RFID & WIRELESS IOT TOMORROW 2018

PROGRAMME

Find the current programme and register at
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RFID & WIRELESS IOT

Developer Day
Forum 1–4
Innovations
Technology
System Integration
Markets

User Day
Forum 1+2
Automotive
Industrial IoT

User Day
Forum 4
Retail &
Logistics

User Day
Forum 3
Logistics &
Supply Chain

User Day
Forum 6
Consumer IoT &
Smart City

User Day
Forum 5
Healthcare

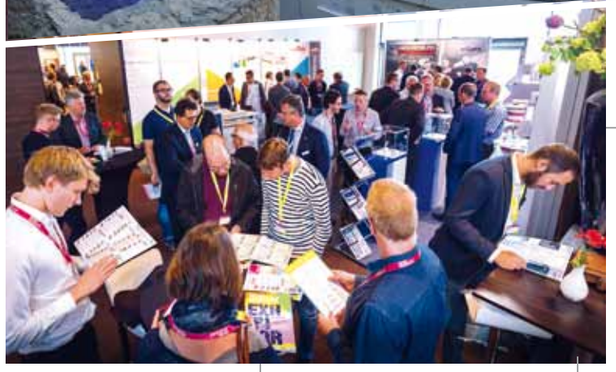
Sponsors FEIG ELECTRONIC HID KATHREIN SIEMENS TURCK ZEBRA

RFID & WIRELESS IOT TOMORROW 2018

www.rfid-wiot-tomorrow.com

USER DAY > OCTOBER 30TH
Applied experience in six forums

The focus of the User Day – Tuesday, October 30th – is technology user networking and the presentation of the latest wireless IoT use cases. Manufacturing, logistics, healthcare, retail and consumer IoT – RFID & Wireless IoT tomorrow offers the application of technology expertise in six forums.



CONFERENCE

DEVELOPER DAY
> OCTOBER 31ST
State-of-the-art expert knowledge in four forums

On Developer Day – Wednesday, October 31st – the spotlight will be on developers, experts, consultants, and product managers. With talks and presentations in four forums, the Developer Day gives a stage to creative visions for wireless IoT technologies like RFID, BLE and LPWAN for current and future applications.

SPONSOREN: TURCK / FEIG ELECTRONIC / KATHREIN / HID / SIEMENS / ZEBRA

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www.rfid-wiot-tomorrow.com/forum-automotive

Forum 1
Automotive, USER DAY
October 30 2018

AUTO-MOTIVE

KATHREIN

KEYNOTE

BERTHOLD FABIAN
Senior Sales Manager IoT Solutions Automotive / **KATHREIN SOLUTIONS**

IOT TECHNOLOGY DEVELOPMENT

Latest RFID hardware and innovative IoT Software are the backbone of transparent and efficient processes in the digitised automotive industry

Latest developments in wireless IoT technology and the possibility of exchanging data between all participants in the automotive value chain open up new potential for controlling complex processes and for keeping track of parts and assets as they move in real-time through the entire supply chain.

Volkswagen

THOMAS KLUGER
AutoID Center, Information Systems **VOLKSWAGEN**

PROTOTYPE DEVELOPMENT

How RFID is used in prototype construction and logistics at Volkswagen

Thomas Kluger gives a talk about the involvement of suppliers when equipping automotive parts with RFID and about the support for RFID integration. The transparent prototype is thereby in the centre of attention. Tracking from individual parts to driving routes allows for better time management with regard to the distribution of automotive parts for prototypes.

VDA | Verband der Automobilindustrie

JÖRG WALTHER
Consultant EDI und eBusiness / **GERMAN ASSOCIATION OF THE AUTOMOTIVE INDUSTRY** (VDA)

EUROPEAN HARMONISATION

Current results from the VDA and Odette working groups on container management and track & trace

Jörg Walther gives a talk about the standardisation of RFID systems for automotive suppliers in Europe and internationally, which is to guarantee maximum investment security. The VDA recommendation 5530 affords easy access to companies without RFID experience. For this purpose, an extension of the EPICS system, compatible with ISO 19987, was developed for production and supply chain.

Fraunhofer IFF

PROF. DR. KLAUS RICHTER
Head of Material Flow Technology and Systems / **FRAUNHOFER INSTITUTE** for Factory Operation and Automation IFF

PRODUCTION LOGISTICS WITH LPWAN

Localisation with LoRaWAN uplink in the production logistics of a Wolfsburg car manufacturer

Prof. Dr. Klaus Richter informs the audience about applications of LPWAN in the production of cars. Thus, energy efficiency and flexibility as well as the scope of data access up to several kilometres are the principal topics. He explains successful integration by means of a use case for an automobile manufacturer.

FOCUS TOPICS!

- Digitisation of the supply chain at Mercedes Benz Cars
- Volkswagen: RFID usage in vehicle development, tracking visualisation & hybrid labels
- Closing the gap: Standardised RFID container management in production logistics
- Localisation with LoRaWAN uplink
- Reduction of inventory and storage with RFID carrier tracking
- RFID ensures 100 percent control over shipment loading: Intermodal logistics at Ford
- Outbound logistics at Seat
- Latest reader and transponder models for automobile production

Mercedes-Benz

JÜRGEN HARTMANN
Process Manager Production Logistics – Standardisation and Innovation / **DAIMLER**

SERIES PRODUCTION

RFID as a key technology in the supply chain at Mercedes Benz Operations

Jürgen Hartmann, Process Manager Production Logistics at Daimler, focuses on the application of RFID company-wide in the supply chain creates a high potential for process optimisation. Especially at the interface of OEMs and suppliers, but also in the field of intralogistics, significant benefits can be accrued through the application of RFID in container management.

DATA ELEKTRONIK ERP - Systemintegration

DENNIS POSPICH
Director / **DATA ELECTRONIC**

CONTAINER MANAGEMENT

Container management in automotive engineering – practical examples at Mercedes Benz and its suppliers

Dennis Pospich's presentation focuses on the tracking of small load carriers. Thanks to effective tracking, a comprehensive overview can be achieved despite a large number of individual objects. If the number and locations of wearers are known, unnecessary surplus purchases can be avoided and savings can be made.

SEAT

MANUEL MEDINA
Vehicle Distribution Manager / **SEAT**

OUTBOUND LOGISTICS

RFID-supported outbound logistics of new vehicles @ Seat

RFID supports vehicle logistics in early detection of possible loading errors even before the vehicles have managed to leave the factory. Even if the number of these errors are very small, their individual consequences can be serious. Digitised vehicle recognition in outbound logistics reduces this risk to a minimum and enables improvements in forecasting to help carriers better plan and utilise their trucking fleets.

7iD

GERHARD GANGL
Managing Director / **7ID TECHNOLOGIES**

CAR DISTRIBUTION

Intelligent car distribution at Ford Motors

Thanks to 100 percent RFID coverage in the distribution at Ford Motors, the throughput can be continuously increased. No matter whether truck, oversea transport or train-based traffic, with the help of robust hardware and adaptive middleware, companies can achieve various savings.

INDUSTRIAL IoT

Forum 2
Industrial IoT, USER DAY
October 30 2018

FOCUS TOPICS!

- IIoT strategies from the POV of a medium-sized manufacturing company
- New market shares made available by digitalisation
- Standardised RFID and IoT usage in production at Bosch
- LPWAN in demanding environments
- OPC UA connectivity
- The oil and gas industry in Nigeria
- Digital twin
- RTLS for industrial production
- Sensor technology for maintenance

TURCK

KEYNOTE

CHRISTIAN WOLF
Managing Director
TURCK

IIOT STRATEGIES FOR THE FUTURE

IIoT strategies from the perspective of a global mid-sized industrial company: What are the opportunities and challenges for increasing competitiveness in the Industry 4.0 context?

Turck has been part of the IoT business since the early days and saw changes in the landscape from the perspective of a pioneer. Expanding into nearly 30 companies around the globe, the managing director gives insights into changes and upcoming challenges in the industry.

SIEMENS

DIETER HORST
Head of Product Management
Simantic ident / **SIEMENS**

RTLS

Combining industrial identification and real-time tracking solutions to implement innovative concepts such as the digital twin

Within industry, RFID technologies are not a matter to prepare for – we are already far into the middle of digital transformation. Dieter Horst gives an overview and outlook on technologies implemented in today´s industrial manufacturing process as well as innovations that will change tomorrow´s production processes.

BOSCH

DR. GERD SCHEYING
Director Center of Competence RFID@Bosch /
ROBERT BOSCH

DIGITAL PRODUCTION & LOGISTICS

Key aspects of digital transformation in industrial manufacturing & logistics

From the perspective of Bosch, an automotive supplier as well as manufacturer and developer of mobility solutions, industrial, energy, building and consumer goods technology, Dr. Gerd Scheying presents the main aspects and challenges of the digital transformation of industrial manufacturing and logistics towards the realisation of Industry 4.0.

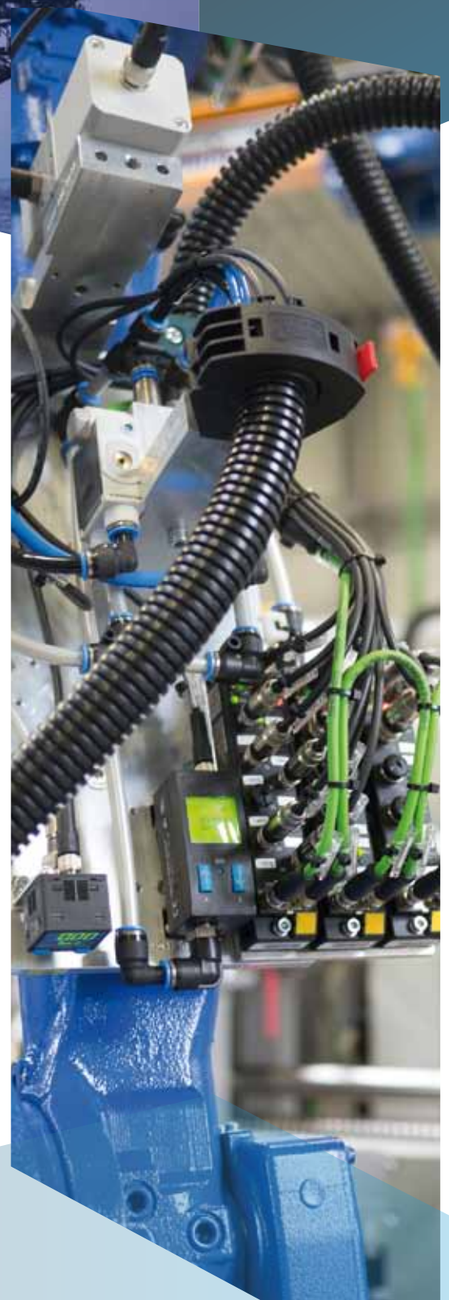
Fraunhofer IIS

FERDINAND KEMETH
Group Leader / **FRAUNHOFER INSTITUTE**
for Integrated Circuits IIS

RUGGED LPWAN COMMUNICATION

MIOTY – The new LPWAN standard for industrial IoT in mining and more

Research for the new, robust LPWAN standard started in 2011, and since 2016 the MIOTY applications have been tested in demanding fields like mining and the metal industry. Now, the standardisation process has been finished and the new standard is ready for operation. Ferdinand Kemeth introduces features, fields of application, and benefits of the new transmission format.



OPC FOUNDATION

STEFAN HOPPE
Global Vice President / **OPC FOUNDATION**

M2M-COMMUNICATION

OPC UA is the global standard for the implementation of automated and innovative Smart Factory concepts

In 2017 the OPC Foundation published multiple important developments like a publish/subscribe model. In 2018, the foundation introduced and adjusted a global interoperability standard for Industry 4.0 and the IIoT with new publications and a new companion specification, which Stefan Hoppe will introduce in his speech.

RFID AFRICAN FOUNDATION

DR. DANIEL OMOFOMAN
Founder RFID Center Nigeria /
RFID AFRICAN FOUNDATION

MINERAL OIL INDUSTRY

RFID IoT Development Opportunities in Africa – Nigeria as a Case Study

The Nigerian mineral oil industry is one of the biggest economic forces in Africa. The industry stakeholders invest in new RFID and IoT technologies to optimise the outcomes. Dr. Omofoman is not only leader of a delegation looking for business opportunities in Europe, but also helps foreign corporations to have a smooth business start in Nigeria.

Fraunhofer IPMS

DR. ANDREAS WEDER
Development Team Leader / **FRAUNHOFER INSTITUTE**
for Photonic Microsystems IPMS

PREDICTIVE MAINTANANCE

Wireless monitoring of rotating parts avoids production downtimes

Optimising processes with the help of RFID sensors ensuring the function of machines is a focus point for the team at the IPMS. Despite the challenges in complex environments, the use of RFID sensors enables the monitoring and maintenance of machines before malfunctions affect production.

www.rfid-wiot-tomorrow.com/forum-logistics-supply-chain

LOGISTICS & SUPPLY CHAIN

Forum 3
Logistics, USER DAY
October 30 2018

Lufthansa Industry Solutions

KEYNOTE

DR. HOLGER SCHLÜTER
Associate Director IoT/Industry 4.0 /
LUFTHANSA INDUSTRY SOLUTIONS

INDUSTRY 4.0 AND IOT IN LOGISTICS

Determining the status and position of objects using Bluetooth and other technologies

Management, tracking, and the localisation of assets play an increasingly important role in the supply chain. With the help of Bluetooth tags, objects cannot only be localised, but they also provide information on temperature, filling level, etc. The solution, provided by Lufthansa Industry Solutions, allows for a level of precision and accuracy that has not yet been reached.

ALEXANDER LUTZE
BPW InnovationLab /
BPW BERGISCHE ACHSEN

TELEMATICS AND IOT IN LOGISTICS

From heavy metal to a transparent flow of goods

In its company-owned InnovationLab, the BPW Bergische Achsen Group works on its own transformation and intends to realise an ´Internet of Transport´. Thus, the company particularly focuses on destructive concepts – penetrating into old supply chains and creating a new business model at this point.

MERCK

ANDREAS GRIMM
Director, Supply Chain Management / **MERCK**

PHARMACEUTICAL CONTAINER MANAGEMENT

Container management solution with RFID at Merck

Merck tracks containers with various tracking technologies using RFID as one example. Tracking enables effective operational processes and solid planning, hence the tracking system is connected to the Merck ERP system.

MV WERFTEN FERTIGMODULE

FABIAN MÖLLER
Logistics Project Manager /
MV WERFTEN FERTIGMODULE

E-KANBAN

Digital benefits with RFID & more in the production of cabins

The MV Werften Fertigmodule produces cruise ship cabins on the assembly line. Due to the integration of RFID and E-Kanban, a just-in-sequence production can be realised for individualised products. Fabian Möller informs on which technologies the young subsidiary company of MV Werften uses for the optimisation of production processes and which further implementations are planned for the future.

FOCUS TOPICS!

- Disruptive business models for the supply chain
- Container management with RFID
- The benefits of sensor data acquisition for the supply chain in the IIoT
- Digital logistics concepts with resilient tracking solutions
- Real-time asset management for ground support equipment
- The digital benefits of RFID and the IoT for cabin production
- Avoiding loading failures and loss of baggage with UHF RFID technology

TRAVEL SENTRY

EVA KOMENDER
Director Product and Development / **TRAVEL SENTRY**

BAGGAGE LOGISTICS WITH UHF

No more lost baggage! Is a permanent embedded RFID tag the key?

Reducing mishandled bags is a crucial topic for the air transportation industry. Permanent Rain RFID tags or dual Rain NFC tags on bags could provide benefits to airlines and airports as well as to customers. And not only flight-related processes can be optimised. Eva Komender will show how tag-based solutions by Travel Sentry can help to streamline luggage supply chain management from factory to retail store or enable at home baggage check-in.

DELTA

DAVID EASTES
Solutions Architect / **DELTA AIR LINES**

RFID BAGGAGE TRACKING

Delta sets the industry standard for baggage tracking with a global RFID solution

David Eastes sets the focus on airline industry metrics regarding mishandled baggage and presents Delta's objectives to improve baggage performance including benefits of RFID baggage tracking, touch points of the bag and Delta's RFID implementation as well as innovations in RFID baggage tracking and the future of RFID at Delta.

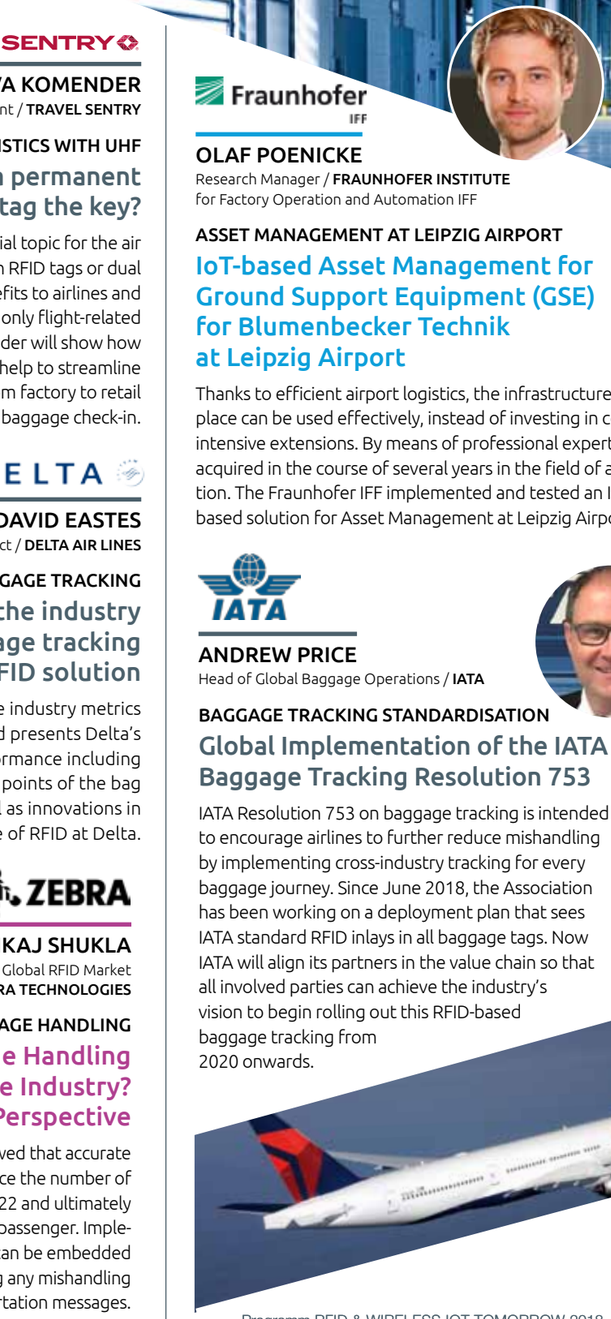
ZEBRA

PANKAJ SHUKLA
Director Global RFID Market Development / **ZEBRA TECHNOLOGIES**

RFID FOR LUGGAGE HANDLING

How RFID Use In Baggage Handling Can Benefit The Industry? A Solution Leader's Perspective

A recent SITA and IATA business case showed that accurate tracking rates of RFID technology could reduce the number of mishandled bags by up to 25 percent by 2022 and ultimately result in cost and time savings for every passenger. Implementing RFID solutions, exact information can be embedded directly in the bag or bag tag, eliminating any mishandling associated with missing baggage sortation messages.



Fraunhofer IFF

OLAF POENICKE
Research Manager / **FRAUNHOFER INSTITUTE**
for Factory Operation and Automation IFF

ASSET MANAGEMENT AT LEIPZIG AIRPORT

IoT-based Asset Management for Ground Support Equipment (GSE) for Blumenbecker Technik at Leipzig Airport

Thanks to efficient airport logistics, the infrastructure in place can be used effectively, instead of investing in cost-intensive extensions. By means of professional expertise acquired in the course of several years in the field of aviation. The Fraunhofer IFF implemented and tested an IoT-based solution for Asset Management at Leipzig Airport.

IATA

ANDREW PRICE
Head of Global Baggage Operations / **IATA**

BAGGAGE TRACKING STANDARDISATION

Global Implementation of the IATA Baggage Tracking Resolution 753

IATA Resolution 753 on baggage tracking is intended to encourage airlines to further reduce mishandling by implementing cross-industry tracking for every baggage journey. Since June 2018, the Association has been working on a deployment plan that sees IATA standard RFID inlays in all baggage tags. Now IATA will align its partners in the value chain so that all involved parties can achieve the industry's vision to begin rolling out this RFID-based baggage tracking from 2020 onwards.

RETAIL & LOGISTICS

Forum 4
Retail, USER DAY
October 30 2018

KEYNOTE

RALF KODRITSCH
Director global Segment Manager RFID Solutions / **NXP SEMICONDUCTORS**

THE FUTURE OF RETAIL

Unmanned Stores – a completely new experience in retail enabled by RFID

More than a mere vision for the future – the first unmanned stores have already opened for business. But is it a concept that will displace traditional retail in the future? Thanks to RFID technology, nothing stands in the way of unmanned stores from a technical point of view. Ralf Kodritsch from NXP explains with which recent innovations the stores of tomorrow can be realised.

GIOVANNI CODEGONI
Sales Director / **LAB ID**

DUAL FREQUENCY

Anticounterfeit and brand protection – Solutions and Innovations

How to create strong, secure connected products. Overview on cloud services for tag validation and authentication. Key features and selected RFID technologies will be presented with a special demo based on new ICs avalable in the market soon.

FREDERIK THOMAS
CIO & COO, Digital Executive / **INTERDISCOUNT**

ELECTRONICS RETAIL

The fast way to digital transformation

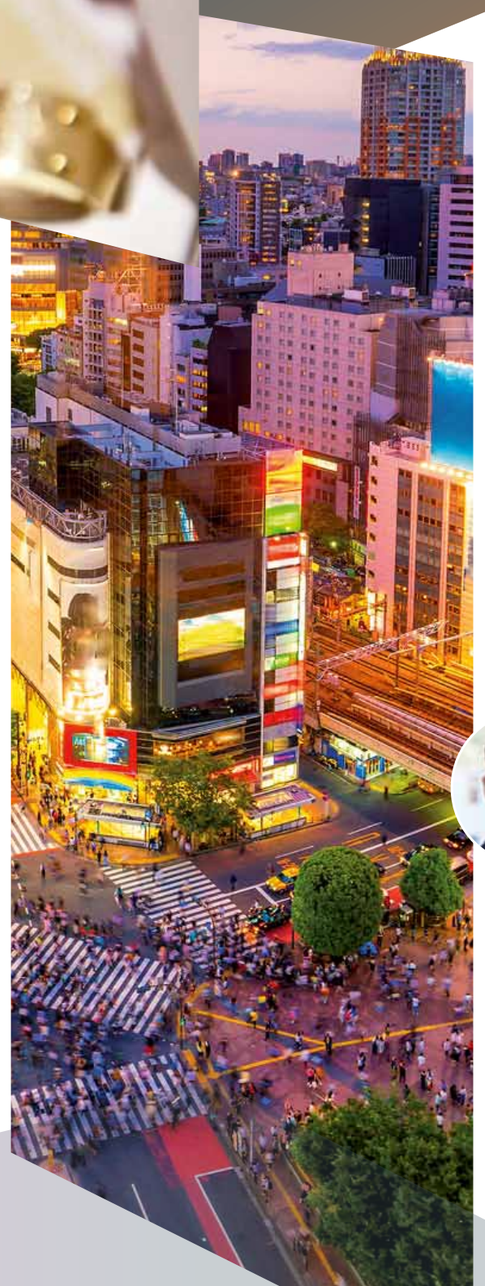
For more than 10 years Interdiscount has offered omnichannel concepts. Purchase, return and payment are possible in branches and online shops in any direction. To guarantee express logistics the enterprise invested in a fully automatic shuttle warehouse. Thanks to a digitally optimised SAP system, stocks are completely transparent for customers online and shop keepers alike in real-time. Thanks to 100 percent product transparency a just-in-time delivery is possible and sufficient stocks are guaranteed.

JORDI BAETA
Market Development Manager Information Solutions RFID – RBIS EMEA / **AVERY DENNISON**

RFID IN RETAIL

The use of RFID to enhance customer experience, reduce costs and achieve new levels of process optimisation in retail

Consumers increasingly look for items online and make at least a partial decision before going to a store. This change in consumer behaviour increases the importance of item availability. This lecture underlines the importance of RFID-assisted product visibility and inventory accuracy in retail today – and how they can produce tangible benefits for retailers and customers.



FOCUS TOPICS!

- RFID usage in retail makes “unmanned stores” possible
- Will digital retail replace traditional retail?
- Service robots: the intersection of the store, the digital experience, and the customer
- Supply chain and store: Retail companies and chains employ RFID
- Dual frequency technology
- Digital business transformation: fast and effective
- NFC in sports

PROF. DR. GEORG RAINER HOFMANN
Information Management Institute / **ASCHAFFENBURG UNIVERSITY** of Applied Sciences & Competence Group Leader E-Commerce eco – Association of the Internet Industry

DIGITAL RETAIL

Acceptance factors for new technologies in stationary and digital retail trade

With the comprehensive introduction of the barcode in the 1980s the movement towards automation began. RFID is the consequent step forward from half to full automation. To permeate the market long term, new future stores require smooth technology processes and extensive trust in the technology by the customers. Only that which generates benefits for customers is going to stay long-term. Prof. Dr. Georg Rainer Hofmann from the Aschaffenburg University of Applied Sciences describes how offline and online retail profit together from the transformation.

PATRICK MEYER
Consultant / **ELABORATUM**

SERVICE ROBOTS

Opportunity or gimmick: What role can service robots play in stationary trade?

Through competition from online retailers, offline shops have to explore new grounds – are service robots a digital solution? Elaboratum presents the results of their field experiment: Can service robots connect stationary retail and online trade and generate real benefits for customers? Are customers willing to talk to the robots? How do the dialogues differ compared to the usual clerk-customer-consultation? And are the customers even more open dealing with machines than with human shopkeepers?

STEPHEN HOWELLS
Senior Director of Product Marketing / **SMARTRAC TECHNOLOGY GROUP**

CUSTOMER EXPERIENCE

How Smartrac helped Adidas with NFC solutions to transform the Telstar 18 to a digital experience platform and a digital consumer experience in the 2018 World Cup Ball

Thanks to the integration of an NFC tag, a football turns into a multimedia experience that enables exclusive content through its interaction with a smartphone. The tags are unique and recognise the environment, which enables a completely interactive connection with the ball. In his lecture, Stephen Howells introduces how Smartrac and Adidas made this unique experience.

MARCO TRAMM
Sales Director / inotec

RETAIL: CONTAINER MANAGEMENT

Over 16 million RFID labels: Migros relies on digital container management from the label specialist

About 12 million reusable containers are on the roads between more than 150 locations in Switzerland. This is a challenge that the biggest retail trade company of the country has handled with the help of inotec RFID solutions since 2012. In his speech Marco Tramm explains how the hardware can be made usable over many years despite a high level of strain through constant cleaning of the containers.

www.rfid-wiot-tomorrow.com/forum-healthcare

Forum 5

Healthcare, USER DAY

October 30 2018

HEALTH-CARE

ASKLEPIOS

KEYNOTE

SADMIR OSMANCEVIC
Head of Steril Goods Supply /
ASKLEPIOS FACILITY SERVICES HAMBURG

DIGITISATION AT ASKLEPIOS

RFID is set in sterile goods supply – and a first step in the digitisation and automation of the sterile goods departments in the Asklepios Group

Tagging assets in need of sterilisation is a special challenge in harsh environments for the hardware. Asklepios, one of the biggest hospital providers in Germany, comprehensively introduces the technology. Sadmir Osmancevic reports on his experience on a small and a large scale – for guaranteed safety for health care providers and patients.

SMARTRAC connect things

THORSTEN BRAAS
Director Sales EMEA / Industry Region DACH / **SMARTRAC TECHNOLOGY GROUP**

PHARMACEUTICAL COLD CHAIN

Innovative RFID applications in the pharmaceutical industry to improve patient experience and cold chain monitoring

Increasing inventory availability and delivering accuracy while enhancing patient safety – the pharma industry is a business with high-priced goods with extraordinary demands for a perfect cool chain. Introducing RFID to the pharmaceutical industry brings benefits to patients as well as producers.

TEXI

ANDERS BERGFELDT
CEO / **TEXI**

LAUNDRY LOGISTICS

Efficient textile logistics in the clinical environment under high hygienic conditions

Texi provides innovative ways to handle workwear with technologies providing a complete overview of the flow of personnel clothing. With its specialised solutions in the field of high hygienic environments, more efficient logistics and a reduction in costs can be achieved.

Universitätsklinikum Leipzig
Anstalt öffentlichen Rechts

CHRISTIAN POHLENZ
Maintanance Coordinator /
LEIPZIG UNIVERSITY HOSPITAL

PATIENT CARE

1. Optimisation of the pneumatic tube system and the Automated Guided Vehicle (AGV) across the entire Leipzig University Hospital through consistent use of RFID

2. Mini pneumatic delivery + MiniAGV with RFID: the key for fast and transparent transport of samples between patient and diagnostics

Everything that cannot be sent by mail is sent from one end of the hospital to the other within seconds – the use of pneumatic tube systems in hospitals has already been established. But with the integration of RFID, the transport of samples between patient and diagnostics, medicine, blood transfusion and data media becomes more transparent and safer.

FOCUS TOPICS!

- Sterile goods supply at Asklepios with RFID and IoT
- Pneumatic delivery and driverless transport systems (AGV) for the entire Leipzig University Hospital
- Quality offensive: 100 percent tracking of laboratory samples
- Implement cost reduction and hygiene regulations: Automated laundry logistics in Sweden
- Digitised document management of health records
- Real-time Asset Tracking of 110,000 objects in Adana / Turkey
- Sensor-based cold chain monitoring and safe handling of pharmaceutical goods

OGTech Technology Solutions

KHALED MOHAMED EZZ EL DIN
Regional Manager / **OGTECH FOR ID SYSTEMS & IT**

WORK OPTIMISATION

RFID accelerates workflow for better healthcare

Khaled Mohamed Ezz El Din reports on the state of introducing RFID and successful implementations for healthcare in MENA with special emphasis on the Gulf countries, to improve the workflow by optimising integrated applications.

borda

AKIN ALTUNBAS
Co-Founder & CEO / **BORDA TECHNOLOGY**

ASSET TRACKING

Adana Integrated Healthcare Campus uses RFID-based IoT solutions for real-time tracking, child safety, and more!

The newly built Adana Healthcare Campus in Turkey is one of the most extensive examples for RFID IoT and RTLS in healthcare. With a strategical concept where patient´s needs are the starting point, personnel and assets are easily traceable for ideal safety and efficiency.

kinsetsu

JOANNE O'DOHERTY
Business Development Director / **KINSETSU**

AUTOMATION IN HEALTHCARE

Maximising benefits with RFID automation to assist in improving efficiency, traceability and ultimately patient outcomes!

Introducing RFID automation in various fields of the healthcare industry, all stakeholders have countless benefits. Joanne O'Doherty introduces established and new projects to improve all fields of the healthcare industry.

inveox
rethinking pathology

DOMINIK SIEVERT
Managing Partner & CTO / **INVEOX**

LAB EFFICIENCY AND SAFETY

IoT-based automation dramatically increases lab efficiency and safety of cancer diagnoses

inveox automates the sample preparation processes in histopathology. The laboratory automation tools increase efficiency and operational reliability in the laboratory, reducing potential errors and misdiagnoses. Is sample processing a weak point in laboratory operation? That is all in the past now.

www.rfid-wiot-tomorrow.com/forum-consumer-iot-and-smart-city

CONSUMER IOT & SMART CITY

Forum 6
Smart City, USER DAY
October 30 2018

ALPHA-OMEGA TECHNOLOGY

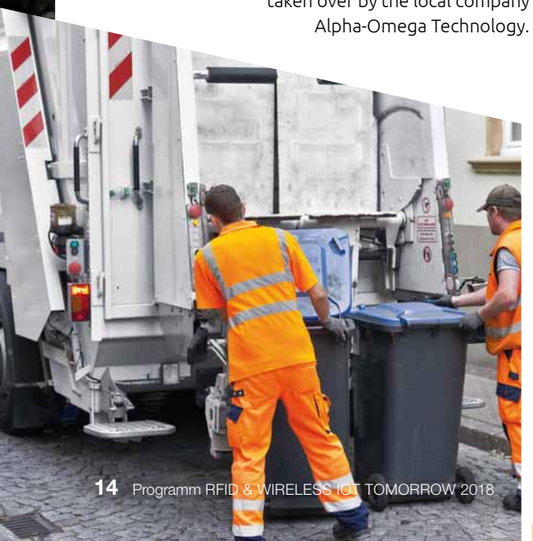
KEYNOTE

JAN BOSE
Managing Director /
ALPHA-OMEGA TECHNOLOGY

NETWORKED STREET LIGHTING

The City of Martinfeld equips intelligent street lighting with a LoRaWAN network - the SMART-infeld project shows how it works

The ambitious goal: to create the highest density of IoT applications in a municipality in Germany. As a first step on the way to a Smart City, the municipality of Martinfeld is converting its street lighting to intelligent LED luminaires, but other digital citizen services such as waste management are also planned. The technical basis for this and other planned projects is a LoRaWAN network, whose project management has been taken over by the local company Alpha-Omega Technology.



Facens

PROF. DR. REGIANE RELVA ROMANO
CEO / Vip-Systems Informática / Head of Research / **FACENS**

STUDENT LIFE ON THE SMART CAMPUS

Smart Campus FACENS in Sorocaba, Brazil

On the smart FACENS campus, young engineers develop the technology for tomorrow's smart cities - and try it out for themselves on their own campuses. Prof. Dr. Regiane Relva Romano explains the eight pillars of smart coexistence in the city and presents selected student projects that inspire living research in educational institutions all over the world.

HID

PHILIP HOYER
Chief Technology Officer (CTO) of the Trusted Mobile Ticketing (TMT) Business Unit / **HID GLOBAL**

MOBILE TICKETING

Trusted Mobile Ticketing

Using Bluetooth and RFID, Philip Hoyer and HID Global present an application for Electronic Trusted Ticketing. Whether at large events or for hotel guests, it can open up new experiences and business opportunities. Thanks to a combination of access control, BluVision, and mobile wallet technology, a new way of purchasing and using tickets is established.

FOCUS TOPICS!

- Disrupting the mobile ticket market: Access and security features of the new ticketing process
- LoRaWAN solutions
- Smart campus solutions with RFID in Brazil
- The IoT in waste management: how to save costs and time with network applications
- RFID document management
- Digital cars: Wireless applications to enable stress-free parking

COMPTA Emerging Business

VASCO CORREIA
International Business Developer /
COMPTA EMERGING BUSINESS

WASTE MANAGEMENT

IoT is the key to the efficient waste management of more than 40 cities

With BEE2WASTE, Compta Emerging Business introduces cloud management software that optimises urban waste management in 40 cities in Europe and South America. By interacting with a wide range of IoT sensors, the appropriate methods can be adapted to each city.

OGTech Technology Solutions

KHALED MOHAMED EZZ EL DIN
Regional Manager / **OGTECH FOR ID SYSTEMS & IT**

DOCUMENT MANAGEMENT

RFID reduces service time for a better customer experience

The world's largest installation of an RFID document tracking system: OGTech has integrated a system with 1,006 reading points for the public prosecutor's office in Qatar to be the foundation of different integrated applications utilized in different phases. With modern hardware and adaptable software, authorisation verification, accurate location information, and print modules can be realised across the smart campus of the Public Prosecution. Bureaucratic delays can thus be reduced and costs and time saved.

APCOA PARKING

ANDREAS HENNINGER
IT Program Officer / **APCOA PARKING HOLDING**

SMART PARKING

Intelligent parking: The car park becomes digital

Parking without tickets, without cash, without stress - easier, faster, more convenient. The APOCA FLOW platform already enables smart parking in 200 car parks. Thanks to RFID chips, cars and garages can be linked together. Andreas Henninger, IT Program Officer at APOCA Holding, presents smart parking concepts that already cover 100,000 parking spaces throughout Germany.

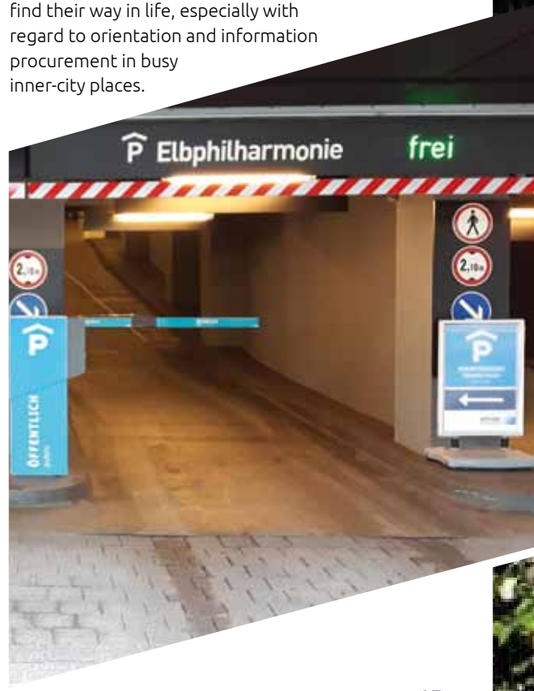
THM
TECHNISCHE HOCHSCHULE MITTELHESSEN

PROF. DR. RÜDIGER KERN
Professor of Building Materials Science and Fundamentals of Structural Engineering /
UNIVERSITY OF APPLIED SCIENCES MITTELHESSEN (THM)

MOBILITY ASSISTANCE

RFID-supported electronic guidance system for the blind

In a publicly funded cooperation project, the Technical University Mittelhessen – represented by the Centre for Blind and Visually Impaired Students (BliZ), the Faculty of Construction – together with the company Papenmeier, have developed a UHF RFID-supported guidance system for the visually impaired. This system should help partially sighted people to better find their way in life, especially with regard to orientation and information procurement in busy inner-city places.



www.rfid-wiot-tomorrow.com/forum-wireless-iot

RESEARCH & PRODUCT INNOVATIONS

Forum 1
DEVELOPER DAY
October 31 2018

FOCUS TOPICS!

- Selective reading: direction and movement estimation and localisation
- Chipless RFID: the latest developments
- Sensor technology and communication: printed electronics
- NFC labels for brand protection
- The first Bluetooth tag without a battery
- RAIN RFID and BLE combined

UNIVERSITÄT DUISBURG ESSEN

PROF. DR. THOMAS KAISER
UNIVERSITY OF DUISBURG-ESSEN / ID4US

INDOOR LOCALISATION BEYOND RFID BOUNDARIES

RFID localisation from Meter to Centimeter to (Sub)-Millimeter Accuracy

Today's RFID systems are naturally designed for rather low data rates and therefore occupy low bandwidth resulting in today's meter accuracy. Contrarily, precise localisation with centimeter or even down to (sub)-millimeter accuracy may require enormous bandwith, if the RFID tag is surrounded by local scatterers being quite common for typical environments.

VTT

KAARLE JAAKKOLA
Senior Scientist, M. Sc. (Tech) / **VTT** Technical Research Centre of Finland, Sensing and Wireless Devices

PRINTED ELECTRONICS AND MORE

RFID and wireless sensing solutions for IoT networks

VTT has taken a wide R&D approach to RFID and wireless sensing which is supported by extensive interdisciplinary know-how and in-house technology platforms. Our activities cover RFID and wireless systems from low frequency to mm-waves. VTT develops novel solutions to improve the performance of RFID systems.

Fraunhofer IIS

TOBIAS DRÄGER
Group Leader RFID and Inductive Sensor Systems / **FRAUNHOFER INSTITUTE** for Integrated Circuits IIS

DIGITAL TRACKING AND TRACING

Current research topics of „Selective RFID Read-out" – direction and movement estimation, localization of RFID Tags

In safety-critical applications, maximum reliability is indispensable – for example in production or logistics. It is therefore crucial to know where people and objects are and where they are going. Localisation systems can increase safety in sometimes life-threatening situations, such as those of rescue services.

Wiliot

MICHAEL ZEHNPFENNIG
Vice President Solution & Operations / **WILIOT**

REVOLUTION: PASSIVE BLE TAGS

Inside the First Battery-free Bluetooth Tag

Bluetooth chips with unlimited life, a small tag with processing power and sensors, for a fraction of the price – how the worlds of RAIN RFID and Bluetooth Low Energy are converging and the technology behind it, presented by Michael Zehnpfennig from Wiliot.

ZEBRA

NIKOLAY ISAKOV
System Engineer / **ZEBRA TECHNOLOGIES**

RFID HARDWARE & SOFTWARE

How to accelerate app development, accuracy and integration to achieve successful RFID & IoT solutions. A guide to developing intelligent edge solutions

Software is the beating heart of any intelligent edge solution. Through best practise sharing we will explore how to rapidly architect, develop and integrate your applications to improve operational workflows, increase efficiencies, enhance the customer experience and drive digital innovation.

IMPINJ

CARL BRASEK
Silicon Project Management Director / **IMPINJ**

CHIP DEVELOPMENT

The latest UHF RFID reader and transponder chip developments support large-scale bag tracking applications

The air travel industry has recently agreed to the transition of airlines and airports from barcode-based luggage tags to RFID-enabled tags. Carl Brasek highlights the importance of this shift in the worldwide aviation industry. He also presents an upcoming luggage tag technology announcement, which allows for saving 3 billion US dollars in the air travel industry by 2023.

CAEN RFID

STEFANO COLUCCINI
CMO / **CAEN RFID**

EMBEDDED UHF RFID

Modules to simplify the UHF integration in any device

RFID modules with high performance strengths embody numerous application possibilities in Wireless IoT. RFID modules can be flexibly embedded to enable digital transformation in various industries and processes.

LOGISTICS ARTS

WILLY LUTZ
Managing Director & Innovator / **LOGISTICS ARTS**

LOAD CARRIER MANAGEMENT

Making load carrier logistics fit for Industry 4.0 with RFID

A smart load carrier – pallet, box, or container – is the key to a comprehensive range of process optimisations in load carrier logistics and thus supports Industry 4.0 realisations. The effects include full transparency over every movement of goods, tracking from the manufacturer to the customer, and cost savings due to reduced incorrect loading.

TECHNO-LOGY

Forum 2
DEVELOPER DAY
October 31 2018

race | result

NIKIAS KLOHR
CTO / **RACE RESULT**

CUSTOM-TAG DEVELOPMENT

The path from development to the first custom RFID tag for sports timing

The unique challenges in the field of sports timing made Nikias Klohr from Race Result and technology partners develop an own custom tags. Despite industry reservations, Klohr encourages other stakeholders to follow his lead and he asks reader developers to optimise his business.

voyantic

JUHO PARTANEN
Business Development Director, Co-Founder / **VOYANTIC**

CONTROL OF READERS AND TAGS

Impact of the upper ETSI band on RFID tagging and label design

Juho Partanen has been concerned with the matter of ETSI band RFID frequency for years now. The main topics of his talk: which benefits are generated by using RFID frequencies and what implications does this use have on RFID tagging and the design of labels.

HID

RICHARD AUFREITER
Director Product Management – Identification Technologies / **HID GLOBAL**

TRANSPONDER VERSUS MANIPULATION

Tamper Evident RFID – when security matters

As RFID and BLE technology becomes adopted in an increasing number of scenarios, it turns out that for some of these use cases it is very important that tags and items are affixed to stay together and that tags cannot be cloned. This session will describe several physical, cryptographic and RFID aspects of implementing tamper evidence in RFID tags and describe related real-life implementations.

ELATEC
RFID Systems

BURHAN GÜNDÜZ
Global Account Director, Secure Printing Applications / **ELATEC**

NFC, BIOMETRICS AND SMART CARDS

User ID authentication via RFID/NFC/BLE

Similar to RFID badges, BLE can be used for identification thanks to hybrid cards that are able to read RFID as well as BLE transponders. In cases like opening restricted access doors to emergency rooms or similar fields of application, where distances of multiple meters have to be taken into account, the correct technology or a combination thereof has to be chosen.

FOCUS TOPICS!

- The latest chip developments focus on resilience, intelligence, and security
- Increased reading and writing performance of readers and transponders
- Application-specific RFID tag development
- Advantages and disadvantages of customisation: Custom-built UHF labels as an example
- Product protection with electronic seals
- Multi-frequency reader modules for secure authentication
- Hybrid solutions: UHF & NFC in one chip – nice-to-have or a crucial development?
- RFID printers

ALIEN

STEPHEN CROCKER
Director / Sales / Channels EMEA and India / **ALIEN TECHNOLOGY**

STEVEN R. SCHAUER
Product Marketing Manager / **ALIEN TECHNOLOGY**

UHF CHIPS AND READER

Passive RFID: The Essential Data Collection Backbone of IoT

Alien Technology has over 15 years of experience designing UHF passive RFID inlays and the semiconductor chips on them, as well as the readers that facilitate the combination. For the first time at the RFID & WIoT tomorrow, the Director and Product Marketing Manager will introduce realised products and applications by Alien Technology.

SAG
SECURITAG ASSEMBLY GROUP

STANLEY CHEN
Marketing Specialists / **SAG SECURITAG ASSEMBLY GROUP**

UHF TAGS IN METAL RAIN RFID

RAIN RFID Overmolded Uni Metal Tag: easy reading from dense metal and from afar

Distances as well as full metal surroundings are a special challenge to all WIoT technologies. The newest models of UHF tags by SAG tackle these problematic fields and offer unique solutions.

Lexmark

PETER ALBRECHT
Industry Consultant Manufacturing / Global Marketing / **LEXMARK**

RFID AND MULTIFUNCTION PRINTER

Maximise your RFID processes with a single do-it-all device

RFID is changing the landscape of production and shipping worldwide. But with printing one's own labels with a colour laser printer, a whole new level of process maximisation in organisation can be reached.

CONFIDEX
Capturing IDeas

ALEXANDER ABELN
Sales Director / Smart Industries / **CONFIDEX**

LATEST ROBUST RFID TAGS

RFID tags and labels are intelligent power packs: high temperatures and pressures, complete environment, chemicals – no hurdle is too high

With advancing experience and new innovations, more extreme environments for the use of RFID tags can be overcome. No matter whether high temperature or pressures, chemicals, or metal environments, there are specific solutions to basically all customer demands.

www.rfid-wiot-tomorrow.com/forum-software-and-system-integration

Forum 3
System Integration, DEVELOPER DAY
October 31 2018

SYSTEM INTEGRATION

FOCUS TOPICS!

- Systemintegrators present their best practices
- UHF reader testing
- Targeting the supply chain
- Applications for passive BLE tags
- OPC UA connectivity
- Brand protection
- RFID integration in Brazil

AEG ID

SIMON ARCH
Marketing and Sales Director / **AEG ID**

RECOMMENDATIONS FOR EFFICIENT RFID INTEGRATION

‚Making ID easy' – or: how to optimally integrate RFID into your processes

The smart card and key fob producer AEG ID produces customised smart cards and key fobs for end users and system integrators. These enable entrance registration, time registration, payment, machine and personnel registration for all parts of industry. In his speech, Simon Arch explains how business partners can profit from the solutions.

CISC semiconductor

DEBANGANA MUKHERJEE
Director of Business Development & Sales / **CISC SEMICONDUCTOR**

READER TEST TOOLS WORLDWIDE

Understanding the sensitivity of RAIN RFID readers

Every RAIN RFID reader needs to be accurate and efficient and must have good sensitivity in order for it to detect the tag signal in background noise. But sensitivity of the reader is limited by different factors. But what is meant by term sensitivity? What is the performance expected from readers at this point in time? What are the factors effecting the sensitivity? Through this presentation let us understand the term "sensitivity of the reader" and look into factors affecting sensitivity.

IMPINJ

STEFAN BERTHMANN
Regional Sales Manager / **IMPINJ**

HARDWARE DEPLOYMENT FOR SUPPLY CHAIN

How does RFID optimise your supply chain processes?

Supply chains with multiple business partners have various possibilities to improve efficiency and productivity. Enhancing and accelerating communication between the stakeholders is just one of these possibilities that Stefan Berthmann will detail.

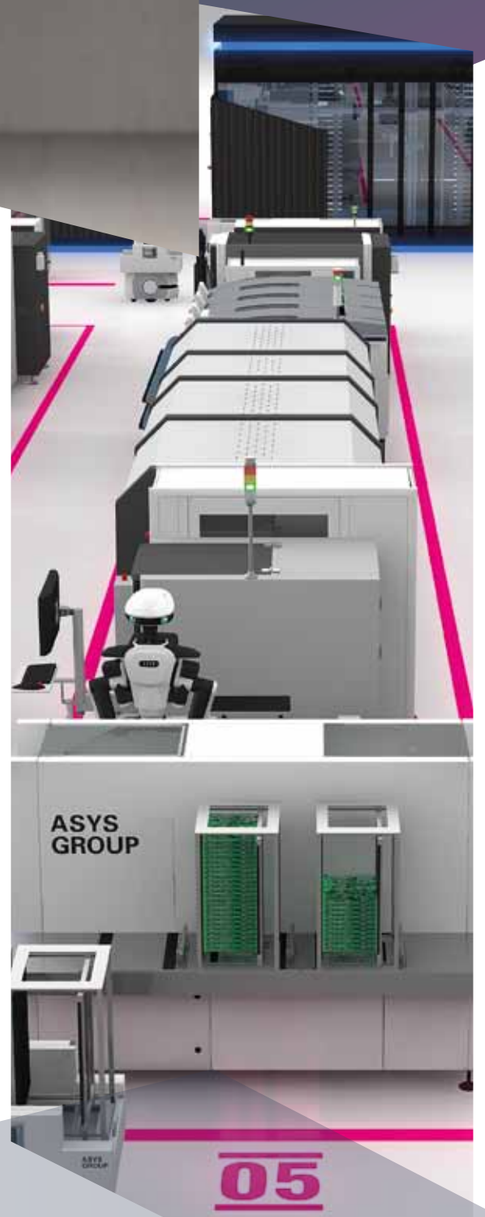
Small & Medium Enterprises Development Agency of Nigeria

DR. DIKKO UMARU RADDA
Director General/CEO / Small and Medium Enterprises Development Agency of Nigeria (**SMEDAN**)

WIRELESS IOT ADOPTION FOR MSME

A Proposal for the Inclusion of MSMEs in RFID and Wireless IoT Adoption for Economic Development

RFID & Wireless IoT – are these technologies only for large, globally active corporations? Far from it! Small and medium-sized companies also benefit from transparent, secure and lean processes. There is a lot of potential in the Nigerian economy, also and especially outside the world of large corporations, which now needs to be considered.



wiliot

JESSICA HAZELRIGG
Marketing & Partner Relations / **WILIOT**

BLE TAGS: APPLICATIONS & DEVELOPMENT

Applications for battery-free Bluetooth tags – findings from the development of the first passive Bluetooth tags

Bluetooth chips with unlimited battery life, a small tag with processing power and sensors, for a fraction of the price – applications for the newest Bluetooth solution requiring no batteries in smart clothing, smart packaging, logistics, and asset tracking by Jessica Hazelrigg of Wiliot.

OPENMATICS
Intelligent Connectivity Solutions

ROBERT NEUMANN
Key Account Manager / **OPENMATICS**

BLE TECHNOLOGY AND BEST PRACTISE

Simplified logistics management and cost savings of up to 20 percent with BLE and WLAN

The specialist for connectivity, OPENMATICS, offers asset tracking systems with BLE and WLAN. Thanks to increased productivity and the newest technology, savings of up to 20 percent can be reached. Robert Neumann gives an overview of their experience and applications so far.

Facens

PROF. DR. REGIANE RELVA ROMANO
CEO / Vip-Systems Informática / Head of Research **FACENS**

BUSINESS FACTS BRAZIL

RFID applications in the Brazilian fashion & retail sector

With her own system integration company, Prof. Dr. Regiane Relva Romano developed the first smart fashion store in Brazil. With the government's advances in strengthening RFID and IoT technologies in all fields, she is one of the pioneers.

05

www.rfid-wiot-tomorrow.com/forum-standardization-and-research

AIDC

Forum 4

AIDC: Standardization, Markets & Challenges, DEVELOPER DAY

October 31 2018

FOCUS TOPICS!

- AIDC in Europe
- AIDC from a global perspective
- The latest NFC developments
- RAIN RFID
- Long range sensing
- Business facts Nigeria

FRITHJOF WALK
President, AIM Europe / General Manager / **SCHNEIDER-KENNZEICHNUNG**

AIDC IN EUROPE

AIDC in Europe: status, challenges and futures

AIM Europe brings companies, end users and researchers in Auto-ID together and offers support and information exchange. Frithjof Walk, President of AIM Europe, presents the state of technological development on the continent and in the companies.

CHUCK EVANHOE
President, Evanhoe & Associates / Chairman of the Board /**AIM GLOBAL**

AIDC GLOBAL

AIDC from a global perspective: markets, trends, and developments

With his long-standing experience as Chairman of the Board and on successfully leading his own company, Chuck Evanhoe is willing to give unique insights into all aspects of AIDC technologies from every perspective – taking into account the current state and future developments.

DR. ALEXANDER RENSINK
Business Segment Manager – Secure Identification Solutions Business / **NXP SEMICONDUCTORS**

LATEST NFC DEVELOPMENTS

NFC: technical questions, future developments, standardisation

Empowering and encouraging businesses and consumers to implement and use NFC – for this goal, detailed knowledge of the technical questions, standardisation of NFC, and an outlook for future developments is necessary. Dr. Alexander Rensik shares his knowledge and gives a perspective on upcoming focus points.

STEVE HALLIDAY
President / **RAIN RFID ALLIANCE**

RAIN RFID

RAIN RFID: an IoT technology continues to gain global acceptance

After 5 years, the RAIN RFID alliance unifies 160 companies and differentiates the field of RFID with multiple workgroups. Though the main goal is education, the alliance works on giving end users and small companies a voice in the growing industry.

MICHAEL KAISER
Director Partner Management & Product Management / **KATHREIN SOLUTIONS**

INDUSTRIAL IOT SOLUTIONS

Different industries, diverse applications – One solution! How RAIN RFID system from Kathrein Solutions can solve your problems!

Industry 4.0 and Smart Factory are the new visions of industrial automation. Kathrein uses RAIN RFID technology to meet any conceivable industrial challenge and turning products into smart objects. This enables efficiency-enhancing methods of self-configuration and self-optimisation.

DR. PAUL SLABY
CEO / **TESLONIX**

LONG RANGE SENSING

Empowering IoT: how Teslonix is enabling long-range RAIN RFID and battery-free sensor solutions

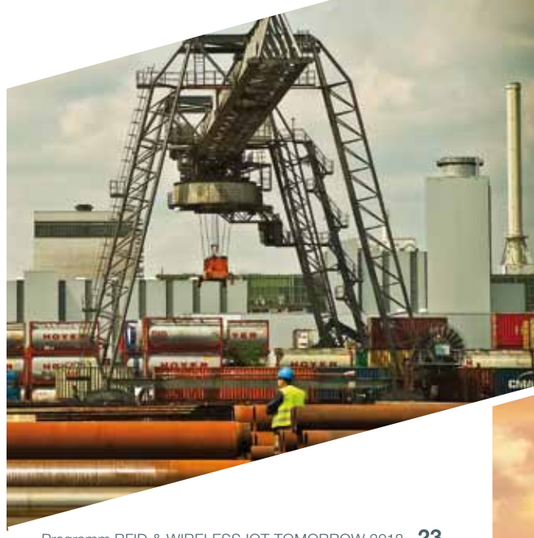
Existing reader technology does not deliver enough power to RAIN RFID tags and battery-free sensors, hence limiting range, driving up cost, impeding adoption and limiting the growth of the Internet of Things. In this talk the audience will be informed on how Teslonix addresses this issue through the use of its patented smartRFpower technology.

DR. ISA ALI IBRAHIM PANTAMI
PhD, FBCS, Director-General / CEO / National Information **TECHNOLOGY DEVELOPMENT AGENCY** (NITDA)

BUSINESS FACTS NIGERIA

Development of an RFID and IoT ecosystem and investment opportunities in Nigeria

Nigeria is the biggest economy GDP-wise in Africa. A strong mineral oil industry demands new production technologies from the field of RFID and IoT to optimise its business. Dr. Isa Ali Ibrahim Pantami introduces listeners to the country's development and regulations of ICT for the advancement and development of industry sectors with a strong focus on ICT capacity building, empowering start-ups and the ecosystem development of the Nigerian economy.



PROGRAMME

RFID & WIRELESS IOT TOMORROW 2018

Find the current programme and register at

WWW.RFID-WIOT-TOMORROW.COM

RFID & WIRELESS IOT

Developer Day

Forum 1–4

Innovations
Technology
System Integration
Markets

User Day

Forum 1+2

Automotive
Industrial IoT

User Day

Forum 3

Logistics &
Supply Chain

User Day

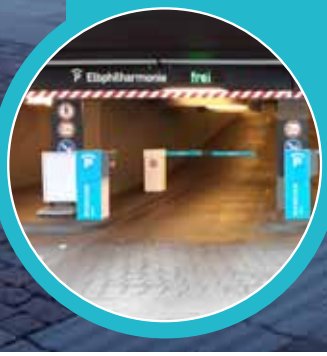
Forum 4

Retail &
Logistics

User Day

Forum 6

Consumer IoT &
Smart City



User Day

Forum 5

Healthcare

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