Automobili Lamborghini ACSL facility announces Carbon Fiber Academy to teach super-car carbon fiber technology in Seattle.

October 2014 - The Automobili Lamborghini Advanced Composite Structures Laboratory (ACSL) launched a series of monthly classes to train engineers and product designers in the latest carbon fiber technologies used by Lamborghini.

The first module offered, *Introduction to Forged Composites*, features a one-day overview on the company's most prized technology, forged carbon. This breakthrough process enables the realization of high-performance, cost-effective primary structures and was launched in 2010 with the release of the Lamborghini Sesto Elemento monocoque and the Callaway Diablo Octane golf driver. Throughout the class, students develop an understanding of the Forged Composite material form and manufacturing process, its key mechanical properties and physical characteristics, and fundamental design criteria. With the aid of real-life case studies from the ACSL experience, students are exposed to the procedures used to develop a business case for Forged Composite. The lab session features hands-on experience where the students craft a part using forged composite technology from beginning to end, which they take home with them.

"A highly valuable educational experience every OEM and designer should consider," said class participant and Cashmere Molding President Greg Herlin.

Other modules that are now offered include *Composite Crashworthiness Analysis and Testing*, and *Certification Methodologies for Composite Structures* among others. The various modules, independent and stackable, include a variety of 1-, 2- and 5-day courses and the opportunity to earn a certificate in advanced composites technology. The unique feature of each course is the format, which includes 50% in a classroom environment and 50% in the laboratory, where the students practice how to build, qualify, and/or test composite parts according to the module's content.

The classes are limited to a maximum of 8 students, in order to guarantee the highest level of guidance by the instructors, which are current industry professionals. Because of the advanced and highly applied nature of the training, the target audience for the courses is typically comprised of practicing engineers or designers, with background in composites, engineering and/or industrial design.
"The ACSL has focused for years on taking the latest technologies from aerospace and transferring them to the automotive and sport equipment industry, and eventually taking them back to aerospace after further developments and improvements. Training and education are key components of this knowledge exchange process", says Dr. Paolo Feraboli, Founder and Director of the ACSL, and previously a faculty member at the University of Washington. "The ACSL Academy was established to incorporate those aspects of applied engineering lacking in the University's theory-driven composite

curricula, and to create a dynamic, flexible and practical environment capable of accommodating the rapidly-evolving needs of professionals".

Previously located at the University of Washington from 2007 to 2013, the Automobili Lamborghini ACSL was heavily involved in research activities sponsored by the Federal Aviation Administration and The Boeing Company aimed toward the certification of primary composite structures for commercial aircraft. Since January 2014, the ACSL is a stand-alone non-profit organization located in an independent state-of-the-art facility north of downtown. The "Lambo Lab," as the ACSL is commonly called, is responsible for Technology Innovation and Structural Concept Development for the Italian automaker. The ACSL product development experience includes projects conducted over the years working with Lamborghini as well as many other leading companies in the most diverse fields, such as Callaway Golf, Union Binding Company, COMAC, and Honda among others.

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