

WEBINAR SERIES

### COVID-19 Response

# Lessons from Asian Countries, including Digital Interventions



## WEBINAR: Digital Opportunities in the COVID 19 Crisis —The Case of the Republic of Korea

22 April 2020, 3:30-5:00 p.m. (UTC+8)

This seminar is organized by SDCC-DT in collaboration with Health Sector Group as well as Urban Sector Group to share Korean experiences on the use of digital technology in combatting COVID-19. In particular, the importance of universal health coverage and the national big data platform to contain the infectious diseases with high transmission rate such as COVID-19 will be discussed. Multiple government agencies in Korea supported to organize this seminar including the Ministry of Land, Infrastructure and Transport, the National Information and Society Agency, and the Korea Health Industry Development Institute.

#### Presentation 1: Use of Digital Technologies to 'flatten the COVID-19 curve'



**Prof. Tai Myoung Chung** has been a faculty member of the College of Computing at Sungkyunkwan University in the Republic of Korea, since 1995, where he directs the Information Management Technology Laboratory. His research interests focus on information security, security and information management, digital therapeutics, and services in next-generation network environments. His research started as a staff scientist of the network technology department at Bolt Beranek & Newman Labs., USA.

He received his Ph.D. in Computer Engineering from Purdue University. He has published 10 technical books and over 500 refereed research papers. He has served as technical program chair of several domestic & international conferences and workshops, such as APNOMS, ICAT, IT21, UNESCAP conferences.

He has been the chairman of the Advisory Committee for National Cybersafety of the National Police Agency; a board member of the National Information Agency; the president of the Chief Privacy Officers' Forum; an advisory committee member of Korea e-Government; a member of the Information Strategy Planning Committee; and a news commentator of KBS. He also participated in Cyberspace Conference as the chair of advisory committee, participated in ITU-PP14 as an advisory committee member, and served as the moderator for the ministerial meetings of World Information and Communications Summit (WICS) for 7 years.

He also served as vice chair of the Working Party on Security and Privacy in Digital Economy (formerly Information Security & Privacy), OECD, for 10 years; the president of Korea Information Processing Society; a member of Presidential Advisory Committee on e-government; and an expert member of Presidential Advisory Committee on Science and Technology. Also, he has held several positions related to his professional career, including

senior member of IEEE; polity evaluation committee member of Ministry of Knowledge and Economics; and the CEO of Silvernet-News.

He has been granted second degree decoration from the government of the Republic of Korea in 2007, awards from the Prime Minister of Korea, and from the director of National Intelligence Service.

#### **Summary of Presentation**

The world has been suffering from the tragedy of the century, COVID-19, and fighting to overcome the disaster for five months already. The Republic of Korea is one of the countries successfully managing it. Prof. Chung will introduce how the Republic of Korea used information and communication technologies to flatten the COVID-19 curve. He will explain how some applications and services have been developed and applied. In particular, the contribution of the national infrastructure and collaboration of public and private sectors will be emphasized with important role of the government as a leader.

Presentation 2: COVID-19 Smart Management System—Epidemic investigation support system in the Republic of Korea



**Dr. Sanghoon Lee** is a Managing Director of the Korea Agency for Infrastructure Technology Advancement. He is responsible for overseeing the international cooperation on the Epidemic Investigation Support System for COVID-19, which was developed in close coordination with 28 agencies, including the Ministry of Land, Infrastructure and Transport (MOLIT), and the Korea Center for Disease Control and Prevention. He was the former Director General for East-West-South Coastal Area Development in MOLIT and has intensive experience in the urban sector, covering urban policy and planning, as well as real estate development for the last 20 years. He holds

bachelor's and master's degrees in Sociology at University of Lumiere Lyon 2, France and PhD in Urban Planning and Engineering at Yonsei University.



**Ms. Jihye Hyun** is a program manager of Sustainability Management Unit at Korea Telecom. Her recent activities involve extensive partnerships with multilateral development banks. She is Korea Telecom's focal person on international cooperation, liaising with the Ministry of Science and ICT, Ministry of Health, Ministry of Economic and Finance, and Ministry of Health. Ms. Hyun's focus areas are health, environment, and ICT. She was a lead of an initiative, Global Epidemic Prevention Platform in Ghana. She organized and led the 4th United Nations Environment Assembly. She specializes in facilitating

partnerships with UN agencies in order to harness technologies in developing countries. Ms. Hyun's main research interests include sustainability, international development, private-public partnership, and ICT-based development solutions. Before she joined Korea Telecom, she worked at Morgan Stanley, Citibank, and IBM.

#### **Summary of Presentation**

As the number of confirmed cases of the novel coronavirus (COVID 19) increased in Korea, the need to digitize epidemic investigation activities (e.g. communications between agencies, exchanges of documents, digitization of handwritten documents, etc.), mandated under the Infectious Disease Control and Prevention Act became essential. In response to this demand, Ministry of Land, Infrastructure and Transport re-purposed the City Data Hub System, an urban data management platform, which is currently under

development as part of the national smart city program, to develop a data platform to provide real-time data feed on the confirmed cases through big data analysis to locate transmission routes and places, in close coordination with 28 agencies and companies involved in responding to COVID 19 crisis.

**Dr. Sanghoon Lee** will present how the Republic of Korea leveraged a big data platform developed under the National Smart City Program in managing the outbreak and discuss key policy, issues including privacy and coordination among stakeholders in introducing the national big data platform.

**Ms. Jihye Hyun** will discuss further key technical issues involved in developing the national big data platform and the potential collaboration and partnership with developing countries.

#### **DISCUSSANT**



**Dr. Soonman Kwon** is a professor and former dean of the School of Public Health, Seoul National University in the Republic of Korea. He has held visiting positions at the Harvard School of Public Health, London School of Economics, University of Toronto, Peking University, and the University of Bremen. He was the Chief of the Health Sector Group at the Asian Development Bank.

He is the founding director of the WHO Collaborating Centre for Health System and Financing. He is a board member of Health Systems Global and has been a member of advisory committees to the WHO Alliance for Health Policy and Systems Research, GAVI (Global Alliance for Vaccine and Immunization), and the WHO Centre for Health and Development. He is currently the president of the Korean Health Economic Association and has served as president of the Korean Association of Schools of Public Health and the Korean Gerontological Society. He holds a Ph.D. on Health Economics from Wharton School, University of Pennsylvania.

#### **MODERATOR**



**Mr. Thomas Abell** is leading ADB's Digital Technology for Development Unit, which is tasked with facilitating the effective use of digital technology in ADB programs to improve development impact.

He has over 20 years of professional experience in digital technology, including software development, systems architecture and technology strategy. During his 10+ years of experience in international development, he has worked extensively across Asia, Africa and Latin

America, working with governments, development organizations, NGOs and corporations. He has authored several publications on the use of technology in development with leading organizations, including Consultative Group to Assist the Poor, UN High Commissioner for Refugees, Cash Learning Partnership, and Mastercard.

Prior to ADB, he worked for Accenture Development Partnerships (ADP), leading ADP's programs in Digital Technology for Development and Financial Inclusion. He has specific development expertise in financial inclusion, education, and agriculture. Prior to joining Accenture in 2005, he served various management and technical roles in information technology and strategy for large multinationals, including Hewlett Packard, Motorola, and Ford Motor Company.

He is an American national and holds a Master of Science degree from the Sloan School of Management, Massachusetts Institute of Technology (MIT); a Master of Science from the

Department of Materials Science & Engineering, MIT; a Master of Science from the Department of Mechanical Engineering, MIT; and holds a Bachelor of Science degree from the Department of Mechanical Engineering degree from MIT.