Hilton Istanbul
April 10th

IoT EURASIA

BULLETIN

500+ attendees

30+ speakers

50+ exhibitors

WE WELCOME YOU TO IOT EURASIA 2018

Evolving technology and speed of innovation urge companies to comply with the change as soon as it brings about. Otherwise companies enter into a muddling through phase or fall behind competition. As the opportunity from the Internet of Things now realized, enterprises, industries and governments are all looking to capitalize on the latest in connected technology. Change is coming revolutionary rather than evolutionary and although many obstacles remain to be contained, we all see that the impact over both the way companies do business and the way individuals design their life styles will be profound and pervasive. The inaugural IoT EurAsia 2018 will bring those at the forefront of this global phenomenon to Istanbul to uncover the potential across Europe, the Middle East and Asia.

To understand how top managers in strategic sectors see and manage the innovation, how they adapt to the changing world and secure their companies against cyber and physical threats, we conducted interviews with both IoT Eurasia participants and non-participants. Their perspective showed us that the soonest companies adapt themselves to Industry 4.0 and use IoT, big data, artificial intelligence, the highest they position themselves at a higher level in competition.

Hope you enjoy those valuable experiences

Best regards,

Özlem Derici Şengül
IoT EurAsia Publications Coordinator

PARTICIPANTS

Construction is one of the leading industries in Turkey with around 7% share in economic activity with respect to GDP. Although most of the industry is still far from integrating smart systems to production, Agaoglu Group as one of the leaders in industry is among the ones which follow new technologies closely and successfully implement them in their projects. To assess how Industry 4.0 applications affected the way they do business, we talked to Volkan Kuzucu, IT Manager of Agaoglu Group of Companies.

VOLKAN KUZUCU
IT Manager of Agaoglu Group of Companies, Turkey

What IoT applications do you use to grow your business? What is the most appealing application in Turkey or in the world related to your business?

Volkan Kuzucu: Construction industry in recent years was using information technology only to follow financial performance and marketing activities. As a matter of fact, we were using only BIM (Building Information Modeling) applications as an exception on top of those areas until Maslak1453 project. However, technology use in construction sites during production has been a necessity in recent years. IT department's contribution to the production process especially in the areas of CCTV systems, intercom systems, fire automation, human based access security and car access security via plate recognition, air conditioning systems, property management information systems have been the major necessities. As those areas were not professionally developed by information technology people, separate auctions were held for each system and they were usually analog and not accord. The systems I mentioned above were in general made up of i) central management system/server, ii) infrastructural equipment (cabling/network), iii) terminals. It was obvious that well designed technologies that talk to each other and touch people's lives paces were a necessity. Hence we got together with our electricity team and in the end we saw that we have been successful. During the post construction era, average ratio of problems arising from low current systems is 47% while it is 3% in Maslak 1453.

Besides, we were able to produce alternative scenarios thanks to use of those systems that can talk to internet. For instance, when a school bus enters the site, a message is being sent to parents thanks to cameras that know the license plate and send the information to central property management software. Or a guest visit is being told to the homeowner via sms even if the homeowner is not at home, thanks to intercom systems connected to IP based cameras. You can generate maximum security with less security personnel thanks to IP based cameras even in open sites. Monitoring rooms are being designed for those IP based systems, central event management is feasible and also average behavioral styles in living spaces can now be tracked.

As a member of labor intensive sector, where do you see the construction sector heading amid increasing use of automation?

Volkan Kuzucu: Turkish construction sector did not feel the necessity to or use high end technology solutions for many years mainly due to the search for high profitability and low cost. However, as the gap between the cost of production and sales return narrows, we see that search for productivity increases by the day. Studies for increasing customer satisfaction to increase sales performance as well as the use of productivity control tools like BIM technologies to lower cost will inevitably be widely used. It would not be wrong to say that companies that consider the future needs will be preferred more as people do not buy only a house but a living space. Hence, employing some technological tools to determine needs in the living spaces and taking feedback by maximum interaction will give enormous advantage to construction firms.

Do you use big data in your business? How?

Volkan Kuzucu: Success in property production and sales is positively correlated with accurately reading the past experiences. That's why customer loyalty increases in companies which provide property management service together with property production. Our company is a real success in this area. Share of previous customers in new project sales reaches 45% in recent periods. Several experiences are gathered in a pool and evaluated to achieve this levels. Construction sector dynamics urged companies to engage in personal relationships to move the business further. However as we integrate technology more in all processes, we see progress beyond persons and we will continue to do so.

Wide range of IoT applications bring cyber security threats. Do you think measures and regulations are sufficient to weather those threats?

Volkan Kuzucu: Central management of several technological equipment in your house, generating common character analysis, producing life easing solutions even though you are at home are big technological developments. However accessibility from everywhere is a big shortfall should security policies are not well designed. It is scary to think that wide range of technologies in a living space is managed by a single backbone link. Especially considering vital fire alarm systems, air conditioning automation, and individual entry/exit control systems managed under security infrastructure, let alone leakages, any sort of interruption in the systems may result in serious damages.
I do not think that sufficient measures are taken against those threats as today's business environment's cost sensitivity. As there is a serious gap about technology awareness and use, security is not the primary concern. Regulations are also insufficient as they do not comply with modern technologies. Furthermore, you have to leave technology if you fully go with the regulations. We try to create solutions based on optimum scenarios.

Another major industry that utilizes and transforms itself is pharpaceuticals. Companies that integrates Industry 4.0 applications can both improve quality of live quicker than ever and also move fast in fierce competition in drug sector. We asked Rithesh Phalaksha, who leads digital solutions and technology acceleration teams in Novartis, how IoT and big data have changed the way they do business and how Novartis adapted itself to rapidly changing technology.

RITHESH PHALAKSHA
Digital Solutions and Technology Acceleration Lead, Novartis Pharmaceuticals, India

How did the developments in IoT applications affected the way you do business? -

Rithesh Phalaksha: IOT will completely transform the way we do business, in a staggered manner such that most of the business transactions will become near real time or real time, enabled by IOT. IOT also helps us to get additional data points which is not possible in non-IOT setup. These additional data points generate additional value or enhances the existing value. Few examples to quote include real time patient data (vital signs, quality of life, etc.), real-time manifacturing, drug supply and also predict the demand and supply drug. The next level of competitive advantage can be derived when we add advanced analytics capabilities to unlock the insights from IOT and other traditional data points. Predictive analytics take decision making to the next level, where almost all decisions can be made better.

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How do you integrate and use big data in your solutions?

Rithesh Phalaksha: All organisations will have historical data and operational data collected every day and real world data generated by consumers. We need to bring all these data together to unlock business insights, but it is not easy, it is a mammoth exercise. We have started with data vision, followed by data-driven strategic plan that includes data first culture and then execution: 1.Funding the journey (quick win use cases), 2. Designing a company wide plan, 3. Define data infrastrcutres and portfolio of programs 4. Data Governance. We have historical data warehouses, many data lakes and real world data repository, depending on the business need. Varieties of data are integrated answering specific questions. Operational data is integrated for operational insights, real world patient data and data collected at the hospital is integrated more for clinical correlation.

What are the security concerns related to use of IoT in your business?

Rithesh Phalaksha: All technologies pose some security challenge. IOT is not an exception, risk is more in IOT due to the fact that those devices are not physically inside the organization and touch points in data transmission. IOT devices spread across the space. Major security concern is poor physical security and data transmission over mobile, cloud and the network interface. Data privacy concerns, as personal and other sensitive data are stored in the cloud. Most of these security concerns can be tackled with level encryption, access and authorization control in place.

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What may be the main advantages and side effects of IoT, artificial intelligence and other Industry 4.0 applications in the next 10 years?

Rithesh Phalaksha: The main advantage is, routine, repetitive tasks with structured input get automated. The side effect of this, many jobs which exist today will be banished. The machine will take over many jobs, humans will move up the value chain and take up more value added tasks. In short, new jobs will be created. At least for the next 10 years, humans and machines will co-exist and compliment each other. The general purpose technology of our era is artificial intelligence, especially machine learning, deep learning, that is, the machine's ability to keep improving its performance without humans having to explain exactly how to accomplish all the tasks it's been given. We can now build systems that learn how to perform tasks on their own. Examples to quote, self driving cars, auto pilots of aircrafts, diagnosis and treatment plan by machines will complement physician, algorithms will assist fund managers. Legal professional work will be simplified by algorithms and many more to come.

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Seamless working plants and production facilities are crucial for sustainability especially in petrochemicals industry. New generation tools to employ have to be more and more productive and also predictive not to fall behind fierce competition. We asked Shahrul B A Rashid, Principal Engineer, Instrument and Control of Petronas, how they follow new technological developments and adapt their business.

SHAHRUL B A RASHID
Petronas Principal Engineer, Instrument and Control, Malaysia

How did the developments in IoT applications affected the way you do business?

Shahrul B A Rashid: I will speak from the perspective of Plant Instrumentation Excellence since I am Principal Engineer, Instrument and Control for one of the refinery and Petrochemical integrated plants in Malaysia. In the past, plant instrumentation has been closely under OT (Operating Technology) where else the Information Technology has been operating outside this OT boundary. But with the fast development of IoT applications and connectivity to cloud being extended to plant, IT/OT convergence becomes key differentiating factor capable of improve plant performance.

How do you follow new technological developments and adapt your business?

Shahrul B A Rashid: We closely follow-up with the new technology developments by working closely with the IT/OT vendors who can provide the solution to resolve of pain points. As we mature in our managing of the plant assets for increased reliability, we are looking for more and more predictive tools that can be immediately installed and used to provide early warnings of any impending failures of our assets before it broke down. We have to wisely and carefully evaluate the technology offered by the vendors to ensure that it fits the purpose and that it is maintainable and sustainable for at least the next 20 years of plant life.

Extensive use of IoT, AI and big data raises concerns over cyber security. Do you think current detection/protection technologies and regulatory structure sufficient to weatv

Shahrul B A Rashid: The connectivity brought about by the new technology has introduced the cyber security issues. Steps are in place to ensure that our plant assets are protected from the risk of cyber threats. Current protection technologies are adequate but continuous updating of the protection devices are required on continuous basis as the threats are coming.

Current protection technologies are adequate but continuous updating of the protection devices are required

There is almost no area or industry that is not affected by new generation technologies. Education, healthcare and real estate are no exception. STC Solutions create wide range technological solutions for those industries from big data analysis to cyber security and system integration. We talked to Mohummed Farooq, STC Solutions Corporate Performance Specialist, on how they see main advantages and side effects of IoT, artificial intelligence and other Industry 4.0 applications in the next 10 years.

MOHUMMED H. FAROOQ
STC Solutions Corporate Performance Specialist, Saudi Arabia

How do you see internet of things will expand industries' coverage beyond their main areas?

Mohummed H. Farooq: In order to move business beyond main areas, industries will have to secure partnerships with good IoT platforms. For instance, transforming Telco into an ICT (Information and communication technologies) organization by offering Digital services such as IoT Application Enablement Platform (AEP) and M2M Connectivity Platforms. A telecommunication firm has a unique opportunity to drive mobile payments – by building on direct carrier billing through multiple payment options, data management and seamless fulfilment – to the next level. Also, faster adoption of cloud, big data and cyber technologies would ensure delivering impeccable network, platform and solution functionalities.

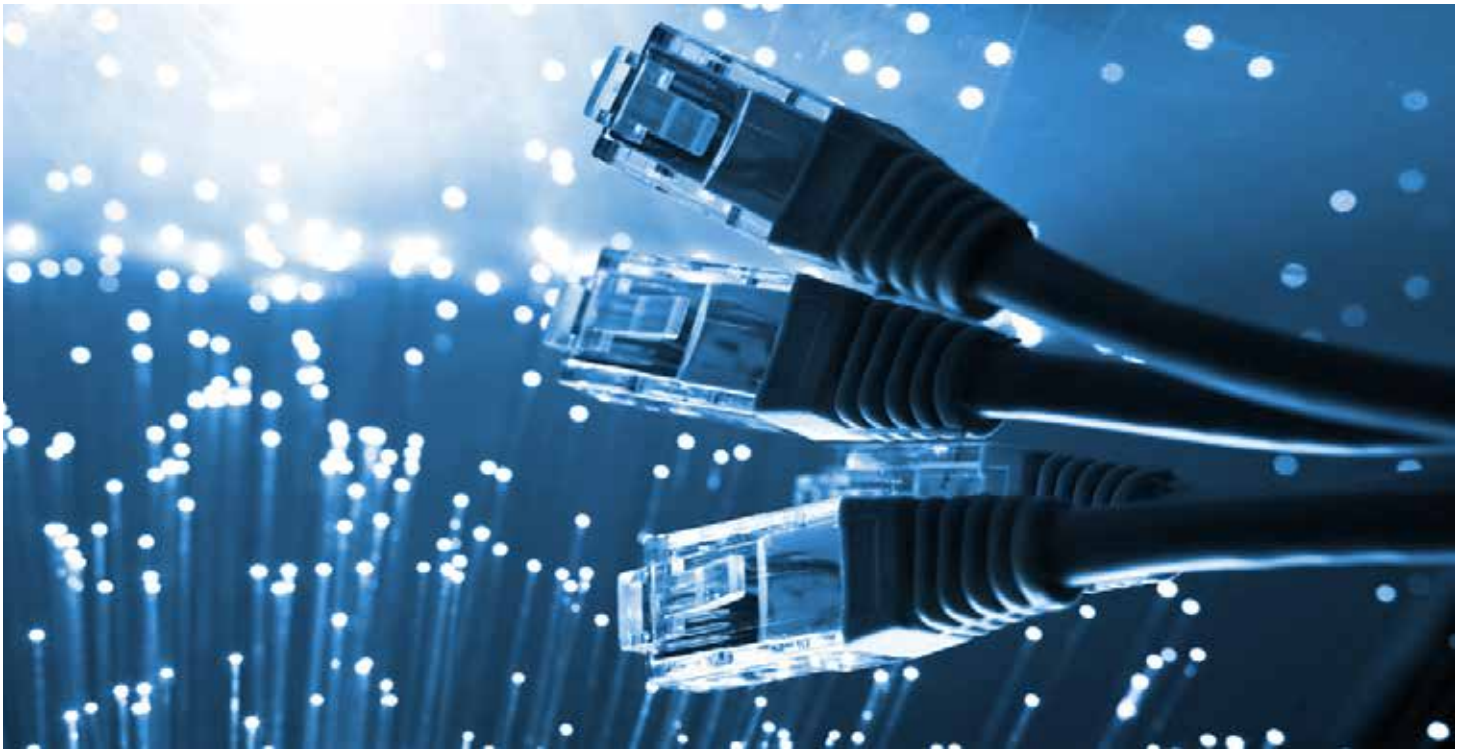
What is the most interesting use of AI in communication industry?

Mohummed H. Farooq: AI's main application in telecommunications is in the network management area. Telecommunication businesses can better manage changing network usage patterns; for example, by tapping the power of predictive analytics to avoid network outages when data surges during sports events. Similarly, AI enables telecoms to monitor and plan maintenance more effectively, optimize bandwidth and coverage to boost download times, and improve customer service by reducing dropped calls and service wait times. This in turns minimizes revenue loss due to service disruption.

What may be the main advantages and side effects of IoT, artificial intelligence and other Industry 4.0 applications in the next 10 years?

Advantages:
o Minimal human intervention
o Information readiness
o More and more co-created products and services
o Business process efficiency and effectiveness optimization
o Cost optimization
o Reduced cycle time

Side Effects:
o Over dependencies on technology
o Increased cyber attacks
o Economic burden due to high unemployment if no proper development programs are put in place



Extensive use of IoT, AI and big data raises concerns over cyber security. Do you think current detection/protection technologies and regulatory structure sufficient to weather those threats?

Mohummed H. Farooq: As its said that necessity is the mother of invention. I feel it's too early to comprehend the magnitude of cyber threats that are out there. But at the same time no matter how full proof detection/protection technologies or regulatory framework is put in place as of now or in future, cyber-crimes will find a way to get around. Constant evolution in detection/protection technologies or regulatory framework is required to ensure this risk is mitigated to the max.

necessity is the mother of invention

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3D printing is another phase of Industry 4.0 which dramatically changes the production methods and abilities. Innovational speed on printing technologies is also another factor that should be taken into consideration while assessing the impact of new generation technologies over production. To take an insight over how manufacturing can evolve with 3D printing technology, we talked to Itamar Yona, Founder & CEO of Bet Aviv.

ITAMAR YONA
Bet Aviv / Aviv Printing & Media Solutions Founder & CEO

What is the farthest point you thing will be the use of 3D printers in industrial production in the next 10 years?
Itamar Yona: 3D printers going to disrupt the manufacturing industry. 3D metal printing will become common and accessible.

> 3D metal printing will become common and accessible.

"How does the use of 3D printer affect the productivity in manufacturing?
Itamar Yona: Nowadays, you can 3D print prototype or short series production with many materials. This reduces time and efforts, eventually, reduce many required iterations to the final product. Furthermore, some products will be printed and use as a final product.

> you can 3D print prototype or short series production with many materials.

What do you regard as the most interesting use of the Internet of Things related to 3D printing?
Itamar Yona: The combination of 3D printing and IoT is almost natural as both are in the forefront of technology. Today, we can see that prototypes are additively manufactured even in electronic devices such as printed circuit boards (PCB).
Many IoT innovations start from proof of concept (POC). This step is needed to execute a prototype which will be very professional and accurate but also cheap and fast to manufacture. These requirements, which many consider to be expensive, are important in order to test our needs and implement the test results at the next stage. Using 3D printing can reduce marketing time. Integration of 3D printing in IoT product development is almost vital in order to achieve progress. Moreover, it's not so expensive compared to traditional manufacturing.

> Today, we can see that prototypes are additively manufactured even in electronic devices such as printed circuit boards (PCB).

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#IoTEurAsia

KEY TOPICS

Session 1 A Roadmap to IoT Deployment in EurAsia
9-11am

- Are People, Enterprises and Industry ready?
- Which sectors are set to benefit most from IoT?
- Where is investment heading? Who is driving innovation?

Session 2 Examining the Building Blocks of IoT Platforms
11-1pm

- How to create a seamless, reliable network for IoT?
- A Comparison: 5G,WIFI, LoraWan, NB IoT ...
- Which platform works best for IoT deployment?

Session 3 Security, Data and AI
2-3pm

- How to provide end-to-end security through the cloud, network and device?
- How to successfully collect, visualise &gain insights from d
- What's next with Machine Learning and AI?

Session 4 Case Study Showcase: Parallel Roundtable Discussion Workshops
3-5pm

Automotive: enhancing the way we live, travel and interact

Manufacturing: building smart factories to transform manufacturing

Enterprise: tansforming the entire value chain with connected and intelligent technologies

Retail: from supply chain to enhancing consumer experiences

Supply Chain: revolutionising supply chain & logisticsto enable more effective tracking; improve efficiencies and prevent failures

Energy, Oil and Gas: from smart metering in homes to smart grids, how can the energy and utility sector benefit?

Cities: improving the life of citizens

Banking & Insurance: data, apps &real-time analytics

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