

Press release

Vienna/Linz, 09 October 2023

HIGH-TECH MADE IN AUSTRIA: STATE-OF-THE-ART DIGITALISATION SOLUTIONS PRESENTED AT EUROPE'S LARGEST IT SECURITY FAIR

Together with IT security specialists, the AIT Austrian Institute of Technology presents state-of-the-art product innovations at the "it-sa" trade fair in Nürnberg.

From 10 to 12 October, the joint exhibition stand (number 7-215) at Europe's largest fair for IT security will have the motto "Sharing Innovation": IT specialists X-Net, Rimage, Iknaio and fragmentiX, industry partner LiSEC as well as Austria's largest applied research institution AIT Austrian Institute of Technology will present state-of-the-art, jointly developed product innovations.

AIT Cyber Range - Modern training for the operation of cyber-resilient critical infrastructures

As the world's first IAEA Collaborating Centre in the field of cyber security, the AIT is responsible for nuclear security in the IAEA member states. For this purpose, the AIT and its premises in Vienna operate a unique digital and hybrid simulation and training centre - the AIT Cyber Range. An advanced audio-video set-up in the training room enables participants to communicate flexibly with each other and share their screen contents on large projection screens with the entire training group. Since the training room is also suitable for online events, it has functions for live transmission of video and audio to the internet. More information: <https://cyberrange.at/>

Note: Helmut Leopold, Head of AIT Center for Digital Safety & Security, will give a live presentation on this topic at Lecture Forum B (international) on Wednesday, 11.10.2023 at 12:30. You can find more information [here](#).

Fake Shop Detector exposes online fraudsters

Fake shops on the Internet are becoming more numerous and at the same time more difficult to detect. The Fake Shop Detector, developed by the AIT in close cooperation with the Austrian Institute for Applied Telecommunications (ÖIAT) and the Austrian internet specialist X-Net, offers support in detecting online fraudsters. The Fake Shop Detector uses artificial intelligence to check unknown online shops in real time for more than 21,000 characteristics. Above all, a permanent quality control of the AI by humans is an inherent part of the AI-based solution. If a shop is suspicious, the detector warns and protects consumers preventively against online fraud. This success led to a new partnership between AIT and the Bavarian Ministry of Justice at the end of August to tailor the successful Fake Shop Detector to the special requirements of law enforcement agencies and to further develop it for their investigative work. Further information:

<https://www.fakeshop.at/>

Iknaio Pathfinder and Iknaio Automator

To counteract the ever-increasing cyber attacks, Iknaio Cryptoasset Analytics aims to make the handling of cryptocurrencies in general more secure:

Iknaio Pathfinder is a comprehensive service that makes it easy to analyse addresses and transactions on various cryptoasset networks such as Bitcoin, Ethereum and Tether. Based on the open-source GraphSense, Iknaio Pathfinder also offers advanced features such as collaborative investigations and automation of information requests. This makes it an extremely powerful tool for anyone looking to gain insights into payment flows or conduct investigations into the world of cryptoassets.

Iknaio Automator enables efficient and reliable cryptoasset analysis by automating what was previously done manually with Iknaio Pathfinder. This innovative solution enables organisations to protect themselves from cyber-attack threats while increasing the efficiency of their cryptoasset analysis. <https://www.ikna.io>

AI-based media forensics for the protection of society and democracy

Media forensic tools are being developed at AIT to detect disinformation campaigns on the Internet. Within the framework of projects of the security research funding programme KIRAS, which is financed by the Federal Ministry of Finance, the experts are working on a media forensic software platform that enables users, e.g. media companies or authorities, to assess the credibility of text, image, video or audio material on the internet. Artificial intelligence (AI) is used for this. The project focuses in particular on politically motivated disinformation, as this ultimately threatens democracy and weakens the population's trust in political and state institutions. In addition, AI-based tools are being developed that enable the automatic recognition of contexts based on text similarity and semantic analysis in order to track down hate speech, extremism or propaganda, for example. Further information: <https://defalsifai.at/> and <https://gadmo.eu/>

ThreatGet - Cyber Security by Design for Internet of Things (IoT)

Today, the AIT is considered the European Cyber Security Competence Center. With the award-winning artificial intelligence-based security tool ThreatGet, it is possible to analyse the entire system architecture of security-critical applications such as connected vehicles. An automated analysis for potential system risks and attack paths can be easily carried out right from the start of system development. This cyber security by design tool is a must-have for industries with security-critical infrastructure that are required by regulatory guidelines to have a corresponding cyber security management system. ThreatGet is available to consulting companies as part of a partner programme for risk management consulting for highly secure IT and electronic systems. ThreatGet was developed by AIT together with Sparx Services CE, a business unit of Lieber.Group. The

Partner programme "ThreatGet" was most recently nominated for the Austrian State Award Consulting 2022 in the category "Management Consulting and IT" and received the Constantinus

Award in the category "Digitalisation/Internet of Things". Further information: <https://threatget.eu/>

SEC3 - Secure Cloud Connecting System

Secure IoT devices are the basis for the digitalisation of Industry 4.0. A single successfully attacked IoT device can mutate into an attack vector for all devices connected to the cloud. The "Security by Isolation" (SBI) model from the Austrian IoT4CPS research project coordinated by AIT represents such a solution and, with the Sec³ Secure Cloud Connecting System solution based on it, takes into account that uncontrolled access to data is not possible at any time. The system was further developed by X-Net Technologies and offers the highest level of security for machines and IoT devices, fast initial installation, configurations only via the company's own Sec³ Cloud, coordination of remote maintenance of their components via company-owned Sec³ Hubs with video documentation and up-to-date encryption of the connections with little time expenditure. Sec³ combines the advantages of IoT Edge Box, Remote Service Box and Firewall, fulfils the highest security requirements and is developed and manufactured in Europe. Lisec Holding GmbH was the main source of input for the product development and the first user from the industry.

X5 Data carrier copying system

X5 is the only storage media production system that can record SSD, USB, CF, MicroSD etc. simultaneously and individually. Just-in-time copying operations ensure that the right storage media are reliably available in the right place at the right time. The X⁵ copying systems are designed to support customer-specific workflows and processes. The spectrum ranges from the automatic loading of storage media with individual product-specific data to just-in-time productions and simple copying processes. When implementing a copying process, the entire production workflow is taken into account and adapted to individual needs. In addition to recording and verifying data on data carriers, encryption mechanisms, authentication processes and communication security are also taken into account. This makes the X⁵ system usable worldwide. The combination of software and hardware components also allows individual security strategies over the entire life cycle of a product.

Rimage RX400 - High security USB based high speed disc copying system

The Rimage RX400 - a USB-based data carrier copying system - represents the further development of previous data storage and transfer using CD solutions and is used where cloud solutions also reach their limits: Secure and fast storage of sensitive and, above all, large amounts of data, as is required in a medical environment (medical data such as MRIs, radiology) and forensics (preservation of evidence). Depending on the software version and application, commercially available or dedicated, highly secure and write-protected USB sticks are used. In addition, security features such as WORM functionality for USB sticks (write once, read many) are available and prevent unwanted data from being written, changed or deleted on USB sticks. The compact Rimage RX400 was developed by X-Net and is for system integrators,

Health care providers, hospitals as well as users from other industries equally easy to set up and operate.

Bug-proof quantum communication technology

Based on the pioneering research work of Nobel Prize winner Professor Anton Zeilinger, the AIT was able to develop concrete applications and technologies in the field of quantum communication together with him at a very early stage. As a result, the AIT is now considered a specialist in both terrestrial and satellite-based quantum cryptography. Against this background, the work of the quantum researchers focuses in particular on the miniaturisation of the devices required for quantum encryption (QKD) and on the establishment of a European quantum communication network within the framework of the EuroQCI initiative. At it-sa, AIT will present a compact quantum random number generator that generates random numbers at a speed of 2 Mbit/s. The randomness is based on quantum technology. The randomness is based on quantum mechanical effects and is therefore not calculable. This method makes it possible to significantly strengthen even today's existing encryption algorithms. In addition, the AIT is presenting a miniaturised QKD transmitter. This consists of a photonically integrated chip that carries all components such as lasers, modulators and attenuators. The special feature of the transmitter: it generates quantum cryptographically secured keys at a rate of 1kbit/s over a distance of 30km and thus enables tap-proof communication. Further information: <https://quantum.ait.ac.at/>

fragmentiX Storage Appliances

We develop and produce the first of its kind quantum-safe storage devices that enable users to store their data securely in the cloud. By fragmenting the data, fragmentiX enables the use of cloud storage without the risk of loss and theft. This process is called Secret Sharing and enables the encrypted division of files and directories into a predefined number of LOCATIONS known only to the owner of the devices.

Further information: <https://www.fragmentix.com>

We look forward to seeing you at our stand number 7-215. If you need a free ticket, please contact us at kmue@x-net.at.

Advance notice: On Wednesday, 11 October 2023 at 12:30 p.m., Helmut Leopold, Head of AIT Center for Digital Safety & Security, will give a live lecture on **"AIT Cyber Range: Modern training for operating cyber-resilient critical infrastructures"** at the lecture forum B (international). You can find more information [here](#).

About X-Net

As a public welfare-oriented IT company, X-Net has been developing individual special solutions in the hardware and software sector and installing and servicing IT networks for companies and institutions of all sectors and sizes since 1999. X-Net strives to anchor sustainability and ecological awareness in all areas of the company and to raise sustainability awareness through the professional use of OpenSource.

"Sharing" - i.e. making knowledge jointly usable - and "regionality" are the essential

The cornerstone of business. In the development of future-oriented and secure IT/OT solutions, X-Net is in active exchange with research institutions and builds on long-lasting partnerships. Further information: <https://www.x-net.at>

About Iknaio Cryptoasset Analytics

Iknaio Cryptoasset Analytics was founded in 2021 with headquarters in Vienna and builds on an open source solution developed at the AIT Austrian Institute of Technology. With its cryptoasset analytics solution, the company aims to make a decisive contribution to curbing criminal activities in the field of cryptocurrencies. Iknaio Cryptoasset Analytics GmbH is funded by Seedfinancing - Deep Tech of the BMAW and the BMK through the aws. Further information: <https://www.ikna.io>

About Rimage

As the global leader in digital publishing, Rimage pioneered and pioneered fully automated USB, CD, DVD, Blu-ray burning and printing systems. With over 22,000 systems integrated into diverse workflows and applications, Rimage supports small, medium and global businesses around the world. These companies produce a large number of different CDs, DVDs and Blu-rays for the distribution of a wide variety of data, images and information. The development and launch of the Rimage RX400 further strengthened the previously existing partnership between X-Net and Rimage. Further information: <https://www.rimage.com/>

About LISEC

LiSEC is a globally active group and has been offering innovative individual and complete solutions in the field of flat glass processing and finishing for over 60 years. The service portfolio includes machines, automation solutions, software and services. LiSEC develops and manufactures glass cutting and sorting systems, individual components and complete production lines for insulating and laminated glass production as well as glass edge processing machines and tempering systems. With reliable technology and intelligent automation solutions, LiSEC sets standards in quality and technology and contributes significantly to the success of its customers.

Further information: <https://www.lisec.com>

About fragmentiX

fragmentiX Storage Solutions is an Austrian cybersecurity company that helps individuals and businesses achieve and maintain their right to privacy and digital sovereignty. fragmentiX Storage Appliances enable individuals and businesses of all sizes to protect their data in the cloud with information theoretic security (ITS) against loss and theft, i.e. proven against current and future quantum computer attacks. fragmentiX Storage Solutions was founded in July 2018 by Werner Strasser, who has been an entrepreneur and managing director of ProCom-Strasser GmbH for many years. In order to promote digital sovereignty and dignity as a human right, not only for companies and governmental organisations, but also for individuals, he started to develop and produce quantum-safe storage solutions in close cooperation with AIT - Austrian Institute of Technology.

Further information: <https://www.fragmentix.com>

About Austrian Institute of Technology

The AIT Austrian Institute of Technology is Austria's largest non-university research institution and a highly specialised research and development partner for industry. At the Center for Digital Safety & Security, more than 200 experts work on state-of-the-art information and communication technologies in order to be able to build and use our systems in a highly secure and reliable manner in the context of comprehensive digitalisation and global networking. With this technological competence, various markets are addressed, such as the semiconductor industry, the automotive sector, critical infrastructures such as energy grid and power plant operators, financial markets, as well as the security sector in the context of critical infrastructure protection, and many more. The Centre has a recognised position in national and international innovation programmes and is a formative part of many European industry and research initiatives. Further information: <http://www.ait.ac.at/dss>

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