

INNOCONF 2023 CONFERENCE PROGRAM Please visit our website for more information! 2023.innoconf.org

Sponsors and Organizers





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Welcome Message from the Chairwomen

Dear Conference Participants,

Welcome to the 2023 IEEE Conference on Innovation Management!

We are thrilled to gather together some of the brightest minds and thought leaders in the field of innovation management from around the world. This conference is a testament to our shared commitment to pushing the boundaries of creativity and driving forward transformative ideas.

Over the next few days, we will embark on an exciting journey of exploration and collaboration. Together, we will delve into the latest trends, strategies, and best practices in innovation management. From groundbreaking technological advancements to disruptive business models, we will explore the ever-evolving landscape of innovation and its impact on industries and society as a whole.

Our lineup of esteemed speakers and industry experts will share their insights, experiences, and valuable knowledge during keynote addresses, panel discussions, and interactive workshops. They will challenge your thinking, inspire new perspectives, and provide you with practical tools and techniques to foster innovation within your organizations.

One of the key aspects of this conference is the opportunity for networking and forging meaningful connections. You will have ample opportunities to engage with fellow participants, exchange ideas, and build partnerships that can lead to collaborative projects and lasting professional relationships.

We have curated a diverse range of panels and topics to cater to a wide spectrum of investment areas. Whether you are an innovation manager, investor, entrepreneur, researcher, or simply someone passionate about driving change, this conference has something to offer for everyone. We encourage you to actively participate, ask questions, and share your own insights to create a vibrant and dynamic learning environment.

Beyond the conference sessions, we have also arranged social events and networking receptions where you can unwind, continue conversations, and forge connections in a more informal setting. Take advantage of these opportunities to connect with your peers and explore new possibilities.

We would like to express our sincere gratitude to our sponsors, partners, and the organizing committee for their invaluable support in making this conference a reality. Without their dedication and commitment, this gathering of brilliant minds would not have been possible.

Finally, we would like to extend our warmest appreciation to all the attendees who have traveled from far and wide to be a part of this remarkable event. Your presence and active engagement are what make this conference a truly enriching and transformative experience.

On behalf of the entire organizing team, we wish you an inspiring, productive, and unforgettable 2023 IEEE Conference on Innovation Management. May this event spark new

ideas, foster meaningful connections, and propel us all toward a future of boundless innovation.

Welcome, and let the journey begin!

General Co-Chairs

Andrea Belz, University of Southern California Viterbi School of Engineering, USA Lydia McClure, Research Bridge Partners, USA

IEEE INNOCONF 2023 Organizers

General Chairs:

Andrea Belz, University of Southern California Viterbi School of Engineering, USA Lydia McClure, Research Bridge Partners, USA

Technical Program Chairs:

Timothy Folta, University of Connecticut, USA Fernando Zapatero, Boston University, USA

Local Arrangements Chair: Precious McClendon, University of Southern California, USA

Technical Program Committee:

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Alex Klonoff, Kinexum Services, USA

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School of Engineering

Keynote Speaker



Daniel Jarratt

"Learning Engineering: A New Paradigm for Education Technology Research, Development, and Funding" Schmidt Futures

Dan Jarratt is a program officer, scientist, and engineer at Schmidt Futures, a philanthropic initiative of Eric and Wendy Schmidt with a mission to find and connect talented people to

solve our world's hardest problems.

Abstract: In this keynote address, Dan will introduce innovative funding and portfolio management processes for rapid and agile R&D such as virtual institutes and focused research organizations. He will describe how philanthropy leverages these practices in the Learning Engineering field to develop, test, and disseminate rigorous education technology – plus best practices for strong cohort effects, co-funding, field building, and academic-industry-government collaboration. Dan will show how Schmidt Futures has operationalized these practices in the Learning Engineering Virtual Institute, which spurs deep collaboration across institutes and disciplines to improve middle school math outcomes by developing, scaling and implementing interventions that leverage advanced computational methods. He will also describe prize competitions, code contests, scholarships and fellowships, and other ways that funders can build high-impact portfolios and networks.

Oceanside Chat



Stephen Hendrickson "The Department of Energy's Pathways to Commercial Liftoff"

United States Department of Energy

Abstract: Stephen Hendrickson will be speaking about DOE's work to accelerate clean energy technologies from the lab to market to achieve net-zero emissions by 2050. DOE's Pathways

to Commercial Liftoff provide public and private sector capital allocators with a perspective as to how and when various technologies could reach full-scale commercial adoptionincluding a common analytical fact base and critical signposts for investment decisions. Given the constantly and rapidly evolving market, technology, and policy environment, the Liftoff Reports are designed to be "living documents" – and will be updated as the commercialization outlook on each technology evolves.

Startup Showcase



Actinia: Actinia's mission is to increase the resolution and decrease the dose used in radiological imaging techniques such as SPECT, CT, and even plain Xrays. Actinia develops cutting-edge radiation detector materials that allow for a halving of the dose, or doubling of the resolution, of common imaging techniques used in medicine and security.

Josh Palmer, CEO – josh@actiniadetectors.com

Website: https://actiniadetectors.com/

AirMatrix: The AirMatrix mission is to make drone operations as common as ground-based traffic. In order to achieve that, we are focused on becoming a BVLOS enabler which is the key to accelerating urban aerial mobility in cities across the globe.

Our breakthroughs, unparalleled in the drone and telecommunication sectors, include:

Millimeter Precision: Our unmatched accuracy in geopositional coordinates significantly bolsters BVLOS operations and enhances sophisticated UTM systems.

Exceptional C-UAS Radar Technology: Our superior radar technology offers unrivaled detection and mitigation capabilities, solidifying airspace safety.

Al-Driven Telecom Predictions: We harness the power of artificial intelligence to streamline network planning and augment performance.

Proprietary Datasets: We've created unique data sets that directly enhance autopilot functionality and efficiency.

Industry-Leading Autopilot Integrations: We've achieved a significant market penetration, with 85% of the drone's autopilot integrated

Website: https://www.airmatrix.io/

Beamlet: Beamlet's game-changing sensors are engineered to revolutionize the way we approach safety, efficiency, and autonomy in vehicles and robots. By harnessing the power of cutting-edge technology, our sensors provide a wealth of data that can be seamlessly integrated into AI algorithms, allowing for unprecedented levels of insight and optimization.

Website: http://beamlet.com/





BoldRF: BoldRF is dedicated to the development, manufacture, and commercialization of passive radio frequency antennas and devices for the professional market. Technology and quality are our work principles and have been present in the company since the first designed antenna.

Laila Marzall - laila.marzall@colorado.edu

Website: https://www.bold-rf.com/

Impact Cooling: Impact Cooling has developed a direct-to-chip air cooling solution that can reduce data center power consumption without the use of water.

Cliff Denson - cliff@impact-cooling.com

Website: https://www.activate.org/impact-cooling

INVision Smart Window: INVision Smart Window LLC is a window company. INVision designs and manufactures windows used in transportation vehicles and stationary physical structures. Our smart window technology uses adjustable window colors to better protect people from dangerous UV and infrared rays, increase driver visibility, reduce energy usage for cooling & heating and decrease carbon emissions to protect the environment.

Website: https://infograph.venngage.com/pl/Pu4TE4FmxE

LISUS Energy: The idea behind LISUS's mineral exploration technology was conceived during Oscar's research at NASA JPL, where he built a complex multi-satellite data fusion architecture. We realized the value of combining multiple sata to generate new insights and we applied it to the natural resources industry as it's facing multiple challenges that can be solved through technology innovation. From there, LISUS developed a mineral exploration system that utilizes various data from different satellites in order to predict the location of critical mineral deposits while improving sustainability.

Website: www.lisusenergy.com









OSEM: OSEM has developed groundbreaking 3D nanotechnology that makes it easier and faster to create tiny particles called nanodrugs. These nanodrugs can deliver medications to specific parts of the body, leading to better treatment with fewer side effects compared to traditional therapies. Our innovative life science tools integrate OSEM's 3D nanotechnology, allowing scientists to quickly develop these life-saving nanodrugs without the difficulties of traditional manufacturing.

Rhoman Aerospace

and

is

commercial

Brian Feng - brian@osem.bio

Website: https://osem.mystrikingly.com/



Website: https://www.rhoman.aero/

SQUID3 Space: We are developing ASTRID, a smart electronic coating that transforms the exterior of satellites into digital and programmable surfaces. Designed to tackle thermal management, in-orbit docking, and sustainability challenges faced by satellites today, ASTRID saves manufacturers hundreds of thousands of dollars in engineering costs by enabling faster system integration, more energyefficient thermal control, and more precise docking for repair and refuel missions.

Warren Su - warrensu@usc.edu

Mesa Quantum Systems: Mesa Quantum is a quantum sensing start up spinning out of NIST. We are developing stable, high stability, low-cost chipscale atomic clocks that can be integrated into portable devices to improve and complement GPS performance and provide resilients timing.

Website: https://mesaquantumsystems.com/



Tuesday, June 20

Location: USC Davidson Conference Canter, 3409 S Figueroa St, Los Angeles, CA 90007

Parking Reservation ID: 364790

07:30 – 08:30 Breakfast Room: Davidson Vineyard & Patio

08:30 – 08:45 Welcome Address Room: Davidson Vineyard

08:45 - 09:30 Keynote: Daniel Jarratt, Schmidt Futures Room: Davidson Vineyard

Learning Engineering: A New Paradigm for Education Technology Research, Development, and Funding

In this keynote address, Dan will introduce innovative funding and portfolio management processes for rapid and agile R&D such as virtual institutes and focused research organizations. He will describe how philanthropy leverages these practices in the Learning Engineering field to develop, test, and disseminate rigorous education technology – plus best practices for strong cohort effects, co-funding, field building, and academic-industry-government collaboration. Dan will show how Schmidt Futures has operationalized these practices in the Learning Engineering Virtual Institute, which spurs deep collaboration across institutes and disciplines to improve middle school math outcomes by developing, scaling and implementing interventions that leverage advanced computational methods. He will also describe prize competitions, code contests, scholarships and fellowships, and other ways that funders can build high-impact portfolios and networks.

09:30 - 10:30 Panel 1: Atoms and Bits: The Industrial Automation Landscape Room: Davidson Vineyard

Swati Chaturvedi Propel(x)

Peter Lee Embark Ventures

Curtis Rodgers Brick and Mortar Ventures

Joe Wilson Undeterred Capital

Yoav Zingher Launchpad.build

10:30 - 11:00 Coffee Break Room: Davidson Vineyard & Patio

11:00 - 12:00

Panel 2: Rags to Riches to Rags: Deep Tech Startups in the Changed Investment Landscape Room: Davidson Vineyard

Andy Chen REDDS Capital

David Lane 1Flourish Capital

Chris Moran Lockheed Martin Ventures

Lorana Quintero GoldenSeeds

12:00 - 13:15 Networking Lunch Room: Davidson Vineyard & Patio

13:30 - 14:15 What Drives Innovation Success I Session Chair: Timothy Folta, *University of Connecticut* Room: Davidson Vineyard

13:30

Complexity Leadership: Expanding the Fundamental Leadership Modes Chris S A Biggadike (Brunel University & Dalehousie University, United Kingdom (Great Britain)) Richard D Evans (Dalhousie University, Canada) Eujin Pei (Brunel University, United Kingdom (Great Britain))

13:45

Ecosystem in Transition: Managing Complementor Bottlenecks With Disruptive Innovation

Yue Song (San Diego State University, USA) Maggie Zhou (University of Michigan, USA)

14:15 – 15:30 Panel 3: Vision or Hallucination? Launching Ambitious Deep Tech Startups Room: Davidson Vineyard

Daniel Brunner Commonwealth Fusion Systems

Edlyn Levine

America's Frontier Fund

Hemai Parthasarathy Google X

Marc Schlichtner Siemens Healthineers

Andy Wilson

Alliance for Southern California Innovation

15:30 - 16:00 Coffee Break Room: Davidson Vineyard & Patio

16:00 - 17:00 Startup Showcase Room: Davidson Vineyard

17:30 – 19:00 Reception Room: MCB Foyer

Wednesday, June 21

Location: USC Michelson Center for Convergent Bioscience, 1002 Childs Way, Los Angeles, CA 90089

Parking Reservation ID: 364791

07:30 – 09:00 Breakfast & Panel 4: Walking the Walk: Diversifying Deep Tech Innovation Room: MCB 101

Mariah Lichtenstern DiverseCity Ventures

Julie Pantiskas Pasadena Angels

Lorana Quintero GoldenSeeds

09:00 - 09:15 Welcome Back! Room: MCB 101

09:15 – 10:15 Panel 5: The Final Frontier: Commercial and Civil Uses of Space Resources Room: MCB 101

Andrea Belz University of Southern California

Tony Freeman NASA Jet Propulsion Laboratory

Howard Ko Morpheus Ventures

Michael Lohnert AEl Horizon X

Chris Moran Lockheed Martin Ventures

10:15 – 10:45 Coffee Break Room: MCB Foyer

10:45 – 12:00 Panel 6: Pick Your Battles: The Role of Intellectual Property in Deep Tech Room: MCB 101

Stephen Koziol

US Patent and Trademark Office, Silicon Valley Office

Lydia McClure

Research Bridge Partners

Falgun Patel The Aerospace Corporation

Jennifer Shockro

California Institute of Technology Office of Technology Transfer

12:00 - 13:00

Lunch & Oceanside Chat: Stephen Hendrickson, United States Department of Energy Room: MCB 101

The Department of Energy's Pathways to Commercial Liftoff

Stephen Hendrickson will be speaking about DOE's work to accelerate clean energy technologies from the lab to market to achieve net-zero emissions by 2050. DOE's Pathways to Commercial Liftoff provide public and private sector capital allocators with a perspective as to how and when various technologies could reach full-scale commercial adoption– including a common analytical fact base and critical signposts for investment decisions. Given the constantly and rapidly evolving market, technology, and policy environment, the Liftoff Reports are designed to be "living documents" – and will be updated as the commercialization outlook on each technology evolves.

13:00 – 14:00 What Drives Innovation Success II Session Chair: Fernando Zapatero, *Boston University* Room: MCB 102

13:00

Towards Innovative Smartization of Businesses in Emerging Economies: Fostering Innovation in Transportation Startups Business Models Utilizing the Industry 4.0 Technologies

Mohammad Tondro (University of Texas at Arlington, USA)

Mohammad Jahanbakht (Sharif University of Technology, USA & University of Texas at Arlington, USA)

13:15

EPXcoin: Blockchain-Enabled Electricity Power eXchange Mechanism in the Smart City Madhusudan Singh (Oregon Institute of Technology & Center of Blockchain Technology, USA)

Jong-Hoon Kim (Kent State University, USA)

Dhananjay Singh (Saint Louis University, USA)

13:30

Innovation and Collaboration in Science

Max Wang (Columbia University & Harvard University, USA)

14:00 - 15:00

Panel 7: Generating Financial and Social Returns: Clean Tech Room: MCB 101

Alex Andrianopoulos

Kairos Ventures

Taj Ahmad Eldridge

Include Ventures

Ken Hayes

Cleantech Open

Mariah Lichtenstern

DiverseCity Ventures

Neal Okarter

BASF

15:00 – 15:30 Coffee Break Room: MCB Foyer

15:30 – 16:30 Office Hours Room: MCB 101

16:30 – 17:00 Technical Workshop: Attracting Funding and Attention to Innovation Research Room: MCB 101

Andrea Belz University of Southern California

Timothy Folta University of Connecticut

Lydia McClure Research Bridge Partners

Fernando Zapatero Boston University

17:00 – 20:00 Reception Room: Moreton Fig Patio Address: 3607 Trousdale Parkway, Los Angeles, CA 90089

Thursday, June 22

Location: USC Ronald Tutor Hall, 3710 McClintock Avenue, Los Angeles, CA 90089

Parking Reservation ID: 364793

07:30 – 08:00 Breakfast Room: RTH Foyer

08:00 – 12:00 Innovation Master Class for Corporate Innovation Leads Room: RTH 526

12:00 – 13:00 Lunch Room: RTH Foyer

Parking and Directions

DIRECTIONS TO THE USC DAVIDSON CONFERENCE CENTER VINEYARD ROOM

Tuesday, **June 20:** The Davidson Conference Center is located on the USC University Park campus at 3409 S Figueroa St, Los Angeles, CA 90007. Enter campus at Jefferson Blvd & Royal Street, west of Figueroa Street. Please provide Parking Reservation Number 364790 to the parking attendant upon entering at the Royal Street entrance. The Davidson Conference Center is located immediately east of the Royal Street parking structure, on the corner of Figueroa Street and Jefferson Blvd.

DIRECTIONS TO THE USC MICHELSON CENTER FOR CONVERGENT BIOSCIENCE

Wednesday, June 21: The USC Michelson Center for Convergent Bioscience, located on the USC University Park campus at 1002 Childs Way, Los Angeles, CA 90089. Please provide Parking Reservation Number 364791 to the parking attendant upon entering campus at Vermont Avenue and 36th Place. The Downey Way parking structure is directly south of Michelson Center at the southwest corner of McClintock Ave. and Downey Way.

DIRECTIONS TO THE USC RONALD TUTOR HALL

Thursday, June 22: The Innovation Master Class will be held at the USC Ronald Tutor Hall, located on the USC University Park campus at 3710 McClintock Ave., Los Angeles, CA 90089. Please provide Parking Reservation Number 364793 to the parking attendant upon entering campus at Vermont Avenue and 36th Place. The Downey Way parking structure is southeast of Ronald Tutor Hall is on McClintock Ave., north of 37th Place.