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For more information contact:

Brian Ross

Executive Vice President and Chief Financial Officer

952.937.4000

MTS TO UPGRADE WORLD'S LARGEST OUTDOOR SEISMIC SIMULATOR

Eden Prairie, Minn. – September 23, 2019 – MTS Systems Corporation (NASDAQ: MTSC), a leading global supplier of high-performance test systems, motion simulators and sensors, today announced plans to work with the University of California San Diego to upgrade the world's largest outdoor seismic simulation system located at the university's Englekirk Structural Engineering Center in Scripps Ranch. Researchers will use the system, also known as a shake table, to improve accuracy of simulated ground motion effects on large structures, such as multi-story buildings and bridge components, with the goal of minimizing damage and protecting critical infrastructure during an earthquake.

Sixteen years ago, MTS worked with UC San Diego to develop and build the world's largest outdoor seismic simulator with a 2000 ton payload capacity. That system included six non-active vertical actuators that could be upgraded in the future, because at the time, there was not enough accumulator power to reproduce vertical ground motions. Even with the vertical motion limitations, the shake table was able to validate technologies that made buildings more earthquake-resistant and led to important changes in design codes for commercial and residential structures, as well as civil infrastructure such as bridges, retaining walls and wind turbines.

Now, with a grant from the National Science Foundation in addition to its own funds, UC San Diego will install an accumulation system with four times the original capacity, increasing the seismic simulation system's ability to replicate earthquake ground motions. To complete the system upgrade, the MTS and UC San Diego team will lift the 7.6 x 12.2 meter table, add two more horizontal actuators and upgrade the vertical actuators, enabling six degree-of-freedom motion to simulate seismic events more precisely. MTS will also provide two additional hydraulic power units, new control hardware and software for system operation, a hydraulic distribution system and a table travel restraint system. The entire upgrade project is scheduled to be completed early in March 2021.

After the upgrade, the UC San Diego shake table will be the highest capacity six degree-of-freedom

outdoor shake table in the world, and its increased capabilities will greatly amplify the impact of the research performed at this world-class facility. One of the first projects to be tested on the upgraded system will be a full-scale 10-story building made of cross-laminated timber. The data gathered from these seismic tests will be used to design earthquake-resistant wood buildings as tall as 20 stories that would allow residents to evacuate safely and return to shortly after an earthquake.

“As the world population grows, and more people are living in large cities in earthquake zones, there is a greater need to retrofit existing wood-frame and concrete buildings to make them more earthquake-resistant, and find ways to build more stable structures in the future,” states Dr. Jeffrey Graves, MTS President and CEO. “MTS is proud to enable research that will stabilize multi-story buildings, bridge components, large HVAC systems and electrical transformers, minimizing loss and helping ensure that critical infrastructure such as hospitals and the electrical grid continue to function during an earthquake and its aftermath.”

“This upgrade will have a huge impact on earthquake engineering,” adds Joel Conte, a professor in the Department of Structural Engineering at UC San Diego. “It will accelerate the discovery of knowledge engineers need to build new structures—buildings, bridges, power plants, dams, levees, telecommunication towers, wind turbines, retaining walls, tunnels and more—and retrofit older structures. It will enhance the resiliency of our communities.”

About University of California – San Diego

As one of the top 15 research universities in the world, UC San Diego is driving change far beyond its walls to advance society and propel economic growth. UC San Diego ranked 4th among public research institutions in the U.S. by Nature Index for “high-quality science,” based on research publications in highly selective science journals in 2019. The university is home to 30,000 undergraduate and 8000 graduate students as well as more than 34,500 faculty and staff members.

The Jacobs School of Engineering ranks 11th among the nation’s top engineering schools and 6th in the nation among public universities according to the U.S. News ranking of graduate schools. It ranks 13th overall and third among all public engineering schools for research expenditures per faculty member, reflecting UC San Diego’s leadership as a research university (U.S. News, published March 2019). The Department of Structural Engineering at UC San Diego’s Jacobs School of Engineering is nationally and internationally renowned for its long and impressive track record of global leadership in large- and full-scale testing in earthquake engineering.

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>