



Text File

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Bill No: 2019-2063, **Version:** 1

Committee: City Council

Status: Adopted

WHEREAS, the Dr. Alan George founded the National Science Foundation (NSF) Center for Space, High-performance, and Resilient Computing (SHREC) at the University of Pittsburgh in September 2017; and,

WHEREAS, SHREC's research focus is "mission-critical computing," which includes space computing, high-performance computing, and resilient computing, to advance the state of the art in computer and electrical engineering for harsh environments such as outer space; and,

WHEREAS, SHREC attracts more than \$1 million in external research funding to the University of Pittsburgh Swanson School of Engineering each year, with Pitt as the lead institution joined by nearly 40 partners across academia, industry, and government agencies; and,

WHEREAS, its first reconfigurable space computer system was deployed to the International Space Station (ISS) as part of NASA and DOD's Space Test Program - Houston 5 (STP-H5) payload in February 2017; and,

WHEREAS, NASA and DOD's next mission in May 2019, STP-H6, carried SHREC's latest system called Spacecraft Supercomputing for Image and Video Processing (SSIVP), an even more advanced space computer designed by students and faculty from the Swanson School's Departments of Electrical and Computer Engineering, and Mechanical Engineering and Materials Science; and,

WHEREAS, the new SSIVP system is nearly three times more powerful than its predecessor and contains dual high-resolution cameras capable of photographing stunning images of Earth, and features high performance and reliability with low power, size, weight, and cost, which are unprecedented in computers used today in space; and,

WHEREAS, because of the engineering students' passion for Pitt and the Swanson School, they embossed the "Pitt Script" on the supercomputer's gold casing, which is visible to the astronauts on board the ISS; and,

WHEREAS, SHREC and the University of Pittsburgh have now established and are operating two research platforms in space, thanks to NASA, DOD, and especially the ingenuity of the Swanson School's students and faculty; and,

WHEREAS, SHREC joins an impressive array of university centers that are ambassadors for the City of Pittsburgh, and provides Pitt students with the opportunity to work in outer space while staying on the ground in the City's Oakland neighborhood; and,

WHEREAS, with these two successful space projects, SHREC is now developing two more missions to the ISS, encouraging greater collaboration across the University of Pittsburgh and attracting more attention to

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prospective students interested in becoming the next generation of space engineering researchers; and,
NOW, THEREFORE BE IT RESOLVED, that the Council of the City of Pittsburgh does hereby celebrate the significant impact of Dr. Alan George, and recognizes the important contribution of the Center for Space, High-performance, and Resilient Computing to the Pittsburgh community; and,

BE IT FURTHER RESOLVED, that the Council of the City of Pittsburgh does hereby declare Tuesday, September 17, 2019 to be “Pitt Space Supercomputer Day” in the City of Pittsburgh.