree.



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- James R., Operations Manager, Software Company



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**OR CONTACT**

**Joe Wells**

Account Executive

[jwells@involta.com](mailto:jwells@involta.com)



Innovator

# PRESENTER



## Todd Pereira

Manager, Project Technology, South32 / Hermosa

Todd is passionate about leveraging technology to drive operational excellence and achieve business objectives. He has over 15 years of experience in the mining industry, working with technology in diverse locations including Australia, Saudi Arabia, and the USA. Todd has developed a deep understanding of the industry and its unique challenges. He is an enthusiastic member of the Hermosa Project team and motivated to develop and execute on Hermosa's technology strategy to create South32's next generation mine. Having experienced both success and failure in mining with digital transformation initiatives, Todd is committed to delivering a technologically advanced mine with a sensible and calculated approach to technology adoption. He holds a Master of Management (Information Technology), Business Administration and General Management from Charles Sturt University in Australia.



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South32's Hermosa project in southern Arizona is the only advanced mine development project in the United States that could produce two federally designated critical minerals – manganese and zinc – both of which are essential minerals for powering the nation's clean energy future. To do this in the cleanest, safest way possible for our employees and communities we are using proven, state-of-the-art technology. [www.south32hermosa.com](http://www.south32hermosa.com)



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**Dr. Bashar Rizk**

**Senior Staff Scientist, Research Engineer, OCAMS  
Instrument Scientist**

Dr. Bashar Rizk holds a BS in physics and chemistry from Duke University, an MS in physics from University of Illinois at Urbana-Champaign and a PhD in planetary sciences from the University of Arizona and has worked as an applied physicist in a University R&D setting for 40 years. He began as a condensed matter physicist studying 1/f noise, shifted to ground- and space-based observation and analysis, instrument design and photonics and landed in radiometry, photogrammetry, stereo-photoclinometry, regolith studies and image processing. At UA LPL, he has worked the entire life cycle of two robotic lander/ touchdown remote sensing instruments: the Cassini/Huygens Descent Imager/ Spectral Radiometer (DISR) and the OSIRIS-REx Camera Suite (OCAMS). His focus has included spacecraft and imaging system design & development, test, calibration, planning & operations, data processing and analysis. DISR and OCAMS both imaged their targets over a 9-order-of-magnitude range variation from remote to surface. The two missions also represented different ConOps approaches: from completely remote and autonomously adaptive operations to more continuously ground-in-the-loop.



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# AWARDS

## **Innovation Leader of the Year - Sponsored by Involta Paramium Technologies**

The company has made a significant contribution to the Southern Arizona tech community and/or significant contribution to advancing or transforming an industry sector. The company is a recognized technical or innovation leader in Southern Arizona.

## **Manufacturer of the Year - Sponsored by Involta Competitive Engineering**

The company demonstrates leadership as a manufacturer in the region with a new process or product, and involvement with the business and wider community of Southern Arizona.

## **StartUp of the Year - Sponsored by UA Tech Parks AZ AZ Cyber Initiative and Macula Vision Systems**

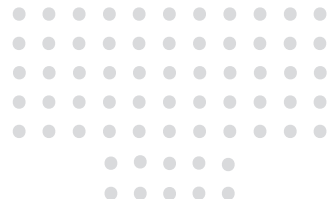
A company in a technology industry that has achieved significant business success and technical innovation or scientific achievement and has been created and/or funded within the past 24 months.

## **Sustainability Award - Sponsored by AGM Container Controls TG Recycling**

The company seeks to highlight sustainable practices, initiatives or programs by adopting practices without compromising people, the planet, or the economy. Company can demonstrate how their programs serve as good examples for other institutions.

## **Southern AZ Member Organization of the Year - Sponsored by UA Tech Parks AZ Involta**

The organization has demonstrated support and alignment with AZTC's vision statement: The Arizona Technology Council is the driving force behind making Arizona the fastest growing technology hub in the nation; connecting and empowering Arizona's technology community.





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