ANSYS Announces Winners of 2019 Hall of Fame Competition

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PITTSBURGH, Jan. 9, 2019 /PRNewswire/ -- From optimizing prosthetic foot designs to fighting heart disease to securing high voltage cables, the winning entries of the annual <u>ANSYS</u> (NASDAQ: ANSS) <u>Hall of Fame competition</u> highlight how engineers are solving key challenges with ANSYS Pervasive Engineering Simulation solutions across numerous industries.

${\tt ANSYS_Oklahoma_State_University_CFD_based_elastic_lung_model}$

Entrants from around the world successfully demonstrated their use of ANSYS pervasive engineering simulation technology to solve complex problems. The submissions were divided into three categories – corporate, startup and academic.

Corporate winners:

- <u>Lucy Electric</u> engineers used ANSYS software to analyze the deformation and stress in the busbars and supports of a medium voltage switchgear during a short-circuit current event. Switchgear enables power to be quickly and safely disconnected during emergencies or when maintenance is required. Engineers reduced the number of switchgear prototypes, saving time and cost in the development process.
- <u>Panduit</u> engineers optimized the design of high voltage cable cleat products to prevent the substantial damage that can occur before circuit breakers react to a short. Using ANSYS simulation software, the company achieved substantial cost and time savings for its latest line of cable cleat products.
- <u>Stressfield Oy</u> used ANSYS software to simulate supercritical carbon dioxide condensation near the critical point inside a power-hungry centrifugal compressor. While often overlooked, industrial systems and machines are an enormous source of worldwide power demand. Stressfield Oy used simulation to design a more efficient compressor, considerably decreasing its annual use of primary energy sources.

Startup winner:

 Mecuris GmbH reduced costs and development time by leveraging ANSYS simulation software to test prosthetic foot designs. Like many leading healthcare companies, simulation helped Mecuris GmbH engineers manage risk, improve insight, accelerate product development and meet regulatory targets.

Academic winners:

- <u>Eindhoven University of Technology</u> researchers set a world record in computational fluid dynamics (CFD) simulation by leveraging ANSYS software to conduct an aerodynamic simulation and wind tunnel test that analyzed a peloton of 121 cyclists' drag and energy expenditure. Researchers concluded that all riders benefitted from the group configuration and that the most substantial drag reductions were obtained by riders in the mid rear of the group.
- <u>Linköping University</u> researchers studying cardiovascular disease leveraged ANSYS simulation software to help them compute flow in coronary arteries, the right side of the heart and mechanical heart valves. Cardiovascular diseases are the number one global cause of death, and researchers, like the team at Linköping University, are investing in simulation to better understand, prevent and treat cardiovascular diseases.
- Oklahoma State University researchers used ANSYS solutions to develop a unique CFD-based elastic lung model that accurately simulated the human respiratory system. Using human digital twins that can be made patient-specific by incorporating real geometry of patients' lungs, researchers tracked the inhalation and flow of aerosol drug particles to the lungs and targeted lung tumors with significantly higher precision than conventional aerosol treatment methods.

"Engineers around the globe are leveraging ANSYS simulation software to push the innovation envelope and accelerate the development of breakthrough technologies across a wide variety of industries," said Matt Zack, vice president, corporate marketing and business development, ANSYS. "Congratulations to all of the award winners. We are consistently impressed by the caliber of Hall of Fame entries, but the 2018 participants absolutely exceeded our expectations."

View the ANSYS Hall of Fame Archive at http://www.ansys.com/hof for submissions from previous years' competitions.

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If you've ever seen a rocket launch, flown on an airplane, driven a car, used a computer, touched a mobile device, crossed a bridge or put on wearable technology, chances are you've used a product where ANSYS software played a critical role in its creation. ANSYS is the global leader in engineering simulation. Through our strategy of Pervasive Engineering Simulation, we help the world's most innovative companies deliver radically better products to their customers. By offering the best and broadest portfolio of engineering simulation software, we help them solve the most complex design challenges and create products limited only by imagination. Founded in 1970, ANSYS is headquartered south of Pittsburgh, Pennsylvania, U.S.A., Visit <u>www.ansys.com</u> for more information.

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