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MTS EQUIPS UNIVERSITY TO TEST NEW MATERIALS FOR CONSTRUCTION AND TRANSPORTATION INDUSTRIES

Eden Prairie, Minn. – January 15, 2019 – MTS Systems Corporation (NASDAQ: MTSC), a leading global supplier of high-performance test systems, motion simulators and sensors, today announced completion of two unique test systems for the Extreme Performance Testing Center at Seoul National University. These test systems—a High-Rate Impact and a High-Force Fatigue system—deliver the velocities and forces required to test newly developed high-strength construction materials and reinforced composites.

Seoul National University is ranked in the top universities of the world and considered to be the most prestigious research university in South Korea. Its new R&D facility, the Extreme Performance Testing Center, was built to improve the performance of structures by simulating extreme loads and environments. Researchers at the facility will test the high-strength and reinforced materials that are used to make bridge abutments, road lane barriers, building columns and composite panels. How these materials will perform in a structure or respond to impact velocities, such as a truck hitting an embankment or bridge abutment, needs to be determined before they can be used in real-world applications.

The concrete, rebar and composite materials used to construct buildings, bridges, vehicles, marine vessels and aircraft today are far stronger than before, creating new testing challenges. As an example, concrete was previously designed to withstand forces of about 21 MPa (3,000 psi), and today's high-strength concrete needs to be tested at five times that, or 105 MPa (15,000 psi). Accurate testing of these materials and understanding how they will perform in intended use cases is critical, especially when new materials that have a higher strength-to-weight ratio are added to an existing design or structure.

Another challenge with testing these materials is to get a specimen large enough to represent how the material will perform within a structure. The MTS test systems in the Extreme Performance Testing Center can simulate real-world structural loading and accommodate large test specimens for both high-rate and high-force tests. The MTS high-rate system is unique in that it can reach and maintain a velocity of 10.5

meters/second (34.5 feet/second) while achieving forces of 330 kN (74,200 pounds-force) in tension and 320 kN (72,000 pounds-force) in compression. The high-force system is capable of loading specimen up to 2,500 kN (570,000 pounds-force).

“In an effort to improve performance and reduce costs, construction companies and transportation manufacturers are increasingly relying on higher-strength, fiber-reinforced materials, and MTS is well equipped to help validate these new materials,” says Dr. Jeffrey Graves, MTS President and CEO. “MTS test and simulation systems, such as the ones at Seoul National University, will continue to drive innovation by helping researchers evaluate the fiber-reinforced concrete, high-strength rebar, fiber-reinforced plastics and composites required for stronger bridges and buildings, as well as lighter aircraft and ground vehicles.”

About MTS Systems Corporation

MTS Systems Corporation’s testing and simulation hardware, software and service solutions help customers accelerate and improve their design, development and manufacturing processes and are used for determining the mechanical behavior of materials, products and structures. MTS’ high-performance sensors provide measurements of vibration, pressure, position, force and sound in a variety of applications. MTS had 3,400 employees as of September 29, 2018 and revenue of $778 million for the fiscal year ended September 29, 2018. Additional information on MTS can be found at: http://www.mts.com