

Fall prevention

*Locate falls as quickly as possible
with 3D infrared sensors*

PAGE 03

Fire safety in churches

*Maximum safety for visitors
and our cultural heritage*

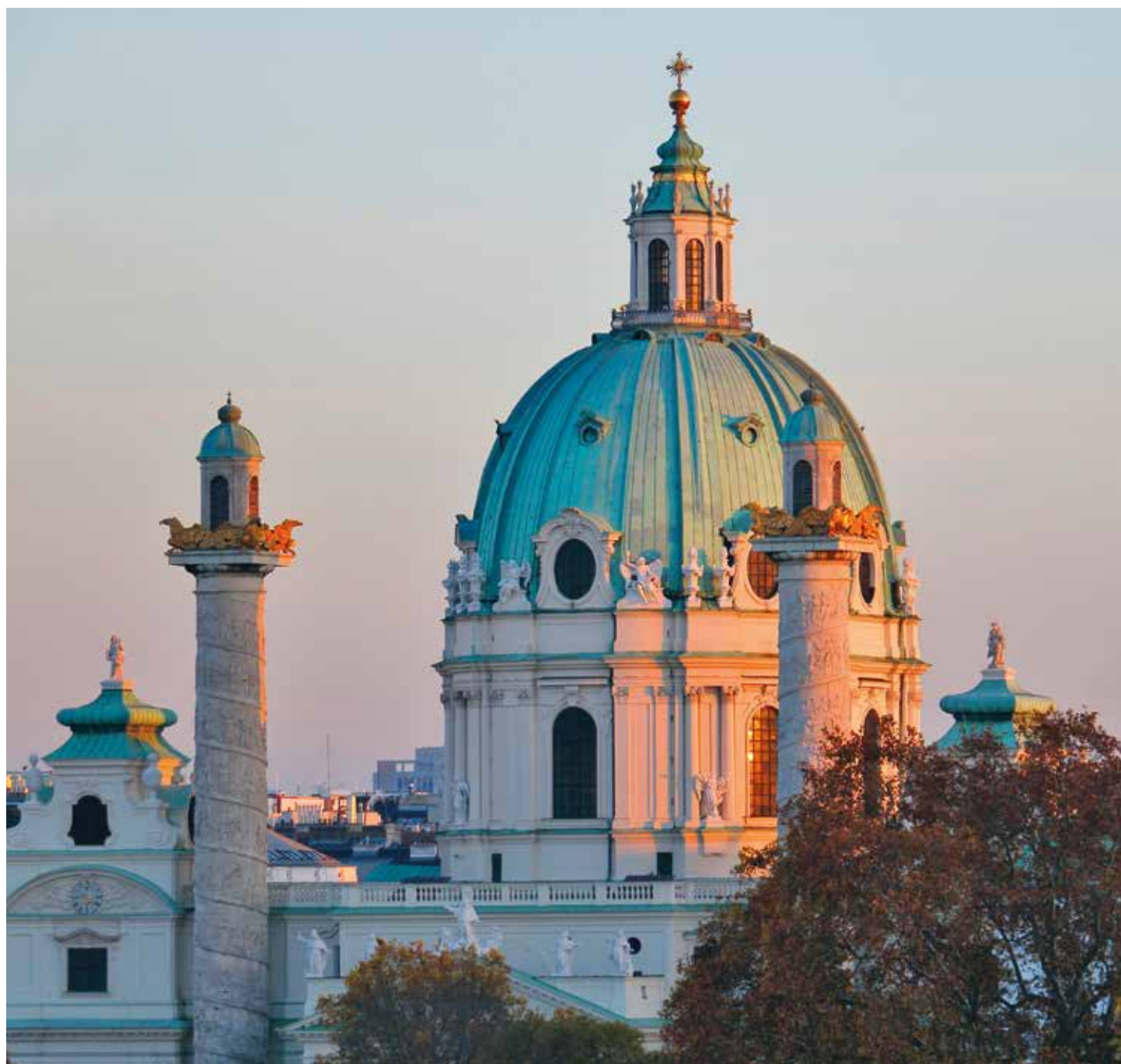
PAGE 08

AI for all areas of life

*Interview with Professor Wilfried
Sihn from Fraunhofer Austria*

PAGE 16

fire&care





Editorial

Dear customers and business partners, experiences, that are actually shared by everyone, are really rare. The coronavirus pandemic is one such singular occurrence, affecting us around the globe and on various levels: COVID-19 is not just a threat to our health, but also a major economic and security crisis.

Security crisis

The coronavirus represents special challenges for us as a security technology company. As in many other companies, in just a few days the majority of our workforce switched to home office, but we had to simultaneously ensure that our ability to perform remained unaffected. In such a situation in particular, it was essential for us to be there for our clients without restrictions. In a very short time, we were able to adapt our processes to the current situation and offer all our customers an extended availability around the clock.

Safe into the future

Because of the coronavirus crisis, some offerings are now more significant – from fever screening to digital solutions that enable remote working. We will

continue to focus strongly on these aspects in order to provide our customers with the best possible support in these times. Even with the lifting of the lockdown, the new normal is not the same as the old normal.

Digital transformation

The coronavirus crisis was a tremendous impulse for the process of digital transformation. Communication systems like Visocall IP have become even more important in the health care sector and also help reduce personal contacts. We were quick to respond to the challenges of digitisation and are in a position to offer mobile apps and other solutions for our products that are especially useful and helpful today. Despite the many difficult challenges, the coronavirus crisis also shows us something very encouraging: when it really matters, we are there for each other. With this energy, we will go together with you into the future.

Yours truly, Wolfgang Kern

IMPRINT

Owner and publisher: Schrack Seconet AG Security and Communication Systems, Eibesbrunnnergasse 18, 1120 Wien **Responsible for content:** Rosa Maria Seilerbeck / Schrack Seconet AG **Project Manager:** Brigitte Sator / Schrack Seconet AG **Editor:** Alexandra Kropf / kropf kommunikation **Creative Design / Art Direction:** Jo Santos / NEA Design Services **Coverphoto:** iStock / StockFrame **Translation** Interlingua Language Services-ILS GmbH **Production:** Schwechater Druckerei-Seyss GmbH **Person of contact:** Brigitte Sator / Schrack Seconet AG, Phone +43 1 81157-1204, b.sator@schrack-seconet.com, www.schrack-seconet.com **Publication frequency:** 2 times per year



PHOTO: PRESS PHOTO DOMICO

Content

PAGE 06

DOMICO
*Mobile, invisible
fire safety*

PAGE 12

Secolog IP
Update now

PAGE 18

Digital Ethics
*Commentary by Professor
Sarah Spiekermann-Hoff*



Fall detection with 3D infrared sensors

When elderly people or people with dementia suffer a fall or patients who have recently had an operation get back on their feet too quickly, a rapid action is required. In hospitals and care institutions in particular, where it is not always possible for a nurse or caregiver to supervise the patient around the clock, digital solutions offer valuable support. They are able to instantly recognise potentially dangerous situations and automatically call for help.

A system that learns

In conjunction with an innovative Viennese partner company, Schrack Seconet now offers an innovative technology aimed at preventing falls: 3D infrared sensors detect the development of heat that occurs when a person is present in a certain area. The system uses algorithms to learn certain patterns, i.e. what it looks like when the person is lying in bed, sitting on a chair and so on. In these cases, everything is alright and no alarm is set off. However, if the person is suddenly lying on the floor, this is identified as a fall. Then an alarm is automatically sent to the nurses' station.

GDPR-compliant

Even repositioning chairs or other pieces of furniture does not present any difficulties because the sys-

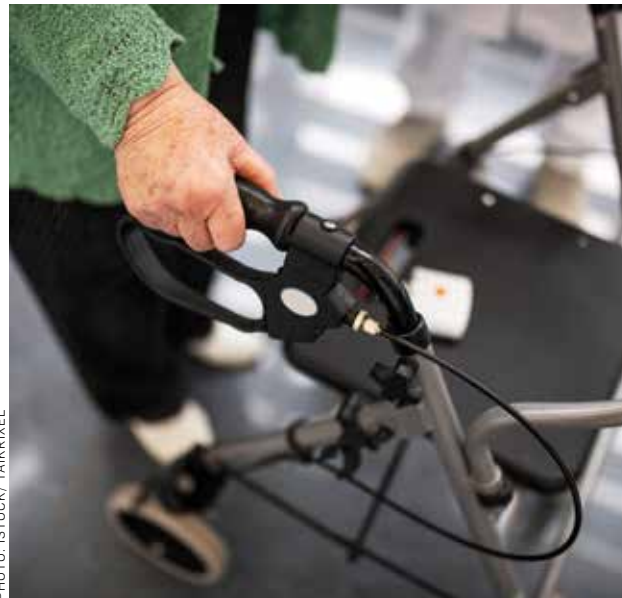


PHOTO: ISTOCK/ TAIKRIKEL

The new fall prevention system with 3D infrared sensors effectively protects patients, reduces false alarms and thus takes the strain off the nursing staff.

tem is always learning. The 3D infrared sensors concentrate fully on the patient. Since the sensor is not a conventional video camera, only a thermal image is created, making facial recognition and subsequent identification impossible. This is important, since hospitals also have to comply with regulations governing the protection of personal data when recording images.

Individually adjustable

The functions of the 3D infrared sensors can be adapted as required. For example, in many cases it makes sense when a fall is detected to wait

30 seconds before triggering an alarm at the nurses' station because the patient may be able to get up by themselves. Another practical application involves protecting people who are not yet allowed to get up by themselves, perhaps because they have recently had an operation. Conventionally, pressure-sensitive mats at the edge of the bed are often used for this purpose; these activate the alarm if the patient steps onto them. When the alarm stops, this could mean that the patient has laid back down, but it could also mean that he or she has gone away. In any case, of course, the nursing staff would have to check up on the patient. The advantage of the 3D infrared sensors is that they are able to recognise and classify several different situations. The nursing staff are only alerted if a risk scenario has actually occurred.

Considerable relief

All in all, preventing falls with 3D infrared sensors provides considerable relief. False alarms are almost completely avoided, and intervention times are optimised. Patients benefit from greater protection and convenience without their privacy or data being violated. The system is easy to install and its operation requires practically no maintenance. Naturally, integration into the Visocall IP hospital communication system is also possible. *

Superlative fire protection

The Aitik mine in northern Sweden, owned by the mining company Boliden, is one of the largest copper mines in Europe and the world's most efficient open-cast copper mine. Approximately 40 million tonnes of ore are mined here each year. The loading vehicles are amongst the largest in the world, the dump trucks transport up to 380,000 tonnes of rock per trip and the garage where these giant machines are maintained is 30 metres in height. There would easily be enough room in the current mining pit alone to fit the neighbouring town of Gällivare along with the airport. Aitik uses the flexible solutions of Schrack Seconet, which are also equipped to meet special requirements, for the fire protection

The fire protection systems of Schrack Seconet for the Aitik copper mine are state of the art. Integral WAN networks the extensive system, bringing all information together in a structured manner at a single location.

arrangements of the entire mine including the new crushing plant opened in 2018.

Extensively networked systems

A continuous and successful partnership started with the installation of the first fire alarm system back in 2009. Due to the scale of the project, the fire protection systems were integrated into a superordinate SecoNET from the start, which makes it possible to network the fire alarm systems and access all information at one location. Over 25 Integral IP MX fire alarm systems are currently installed along with 10 Integral IP CX extinguishing systems. 14 highly sensitive ASD 535 aspirating smoke detectors with state-of-the-art HD sensor technology take in the air in the rooms that require monitoring and detect any smoke particles before a fire can break out. In the outdoor areas, the monitoring is complemented by the ADW 535 linear heat detectors, which can also cope with extreme ambient conditions.

Premiere for Integral WAN

Enhancements and adaptations continue to be made thanks to the backward and forward compatibility of the solutions. In 2019, for the first time anywhere in Sweden, Schrack Seconet installed an upgrade of the network to Integral WAN on site

With Integral WAN the connections occur in the fire protection network of the extensive grounds over fibre optics.

that once again pushes the boundaries in terms of compatibility, networking and scalability. While external converters were required with SecoNET, all connections in the WAN are now made using fibre optics. All information still converges at a central location, but the network simultaneously divides up the different workstations and buildings. If there is a fire in one of them then the other locations, which are sometimes several kilometres away, are not affected.

The network is supplemented by Secolog IP. The hazard management system clearly depicts all technical procedures throughout the fire alarm system with text and diagrams. Route descriptions, for example, are also printed out automatically in the event of an alarm and action texts are displayed which can be used to take measures very quickly on site as and when required.

Everything from a single source

One important reason why Aitik chose systems from Schrack Seconet was that all of the fire protection hardware and software comes from a single source. In return, Schrack Seconet is given the opportunity to test fire alarm and extinguishing systems on some of the very large machines on site and gain valuable insights into the use of these systems under extreme conditions, such as strong vibrations. ✱





PHOTO: BOLIDEN / PHOTO: LARS DEWALL



Mobile and invisible: fire safety for DOMICO



The fire protection for the headquarters of DOMICO is integrated perfectly into the innovative architecture.

The Upper Austrian roof, wall and façade contractor DOMICO is a specialist and technology leader in metal construction with a high standard of design and functionality. At three production locations in Upper Austria and a plant in the Czech Republic, the family business processes around 20,000 tonnes of metal each year for

Efficient, safe and comfortable: The fire alarm control panels of Schrack Seconet can be controlled from afar via Integral Mobile.

such as industrial companies, sport halls, museums and social housing for example. In 2019, the company built its new, seven-storey head office and competence centre right next to the former site in Vöcklamarkt. When it came to the fire safety of this open-plan building with its 18-metre-long, cantilever overhang, stainless steel underside and glass staircase, DOMICO put its trust into the technology of Schrack Seconet.

Hidden detectors

A modern Integral IP fire alarm control panel was installed, which also features very efficient remote control via the Integral Mobile app installed on a smartphone or tablet. Notifications or alarms automatically reach the right recipients or, if necessary, the fire brigade. Thanks to the effective collaboration, it was possible to position the appropriate sensor technology in the right place for the various areas of the office, research and



PHOTOS: PRESS PHOTO DOMICO

training complex. As a result, the new DOMICO customer and competence centre now enjoys optimum protection without false alarms.

Another equally important argument in favour of Schrack Seconet solutions, however, was an optical one: thanks to flush mounting boxes in the ceiling and several colour options, the fire detectors seem to blend into the building's innovative architecture, harmonising perfectly with the overall image. *

Protection for Haus St. Martin

When people over 50 with mental illnesses are no longer able to live alone, a good alternative has been available to them on Vienna's Prager Straße for around a year now: the St. Martin nursing home operated by Caritas, which took just under two years to build, offers 56 residents their own room, a reliably structured daily routine, medical care, community and comfort. As in many other Caritas buildings, communication systems and fire alarm systems from Schrack Seconet guarantee safety and security throughout the property.

Flexibility with Visocall IP

At the new Haus St. Martin, the communication and nurse call system Visocall IP is fully implemented in all wards. What makes the system particularly economical for its operators is that it could be integrated straight into the existing Caritas

network thanks to the flexibility of the underlying IP technology. The bedside light switches above the patient terminals are also very convenient and are set up without the need for additional wiring: the KNX-based lighting is intelligently controlled via an interface. This makes it possible to specify, for example, that the light in certain areas will be automatically dimmed or switched off completely from 8 pm onwards. Nurse calls and alarms are forwarded to the mobile devices of the nursing staff in plain text, enabling them to respond as swiftly as possible. And the fire safety provisions at Haus St. Martin are also backed by powerful technology: the Integral IP MX fire alarm control panel with seven loops is ideally suited for the protection of larger facilities. The building is monitored by 400 fire detectors, 4 LKM sets, ventilation duct smoke detectors, and other systems. *



PHOTO: CARITAS

The lofty heights of fire safety



It was a catastrophe that caused the whole of Europe to hold its breath: the fire at Notre Dame in Paris. In the spring of 2019, one of the most beautiful cathedrals in the world, which attracts millions of visitors each year, was largely destroyed. Over 100 researchers are now working on what remains of the building. They are investigating the construction material and the historical construction technique, with the aim that their research should support the reconstruction of this UNESCO World Heritage Site. Even though the financing for the renovation has been secured, unique cultural treasures have been irretrievably lost and it will not be possible to access Notre Dame for years. A similar situation

"It is a great advantage if a fire can be prevented in advance or contained. After all, churches are home to many valuable objects that need to be protected; even soot alone can cause a great deal of damage."

Harald Gnilsen
Chief Building Director
of the Archdiocese
of Vienna

occurred in the Nantes Cathedral, where a few weeks ago the large organ and a stained-glass window from the 15th century were robbed by the flames. "It is a great advantage if a fire can be prevented in advance or contained. After all, churches are home to many valuable objects that need to be protected; even soot alone can cause a great deal of damage," explains Harald Gnilsen, Chief Building Director of the Archdiocese of Vienna.

Protecting visitors and cultural assets

Churches are important points of reference: just like St. Stephen's Cathedral in Vienna, Notre Dame in Paris is a symbol of the city. The sacred buildings are a central feature of everyday life. Church services and visits bring a great number of people together in this place, albeit to a lesser extent during the coronavirus pandemic. Preventive fire safety is therefore of great importance in sacred buildings. But it also represents

a special challenge. Many churches were erected long before today's modern fire safety standards, with frequent modifications and conversions for other uses. On top of this, many churches are located in densely built-up inner-city areas that are difficult for the fire brigade to access.

Discreet fire safety appropriate for historical monuments

Preventive fire safety in churches also faces major demands: many sacred buildings are very tall, and structural reasons make it simply impossible to lay cables in sandstone columns. In order to find reliable solutions that align with the requirements of preserving historical monuments, churches therefore require special expertise, a high degree of

Karlskirche Vienna: optimum protection for a Baroque gem

Of all the churches in Austria, the Karlskirche is considered to have some of the best protection against fire. The Baroque edifice is equipped with a fire alarm system that has been perfectly adapted to meet the architectural challenges. The cavity between the dome and the roof is monitored by optical smoke detectors, as are the old wooden loft and the bell tower pavilions. In the sacristy, with its antique wood paneling, infrared detectors are in place.

Harald Gnilsen, Chief Building

Director of the Archdiocese of Vienna, is extremely satisfied with the set-up, "Schrack Seconet developed a very good, pragmatic solution for this large-scale project. During its implementation, the options for running cables and the requirements for protecting this historical monument were considered with great care."

The priorities at the Karlskirche include protecting not only the unique ceiling frescoes by Johann Michael Rottmayr but also the large numbers of

visitors. Until recently, in addition to worshippers, the church was also visited by around 1,000 tourists each day.

The fire alarm system was first installed in 1996, with a recent upgrade to an Integral IP fire alarm control panel. An emergency call system was installed in the process, which makes it possible to reach those responsible at all times. In the worst-case scenario, a rapid response is guaranteed – the fire alarm system is also directly connected to the fire brigade.



PHOTOS: PRESS PHOTOS: KARLSKIRCHE, STEPHAN DOLLESCHAL

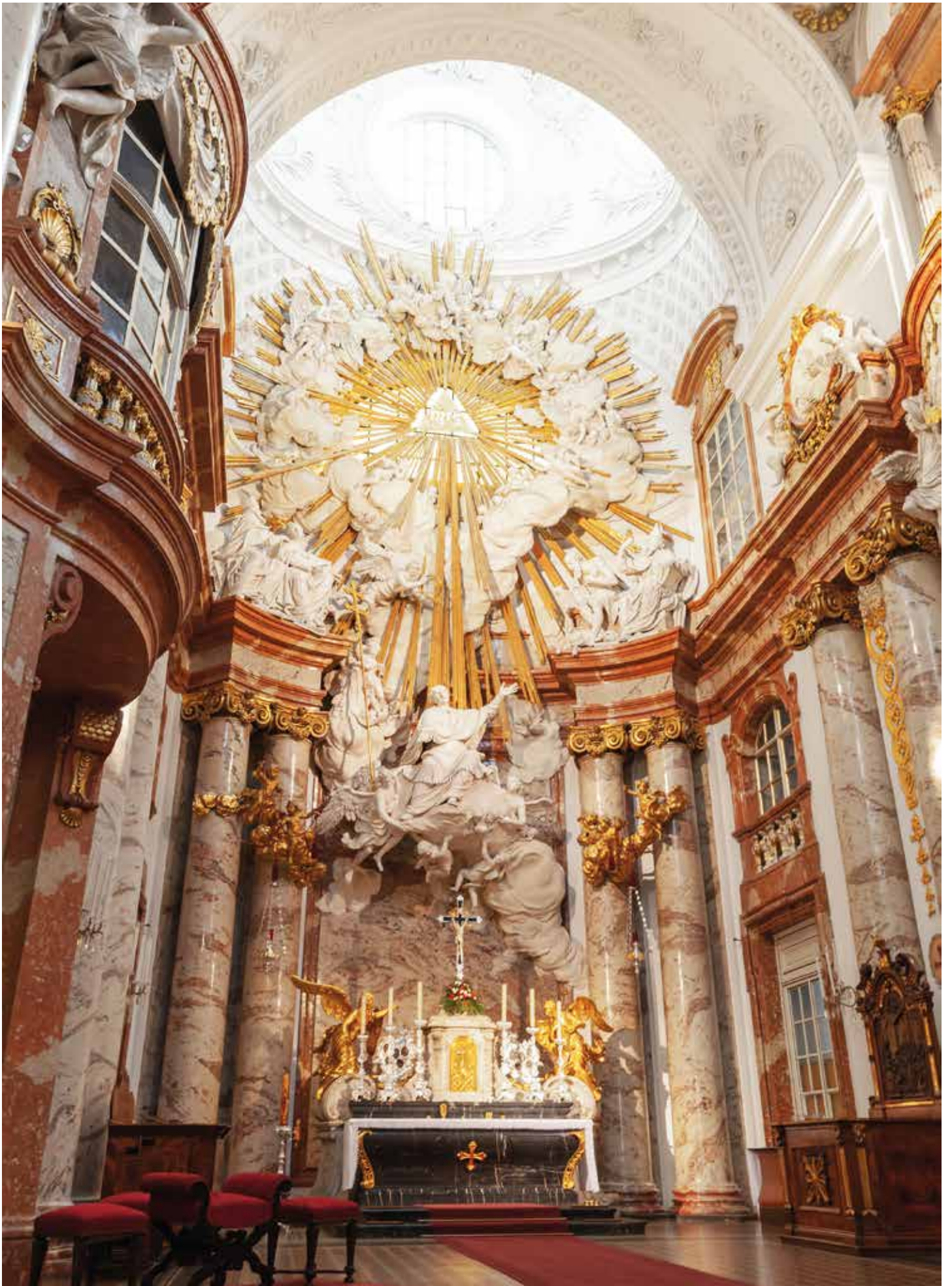




PHOTO: ISTOCK/ ROBERTO A SANCHEZ, KARL GRABHERR

The fire at Notre Dame made the importance of preventive fire safety abundantly evident: when the centuries-old wood of a church roof truss burns, the fire brigade has limited options for dealing with the fire.

sensitivity and, above all, practical know-how: “How can we prevent incense from setting off an alarm? How can the detection system be placed discreetly and appropriately?” emphasises Markus Aubrunner, Head of Product Management for Fire Alarm Systems at Schrack Seconet.

Special fire alarm systems for every requirement

Various detection systems are often used within a single church. “The sacristy is protected with automatic multiple sensor detectors, the church nave features linear smoke detectors, and the crypt requires detectors coated with a protective lacquer and a detector with heating element due to the moisture and the cold. Our extensive portfolio is therefore especially handy for churches because we have a solution for every requirement,” Markus Aubrunner explains. The three examples illustrate that automatic fire detectors are often used alongside special fire alarm systems in churches. One model that has proven to be highly effective is linear smoke detectors, which use infrared light to monitor distances of up to 200 metres. The level of effort re-



“The sacristy is often protected with automatic fire detectors and the church nave features linear smoke detectors – we have a solution for every requirement.”

Markus Aubrunner
Head of Product Management
for Fire Alarm Systems at
Schrack Seconet

quired for the wiring is low, as cable entry is only necessary at one point. “It is often possible to position the wires at the edge of the cornice or discreetly behind panels,” explains Markus Aubrunner. If wiring is difficult for reasons of historical monument protection, radio detectors are also a good option, as long as data transmission is possible.

Special fire detectors do well in churches where the ambient conditions are particularly difficult – they are also impervious to temperature fluctuations or, for example, dirt in a bell tower. And lastly, aspirating smoke detectors are a particularly effective solution – a single system is capable of monitoring a large area. This involves small aspirating pipes constantly drawing samples of air to

be checked for smoke particles in an evaluation unit. The sampling points are barely visible to the naked eye, making aspirating smoke detectors a very good solution in places such as domes.

High fire load: wood

A broad range of solutions can thus provide reliable protection for all areas of a church. Special attention must be paid to the roof truss. A large amount of dry wood and centuries-old dust translate to a particularly high fire load. The majority of fires in churches start in the roof, from where they also spread especially fast. Frequent reference is made to the potential risk of the electrical wiring. According to a German investigation, the electrical installations, which are often out of date, are the biggest ignition source in church fires, followed by matches or lighters and welding tools. The latter speaks to the seriousness of renovation work as the cause of fires – this was also the catalyst in the case of Notre Dame. At the same time, however, renovations also make it possible to bring the fire safety in a church up to date with the latest technology. Harald Gnilsen stresses, “Fire safety is an important issue for us with every restoration and regardless of this we naturally place great emphasis on gradually improving the precautions taken.” *

Male: Largest mosque in the Maldives

The largest mosque in the Maldives recently opened in Male. The building was fitted with fire safety systems from Schrack Seconet and can accommodate up to 10,000 people. Six thousand believers can assemble on the ground floor alone, while the upper levels have additional event rooms, classrooms, a library and the largest Auditorium in Maldives. All systems are centrally controlled via the fire alarm management

system Secolog IP, which has a clear graphic layout. Schrack Seconet can connect directly with the system via remote access and provide rapid support in the event of any problems. This represents an enormous technical and financial advantage. Fire detection throughout the building is provided by 560 combined smoke and heat detectors, which are programmed to work as pure smoke detectors during the daytime.

Thanks to electrical contractor AEC Engineering’s choice to Integral IP this great and successful project way back in the Indic Ocean was realisable after all. Ethem Can, owner of Arte Teknoloji: “An important advantage of Integral IP is the possibility of remote access – that was an important point for us in reaching our decision. We were thankful to AEC Engineering to choose Schrack Seconet.”

Fire safety for higher values

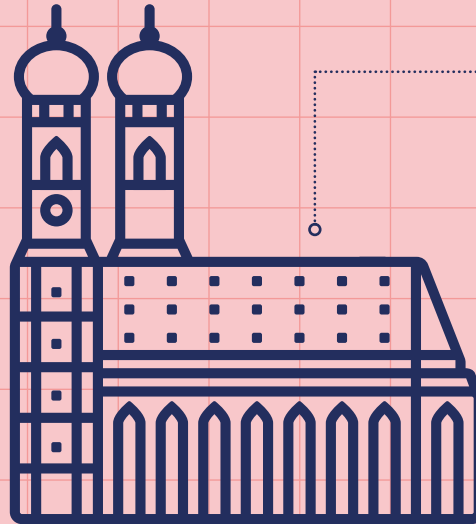
AT A GLANCE: SCHRACK SECONET OFFERS OPTIMUM SOLUTIONS FOR A VARIETY OF APPLICATION SCENARIOS IN A CHURCH

Entrance area

The challenges Increased passage of people when entering and exiting, complicated accessibility and low visibility (e.g. columns), temperature fluctuations

Solutions

- **Aspirating smoke detectors** maximum security even with high dust pollution, barely visible, low noise
- **Multi sensor detectors** discreet integration into the building's architecture thanks to customised colour options, time-dependent sensor adaptation (e.g. turned off when incense is being used)

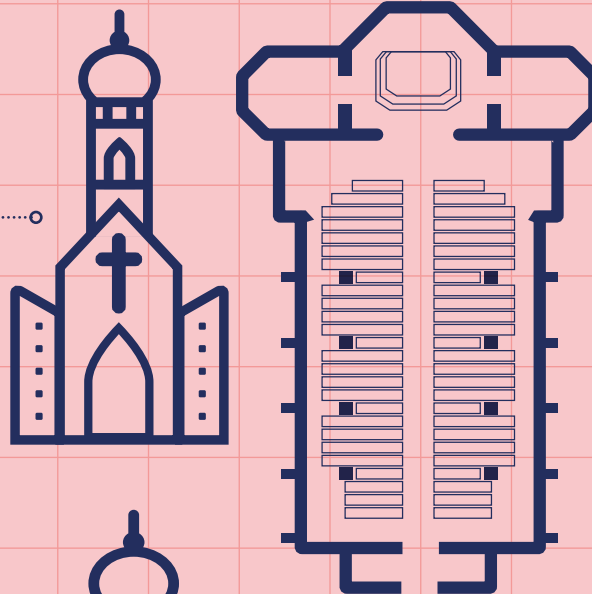


Roof truss

The challenges Occurrence of fires in hidden areas, large heights, complicated access, high fire load (wood, electrical installations)

Solutions

- **Linear smoke detectors** with good visibility, straightforward installation, inspection from floor level
- **Aspirating smoke detectors** alternative in the event of limited visibility or areas that are difficult to access, barely visible, low noise
- **Multi sensor detectors**



Church nave

The challenges Large dimensions, difficult access for installation and service, protected historical monument

Solutions

- **Linear smoke detectors** straightforward installation, distances of up to 200 m, inspection from floor level
- **Aspirating smoke detectors** alternative in the event of limited vision, barely visible, low noise

Bell tower

The challenges Occurrence of fires in hidden areas, narrow spaces, complicated access due to large heights and architecture, high fire load (wood, electrical installations)

Solutions

- **Linear smoke detectors** with good visibility, straightforward installation, inspection from floor level
- **Aspirating smoke detectors** alternative in the event of limited visibility or areas that are difficult to access, barely visible, low noise
- **Linear heat detectors** high level of security against false alarms, impervious to temperature fluctuations or air humidity, no interruptions to operation, low inspection effort

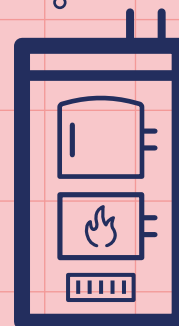


Heating system

The challenges Difficult detection in case of fires, narrow spaces, high fire load due to heating and electrical installations

Solutions

- **Multi sensor detectors incl. carbon monoxide detector** rapid detection of fires (combined detection of smoke, temperature and CO), increased level of security against false alarms (reliable detection of disturbance variables such as candle smoke or dust)



Secolog IP Upgrade now!

MICROSOFT HAS DISCONTINUED TECHNICAL SUPPORT FOR WINDOWS 7 AND WINDOWS XP, AND NO MORE SECURITY UPDATES WILL BE OFFERED. THIS SITUATION MAKES PCS AND APPLICATIONS WITH WINDOWS 7 OR OLDER VERSIONS RUNNING ON THEM INSECURE AND SUSCEPTIBLE TO CYBERATTACKS.

This is why Secolog 1.x installations that are operated on Windows 7 or older versions are now regarded as insecure. Therefore, Schrack Seconet is also discontinuing support for SecoLOG 1.x on Windows 7 and Windows XP.

Upgrade urgently recommended

Because of the reasons listed above, you should immediately upgrade to the new Secolog IP 2.x version that

"Updating Secolog IP is an important step for operation security and cyber security".

René Türk
Head of Product Management
for Information Systems at
Schrack Seconet



has been available for a few years if you are still using Secolog IP version 1.x. The newest generation of the Secolog IP 2.x control system is compatible with the Windows 10 operating system. Updating to the newest generation guarantees that systems will continue to be protected as the best possible way. This is an important step for operation security and cyber security", says Product Manager René Türk.

Benefit from advanced functions

Some of the convincing things about Secolog IP 2.x are its user-friendliness and its new, modern interface. "The current platform for example enables clearer presentations and

reports, and divided systems can be established. Several fire alarm systems can be combined into one network that is centrally managed", says René Türk.

We are happy to help with the changeover so that you can use Secolog IP securely in the future as well. Local contacts will be glad to give you more detailed information on ordering the software update and can help with installation. You can also find specifications on this in the documentation. Switching to Secolog IP 2.x requires the system to be reinstalled, and system requirements such as memory requirements must be taken into account during installation. *



Customer survey: thank you for participating!

Our international customer survey produced very good results. Customer satisfaction is very high, and Schrack Seconet received top marks in many areas from its partners such as in the areas of expertise and training. The information in the comment fields was very helpful for evaluating the survey. Terms like "product", "quality" and "reliability" were especially mentioned in relation to Schrack Seconet. A total of 266 partners from 34 countries participated in the current customer survey. Participation increased by almost 80 % compared to the last survey three years ago.

Happy winners As a thank you for participating, we combined the survey with a competition. First prize, a gift card for an exclusive weekend in a hotel, goes to Mr. Drazen Vukmirovic from Telemont in Montenegro. Second and third places go to two partners in Austria and the Czech Republic. They are each receiving one Amazon gift card in the amount of 150 € for second place and 100 € for third place. We would like to express our appreciation for the high participation in the survey which gave us important input for our further development. *

Nigeria: a need for the health sector to catch up

In cooperation with the Austrian Embassy Commercial Section in Lagos, Schrack Seconet and its Nigerian partner company Medcourt held a stakeholder forum, at which the latest solutions from the field of health care technology were presented. The forum focused on challenges faced by the health care system in sub-Saharan Africa. The event took place before the spread of coronavirus – now Austria's Commercial Counsellor in Nigeria, Guido Stock, expands upon the current situation in an interview.

What are the particular challenges facing Nigeria and the other countries south of the Sahara as a result of coronavirus?



Stakeholder forum in Lagos (from left): Patrick Eveleens (Area Sales Manager, Schrack Seconet), Guido Stock (Delegate for Economic Affairs, Austrian Embassy Commercial Section in Lagos), Adegboyega Oridota (Managing Director, Medcourt), Fola Balogun (Marketing, Medcourt), Josef Gebhart (Sales Manager, Sumetzberger), Gbenga Ayelabola (Technical Manager, Medcourt).

Unlike in Europe, people in most of these countries find it almost impossible to observe lockdown. The majority truly rely on being able to go out and earn money every day. Add to this the financially weak health care systems – and the pandemic is now hitting such countries especially hard.

In Nigeria specifically, what does the financing of the public health care system look like?

This year, the government budgeted around 1 billion euros for investments and ongoing costs in the public health care system. With approximately 200 million inhabitants, this is equivalent to roughly 5 euros per capita per year. Because of the low standards of health care pro-

vision, the upper class has always tended to fly to other countries for important medical procedures. The country has an overall low level of income, a major reason for this being low export and tax revenues. Crude oil and natural gas make up 95% of export earnings, but this important source of income has now dropped dramatically.

How can Nigeria's health care system overcome the pandemic?

The governors of the Nigerian states made use of weeks of lockdown to set up provisional treatment facilities – partly with the support of the private sector – in large tent halls, on exhibition grounds, and so on. The only feasible way to overcome the pandemic and other future challenges in the health care sector will involve reorientating how public budget resources are distributed. In the area of high-level health care, private providers will play an increasingly important role. Accordingly, substantial investments can be expected in this area in the next few years. *



PHOTO: ISTOCK/KOKOUU

Under observation

Cameras that act as fire alarms even before a fire breaks out? That's possible thanks to the latest technology offered by Schrack Seconet for the monitoring of outdoor areas or in difficult environmental conditions. The innovative solution once again underlines Schrack Seconet's pioneering position in modern fire protection: the radiometric dual camera combines thermal images with an intelligent software that evaluates them and recognises fires and even embers extremely early, long before any flame is visible. This solution is especially useful in landfills and bulk cargo warehouses that hold large quantities of potentially combustible material.

Pilot projects in Austria

A very successful pilot project is currently running in an Austrian waste disposal plant. Radiometric dual cameras have been set up to monitor a conveyor belt. If unusu-



The thermal image can be subdivided into several measurement areas. It helps avoiding false alarms and defining coordinates of extinguishing systems.

*Thomas Engel
Product Manager
Fire Alarm Systems*

al heat is detected, the conveyor belt turns off and the sprinkler system turns on. The dual camera can pass on the coordinates of the source of the fire with extreme precision, enabling immediate targeted action to be taken to extinguish it.

EARLIEST fire detection is made possible by measuring the surface temperature and is processed by the camera at the exact pixel level. The measured signals are processed directly in the dual camera, and fire alarm loop modules direct the results to the fire alarm control unit, for instance Integral IP from Schrack Seconet.

Key feature: individual measurement windows

A key advantage of the system is that the recorded thermal image can be subdivided into several measurement areas depending on the project. The software allows one to define conditions for each measurement window about what

Dual cameras detect unusual heat development in an extremely early point of time. The new technology can therefore secure outside surfaces even under difficult environmental conditions.

disturbance values to ignore in order to avoid false alarms. Motion sensors and various parameters and delays allow e.g. hot vehicles, exhausts, machines and sunlight reflection to be ignored.

GDPR-compliant

In addition to the thermal image, the radiometric dual cameras can also generate an optical image. The two images are superimposed; as a result, humans are visible due to their body heat, but facial recognition is impossible, in line with data protection regulations. Another practical feature is the calendar function enabling the camera to be activated according to a predetermined schedule.

Scalable with external sensors

A single dual camera can normally cover an angle of 45°, enough for a small warehouse. For larger locations, it is possible to connect several cameras. In addition, external sensors are available for extremely challenging situations. These can be distributed across the site like so many additional "eyes" for the camera, and can if necessary be equipped with air-insulated casings. Our experience with the new system has been very promising: at one industrial polishing plant, monitoring with the dual camera resulted in a process improvement 5%. The radiometric dual camera is available in Austria now. ✱



Radiometric dual cameras serve as smoke detectors, even when there is no fire.

VISOCALL IP

New gigabit uplink

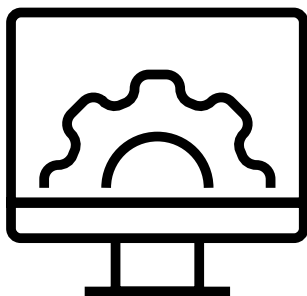
Visocall IP also has some new features. The new system switch yields clear performance improvements for all those who use Visocall IP to watch TV. The processor's performance has been increased from 100 Mbit to 1 Gbit. This provides a much higher bandwidth, allowing many users on the same network to use IP TV streaming, even with channels in HD quality. The IGMP snooping protocol furthermore ensures optimal loading. *

Update for Integral Scan

With Schrack Seconet's Integral Scan app, the installation and commissioning of Integral IP fire alarm control units is even faster and safer. The data matrix code of the components and detectors can simply be scanned with a smartphone or tablet. The app collects all the data, assigns logical detector numbers and provides these for the automatic import for the Integral software. This removes the risk of manual entries as a source of error.

The app's most recent update provides a new look and feel and simplifies operation even further. In addition, future extended online functions such as mobile requests for data sheets are already implemented. Download available now in several languages in Google Play and the iOS App Store. *

ILLUSTRATIONS: ISTOCK/ DESIGNER



VISOCALL IP

New Video Tutorial

The hospital communication system Visocall IP from Schrack Seconet facilitates work processes and everyday life for patients and all people involved in the care process. Its most important functions are the nurse call and the communication between patients and staff. In addition, there are numerous features, such as bedside TV, telephone or Internet, which make the hospital stay that much more comfortable. The new video tutorial, available on YouTube, explains the main operations and functions of Visocall IP in 15 minutes in an understandable language and with clear graphics. The anima-



ted film enables quick and efficient training, independent of location. *

<https://youtube.com/watch?v=EssCNOPqSGY>

VISOCALL IP

Performance improved by a factor of 10

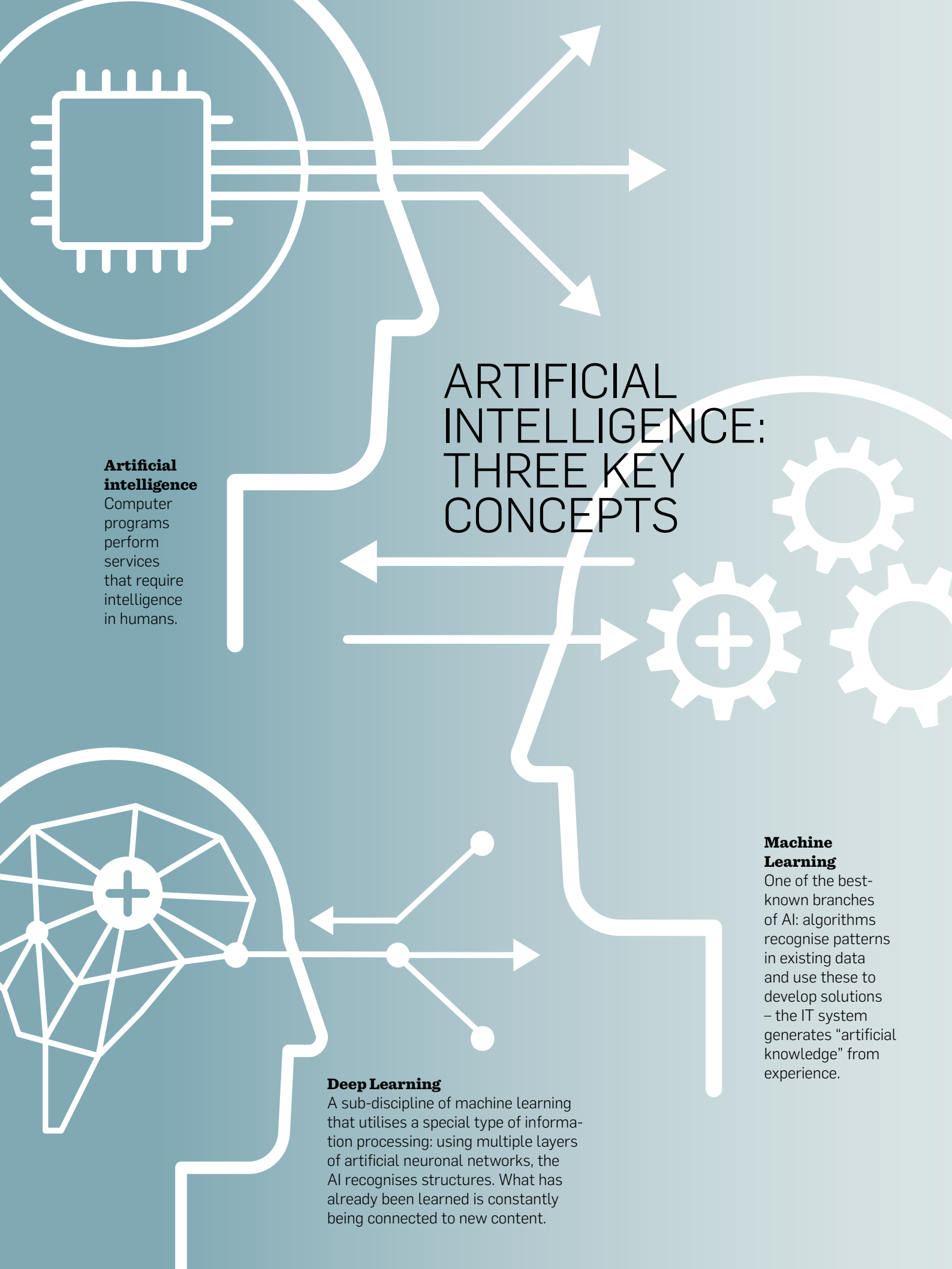
The new processor (i.MX7 controller), which is built into all main components today, pushes the performance of Visocall IP by a factor of 10. Navigation is even more fluid and fast, and the system is perfectly equipped for new future functions. *

On the safe side with ADW

Following the end of the transition period, only line heat detectors complying with the new DIN EN 54-22 may now be used. Previously, these detectors were inspected in line with DIN EN 54-5 for point detectors. For this segment, Schrack Seconet's ADW 535 provides a system for the industry that is already inspected and approved for all classes by VdS according to DIN EN 54-22. This line heat detector is a good solution where usual sensors reach their limits, for instance in waste processing plants, in park decks or in food production. The sensor cable can be executed in various materials – Teflon, copper or stainless steel – to always provide the optimal solution for any application. *

Fire detectors prevented fire in nursing home

Early fire detection through fire alarm systems by Schrack Seconet saves lives, as shown in Biedermannsdorf in Lower Austria: two fire detectors at the nursing home were triggered and automatically alerted the fire brigade. The rescue forces were able to wake the resident of a unit, who had left her food on the stove, from her midday sleep and evacuate her from the smoke-filled rooms. More serious damage was prevented, and once the residential unit and stairwell had been ventilated, the detectors were reset. *



ARTIFICIAL INTELLIGENCE: THREE KEY CONCEPTS

Artificial intelligence

Computer programs perform services that require intelligence in humans.

Machine Learning

One of the best-known branches of AI: algorithms recognise patterns in existing data and use these to develop solutions – the IT system generates “artificial knowledge” from experience.

Deep Learning

A sub-discipline of machine learning that utilises a special type of information processing: using multiple layers of artificial neuronal networks, the AI recognises structures. What has already been learned is constantly being connected to new content.

AI FOR ALL AREAS OF LIFE

Professor Wilfried Sihm, one of the foremost experts on the implementation of Industry 4.0, gives an interview on trends and visions surrounding digitisation and artificial intelligence.

fire&care — We have been engaging digitisation for several years now. What's next?

Prof. Wilfried Sihm — What's exciting about it is that nobody can imagine what awaits us in the future. Digitisation and artificial intelligence (AI) are already used daily in an intertwined manner, not only in the industrial sector but also in our private lives, although we're only at the beginning when it comes to AI. Every car already contains numerous AI systems, and if we look up a specific topic online today, we will automatically see internet ads about it tomorrow.

fire&care — Where are the opportunities for Europe regarding AI?

Sihm — In trading and marketing, Amazon and Google lead the pack. They have developed a perfect business model for collecting, preparing and selling data. The situation looks different when we consider the industrial sector. From a scientific perspective, I can say that here in Austria and in Europe, we have a real chance compared to the USA; we need to be frontrunners in this area.

fire&care — What are the key challenges of digitisation and AI in the field of security technology?

Sihm — A crucial element is the quality of data. The old adage still applies: "Rubbish in, rubbish out". Unfortunately, the systems currently in use often deliver faulty or bad data. To be able to make use of new technologies in a meaningful way, we therefore need to ensure a high quality of data. The second significant issue is data security. For the future of digital applications, securing data is of the utmost importance.

fire&care — What fields of application do you envision for AI in the health care sector?

Sihm — Alongside autonomous driving, the health care sector is the main area of application because large quantities of data allow for extremely positive effects here. Diagnostic possibilities can be considerably improved by this. Today, the comprehensive experience of the doctor is what matters; in the future, a diagnosis will automatically be created based on millions of records. The second application area involves assistance systems. Here, robots will offer very different possibilities for support – and they will do so 24 hours a day. Of course, there are also concerns. However, the assistance systems will become more human and will not be silent machines. We will talk to them as we already do to Alexa.

"Our opportunity with AI lies in the industrial sector; we need to be frontrunners in this area."

*Univ.-Prof. Wilfried Sihm
TU Wien, CEO Fraunhofer
Austria*

fire&care — Fraunhofer is at the front line when it comes to the further development of AI – the new innovation centre KI4LIFE was recently founded in Klagenfurt. What are the focal points?

Sihm — The focus is on the further development of AI methods and applications, whereby we are connected to the University of Klagenfurt and the Fraunhofer institutes in Germany. We focus on production and logistics in the industrial environment, which is my professional area of interest. We are also open to manifestations of AI in all areas of life: from agriculture to medicine and tourism. The specific topics will depend on those who apply AI in practice. With Infineon, for example, we are working on a project for the maintenance of production facilities; the keyword here is "Perspective Maintenance". This project is about predicting the failure performance of facilities and carrying out servicing or replacing parts in good time. *



ABOUT PROFESSOR SIHM

Univ.-Prof. Wilfried Sihm has worked in applied research for over 30 years and has participated in more than 300 industry projects involving partners from around the world. He has made crucial contributions towards the development of concepts such as the fractal business model. Wilfried Sihm was born in Pforzheim (Germany), and initially worked for many years at the Institute for Manufacturing Engineering and Automation (IPA) in Stuttgart. He has been a professor at the Vienna University of Technology (TU Wien) since 2004 and the CEO of Fraunhofer Austria since 2008.

THE VALUE OF THE DIGITAL AGE



Digitisation presents us with major challenges. Robotics and Artificial Intelligence hold the promise of greater efficiency and more convenience, but do they actually imply true progress? In today's world, we largely equate the term progress with ingenuity, and frequently inflate the potential of innovations without sufficiently addressing their drawbacks. New means good and common sense is simply taken to mean observable facts without questioning the value of an action.

True progress

However, the concept of progress as it is understood in this sense falls short because it does not reflect upon the values that a technology creates. In reality, the pivotal question should be: How can we lead a good life in a digital world? In order to make innovations truly valuable for us, a new ethical code is required: the development and application of new technologies alone is not enough – it is just as important to consider how they can support sustainable connections in the globalised world of tomorrow and which other values they promote or suppress.

This requires an examination of the value goals. What do we want to strengthen and what do we wish to suppress or prevent? This also re-

quires a ranking of goals in order of importance, since not all values are equal. These reflections start with the individual: we all bear responsibility for creating a more conscious approach to digital services and for questioning how these services support criteria with regard to transparency, responsibility, privacy and security. We are already taking important steps in this direction. For example, I am working with the international engineers' association IEEE to come up with the first global standard for "Ethical System Engineering" (P7000).

Four stages on the way to digital ethics

I am convinced that true progress in the 21st century will only be possible if we reconquer the world of values by developing a new digital ethics. Four stages form the structure for this approach: the first stage consists of recognising one's own value goals when dealing with all things digital, in both our private and working lives. The second stage involves a deep understanding of individual values that are important to us and what exactly they stand for. Thirdly, we need new habits that will enable us to live out value priorities with courage. And fourthly, this also requires a willingness to go without the destruction



"In order for innovations to actually be of value for us, a new ethical code is required. The development of new technologies alone is not enough – it is just as important to consider how they can support sustainable connections in the globalised world of tomorrow."

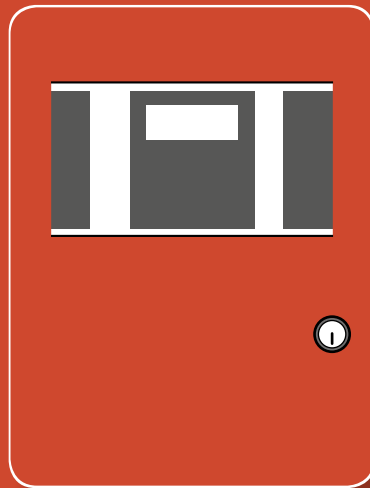
Prof. Dr. Sarah Spiekermann-Hoff

of values, even though this may appear to be the more attractive option in the short term.

New value priorities are essential, for the individual just as much as for the society as a whole. If this kind of digital ethics is to be successful, apps will become positive communities in which people are able to flourish with loyalty and satisfaction. Health platforms will increase our medical knowledge to an unfathomable degree and Artificial Intelligence assistants will become polite coaches promoting freedom and knowledge in every single individual. More mindfulness when dealing with digital technologies would take us so much further than any catalogue of rights possibly could. *

Prof. Dr. Sarah Spiekermann-Hoff is an expert in privacy and control in the digital sphere. She has published multiple books on this topic, most recently "Digitale Ethik – Ein Wertesystem für das 21. Jahrhundert" (Digital Ethics – a Value System for the 21st Century). Spiekermann-Hoff heads up the Institute for Information Systems and Society at the Vienna University of Economics and Business. She previously worked at the Humboldt University in Berlin, as well as for A.T. Kearney and two Silicon Valley companies.

100,000 INTEGRAL CONTROL PANELS



INTEGRAL'S CONCEPT HAS PROVEN ITSELF MANY TIMES SINCE IT STARTED ON THE MARKET IN 1996. SINCE THEN, 100,000 OF THESE HIGH-PERFORMANCE FIRE ALARM CONTROL PANELS HAVE BEEN INSTALLED AND RELIABLY ENSURE PREVENTATIVE FIRE SAFETY AND MAXIMUM SECURITY AROUND THE GLOBE.

COVID-19

RELIABLE SOLUTIONS ARE IN DEMAND



Hospitals & emergency quarters

Communication systems, quarantine voice units and wireless call systems



Fire alarm systems

Helpful applications and digital solutions for a safe business and remote access

ILLUSTRATIONS: ISTOCK / VICTOR / AVICONS / DA-VOGDA



MORE INFORMATION AT
WWW.SCHRACK-SECONET.COM

SCHRACK
S E C O N E T