



國立中興大學 資通安全研究與教學中心

Embedding Intelligence in Urban Infrastructure: Array of Things

演講者：

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地點：理學大樓 8樓 803 演講廳

~歡迎踴躍參加~

主辦單位：國立中興大學資通安全研究與教學中心
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ABSTRACT:

There is a growing science community, spanning nearly every discipline, pursuing research related to the growth and operation of cities and the impact of such environments on the health and well-being of city dwellers. With input from scientists, policymakers, and residents of Chicago, Argonne National Laboratory and the University of Chicago created the Array of Things (AoT)—a new form of intelligent urban measurement system implemented in partnership with the City of Chicago. AoT provides data with greater spatial and temporal resolution than is currently available for understanding air quality, microclimate, vibration, noise, and other factors, providing measurements from hundreds of locations throughout the city. AoT devices include embedded, remotely programmable artificial intelligence capabilities—“edge computing”—to process images, sound, vibration, and other data within the installed devices, creating measurements that cannot be obtained from traditional sensor networks. These new forms of measurement range from the flow of people and vehicles through public spaces to the impact of rail crossings on emergency response. AoT is being implemented in a growing number of cities worldwide, and provides open and free data along with tutorials, data analysis tools, and application programming interfaces.

