# SINGAPORE DEFENCE TECHNOLOGY SUMMIT

Rapid advances in technology have and will continue to shape the nature of military and security operations. Today, defence forces and security agencies have to deal with diverse and complex missions, ranging from counter-terrorism to cybersecurity and hybrid warfare. Innovative concepts of operation will be required. The development and sustenance of defence and security capabilities are correspondingly getting increasingly difficult and challenging. Deciding on the technologies to invest in and transitioning them quickly to the forces is no small feat. However, there are opportunities for collaboration.

The **Singapore Defence Technology Summit** or "Tech Summit" in short is a unique gathering of global thought leaders from defence, security establishments, industry, academia and think tanks to network, confer and collaborate in the development of defence and security capabilities.

Attendees will include:

- Defence technology policy makers
- National armament directors responsible for capability development
- Chief Defence Scientists responsible for research and development
- Chief Executive Officers and Chief Technology Officers from the industry
- Thought leaders from academia and think tanks

Theme

# Impact of the 4<sup>th</sup> Industrial Revolution on Defence and Security

Guest of Honour

**Mr Teo Chee Hean** Deputy Prime Minister and Coordinating Minister for National Security

Date 27-29 June 2018

Venue Shangri-La Hotel, Singapore

techsummit@dsta.gov.sg

# P R O G R A M M E

## Wednesday 27 June 2018

1800hrs Cocktail Reception followed by Opening Dinner Welcome Address by Dr Ng Eng Hen, Minister for Defence, Singapore

## Thursday 28 June 2018

#### 0900hrs Welcome Remarks

0910hrs Keynote Address by Mr Teo Chee Hean, Deputy Prime Minister and Coordinating Minister for National Security, Singapore

#### 0930hrs Plenary Session 1 – Opportunities and Challenges for Defence and Security

*Moderator:* **Dr Kathleen Hicks**, Senior Vice President; Henry A. Kissinger Chair; Director, International Security Program, Center for Strategic and International Studies, USA *Speakers include:* 

- BG(Ret) Dr Daniel Gold, Head, Directorate of Defense Research and Development, Israel
- IGA Caroline Laurent, Director, Strategy Directorate, Directorate-General for Armaments, France
- Mr Jan-Olof Lind, Director General and President, Swedish Defence Research Agency, Sweden
- Dr Brian Pierce, Director, Information Innovation Office, Defense Advanced Research Projects Agency, USA
- Mr Quek Gim Pew, Chief Defence Scientist and Future Systems and Technology Architect, Singapore

#### 1130hrs Lunch

#### **1330hrs** Plenary Session 2 – Technological Advancements and Disruptions

*Moderator:* **Dr Anthony Tether**, Former Director, Defense Advanced Research Projects Agency, USA *Speakers include:* 

- Mr Jeroen Cappaert, Co-Founder and Co-Chief Technology Officer, Spire Global, USA
- Prof Hugh Durrant-Whyte, Chief Scientific Adviser, Ministry of Defence, UK
- Dr Hong Won-Pyo, President and Chief Executive Officer, Samsung SDS, South Korea
- Prof Richard Kitney, Professor of BioMedical Systems, Department of Bioengineering, Imperial College, UK
- Prof Xiao'ou Tang, Founder, SenseTime, People's Republic of China

#### 1530hrs Tea Break

#### **1600hrs** Plenary Session 3 – Innovation through Collaboration

*Moderator:* **Prof Low Teck Seng**, Chief Executive Officer, National Research Foundation, Singapore *Speakers include:* 

- Dr Jean-Luc Beylat, Chairman, Business Cluster for Systematic Paris-Region, France
- Mr Antoine Bouvier, Chief Executive Officer, MBDA, France
- Vice ADM Arie Jan de Waard, National Armament Director and Director, Defence Materiel Organisation, Netherlands
- Dr Chris Kirchhoff, Visiting Technologist, Harvard University and Former Partner, Defense Innovation Unit Experimental, USA
- Prof Alberto Sangiovanni-Vincentelli, The Edgar L. and Harold H. Buttner Chair, Department of EECS, University of California, Berkeley, USA

#### 1800hrs Networking Cocktail followed by Dinner

# P R O G R A M M E

# Friday 29 June 2018

### 0900hrs Breakout Session 1: Realising the Potential of Autonomous Systems

*Moderator:* **Mr John Markoff**, Pulitzer Prize Winner, Author of Machines of Loving Grace, USA *Speakers include:* 

- Dr Nicolas Chapados, Co-Founder and Chief Science Officer, Element AI, Canada
- MG(Ret) Robert Latiff, Consultant and Author of Future War: Preparing for the New Global Battlefield, USA
- Dr Robert Sadowski, Army Chief Roboticist, US Army Tank Automotive Research, Development and Engineering Center, USA

#### OR Breakout Session 2: Finding the Terrorist in Big and Small Data

*Moderator:* **Mr Cheong Chee Hoo**, Chief Executive Officer, DSO National Laboratories, Singapore Speakers include:

- Prof Anthony Finkelstein, Chief Scientific Adviser for National Security, UK
- Dr Kira Radinsky, Chief Scientist and Director of Data Science, eBay, Israel
- Prof Neil Robertson, Founding Chief Technology Officer, AnyVision; Professor of Research for Image and Vision Systems and Director of Research for Data Science and Scalable Computing, Queen's University of Belfast, UK
- Dr Wu Shuang, Scientist, Head of Research in Singapore and Silicon Valley, YITU Technology, People's Republic of China

#### OR Breakout Session 3: Forging a New Cyber Security Paradigm

*Moderator:* **Mr David Koh**, Deputy Secretary (Special Projects) and Defence Cyber Chief, Ministry of Defence; Chief Executive, Cyber Security Agency, Singapore

Speakers include:

- GEN(Ret) Keith Alexander, Founder and Chief Executive Officer, IronNet Cybersecurity, USA
- Mr Srinivasan CR, Chief Digital Officer, Tata Communications, India
- Prof Stuart Madnick, John Norris Maguire Professor of Information Technologies, MIT Sloan School of Management and Professor of Engineering Systems, MIT School of Engineering; Founding Director of MIT's Interdisciplinary Consortium for Improving Critical Infrastructure Cybersecurity, USA
- Mr Hudi Zack, Chief Executive Director, Technology Unit, Israel National Cyber Directorate, Israel

#### 1100hrs Tea Break

#### **1130hrs** Summary Plenary

*Moderator:* Dr Linton Wells II, Former Acting Assistant Secretary of Defense and Department of Defense Chief Information Officer, USA

Panellists include:

- Mr Peter Ho, Senior Advisor, Centre for Strategic Futures, Prime Minister's Office, Singapore
- Mr Frank Kendall, Former Under Secretary of Defense (Acquisition, Technology and Logistics), USA
- Mr Rafi Maor, Former Chairman of Israel Aerospace Industries, Israel
- Dr Thomas Philbeck, Head of Science and Technology Studies, World Economic Forum, Switzerland

#### 1300hrs Lunch

#### 1430hrs Site Visits (Choice of one)

- Campus for Research Excellence and Technological Enterprise (CREATE)
- DSO National Laboratories
- Littoral Mission Vessel
- Port Operations Control Centre
- Singtel's Future Now Innovation Centre
- Smart Airbase of the Future
- ST Engineering
- Woodlands Checkpoint

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