

➤ PROCEEDINGS



SIA VISION
2018

International Conference and Exhibition

SIA VISION 2018

Vehicle and Infrastructure Safety
Improvement in Adverse Conditions and
Night Driving

9 - 10 OCTOBER
2018

CITÉ DES SCIENCES ET DE
L'INDUSTRIE, PARIS - FRANCE

Elite Exhibitor

OSRAM

Premium Exhibitors

LUMILEDS

Valeo

varroc
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 POCKET!**



**Maximize your time & experience with
 the SIA VISION 2018 Congress.**

You will have the opportunity to download the SIA VISION Congress 2018 App to enhance your Congress experience.

- > Up-to-date Congress information
- > Personalized programme
- > Information on Speakers, Exhibitors and on Expo & demonstration vehicles

Ask the SIA Team for more detailed information.





Hector FRATTY
Conference Chair
Driving Vision News

In the light of the growing success of the VISION congresses, SIA (French Society of Automotive Engineers) will again host this event which will be held on the 9 and 10 of October in La Cité des Sciences de la Villette, Paris.

SIA VISION is an International Congress created in 2002 and held on a biyearly basis and a unique platform for top-level scientists and engineers from universities, research centers and industries, represented by directors, managers, department leaders and experts.

It offers you a great networking opportunity with exchanges between all lighting/DA players around an exhibition covering a wide range of products and services in the field of lighting and detection systems for ADAS.

It is now a strongly growing event, with record participation of more than 550 attendees in 2016 and characterized by night drive tests at Mortefontaine private track.

The event will bring together the most relevant worldwide experts in the lighting and ADAS fields to address key topics for vision and road safety.

In addition, an exhibition and night drive tests with more than 25 expected prototype vehicles will take place to demonstrate many recent innovations in lighting and driver assistance systems.

We look forward to seeing you in Paris in October either as a conference speaker, exhibitor or participant.



Moving Forward Together*

* Progressons ensemble

Join SIA

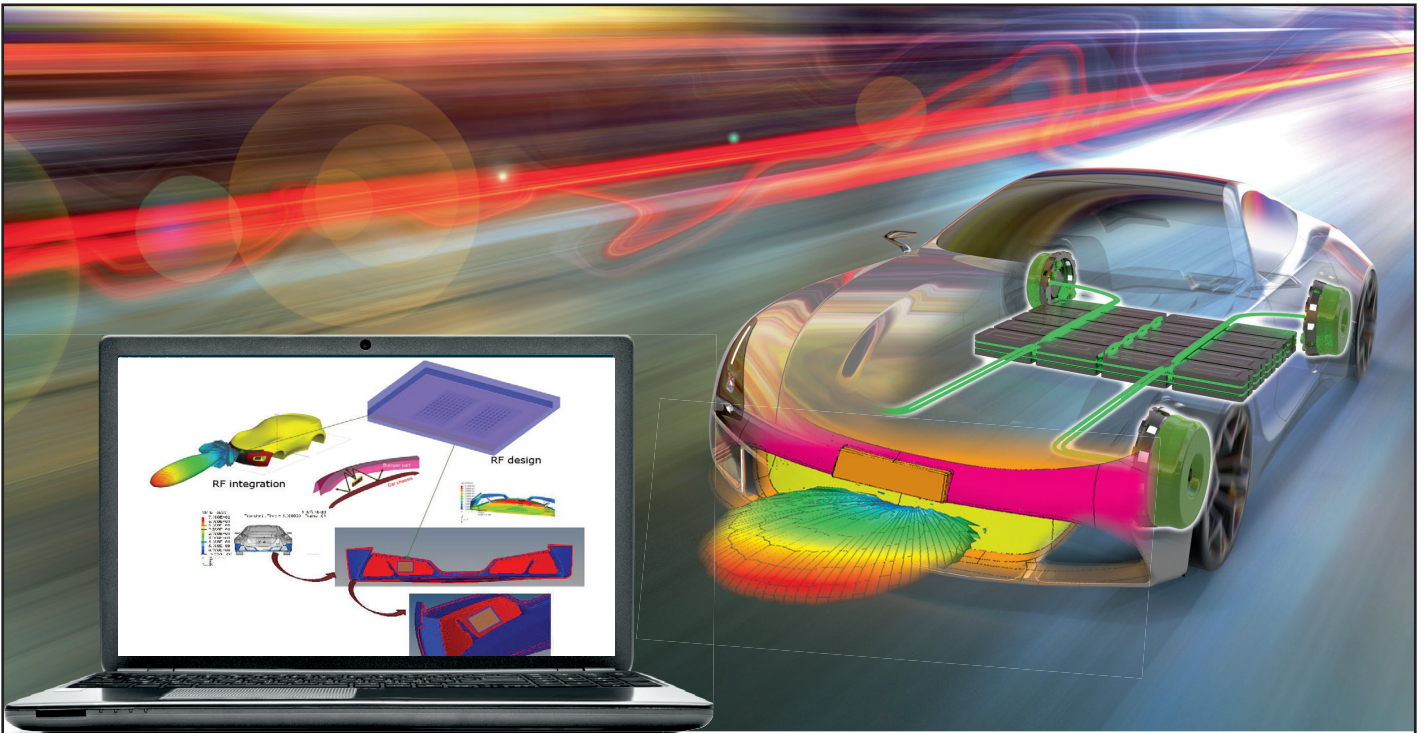
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Hector FRATTY, Driving Vision News

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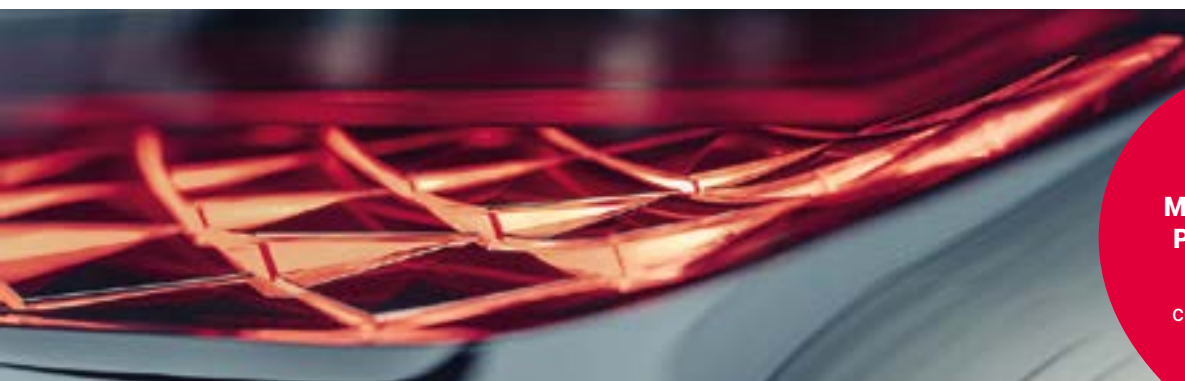
Hector FRATTY, Driving Vision News

Philippe GOUGEON, Valeo

Gilles LE CALVEZ, VEDECOM

Sébastien LEFRANC, Continental

CALL FOR DEMO CARS – NIGHT DRIVE TESTS



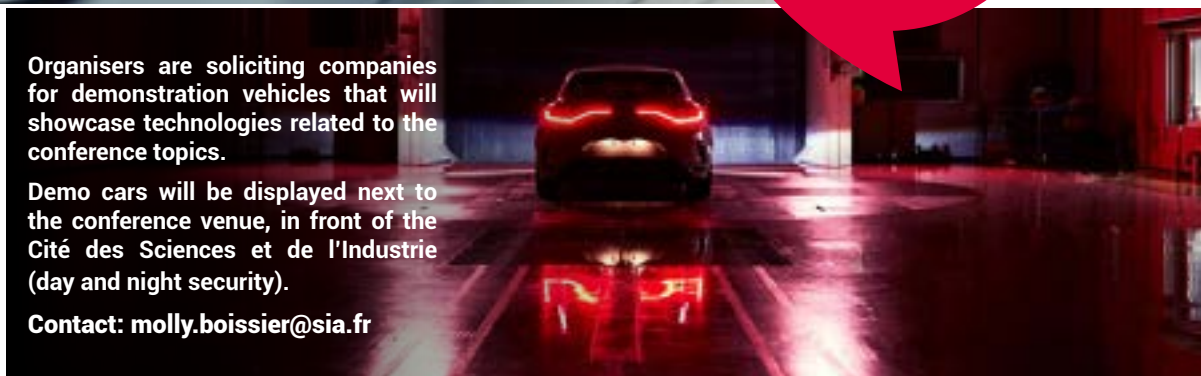
NIGHT DRIVE TESTS AT MORTEFONTAINE PRIVATE TRACK

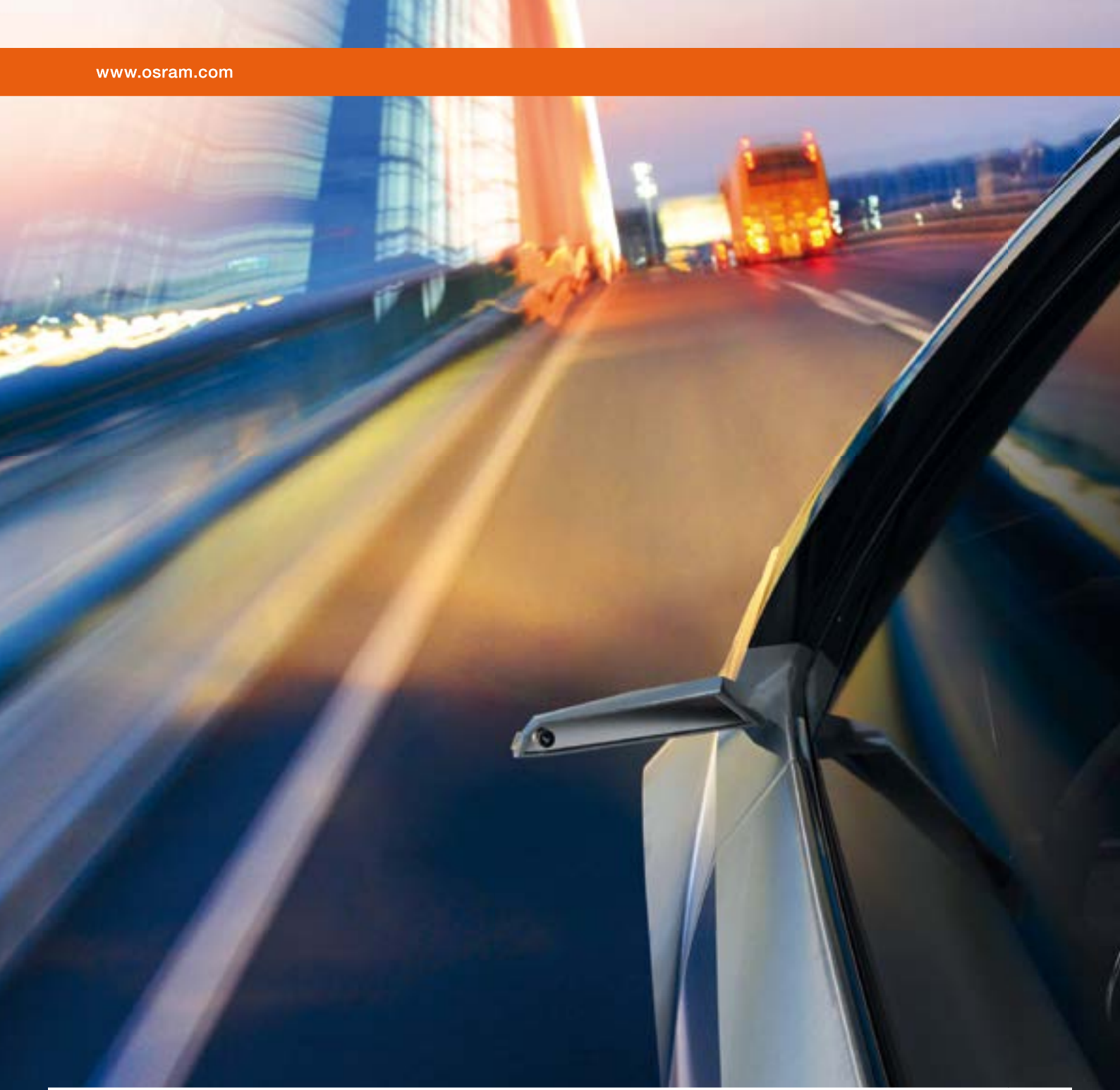
40 km from the conference venue –
1 hour by bus

Organisers are soliciting companies for demonstration vehicles that will showcase technologies related to the conference topics.

Demo cars will be displayed next to the conference venue, in front of the Cité des Sciences et de l'Industrie (day and night security).

Contact: molly.boissier@sia.fr





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PROGRAMME 9 OCTOBER 2018

07:30 > ATTENDEES REGISTRATION & COFFEE IN THE EXHIBITION

OPENING PLENARY SESSION

08:20 > **Welcome Introduction**
Jacques GRAIZON, *President Société des Ingénieurs de l'Automobile* & Hervé GROS, *Chief Executive*

08:30 > **Opening address by the Conference Chair**
Hector FRATTY, *Driving Vision News*

08:40 > **KEYNOTE**
Jacques ASCHENBROICH, *CEO/President Valeo Group*

GENERAL TOPICS // Chairman: Michael HAMM, Audi

09:00 > **Future Light Performance Requirements - Visibility, Comfort, Information**
Rainer NEUMANN, *Varroc Lighting Systems*

09:20 > **Full Led headlamp gen3 : How Renault continues to reduce cost and increase performance**
Paul-Henri MATHA, Annie BLONDEL, *Renault*

09:40 > **Assistance System for Vehicle-Pedestrian-Interaction**
Johannes RESCHKE, Stephan BERLITZ, *AUDI*

10:00 > **How Much Does Glare Affect Naturalistic Driving Crash Risk?**
John D. BULLOUGH, *Lighting Research Center, Rensselaer Polytechnic Institute*

10:20 > **Research of LED Headlamp Module for Cost Innovation**
Gil-won HAN, Emmanuel KUREK, *HYUNDAI MOBIS*

10:40 > **PANEL DISCUSSION**

10:50 > **COFFEE BREAK IN THE EXHIBITION // DEMO-CARS SHOWCASE**

SIGNAL TECHNOLOGY // Chairman: Jean-François DACQUAY, Renault

11:20 > **Influence of New Signal Lamps for Automated Vehicles on Other Road Users - Can Virtual Reality be Used to Investigate the Behaviour of Pedestrians?**
Timo SINGER, *TU Darmstadt*

11:40 > **Merging Lighting & Sensing, a new path toward more automated vehicles**
Benoit REISS, Joachim MATHES, *Valeo*

12:00 > **An OLED Taillight Revolution - From Point Light Sources to Area Light Sources**
Michael KRUPPA, *AUDI*

12:20 > **PANEL DISCUSSION**

12:30 > **LUNCH BREAK IN THE EXHIBITION // DEMO-CARS SHOWCASE**

HEAD-LAMP TECHNOLOGY // Chairman: Kamislav FADEL, Hella

13:30 > **Invisible headlamps - micro lens array based front lighting**
Benjamin WILLEKE, *HELLA*

13:50 > **Micro-optical Headlamp**
Peter SCHREIBER, *Fraunhofer IOF*

14:10 > **Technological and physiological analysis of novel projection systems in automotive**
Christopher BREMER, *BMW*

14:30 > **Illumination vs. Visualization in Headlamps: Way towards HD light source requirements**
Stefan GRÖTSCH, *OSRAM Opto Semiconductors*

14:50 > **Active moisture condensation removal puts headlamp protection on a new level**
Hassan KOULOUEH, Ulrike GEISLER, *AML Systems*

15:10 > **PANEL DISCUSSION**

15:20 > **COFFEE BREAK IN THE EXHIBITION // DEMO-CARS SHOWCASE**

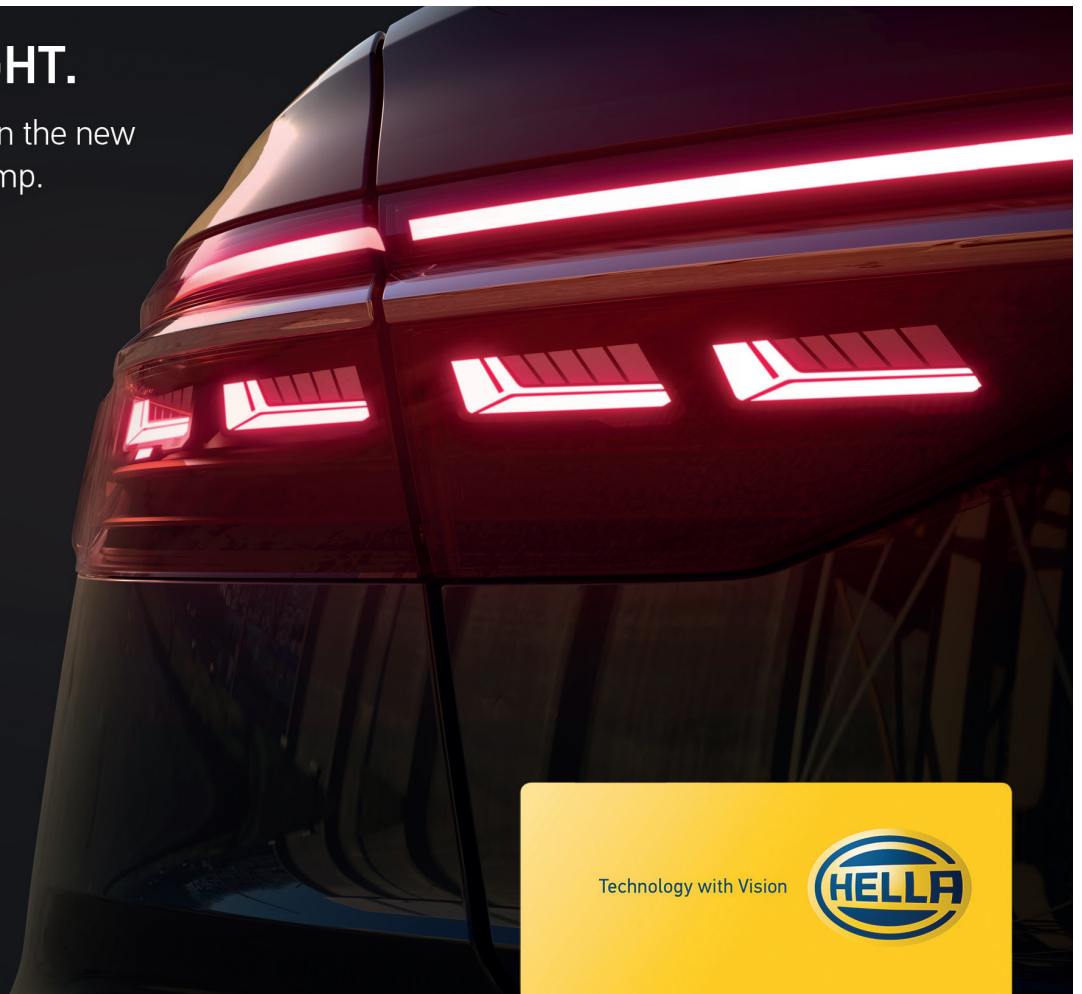
PROGRAMME 9 OCTOBER 2018

ADB // Chairman: Laurent EVRARD, Valeo

- 15:50 > **New Systems for Safety and Comfort Improvement by High Resolution Flexibility**
Ernst-Olaf ROSENHAHN, *Automotive Lighting Reutlingen*
-
- 16:10 > **Optical Systems for HD Lighting: new paradigms and new methods**
Pierre ALBOU, Marie PELLARIN, *Valeo*
-
- 16:30 > **Next generation high resolution headlamp in a Jaguar Land Rover with a ZKW development**
Gerald BÖHM, *ZKW Group*
-
- 16:50 > **Trends in High Resolution Headlamps**
Jeff FARRIS, *Texas Instruments*
-
- 17:10 > **Headlamp DMD-Technology with High Resolution on the Road**
Ulrike SCHLÖDER, *Automotive Lighting Reutlingen*
-
- 17:30 > **PANEL DISCUSSION**
-
- 17:40 > **END OF DAY 1 >> SOCIAL EVENT**
NIGHT DRIVE TESTS AT MORTEFONTAINE
NIGHT IN PARIS - CRUISE ON THE CANAL

WE MOVE LIGHT.

Dynamic animations in the new
Audi A8 OLED rear lamp.



PROGRAMME 10 OCTOBER 2018

07:30 > WELCOME COFFEE IN THE EXHIBITION

08:00 > KEYNOTE
Vincent ABADIE, *Groupe PSA* & Marc PAJON, *Renault*

LASER AND HB LED // Chairman: Hitoshi NAKAGAKI, *Nissan*

08:30 > LASER scanning lighting systems – optimization of contrast and further challenges
Philip STROOP, *HELLA*

08:50 > New approaches for laser scanning headlamps
Marcel BURSY, *L-LAB, Research institute for automotive lighting and mechatronics*

09:10 > Efficient usage of high current LEDs on ADB systems
Whilk GONCALVES, *Groupe PSA*

09:30 > PANEL DISCUSSION

LIGHTING AND AV // Chairman: Gilles LE CALVEZ, *VEDECOM*

09:40 > Quantitative Safety Evaluation for ADB Systems Using a Virtual Traffic Simulator
Tatsuma KITAZAWA, *Koito Manufacturing*

10:00 > Advanced lighting functions with high-resolution road projection
Shéhérazade AZOUIGUI, Basile KHATIR, *IOGS - ELS Chair*

10:20 > Lighting for Automated Driving: Functional application, regulatory requirements and their future opportunities
Helmut TIESLER-WITTIG, *LUMILEDS*

10:40 > PANEL DISCUSSION

10:50 > COFFEE BREAK IN THE EXHIBITION // DEMO-CARS SHOWCASE

VISION SYSTEMS // Chairman: Benoist BESNAULT, *ZF*

11:20 > Camera Based Lost Cargo Detection for Automated Driving
Dieter KRÖKEL, *Continental Corporation*

11:40 > Deep Multi Task Learning based Object Detection and Semantic Segmentation Network for Autonomous Driving applications
Isabelle LEANG, Senthil YOGAMANI, Ganesh SISTU, *Valeo*

12:00 > Far-Infrared thermal camera: an effortless solution to improve ADAS detection robustness
Emmanuel BERCIER, *ULIS*

12:20 > Major steps towards vision processing for automated vehicles
Oliver SBANSKI, *Robert Bosch*

12:40 > PANEL DISCUSSION

12:50 > LUNCH BREAK IN THE EXHIBITION // DEMO-CARS SHOWCASE

OTHER TECHNOLOGIES & SIMULATION // Chairman: Matthieu DABEK, *Groupe PSA*

14:00 > Addition of perturbances on ideal values of a target
Stéphanie AMBROISE, *Renault*

14:20 > Simulation of Detection Performance by LiDAR Location in Automated Vehicles
Hiroto IKADAI, Misako KAMIYA, *Koito Manufacturing*

14:40 > A breakthrough in Automotive Radar with Infineon Radar Signal Processing Unit
André ROGER, *Infineon Technologies*

15:00 > Ensure Sensors Vision, a Challenge for Vehicles Automatization Safety
Frédéric GIRAUD, V. SORIMUTHU, *Valeo*

15:20 > 3D mapping and localisation using high-resolution radar and lidar
Johan DEGERMAN, *SafeRadar Research*

15:40 > PANEL DISCUSSION

15:50 > ROUND TABLE : "HOW LIGHTING CAN SUPPORT ADAS?"

Moderator - Gilles LE CALVEZ, *VEDECOM*

Vincent ABADIE, *Groupe PSA*
Benoît BESNAULT, *ZF*
Laurent EVRARD, *Valeo*

Wolfgang HUHNS, *Audi*
Michael KLEINKES, *Hella*
Joachim MATTES, *Valeo*
Marc PAJON, *Renault*

16:20 > Closing Remarks by the Conference Chairman
Hector FRATTY, *Driving Vision News*

16:30 > END OF THE CONGRESS

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International Conference and Exhibition // SIA VISION 2018 - 9/10 October 2018 // Ref: 2018-03

Please complete and return this form to:

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REGISTRATION FEES

- 1056 € VAT Incl. (880 € VAT Excl.) - SIA Members
- 1188 € VAT Incl. (990 € VAT Excl.) - Non Members
- 594 € VAT Incl. (495 € VAT Excl.) - Co-authors, Researchers*, Labs* and Small Firms* (< 100 employees)
- 528 € VAT Incl. (440 € VAT Excl.) - Member of SIA Experts' Community Bureau
- 240 € VAT Incl. (200 € VAT Excl.) - PhD Student
- FREE - Speaker, Steering Committee Member or Exhibitor

*Small firms, researchers and laboratories must not come under the control of big firms (> 100 employees).

** 5+ registrations made in one transaction only.

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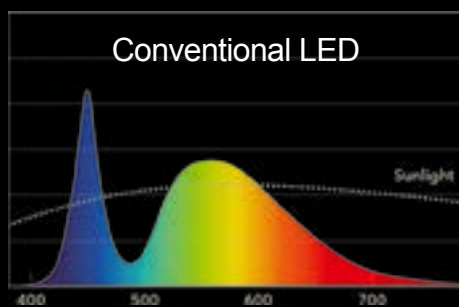
- Registration fees include participation in the conference, proceedings, refreshment breaks, lunches and the evening activities of 9 October.
- Where it is not possible to send the payment together with the form, each registration should be accompanied by an official purchase order. Failing reception of an official purchase order or payment on the day of the congress, we regret that you will not be allowed to enter the congress.
- When we have received the registration form, we will send you a confirmation message and an invoice. **Please indicate the accounts department address where necessary.**
- In case of cancellation before 9 September 2018, 30% of the registration fees will be retained. After this date, the entire registration fee will be retained. Registered participants not able to attend may nominate a substitute. Written notice must be provided.

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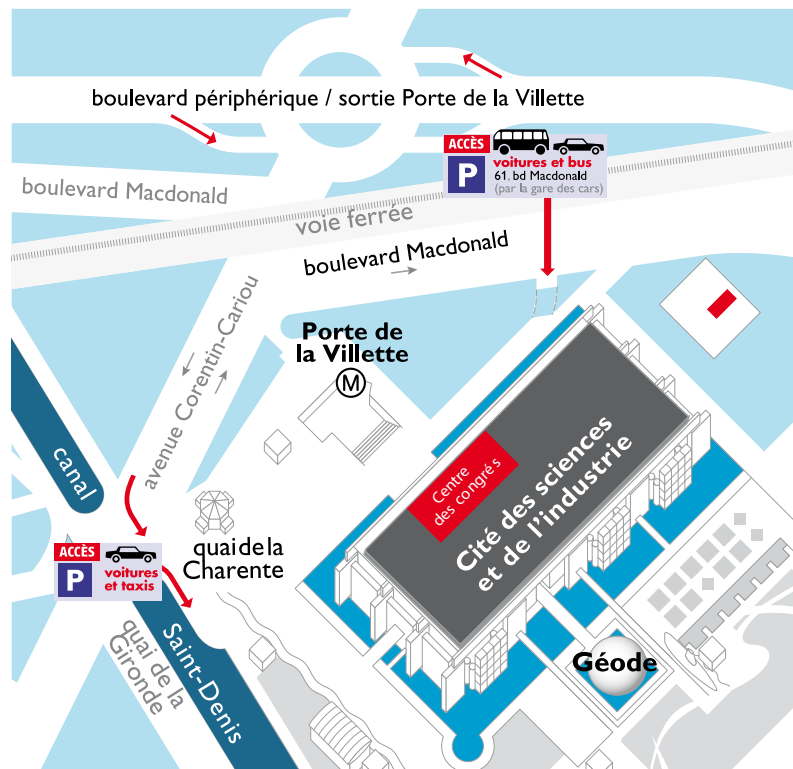


CONFERENCE VENUE

CENTRE DES CONGRÈS DE LA VILLETTE

Cité des Sciences et de l'Industrie
30 avenue Corentin Cariou
75019 Paris, France

<http://www.cite-sciences.fr/en/visit-us/access>



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CONTACT: Molly Boissier // molly.boissier@sia.fr // +33 1 41 44 93 74



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