Lightweighting is moving to a new stage, and while much has been accomplished, the task is getting more difficult. OEMs and suppliers seek to continue the momentum, going deeper into vehicles, components and processes to find the next level of weight savings. All the while, the industry must balance safety and consumer demands. Only Lightweighting World Expo 2019 delivers high-level problem solving for today’s lightweighting applications.

THE EXHIBITION
Includes a diversified display of systems, components and service solutions for lightweight vehicle development.

THE VALUE
$695 for a complete 2-day registration, including exhibit hall pass and all catered lunches and breaks... OEM group pricing available. Special pricing for exhibit hall access only.

OEM Discounted Rate $295

A MUST-ATTEND EVENT FOR
OEMs—including Design, Engineering, Manufacturing professionals
Suppliers—including materials, equipment, process systems for lightweighting
Integrators
Fabricators
Educators/Researchers
Automotive Consultants
Purchasers
Prototype Services
Regulators

Registration Opens March 15, 2019 online at LightweightingWorld.com
THE CONFERENCE
In-depth presentations and discussions over two full days focused on overcoming today’s lightweighting challenges:

EXTERIOR, BODY STRUCTURE, CLOSURES
The look and the character of the vehicle. Body structure, glazing and closures. Dominated by steels in the past, recent advances deliver high strength steels, aluminum, thermoplastics, composites, magnesium, and lightweight glazing. New material processing technology enables use of previously difficult-to-form alloys. We explore how materials, processes and technologies are delivering weight reduction over the largest weight category on the vehicle.

INTERIORS
Deemed to be the “third” human space following the home and office, electric vehicles, autonomous driving and the push for lighter-weight vehicles are placing new demands on interiors. How is the industry responding to these changes? We focus on the structures – IP beams, consoles, seats, sunroof surrounds – this is where the weight lies.

POWERTRAIN
Today, we are experiencing changes in powertrain design not seen in 100 years. These changes are affecting architecture and performance, resulting in new demands from materials, manufacturing processes and technology. Lightweight propulsion begins with engine downsizing and extends to large market projections on electrification—hybrids to EV’s; electric motors and battery systems, battery trays/boxes.

CHASSIS & SUSPENSION
The chassis and suspension are backbone of the vehicle, and represents approximately 20% of the vehicle weight. There is ample opportunity to reduce vehicle weight, especially once the propulsion system is downsized and optimized. Components of interest include the frame, subframe, engine cradle, suspension, wheels, brakes and steering knuckles.

ENABLING TECHNOLOGIES
Enabling technologies are everything dedicated to supporting and helping to overcome the adoption of new materials, processes and technologies in the automotive field. Advances in design, crash testing & safety, simulation, recycling, testing, new processes, along with many other areas helping to enable new technology and innovation will be explored.

FASTENING & JOINING
The vehicle structure is changing from one that was all steel, to a mixture of advanced steels, aluminum, composites, polymers and even glass. This multi-material vehicle requires new methods of body and closure assembly, and there are many options at varying degrees of maturity. The options include welding, self-piercing rivets, fasteners, tapes and structural adhesives.

ADDITIVE MANUFACTURING
Additive manufacturing (AM) is the ideal lightweighting technology. Designs begin with optimizing CAE software, using AI and generative design to eliminate redundancies and design for the AM process. New materials are in development, along with the due diligence on robust processing. The Holy Grail for AM is serial production on an end-use product on an automobile.

For conference, exhibitor and sponsorship information, email JohnP@lightweightingworld.com.