

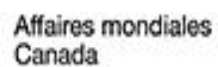
# AGENDA

## TECHNOLOGY RISK SUPERVISION

MAY 26-31, 2019  
ARMENIA, DILIJAN



Program Funded By:



## DAY 0 SUNDAY, MAY 26

### Networking tour

## DAY 1 MONDAY, MAY 27

- 09:00 – **Introduction/Opening Remarks**  
09:30 *Senior Official from Central Bank of Armenia*  
*Hooi Eng Phang from Toronto Centre*  
*Group Photo*
- 09:30 – **Overview of Technology Risks**  
10:30 *Abhilash Bhachech*  
Background on the significance, origin and impact of technology risks in financial services industries; characteristics of supervisory approaches for assessment of technology risks and international supervisory practices.
- 10:30 – BREAK  
10:45
- 10:45 – **IT Governance & Management**  
12:30 *Abhilash Bhachech*  
Overview of IT Governance; its relevance in context of Board and Senior Management roles in oversight of technology risks; and supervisory approaches in assessment of IT Governance practices.
- 12:30 – LUNCH  
13:30
- 13:30 – **Case Study: Failure of IT Governance (Insurance Co)**  
15:15 *Abhilash Bhachech*
- 15:15 – BREAK  
15:30
- 15:30 – **Information Security**  
17:30 *Nai Seng Wong*  
Broader concepts and coverage of “information” security risks - Availability, Integrity and Confidentiality; and cyber-security threats and vulnerabilities
- 15:30 **END OF DAY**

## DAY 2 TUESDAY, MAY 28

- 09:00 – **Ideas I Will Use**  
09:15 *Hooi Eng Phang*
- 09:15 – **Types of Cyber security attacks and steps to avoid them**  
10:30 *Nai Seng Wong*  
*Discussion of common cyber attacks, attack vectors and how to counter these threats and vulnerabilities.*
- 10:30 – **BREAK**  
10:45
- 10:45 – **Cyber Risks: An Assessment Approach**  
12:30 *Abhilash Bhachech*  
Outline of a supervisory assessment approach to identify the cyber risks and risk management practices in regulated entities.
- 12:30 – **LUNCH**  
13:30
- 13:30 – **Case Study: Information Security Breach (Grand Bank)**  
15:15 *Abhilash Bhachech*
- 15:15 – **BREAK**  
15:30
- 15:30 – **Classroom Discussion: Major IT Security Breaches and Process Failures**  
17:30 *Nai Seng Wong/Abhilash Bhachech*  
Includes discussions on RBS WorldPay, Heartland, etc. and some more recent cybersecurity breach incidents
- 17:30 **END OF DAY**

## DAY 3 WEDNESDAY, MAY 29

- 09:00 – **Ideas I Will Use**  
09:15 *Hooi Eng Phang*
- 09:15 – **Outsourcing & Third-Party Dependency**  
10:30 *Nai Seng Wong*  
Presentation on prevalence of outsourcing of technology services in financial services; risks underlying dependencies on third-party service provisions; and current international supervisory experiences.
- 10:30 – **BREAK**  
10:45
- 10:45 – **Case Study: IT Infrastructure Failure (Natwest/RBS)**  
12:30 *Abhilash Bhachech*
- 12:30 – **LUNCH**  
13:30
- 13:30 – **Emerging Technology Trends & Risk Exposures**  
15:15 *Nai Seng Wong/Abhilash Bhachech*  
Emergence of FinTech and associated technology risks in financial services; focus on selected emerging technology trends, risk exposures and supervisory approaches.
- 15:15 – **BREAK**  
15:30
- 15:30 – **Distributed ledger technologies: use of blockchain with and without crypto-assets**  
17:30 *Nai Seng Wong*  
Introduction to distributed ledger technology, applications in financial services, and associated challenges and risks.
- 17:30 **END OF DAY**

## DAY 4 THURSDAY, MAY 30

- 09:00 – **Ideas I Will Use**  
09:15 *Hooi Eng Phang*
- 09:15 – **Regulation of crypto-assets**  
10:30 *Abhilash Bhachech*  
Current and emerging international regulatory practices for oversight of generation and distribution of crypto-assets in financial services industries.
- 10:30 – **BREAK**  
10:45
- 10:45 – **Overview of RegTech and SupTech**  
12:30 *Nai Seng Wong/Abhilash Bhachech*  
Evolution of RegTech and SupTech following the spread of FinTech applications; current scope, emerging SupTech practices and challenges.
- 12:30 – **LUNCH**  
13:30
- 13:30 – **Enhancing Technology Supervision**  
15:15 *Abhilash Bhachech*  
A wrap-up of lessons learnt in the Technology Risk Supervision program and deploying building blocks for supervision of technology risks.
- 15:15 – **BREAK**  
15:30
- 15:30 – **Case Study: Bangladesh Central Bank Heist**  
17:30 *Abhilash Bhachech/Nai Seng Wong*
- 17:30 **END OF DAY**

## DAY 5 FRIDAY, MAY 31

- 09:00 – **Ideas I Will Use**  
09:15 *Hooi Eng Phang*

09:15 – **Panel Discussion & Participant Q&A**  
11:00 *Nai Seng Wong/Abhilash Bhachech*

11:00 – **BREAK**  
11:15

11:15 – **Final Evaluation, Presentation of Certificate and Closing Ceremony**  
12 :30

12:30 **FAREWELL LUNCH**

## PROGRAM LEADER BIOGRAPHIES (IN ALPHABETICAL ORDER)

**Abhilash Bhachech** recently completed his assignment as the Inspector of Banks & Trust Companies with the Central Bank of The Bahamas, based in Nassau, Bahamas. In his role as the Inspector, Abhilash headed the Bank Supervision function in this significant international finance centre with more than 250 financial institutions comprising banks, trusts and credit unions. Currently, Abhilash is engaged in short-term advisory assignments in institutional strategies and international regulatory development work for World Bank, IMF and Toronto Centre.

Prior to assuming the role of the Inspector of Banks & Trust Companies in Feb. 2012, Abhilash was the Managing Director – Risk Measurement and Analytics Assessment Services - in the Office of the Superintendent of Financial Institutions (OSFI) in Canada and overseeing the risk measurement and analytics processes in financial institutions and approval of capital attribution models. Earlier, Abhilash headed OSFI's "Operational Risk & Capital Assessment Services" and in this capacity, headed supervision of operational and technology risks in Canadian financial services industry and implementation of Basel Accord in this context. Abhilash also represented OSFI at the SIG Operational Risk Group (SIGOR) under the auspices of Basel Committee on Banking Supervision for over 6 years.

**Hooi Eng Phang** is Special Advisor at the Toronto Centre. Her work includes advising and assisting the CEO in the design and implementation of leadership programs as well as strategy development, project planning and overseeing the quality of program delivery. Before joining the Toronto Centre, she was the Executive Director responsible for 12 countries in the South-East Asia Voting Group at the International Monetary Fund. Prior to that, she was the Senior Director of the Economics Department of Bank Negara Malaysia, where she worked since 1984. Besides policy-oriented research work at the Economics Department, her experience included a two-year stint at the HR Development Centre where she was responsible for the conduct, design and budgeting of training courses for BNM staff. Hooi Eng has also worked as an Education Officer in Malaysia and a Consultant for the United Nations Economic and Social Commission for Asia and the Pacific in Bangkok, Thailand.

**Nai Seng Wong** is Executive Director at Deloitte's Risk Advisory practice. Prior to joining Deloitte, he was Assistant Managing Director of the Monetary Authority of Singapore. In that role, he oversaw technology risk and payments supervision, prudential policy formulation and macroprudential surveillance. During his more than 20 years' experience in MAS, Nai Seng held various leadership positions in banking supervision, strategic planning, macroprudential surveillance, prudential policy and corporate finance. He also contributed to the work of international and regional regulatory bodies like the Basel Committee on Banking Supervision, Financial Stability Board and the Executive Meeting of Asia-Pacific Central Banks. He teaches Financial Regulation at the National University of Singapore Business School.