

Industrial Control Systems (ICS) Security Training

By Emily W. Microsoft

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Industrial Control Systems (ICS) and Operational Technology (OT) are increasingly targeted by cyber threats, putting businesses, governments, and national infrastructure at risk. Specialized ICS/OT security training is vital to securing operations across all industries and defending the systems that make, move, and power the world.



The SANS ICS Security Mission

Unlike traditional IT environments, ICS/OT systems face unique risks that demand both cybersecurity expertise and operational awareness. SANS ICS security training prepares defenders for the evolving threats targeting essential industries worldwide. From foundational to advanced—SANS ICS training, led by expert instructors with real-world labs using cyber physical systems, provides the knowledge and hands-on skills to defend the critical infrastructure and industrial operations that drive economies.

Student Insights

Even in the tech industry, ICS security is often overlooked. This training showed me how ICS threats impact all sectors and gave me the skills to mitigate them.

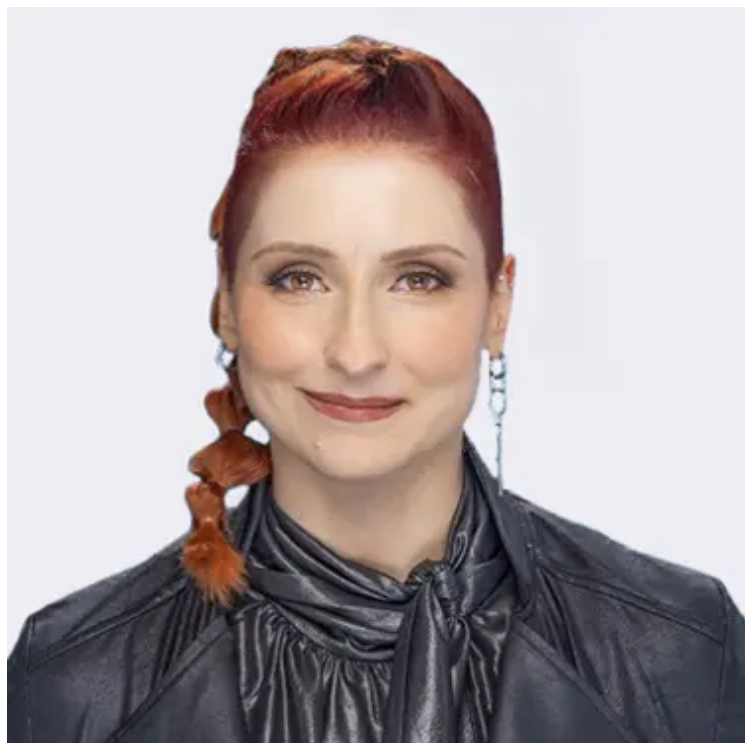
Meet Your Experts





Mark loves the ever-changing landscape of security and views it as a puzzle that must be solved. He especially loves the challenges in ICS security, where the cyber meets the physical. There is no greater success than a safe and effective process.

[Learn more](#)





Lesley Carhart

Technical Director of Industrial Incident Response

Lesley is Technical Director of Industrial Incident Response for North America for Dragos and teaches SANS Industrial Control System courses. She's a recognized leader in cybersecurity and has won a number of prestigious awards in the field.

[Learn more](#)





Jason Christopher

Senior Vice President of Cybersecurity and Digital Transformation for Research and Innovation

Jason D. Christopher, Energy Impact Partners SVP, teaches ICS456 and co-authors ICS418, turning regulation into safe, reliable OT-supporting programs and metrics to align practitioners and leaders on clear, defensible action.

[Learn more](#)



Tim Conway

SANS ICS Curriculum Lead

SANS Fellow Tim Conway, co-author of ICS456, ICS310, and ICS612, blends decades of hands-on ICS/OT security and compliance expertise with ongoing frontline consulting, helping students turn complex industrial challenges into practical skills.

[Learn more](#)



Jason Dely brings over 20 years of experience and a diverse industrial control system background to SANS and the industrial control system (ICS) community.

[Learn more](#)



Monta Elkins

Hacker-in-Chief

Monta Elkins is currently "Hacker-in-Chief" for FoxGuard Solutions, an ICS patch provider. A security researcher and consultant; he was formerly Security Architect for Rackspace, and the first ISO for Radford University.

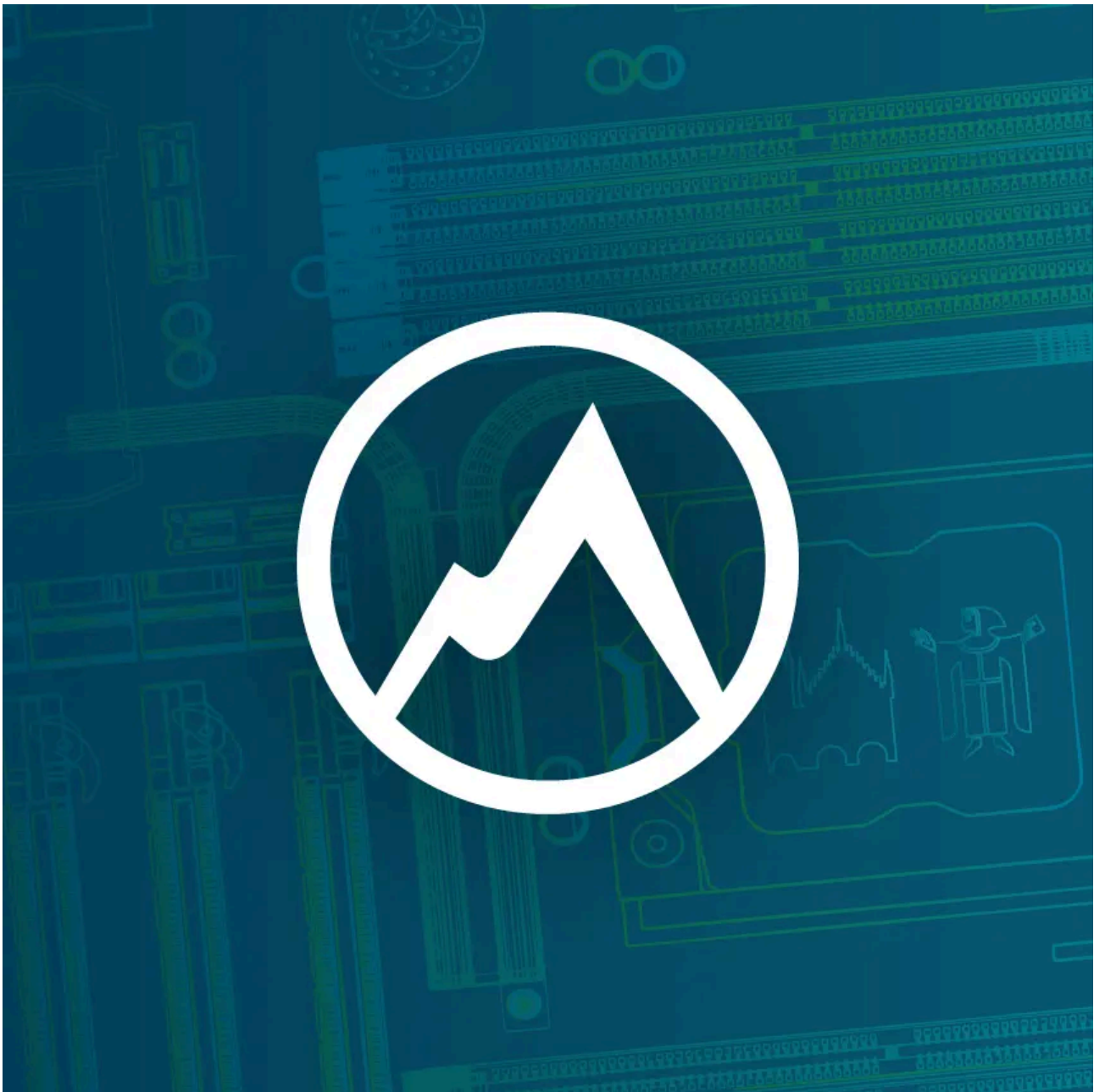
[Learn more](#)

Explore Careers Within Industrial Control Systems Security

SANS ICS Security Summit & Training 2026

The SANS ICS Security Summit offers something for everyone—from introductory learning for those new to ICS/OT security to advanced insights and techniques for seasoned practitioners and leaders. Join us at Disney in Orlando to experience immersive workshops, in-depth talks, and practical takeaways led by the industry's top experts.

[Explore Event](#)



Upcoming Events

- Slide 1 of 3

[Strengthening the Foundation: Implementing SANS ICS Controls 1 and 2](#)

[In this session, we dive into the first two pillars of the SANS Top 5 Critical ICS Controls: ICS Incident Response and Defensible Architecture.](#)

[Webinar Industrial Control Systems Security](#)



- [3 Jun 2026](#)
- [17:00 CDT](#)
- [Justin Searle](#)

[View details](#)

- Slide 2 of 3

[ICS Solutions Track 2026: OT/ICS Actionable Industrial Cyber Defense - Live Demos, Real Attack Case Studies, and Proven Countermeasures](#)

[Top ICS/OT vendors will showcase cutting-edge tools for anomaly detection, ransomware containment, and engineering-aware industrial ICS/OT incident response—proving how defenders can protect the systems that make, move, and power our world.](#)

[Webinar Industrial Control Systems Security](#)



- [9 Jun 2026](#)
- [10:00 EDT](#)
- [Dean Parsons](#)

[View details](#)

- Slide 3 of 3

[**SANS 2026 State of ICS/OT Security Survey Insights: Industrial Cybersecurity at a Crossroads**](#)

[Join us to discuss insights from SANS 9th annual State of ICS/OT Security Survey. This trusted industry research captures how organizations across sectors are evolving their industrial cybersecurity strategies in response to regulatory pressures, emerging threats, and operational demands.](#)

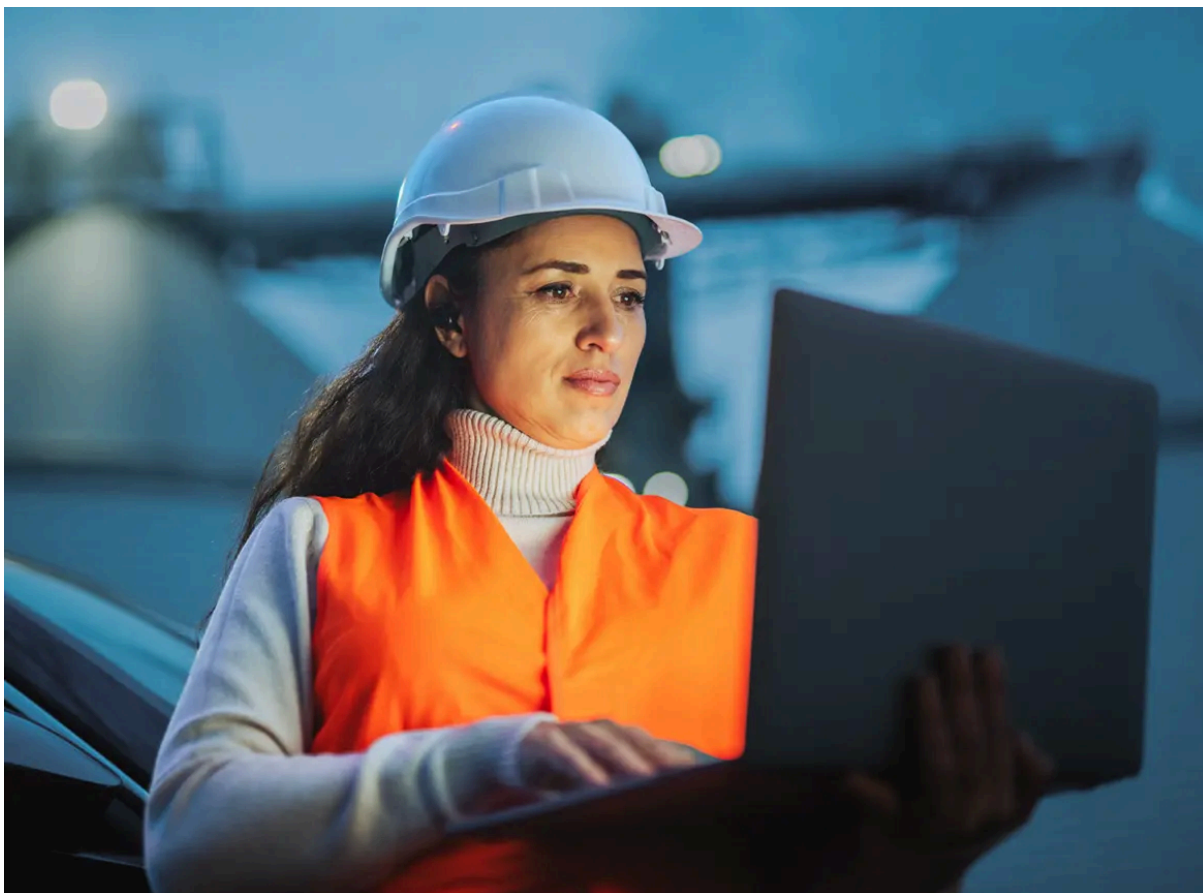
[Webinar Industrial Control Systems Security](#)



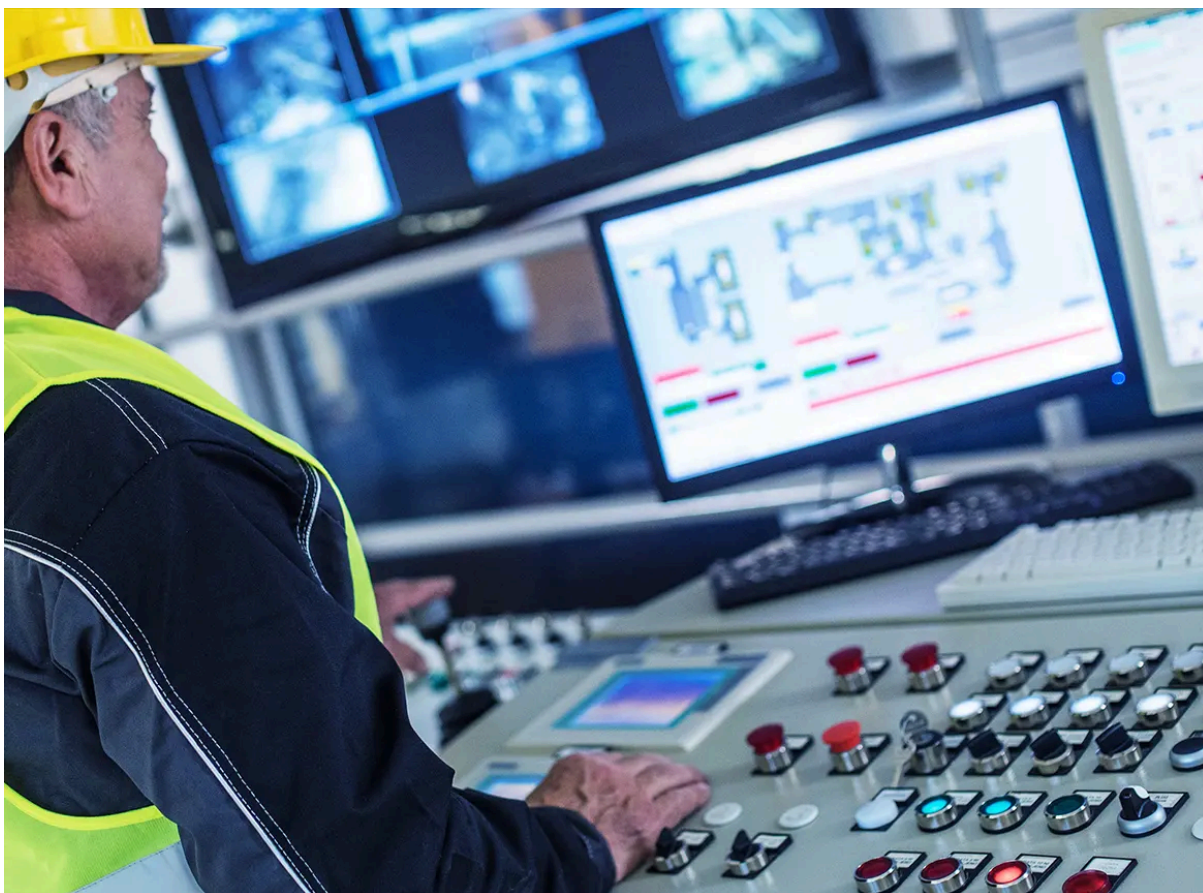
- [10 Nov 2026](#)
- [10:30 EST](#)
- [Jason Christopher](#)

[View details](#)

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- Slide 2 of 3



- Slide 3 of 3



[More Insights](#)

Frequently Asked Questions

Source: <https://ics.sans.org/blog/2015/12/30/current-reporting-on-the-cyber-attack-in-ukraine-resulting-in-power-outage>