

Machine Vision



A personal invitation

Creating the future together

6th European Machine Vision Summit
27th – 28th September 2019 in Paguera, Mallorca, Spain

Mastering Change

With the Summit - now in its 6th year - VDMA Machine Vision has created a special place to come together and jointly work on topics that are decisive for the future of our industry.

The Summit is not a conference packed with presentations, but a place to work and create the future together - through inspiring key-notes, statements, moderated discussions and workshop sessions.

You are a part of this – participate in interactive workshops, voice your opinion, and enjoy active networking.

All around this year's topic:

Mastering Change

Machine Vision currently is in transformation. We are all aware of it – let's discuss and develop strategies for the future!

Target group

For executives of the European machine vision industry. On personal invitation only.

Your partner is welcome to join the evening programme, lunches and dinners.

www.vdma.com/vision



Programme overview

Thursday, 26th September 2019

19:30 Get-together for early arrivals in the restaurant “Vista de Rey” at the hotel

Friday, 27th September 2019

09:00 – 09:30 Check-in, registration and networking

09:30 – 10:00 Opening

10:00 – 10:45 **Machine Vision in the smart factory at BMW – crucial success and enabling factor**

Dr.-Ing. Christoph Kracke, Sub Product Owner Maintenance |
Tobias Kohlhauf, Product Owner Visual Inspection, Car Production,
BMW AG, Landshut and München, Germany

10:45 – 11:15 Coffee Break

11:15 – 12:00 **OPC Machine Vision: the future is interoperability**

Dr.-Ing. Peter Waszkewitz, Project Manager Integrated Vision, Nexeed
Automation Development, Bosch Connected Industry, Robert Bosch
Manufacturing Solutions GmbH, Stuttgart, Germany

12:00 – 13:00 **Workshop**
facilitated by Tony & Franzi, Kreatives

13:00 – 14:00 Lunch break

14:00 – 15:00 **Workshop**
facilitated by Tony & Franzi, Kreatives

15:00 – 15:30 Conclusion

15:30 – 16:00 Coffee break

16:00 – 17:00 **NEW! Spotlight: Market downturn – tough times ahead for the machine vision industry?**

17:30 Bus departure

18:00 – 22:30 An evening of networking
at Finca Alaiar, Sencelles

Programme overview

Saturday, 28th September 2019

- | | |
|----------------------|---|
| 09:00 – 09:15 | Opening of day 2 |
| 09:15 – 10:00 | Artificial Intelligence: a gamechanger for machine vision?
Professor Dr. Philipp Slusallek, Scientific Director, DFKI (German Research Center for Artificial Intelligence) and Professor at Saarland University in Saarbrücken, Germany |
| 10:00 – 10:45 | AI, Edge Computing and Embedded Vision – a high potential technology, but how to make it work?
Peter Seeberg, Owner, asimovero.AI, Neubiberg, Germany Dr. Christopher Scheubel, Managing Director, FRAMOS AI GmbH, Taufkirchen, Germany |
| 10:45 – 11:15 | Coffee break |
| 11:15 – 12:30 | Workshop: AI – next steps for the machine vision industry
facilitated by Tony & Franzi, Kreatives |
| 12:30 – 13:00 | Sharing results & conclusion |
| 13:00 – 14:00 | Lunch |

Programme

Thursday, 26th September 2019

Arriving

19:30 **Get-together in the restaurant “Vista de Rey” of the hotel Maritim Galatzó**

Friday, 27th September 2019

9:00 – 09:30 **Check-in, registration and networking**

Opening

9:30 – 10:00

Welcome to the Summit! Get introduced to the topics & participants and team up for the first interaction. The goal is to get you in the spirit for the discussions ahead.

10:00 – 10:45 Keynote

Machine Vision in the smart factory at BMW – crucial success and enabling factor

Digitalization promises efficiency potentials and creates new opportunities in the car production. For the production system of the BMW AG this includes a variety of topics: From autonomous transport systems, inline and predictive quality analysis to the optimal reactive and predictive maintenance. The crucial point for success is the value oriented use of data.

While many innovative solutions have been technically established, their economic potential has still to be fully realized across the different areas of production. Image recognition and analysis is a major key factor of quality inspection methods. The speakers will give examples how image processing based testing methods and machine vision in general are already used today at BMW and what challenges remain.



Dr.-Ing. Christoph Kracke,
BMW AG

Christoph studied mechanical engineering at the Technical University of Munich and graduated in process engineering of fiber reinforced plastics. After working on the manufacturing process development and industrialization of the CFRP car body of the i3 and i8, he was part of the Industry 4.0 project for the component production of BMW. Now he is supervising the different digitalization projects in the area of maintenance and quality in the component production.



Tobias Kohlhauf,
BMW AG

Tobias studied electrical engineering and information technology at the University of Applied Sciences Ingolstadt to gain his bachelor's degree. After working at BFFT Ingolstadt as an electronics engineer, he graduated at the University of Applied Sciences Regensburg in industrial engineering. Via his master thesis which was about an electrical measurement system for exoskeletons within BMW, he became part of the sensorkit project at BMW. In his new role as the product owner of visual inspection he is responsible for the industrialization and rollout of a new generation of KI-supported validation checks over all production steps at BMW.

10:45 – 11:15 Coffee break

11:15 – 12:00 Keynote

OPC Machine Vision: the future is interoperability

“Bosch sees great potential for increasing productivity and quality in the advance of digitization and connectivity over all levels of the enterprise. This progress is driven by the as yet insufficiently used information generated in production. Here, machine vision has a pre-eminent role as supplier of rich product data. As a large and highly diversified manufacturer, we know that open, standardized interfaces are a necessary precondition for an efficient data flow. But they are not sufficient on their own. Beyond that, semantic standards are needed to facilitate uniform, system-independent interpretation of the information. Standards for communication and semantics have to be designed for practical use by platform vendors, automation suppliers and users. This creates challenges for device manufacturers as well as opportunities for new business models. The time of proprietary lock-in is over, only with interoperable standards can we build the industry of the future.”

Peter has been active in machine vision since 1992, first as post-graduate in the Corporate Research of Robert Bosch GmbH, then as support engineer and trainer at NeuroCheck GmbH. From 2001 to 2016 he



Dr.-Ing. Peter Waszkewitz,
Bosch Connected Industry,
Robert Bosch
Manufacturing Solutions
GmbH

worked as application engineer at ATMO, the special machinery department of Robert Bosch GmbH, with a steadily increasing share of platform and interface development and tryout and commissioning of these developments in the field. This led to transferring the area of activity from 2017 into the automation platform development at Bosch Connected Industry, and due to the increasing importance of OPC UA to cooperation in the Core Working Group for the OPC UA Machine Vision Companion Specification and further into the Task Force Interoperability of the VDMA Robotics + Automation Association.

12:00 – 13:00

Workshop

facilitated by Tony & Franzi, Kreatives GmbH



Tony Guy & Franzi Sessler, Founders of Kreatives GmbH, Munich

Kreatives is a design strategy company on a mission to push the world forward. Founded by Tony & Franzi in San Francisco, Kreatives collaborates with progressive organizations to design and innovate for the changing needs of tomorrow. From design research all the way to launch, across all industries, their dedication is moving organizations and people forward.

13:00 – 14:00

Lunch break

14:00 – 15:00

Workshop

facilitated by Tony & Franzi, Kreatives GmbH

15:00 – 15:30

Conclusion

15:30 – 16:00

Coffee break

16:00 – 17:00

NEW!

Spotlight: Market downturn – tough times ahead for the machine vision industry?

In July, the VDMA reduced its 2019 production forecast for the German mechanical engineering industry to minus 2 percent. Indicators point towards a clear cyclical downturn. Of course, the machine vision industry is not spared by this. The monthly VDMA order intake and sales statistics for Machine Vision show that since the fourth quarter of 2018, incoming orders have been on such a sharp decline that we decided to put it on the agenda of the Summit at short notice.

VDMA Robotics + Automation is assuming that the economic downturn in our sector will continue for some time to come. It seems unlikely that the situation will improve before the end of this year, and a forecast for 2020 is currently difficult.

The question is: how bad is the downturn? How long will it last? How to deal with it? What can a typical machine vision company do stay resilient in difficult times?

Anne Wendel will give an overview of the current economic situation and share latest figures on regional markets, customer industries as well as industry trends and development for both, the robotics (worldwide) as well as the machine vision industry in Germany and Europe, and will share a VDMA toolset how to react in challenging times. Discussion in smaller groups will follow the presentation.

17:30 Bus departure to Finca Alaiar, Sencelles

18:00 An evening of networking

Wine, Tapas and Paella

After an intensive first day, it's time to relax a bit and to think about today's input while exploring some excellent wines and learn about Mallorquin traditions. This will help us to wind down, to conclude the day, relax and to network.

With a glass of wine, seize the opportunity to meet and greet old friends, deepen the contacts you just made during the first day of the Summit, take up the discussion you weren't able to finish beforehand ... – it's up to you!

Afterwards, it's time to become active again. You'll have to first cook some traditional Spanish Tapas in small groups before we can enjoy the dinner together.

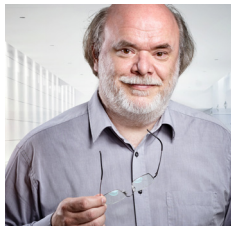
Saturday, 28th September 2019

9:00 – 9:15 **Opening of day 2**

9:15 – 10:00 **Keynote**

Artificial Intelligence: a gamechanger for machine vision?

Artificial intelligence is nothing new for the machine vision industry. However, developments have exploded lately boosted by high computing power, neural networks and big data. Without any doubt, artificial intelligence and machine learning will transform each and every sphere of our lives. What is becoming clear: AI will have a big impact on business, manufacturing and in particular on machine vision and the machine vision industry. Big players are moving in; open source products play an increasingly bigger role. There is a promise that machine vision systems will become much easier to train and use and that recognition will be vastly improved in many areas. Will AI provide new strength for our sector? Or, will machine vision become a commodity, downloadable in the App Store?



Professor Dr. Philipp
Slusallek, DFKI
(German Research Center
for Artificial Intelligence)

Professor Slusallek studied Physics in Frankfurt and Tübingen. He received his PhD in computer graphics from Erlangen University in 1995. Subsequently, he worked for NVIDIA Research and as a visiting assistant professor at Stanford University. He currently is Scientific Director at the German Research Center for Artificial Intelligence (DFKI) as well as professor for computer graphics and principal investigator for the Excellence Cluster “Multimodal Computing and Interaction” at Saarland University in Saarbrücken, Germany.

10:00 – 10:45 **Keynote**

AI, Edge Computing and Embedded Vision – a high potential technology, but how to make it work?

US and Chinese companies have taken global leadership in consumer AI, also by benefiting from European AI-based technologies. Compared to their international counterparts, European companies are not good at marketing their base technologies in consumer products (see MP3). Many decision makers have a queasy feeling about giving their production data out to the cloud. However, increasingly powerful processors can be a solution, as they enable embedded AI on a standard PC directly in the production plant or on the machine. As a result, Europe-

an machine manufacturers are increasingly integrating AI into their machines and continue to export them throughout the world. They thus strengthen their product leadership and support the European leadership claim in the area of B2B-AI. Certainly, the implementation of AI on embedded devices is far from easy. Though the presence of AI is ubiquitous in scientific papers, news stories and business magazines, its complexity and dependencies on neighboring technologies make a robust and productive application complicated. Christopher and Peter have experienced in several projects that factors such as edge processing capacity, data annotation quality and AI framework knowhow have to be orchestrated delicately to generate value with this new technology.



Peter Seeberg, Owner,
asimovero.AI

Peter Seeberg studied Computer Aided Design in Delft / the Netherlands. After 25 years in the IT industry (Intel, Infor, Seiko, Mentor), and 10 years in the OT industry (Softing), Peter has been working towards the integration of IT and industrial automation. Peter is an active member of the Europe Advisory Council of the OPC Foundation and the Machine Learning Expert Group at VDMA. Since January 2019 Peter works as an independent AI consultant for asimovero.AI.



Dr. Christopher Scheubel,
Managing Director,
FRAMOS AI GmbH

Dr. Christopher Scheubel is leading the FRAMOS AI venture since September 2018. Before, Christopher headed the IP & Business Development department at FRAMOS since 2017. Prior to joining FRAMOS, he founded his own startup, which brought mobile food ordering and payment to restaurants in Germany. During his career, Christopher gained experience at Bain&Company, KPMG and GM. He studied at the Technical University of Munich as well as at the Columbia Business School in New York.

- 10:45 – 11:15** **Coffee break**

- 11:15 – 12:30** **Workshop: AI - next steps for the machine vision industry**
facilitated by Tony & Franzl

- 12:30 – 13:00** **Sharing results & conclusion**

- 13:00 – 14:00** **Lunch**

The venue

The 4-star hotel complex Maritim Galatzó is built into a hill overlooking the Costa de la Calma and hence offers panoramic sea views. It's about 5 km from the next villages Santa Ponsa and Andratx. The airport of Palma de Mallorca can be reached in about 30 minutes by car or taxi.

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Bring your partner

Your partner is welcome to join the evening programme, lunches and dinners, and can relax while you work. Maybe you decide to add a day or two - Mallorca will still be in full swing.

Booking your hotel accommodation

VDMA already reserved rooms for the participants at the conference hotel "Maritim Galatzó" (<https://en.galatzohotel.com/>). VDMA will collect and forward registration requests (arrival 26th / departure 28th Sept. 2019). The number of rooms is limited and subject to availability. The payment of hotel accommodation is by check-out, in the responsibility of the conference participants and not included in the participation fee.

Single room: € 155.00 / per night per room; double room: € 190.00 / per night per room.
These prices include breakfast buffet and free use of the wellness area.

If you wish to extend your stay, please book the nights 26-28 Sept. 2019 by using our registration form and additionally contact the hotel for the extra nights (jgrupos@hotelgalatzo.com).

Arrival Information

The hotel is located within a 30 minute drive to Palma's airport (taxi about € 50).

The hotel offers a private transfer (€ 56 for up to 4 persons). For further information, please contact the hotel (phone: +34 971 689 600, E-Mail: info@hotelgalatzo.com).

Registration fees

Member Registration Fee € 550.00 + 19% VAT
Non-Member Registration Fee € 650.00 + 19% VAT
Acompanying Person € 145.00 + 19% VAT

The event is by personal invitation. If you have not received a personal invitation and are interested in participating, please contact us.

The number of participants is limited and registrations will be accepted on a first come first served basis.

Programme is subject to change. The conference language is English.