Fraunhofer VVS Competence map

Fraunhofer VVS

Fraunhofer-Institute for Short-Time Dynamics, Ernst Mach Institute, EMI
- Defense
- Security and resilience
- Automotive
- Space travel
- Aviation

Fraunhofer-Institute for High Frequency Physics and Radar Technology FHR
- Defense
- Space
- Traffic
- People and the environment
- Security
- Production

Fraunhofer-Institute for Communication, Information Processing and Ergonomics FKIE
- Sensor data and information fusion
- Communication systems
- Human-machine systems
- Balanced integration of human systems
- Information technology for management and control
- Kognitive mobile Systemes
- Cyber analysis and defense
- Cybersecurity
- Usable security and data protection
- Product and process ergonomics

Fraunhofer-Institute for Applied Solid State Physics IAF
- power electronics
- Photo detectores
- Semiconductor laser
- Quantum systems
- High-frequency electronics

Fraunhofer-Institute for Experimental Software Engineering IESE
- Development of operating and system architectures
- Development of security concepts
- Model-based simulation of systems (virtual engineering and validation)
- Data usage control (concepts and technical solutions for data sovereignty and data protection)
- Data-Engineering (Technologien for Big Data-Analytics and KI-Applicationen)

Fraunhofer-Institute for Chemical Technology ICT
- Energetic materials
- Technical safety and hazard prevention
- Energy supply systems

Fraunhofer-Institute for Integrated Circuits IIS
- Audio and media technology
- Communication systems
- Positioning and networks
- Intelligent sensors and electronics
- High-resolution X-rays
- Development of adaptable systems
- Services in the supply chain

Fraunhofer-Institute for Applied Optics and Precision Engineering IOF
- Light sources and lasers
- Opto-mechanical systems
- Sensors and metrology
- Photonic quantum technologies

Fraunhofer-Institute for Optronics, Systems Engineering and Image Exploitation IOSB
- Optronic systems (laser, infrared, optical signature management)
- Image analysis for reconnaissance, armor and anti-tank defense
- Data security and privacy protection in video surveillance
- System architecture for surveillance, reconnaissance and simulation
- Risk and crisis management for natural disasters and major emergencies

Fraunhofer-Institute of Transportation and Infrastructure Systems IVI
- Algorithms for the optimization of decision support
- Networked deployment management and synchronization of all situation information
- Visualization of geographical information about the application area
- Visualization of application-specific information, e.g. flood zones, critical infrastructure
- Overview of the available emergency services and resources, damage and affected persons

Fraunhofer-Institute for Structural Durability and System ReliabilityLBF
- Structural safety and reliability for improved operability
- Flame-retardant plastics and shock absorption for increased protectionFlame-retardant plastics and shock absorption for increased protection
- Vibration and noise reduction for more effect and precision