International Conference, Night Drive Tests and Exhibition

SIA VISION 2020
Vehicle and Infrastructure Safety Improvement in Adverse Conditions

6 OCTOBER
Night Drive Tests at Mortefontaine Private Track

7 - 8 OCTOBER 2020

CITÉ DES SCIENCES ET DE L'INDUSTRIE, PARIS - FRANCE
The Benchmark for Automotive Lighting Measurement

High-Speed Goniophotometers AMS 5000 / 3000 / 200
for measuring vehicle, bicycle and motorcycle headlamps,
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CONGRESS IN YOUR POCKET!

Maximize your time & experience with the SIA VISION 2020 Congress App.
You will have the opportunity to download the SIA Conference App to enhance your Congress experience.
> Up-to-date Congress information
> Personalized programme
> Download the presentations & book of abstracts
> Information on Speakers, Exhibitors and on expo & demonstration vehicles
> Possibility to send messages to the attendees

The SIA VISION 2020 App will be available in September 2020.
Bearing in mind the worldwide challenges and R&D programmes relative to road safety, and in the light of the success of the V.I.S.I.O.N. congresses since 2002, SIA and its partners—vehicle and equipment manufacturers, research organisations and public authorities—have decided to organize the 10th edition of SIA VISION on 7-8 October 2020.

SIA VISION 2020 will gather international designers, engineers, scientists and decision makers in automotive lighting and ADAS industry. The congress will encourage the exchange between lighting engineers, road safety experts and regulative bodies. It will present the most recent results of R&D, promoting automotive lighting and ADAS.

In addition, night driving trials will be carried out on October 6th, on test tracks at Mortefontaine facilities to demonstrate the many recent innovations and to enable assessment of their effectiveness in improving safety.

This 10th edition of our SIA VISION Congress will be once again held at the Cité des Sciences et de l’Industrie in Paris where you would be able to enjoy networking during the various breaks and discover the latest innovation brought to you by our 30+ exhibitors.

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

Sincerely yours,

Hector Fratty,
Conference Chair,
Driving Vision News
COMMITTEES

Conference Chair
Hector FRATTY, DRIVING VISION NEWS

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Gabriel CLEMENT, GROUPE ZF
Matthieu DABEK, GROUPE PSA
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Rainer NEUMANN, VARROC LIGHTING SYSTEMS
Benoît REISS, VALEO
Ralf SCHAEFER, RS CONSULT
Ingolf SCHNEIDER, ADAM OPEL
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ADAS
Benoît BESNAULT, GROUPE ZF
Benazouz BRADAÏ, VALEO
Matthieu DABEK, GROUPE PSA
Laurent DAZIN, ROBERT BOSCH
Hector FRATTY, DRIVING VISION NEWS
Gil GONCALVES, MICHELIN
Gilles LE CALVEZ, VEDECOM
Sébastien LEFRANC, CONTINENTAL
Marc PAJON, GROUPE RENAULT
Caroline ROBERT-LANDRY, GROUPE ZF

CALL FOR DEMO CARS
NIGHT DRIVE TESTS

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

This year, the Night Drive Tests will take place the evening BEFORE the congress, in order to give extra time to the attendees to network during a Cocktail Dinner at the congress venue on October 7th.

On October 7th & 8th 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).

The list of Demo Cars with their specs will be accessible on the SIA Conference App.

If you are interested, please send an email to:
martin.pierrelee@sia.fr

WARNING - The night tests will depend on the sanitary conditions put in place by the government in the coming months.

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Light is OSRAM
## PROGRAMME 7 OCTOBER 2020

### OPENING PLENARY SESSION

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<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
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<tr>
<td>07:30</td>
<td><strong>ATTENDEES REGISTRATION &amp; COFFEE IN THE EXHIBITION</strong></td>
<td></td>
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<tr>
<td>08:20</td>
<td><strong>Welcome Introduction</strong></td>
<td>Hervé GROS, Chief Executive, Société des Ingénieurs de l'Automobile</td>
</tr>
<tr>
<td>08:30</td>
<td><strong>Opening address by the SIA VISION Conference Chair</strong></td>
<td>Hector FRATTY, Driving Vision News</td>
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<tr>
<td>08:40</td>
<td><strong>KEYNOTE SPEECH</strong></td>
<td>Nicolas MOREL, Executive Vice-President, Groupe PSA</td>
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<tr>
<td>09:00</td>
<td><strong>HEADLAMP TECHNOLOGIES</strong></td>
<td>Chairman: Paul-Henri MATHA, Volvo Cars</td>
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<tr>
<td></td>
<td>How the expansion of lighting and the integration of sensors will change</td>
<td>Benoit REISS &amp; Benoist FLEURY, Valeo</td>
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<td></td>
<td>vehicles perception and near field communication</td>
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<tr>
<td>09:20</td>
<td>**High definition pixelated-LED-based headlamp modules: major challenges</td>
<td>Reza LARIMAN, ZKW Group</td>
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<td></td>
<td>and state-of-the-art development methods</td>
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<tr>
<td>09:40</td>
<td>**Dynamic Laser Matrix Beam, the headlamp concept of the new BMW 5 series</td>
<td>Alexander TOTZAUER, BMW</td>
</tr>
<tr>
<td>10:00</td>
<td><strong>Freeform micro-optics for automotive applications</strong></td>
<td>Benjamin WILLEKE, HELLA</td>
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<tr>
<td>10:20</td>
<td><strong>How RENAULT propose an LED headlamp technology for the vehicles the</strong></td>
<td>François BEDU, Groupe RENAULT</td>
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<td></td>
<td>most constrained economically?</td>
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<tr>
<td>10:40</td>
<td><strong>PANEL DISCUSSION</strong></td>
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<tr>
<td>10:50</td>
<td><strong>COFFEE BREAK IN THE EXHIBITION // DEMO-CARS SHOWCASE</strong></td>
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<tr>
<td>11:30</td>
<td><strong>ADB TECHNOLOGIES</strong></td>
<td>Chairman: Christophe LE LIGNE, Valeo</td>
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<tr>
<td></td>
<td>Mockup and Demonstrator of a High Resolution Active Pixel-LED headlamp</td>
<td>Stefan GROETSCH, OSRAM</td>
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<td>with 100k Pixel Performance</td>
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<tr>
<td>11:50</td>
<td><strong>PSA Group strategy for the integration of ADB headlamps and HD headlamps</strong></td>
<td>Whilk GONCALVES, Groupe PSA</td>
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<tr>
<td>12:10</td>
<td><strong>MEMS Laser Head Lamp</strong></td>
<td>Yuto KANBE, Stanley Electric. Co.</td>
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<tr>
<td>12:30</td>
<td><strong>Detection rate of projected light signals by lighting condition and</strong></td>
<td>Yuichi SHIBATA, Koito</td>
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<td>activation modes</td>
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<tr>
<td>12:50</td>
<td><strong>PANEL DISCUSSION</strong></td>
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<tr>
<td>13:00</td>
<td><strong>LUNCH BREAK IN THE EXHIBITION // DEMO-CARS</strong></td>
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<tr>
<td>14:30</td>
<td><strong>EXPANDING SENSORS VISIBILITY</strong></td>
<td>Chairman: Benazouz BRADAÏ, Valeo</td>
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<td></td>
<td>Utilization of Headlamp Technologies to Complement Camera and AEB</td>
<td>Todd MORGAN, Varroc Lighting Systems</td>
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<td>Effectiveness at Night</td>
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<td>14:50</td>
<td><strong>Centricam: The solution for ADAS and Automated car reliability under</strong></td>
<td>Frédéric GIRAUD, Valeo</td>
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<td></td>
<td>Rain and Snow, Technologic and Optics aspects</td>
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<tr>
<td>15:10</td>
<td><strong>High accurate AI-based infrastructure cooperative perception for</strong></td>
<td>Amir NAKIB, Cyclope AI</td>
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<td>autonomous mobility, I2V on highways use-case</td>
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<tr>
<td>15:30</td>
<td><strong>A Study of ADAS Sensor Integrated Head Lamp System - What is the</strong></td>
<td>Jungsub LIM, Hyundai Mobis</td>
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<td>benefit? What conditions are necessary?</td>
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<tr>
<td>15:50</td>
<td><strong>PANEL DISCUSSION</strong></td>
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<tr>
<td>16:00</td>
<td><strong>COFFEE BREAK IN THE EXHIBITION // DEMO-CARS</strong></td>
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<tr>
<td>16:40</td>
<td>Priorities in realizing safety relevant improvements in light performance</td>
<td>Rainer NEUMANN, Varroc Lighting Systems</td>
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<tr>
<td>17:00</td>
<td>Contrast Requirements of Road Projections for Situational Awareness: Field tests versus Virtual Reality testing</td>
<td>Sheherazade AZOUIGUI, ELS Chair / Institut d’Optique Graduate School</td>
</tr>
<tr>
<td>17:20</td>
<td>Benefits of Adaptive Driving Beam Headlights for Visibility of Road Pavement Markings</td>
<td>John D. BULLOUGH, Lighting Research Center</td>
</tr>
<tr>
<td>17:40</td>
<td>Micro-LED and Matrix-LED, a hybrid light source architecture for high resolution headlights</td>
<td>Mark URLAUB, Lumileds</td>
</tr>
<tr>
<td>18:00</td>
<td>Digital light for safety and communication</td>
<td>Michael KRUPPA &amp; Stephan BERLITZ, AUDI</td>
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<tr>
<td>18:20</td>
<td>PANEL DISCUSSION</td>
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<tr>
<td>18:30</td>
<td>ROUND TABLE animated by Gilles LE CALVEZ, Vedecom</td>
<td>Challenges, benefits and drawbacks of Sensors integration in the Headlamp &amp; Front End</td>
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<tr>
<td>19:15</td>
<td>COCKTAIL IN THE EXHIBITION</td>
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<tr>
<td>22:00</td>
<td>END OF DAY 1</td>
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<td>WELCOME COFFEE IN THE EXHIBITION</td>
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<tr>
<td>08:00</td>
<td>KEYNOTE SPEECH</td>
<td>Stéphane BUFFAT, Director, Le LAB</td>
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<tr>
<td>08:20</td>
<td>LED surfaces; a difficulty an opportunity</td>
<td>Carlos ELVIRA AVILA, SEAT</td>
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<tr>
<td>08:40</td>
<td>Research on the effect of road surface projection signal lighting on visibility improvement</td>
<td>Yuji TSUCHIYA, Honda</td>
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<tr>
<td>09:00</td>
<td>Floating light sculptures</td>
<td>Thorsten HORNUNG, ODELO</td>
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<tr>
<td>09:20</td>
<td>Behaviour of automated vehicles in critical situations with pedestrians - Accident prevention through additional light signals</td>
<td>Timo SINGER, TU Darmstadt</td>
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<td>PANEL DISCUSSION</td>
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<tr>
<td>09:50</td>
<td>Remote sensing techniques to recognize road surface conditions for autonomous vehicles</td>
<td>Hongyi ZHANG, ELS Chair / ESTACA</td>
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<tr>
<td>10:10</td>
<td>Hybrid Multisensor Objects Fusion for Automated Vehicles</td>
<td>Thomas HEITZMANN, Valeo</td>
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<tr>
<td>10:30</td>
<td>Improving AEB detection capability using visible and Far-Infrared image tracking and fusion</td>
<td>Emmanuel BERCIER, Lynred</td>
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<td>10:50</td>
<td>PANEL DISCUSSION</td>
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<td>11:30</td>
<td>Hip but Risky? New studies about the influence of small light emitting areas on headlamp glare</td>
<td>Christian SCHMITDT, Hella</td>
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<tr>
<td>11:50</td>
<td>Visionary technology for new possibilities in headlight styling</td>
<td>Gerald BOEHM, ZKW Group</td>
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<tr>
<td>12:10</td>
<td>How thin can a lighting module be VS. eye safety?</td>
<td>Arnaud PERROTIN, Valeo</td>
</tr>
<tr>
<td>12:30</td>
<td>A Study on New MLA Design Method for Headlamps</td>
<td>Hyunsoo LEE, Hyundai Mobis</td>
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<tr>
<td>14:20</td>
<td><strong>RATING SYSTEM // Chairman: Tran Quoc KHANH, TUD Darmstadt</strong></td>
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</table>
| 14:20 | Headlamp Safety Performance Rating  
Ernst-Olaf ROSENHAHN, Marelli Automotive Lighting                                                   |
| 14:40 | Fleet Performance Check with the New Headlamp Safety Performance Rating System  
Michael HAMM, AUDI                                                                                 |
| 15:00 | Inclusion of distance-dependent detection contrasts in current and future headlamp rating systems  
Anil ERKAN, TU Darmstadt                                                                          |
| 15:20 | PANEL DISCUSSION                                                                               |
| 15:30 | DEVELOPMENT & ARCHITECTURE // Chairman: Matthieu DABEK, Groupe PSA                             |
| 15:30 | The road to driving automation: potential integration of sensors in headlamps and impact on E/E architecture  
Pierrick BOULAY, Yole Development                                                                  |
| 15:50 | Automated validation toolchain for autonomous driving functions  
Franck DESAULTY, ELEKTROBIT                                                                        |
| 16:10 | Tackle challenges of automated driving development with versatile software tools  
Nicolas DULAC, Intempora                                                                            |
| 16:30 | Real-time Multi Task Network based Object Detection, Semantic Segmentation and Soiling Detection for Automated Driving Applications  
Flora DELLINGER, Valeo                                                                               |
| 16:50 | PANEL DISCUSSION                                                                               |
| 17:00 | CLOSING REMARKS BY THE CONFERENCE CHAIRMAN                                                      |
| 17:10 | END OF THE SIA VISION CONGRESS 2020                                                            |
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- Coupling effects between radar channels and between radars behind bumper
- RCS classification / Pedestrian RCS analysis
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In 2018 the SIA VISION Congress has been a huge success with more than 610 international Lighting and ADAS experts from 24 European, 29 vehicles equipped with the latest technological innovations showcased at the Cité des Sciences and Industry of la Villette in Paris, speakers who have come one another for great speeches and all of which have created many discussions and business with 27 exhibitors.

In 2020 we are back at the Cité des Sciences & de l’Industrie of Paris. Seize this opportunity & maximise your visibility!

Contact Martin Pierrelée to ask for the exhibition floor map and our Packages’ offers:
martin.pierrelee@sia.fr
+33 1 41 44 93 76

EXHIBITORS:

- Lumileds
- Osram
- Valeo
- Altair
- AML Systems
- Arrk
- Doctor Optics
- Etas
- Everlight
- Eoi Excellence Opto. Inc.
- Instrument Systems
- Light Tec
- Luxor Lighting
- Magnetarelli
- Souss MicroOptics
- Neuman Aluminium
- Nichia
- OledWorks
- Seoul Semiconductor
- Texas Instruments
- Wavtec Illumina

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Tel.: +33(0) 1 40 05 70 00
www.cite-sciences.fr

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By train
“Gare de l’Est” is 10 mn away by metro,
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“Gare Saint-Lazare” & “Gare Montparnasse” are 30 mn,
“Gare de Lyon” is 40 mn away by metro.

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By Métro
Line 7 in direction of “La Courneuve - 8 mai 1945”
Get out at station “Porte de la Villette”

From Charles De Gaulle airport
35 mn by train (RER B) • 30 mn by car

CONTACT: MOLLY BOISSIER // molly.boissier@sia.fr // +33 1 41 44 93 74 // sia.fr
REGISTRATION FORM

International Conference and Exhibition // SIA VISION 2018 - 7/8 October 2020 // Ref: 2020-02

Please complete and return this form to:
SIA – 79, rue Jean-Jacques Rousseau – F-92158 Suresnes Cedex / Fax: +33 (0)1 41 44 93 79 / molly.boissier@sia.fr

REGISTER DIRECTLY ON LINE: www.sia.fr

PLEASE USE BLOCK CAPITALS

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Company: ......................................................................... Internal address: ..............................................................
Position: ..............................................................................................................................................................
Address: ..............................................................................................................................................................
Postcode: .................................... City: ............................................................ Country: ...........................................
Tel: ........................................... Mob: ................................ Email: ...........................................................................
VAT number: ..........................................................................................................................................................

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.

SIDE EVENTS (PLEASE THICK A BOX):

☐ On October 6th - Night Drive Test (SIA reserves the right to restrain the access in case of COVID-19 constraint & high demand - 10 attendees max. from same company)
☐ On October 7th - Cocktail Dinner in the Exhibition
  Should you have food preferences - please specify:
  I don’t want to attend anything

PAYMENT

Please precise the invoice address if different

Address:..............................................................................................................................................................
Postcode: .................................... City: ........................................................ Country: ...........................................

☐ By check in Euros made payable to: “Société des Ingénieurs de l'Automobile”
☐ By bank transfer in Euros made payable to: “Société des Ingénieurs de l'Automobile” (please enclose a copy)
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  Please, precise your company name and reference: 2020-02

☐ By credit card:
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REGISTRATION CONDITIONS

• Registration fees include participation in the conference, proceedings, refreshment breaks, lunches and the evening activities.
• Where it is not possible to send the payment together with the form, each registration should be accompanied by an official purchase order. Failing receipt 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: free of charge before July 7th, 2020, from July 7th to September 6th, 2020, 30% of the registration fees will be retained. After this date, the entire registration fee 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.