

# FACT SHEET

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## Defence Technology Prize 2019 Individual (Research & Development) Award Winner

## Dr Chong Oi Yin Mary Karen

Defence Science and Technology Agency

## CITATION

Dr Chong Oi Yin Mary Karen, Head Engineering (Protective Systems Engineering) from the Defence Science and Technology Agency (DSTA), has contributed significantly to the advancement of Singapore's capabilities in protective systems engineering. Her pioneering work in the areas of explosive testing and modelling/analysis of blast effects has enhanced the protection of key defence infrastructures.

Dr Chong's technical expertise has been instrumental in the build-up of advanced computational models for predicting and analysing the after-effects of blasts on buildings, including how various building systems, such as power and environmental control systems, respond to blast and shock. These modelling tools have been used to design infrastructures that offer better protection against blast threats.

She also played a significant role in planning and conceptualising large-scale testing, such as the explosives testing of structural components, to validate current protective engineering measures as well as generate relevant and realistic data for further research.

Her efforts in fostering local and international research partnerships have helped in developing Singapore's indigenous capability to perform complex protective systems engineering work. In recognition of her outstanding achievements and contributions, Dr Chong is awarded the DTP 2019 Individual (Research & Development) Award.

#### PROFILE

Name	Chong Oi Yin Mary Karen
Appointment	Head Engineering (Protective Systems Engineering), Building and Infrastructure
Organisation	Defence Science and Technology Agency
Age	53

#### AWARDS

- Public Administration Medal (Bronze), 2016
- Fire Safety Design Excellence Awards Excellence Award Underground Ammunition Facility, 2011
- Defence Technology Prize Team (Engineering) Award The Advanced Protective Infrastructure Team, 2011
- Defence Technology Prize Team (Engineering) Award Underground Ammunition Facility Project Team, 2007
- Defence Technology Prize Team (Research & Development) Award Protective Technology Research Team, 2006
- Defence Technology Prize Team Award The Explosives Testing of Structural Components 98 Project Team, 1999

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