



ORGANIZED BY



## NEWSPEC SUMMER SCHOOL 2016

WELCOME TO THE HEART OF ITALY, WHERE INNOVATION AND TRADITION BECOME EXCELLENCE

**SUNDAY 12/06/2016****19.00** Meeting at the **Hotel Settecento** and **PARTICIPANT REGISTRATIONS****20.00** Welcome Reception and Outdoor Dinner Party

### DAY 1

**MONDAY 13/06/2016**

	GROUP A	GROUP B
<b>08.00</b>	Meeting at the Hotel and Shuttle transfer to <b>Brembo/Km Rosso</b>	
<b>8.30-9.00</b>	Admittance of participants	
<b>9.00-9.15</b>	Welcome to the 2nd NEWSPEC Summer School by <b>Matteo Falasconi</b> , Scientific Coordinator, <b>Warrant Group</b>	
<b>9.15-9.30</b>	Welcome by <b>Roberto Vavassori</b> , Business Development Director, <b>Brembo</b>	
<b>9.30-10.30</b>	Introductory Lecture on CC and CCM products and processes	
<b>10.30-11.30</b>	Production Tour At <b>BSCCB</b> : Manufacturing of carboceramic brake rotors. Molding, pyrolysis, silicon infiltration, machining processes	
<b>11.30-13.00</b>	<b>PETROCERAMICS LAB</b> Analyzes of carbon fibre properties in CC materials and CCM by different methodologies (XRD, SEM, Thermal conductivity)	<b>BREMBO LAB</b> Preparation of samples and RAMAN spectroscopy analysis (Carbon Carbon samples) Preparation of samples and microstructure analysis (Carbon Carbon samples)
<b>13.00-14.00</b>	Lunch Break	
<b>14.00 -15.30</b>	<b>BREMBO LAB</b> Preparation of samples and RAMAN spectroscopy analysis (Carbon Carbon samples). Preparation of samples and microstructure analysis (Carbon Carbon samples)	<b>PETROCERAMICS LAB</b> Analyzes of carbon fibre properties in CC materials and CCM by different methodologies (XRD, SEM, Thermal conductivity)
<b>15.30-16.00</b>	Question Time and Conclusions	
<b>16.00-18.30</b>	Shuttle transfer to Modena	
<b>18.30</b>	Arrival in Modena city centre at Hotel Best Western Libertà	
<b>20.00-23.00</b>	Gala Dinner and Guided Tour at <b>Enzo Ferrari Museum</b> (Modena)	

IN COLLABORATION WITH





## DAY 2

TUESDAY 14/06/2016

	GROUP A	GROUP B
08.00 - 9.00	Meeting at the Hotel and Shuttle transfer to <b>Automobili Lamborghini</b>	
9.00 - 9.30	Admittance of participants and Welcome by <b>Luciano De Oto</b> , Research & Development Director at <b>Automobili Lamborghini</b>	
9.30 - 11.30	Introductory Lecture: Presentation of <b>Automobili Lamborghini</b> , <b>CFRP</b> technologies, development approach ( <b>BBA</b> )	
11.30 - 12.30	<b>PPC</b> Tour (Pre-Preg Center where all the parts and tooling related with prepreg technology are produced)	
12.30 - 13.30	Lunch Break	
13.30 - 14.00	Shuttle Transfer to Labs	
14.00 - 15.00	<b>CFK TOUR</b> Carbon Fiber Komposite where we have the production line of the Aventador monocoque. Carbon Fiber Komposite is the 4000sqm plant for the Aventador LP 700-4 monocoque production, with a daily production rate of 5,6 parts. This plant has the Certification ISO 14001 since 2011	<b>OCC LABORATORY</b> Out-Of-Clave Center where we develop all technologies out of autoclave as Press Moulding, RTM, Forged Composite® and where are located the Qualification Laboratory and Repair Center.
15.00 - 15.30	Shuttle Transfer to Labs	
15.30 - 16.30	<b>PRODUCTION LINE TOUR</b> Aventador and Huracàn production lines. The plant includes the assembly lines for the Huracàn LP610-4 (23 stations), the Aventador LP700-4 and LP750-4 (12 stations), the test area for quality checks and functional checks, the "Selleria" where seats, dashboard, door panels and other interior panels are created to the exact specs listed by the customer.	
16.30 - 17.00	Shuttle Transfer to Labs	
17.00 - 17.30	Reunion point / Transfer to <b>Hotel Best Western Libertà</b> in Modena	
18.00	Free night in Modena city centre	

IN COLLABORATION WITH





ORGANIZED BY



## DAY 3

WEDNESDAY 15/06/2016

	GROUP A	GROUP B
08.00 - 8.30	Meeting at the Hotel and Shuttle transfer to <b>Automobili Lamborghini</b>	
8.30 - 9.00	Shuttle Transfer to Labs	
9.00 - 10.00	<b>OCC LABORATORY</b>  Out-Of-Clave Center where we develop all technologies out of autoclave as Press Moulding, RTM, Forged Composite® and where are located the Qualification Laboratory and Repair Center	<b>CFK TOUR</b>  Carbon Fiber Komposite where we have the production line of the Aventador monocoque. Carbon Fiber Komposite is the 4000sqm plant for the Aventador LP 700-4 monocoque production, with a daily production rate of 5,6 parts. This plant has the Certification ISO 14001 since 2011
10.00 - 10.30		<b>Shuttle Transfer to Labs</b>
10.30 - 11.00		<b>PRODUCTION LINE TOUR</b>  Aventador and Huracàn production lines. The plant includes the assembly lines for the Huracán LP610-4 (23 stations), the Aventador LP700-4 and LP750-4 (12 stations), the test area for quality checks and functional checks, the "Selleria" where seats, dashboard, door panels and other interior panels are created to the exact specs listed by the customer
11.00 - 11.30		
11.30 - 12.00	Shuttle Transfer to Labs	
12.00 - 13.00	Lunch Break	
13.00 - 14.00	Guided <b>Lamborghini Museum</b> visit	
14.00 - 15.00	<b>Automobili Lamborghini</b> Boutique	
15.00 - 15.30	Reunion point	
15.30 - 17.00	Bus shuttle transfer to <b>Camattini</b> (Collecchio, PR)	
17.00 - 18.30	Training Tour Of <b>Camattini</b> Production Plant: Autoclave process- Material Cut, lamination, vacuum, cure, demoulding, trimming, bonding, quality control and delivery	
18.30	Transfer to <b>Hotel Daytona</b> (Collecchio , PR)	
19.00	Free night in Parma	

IN COLLABORATION WITH





ORGANIZED BY



DAY 4

THURSDAY 16/06/2016

	GROUP A	GROUP B
8.00 - 8.30	Meeting at the Hotel and Shuttle transfer to <b>Dallara's</b> Headquarter	
8.30 - 9.00	Admittance of participants and Welcome by <b>Andrea Pontremoli</b> , CEO and General Manager, <b>Dallara Automobili</b>	
9.00 - 10.30	Lecture and front lesson on <i>DARC</i> activities	
10.30 - 12.30	Tests: Compression Moulding at Thermoset, DSC and DMA analysis on a part produced together, microscope analysis and material mechanical characteristics testing	Driving Experience at race track "Riccardo Paletti" at Varano de Melegari
12.30-13.30	Lunch Break	
13.30-16.00	Driving Experience at race track "Riccardo Paletti" at Varano de Melegari	Tests: Compression Moulding at Thermoset, DSC and DMA analysis on a part produced together, microscope analysis and material mechanical characteristics testing
16.00-16.30	Question time	
16.30-19.00	Shuttle transfer to Sestri Levante	
19.00	Arrival at <b>Hotel Due Mari</b>	
20.00	Social Dinner at <b>Hotel Due Mari</b>	

IN COLLABORATION WITH





## DAY 5

FRIDAY 17/06/2016

### GUIDED TOUR TO THE “CINQUE TERRE” BY BOAT AND TREKKING OR LOCAL TRANSPORT

(depending on the weather)

#### DESTINATION:

Monterosso, Vernazza and Riomaggiore or Levanto, Vernazza, Corniglia and Manarola.

8.30	Departure from <b>Hotel Due Mari</b>
16.30	Return to <b>Hotel Due Mari</b>
16.45 - 19.30	Bus Transfer to <b>BERGAMO</b>

For those who will instead decide to stay in **Sestri Levante** for the weekend, other interesting destinations can be:

- *Portofino (20 Km)*
- *Genova (50 Km)*
- *Golfo dei Poeti (60Km)*

**Hotel Due Mari** staff will be glad to give indications and organise private tours.



IN COLLABORATION WITH

