



Fraunhofer

ACADEMY



CYBERSECURITY TRAINING LAB

Skill development in the field of Cybersecurity – from research to practice.

The Cybersecurity Training Lab offers:

- open seminars
- in-house training
- Company programs
- online courses

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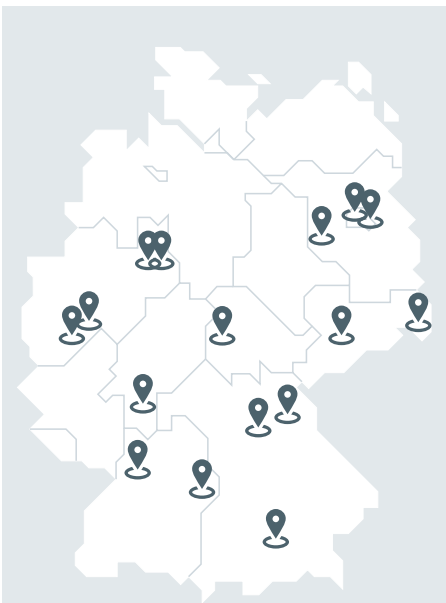


The Challenge: Growing Cybersecurity Risks, Few Specialists

Training and development in the field of IT security is an issue of national interest, given that cyber attacks on critical infra-structures or industrial complexes can result in significant financial losses, the disruption of vital supply networks, or the breakdown of public order. The growing trend toward connectivity and digitalization only accentuates the threat. 71 percent of companies consider cybersecurity to be relevant. However, in more than a third of all companies, expertise in this area is mediocre. Between 2017 and 2019, 47 percent of all German companies were victims of cyber attacks. And yet, the shortage of trained specialists in the security industry will reach 1.5 million worldwide by 2020. Hence, professionally trained IT security specialists are a rare commodity in Germany.

The Solution: Cybersecurity Training Lab for Security Experts of Tomorrow

So as not to fall behind in the arms race with cyber criminals, IT teams and managers must constantly hone their skills and improve their expertise in order to stay at least one step ahead. In cooperation with selected universities of applied sciences, the further education initiative »Cybersecurity Training Lab« strengthens the skill development in the field of IT security. Experts and executives from industry and public administration benefit from this compact qualification in high-quality laboratories with up-to-date IT infrastructure. With simulated real threat scenarios, the participants study suitable solution concepts, practically in their use and efficiency. The Federal Ministry of Education and Research (BMBF) supports this initiative with six million euros annually.



Locations of the training labs and research labs of participating Fraunhofer Institutes and universities of applied sciences in Germany.

The Concept: Collaboration with Technical Colleges for Up-to-Date Research Knowledge

Fraunhofer and a select group of universities have developed a modular concept for cybersecurity training. This collaborative approach enables the latest theoretical or practical research findings to be immediately incorporated into the teaching program. Students will work in modern laboratories equipped with simulation tools allowing real threat scenarios to be tested.

Experts and executives from industry and public administration can specialize in the these sectors:

- Industrial production
- Energy and water supply
- Automotive Security
- Public Safety

The Recipe for Success: Accumulation of Competence Meeting the Needs

The teaching components are condensed into a compact format requiring only part-time attendance, and the modules can be combined in different ways to match the IT security requirements of various professional functions. The Fraunhofer Academy is developing new modules based on demand and provides end-to-end quality management. Joint research groups open up highly topical subject areas and convey the latest findings in innovative learning scenarios.

Industry supports this initiative, as confirmed by Thomas Tschersich, Senior Vice President Internal Security & Cyber Defense at Deutsche Telekom AG:

“We particularly appreciate the modular format that concentrates teaching content in short training units, enabling the transfer of knowledge in specific subject areas. This is ideal for part-time study and for specific training in the use of modern tools.”

Your benefits at a glance



Practically presented **cutting-edge research knowledge**



Compact and transfer-oriented formats for integrated professional learning



Testing of customized solution strategies in high-value labs



Flexible combinable modules tailored for the specific needs of the business or institution

We offer training in the following Cybersecurity domains:

- Embedded Security
- IoT Security
- Mobile Application Security
- Blockchain
- Software development and testing
- Product certification
- IT-forensics
- Malware analysis
- Data protection
- Identity and proof of identity