

Factsheet

IMDA and NRF Invests Close to S\$70 Million to Enhance Singapore's Communications & Connectivity Capabilities and Seize Future Opportunities

Background

The Infocomm Media Development Authority (IMDA) and National Research Foundation Singapore (NRF) are investing close to **S\$70 million (US\$50 million)** to support cutting-edge communications and connectivity research. This grows local capability to translate¹ communications and connectivity research into innovative products, services and companies.

This first national Future Communications Research & Development Programme (FCP) is hosted by the Singapore University of Technology and Design (SUTD), and comprises:

- Development of a Connectivity Testbed@SUTD and a Translation Lab@SIT
- Grant calls for R&D and future communications technologies
- Support for local talent pursuing research in future communications technologies
- International Partnership for future communications technologies

The FCP is supported under Singapore's Research, Innovation and Enterprise (RIE) efforts, where Communications and Connectivity is one of the key technology areas in the Smart Nation and Digital Economy (SNDE) domain. The FCP will coordinate multidisciplinary research efforts across the RIE ecosystem, with Research Institutes (RIs), Institutes of Higher Learning (IHLs) and other RIE efforts.

As host institution, SUTD will lead collaboration across the Singapore ecosystem - Agency for Science, Technology and Research (A*STAR), Nanyang Technological University, Singapore (NTU), National University of Singapore (NUS), and Singapore Institute of Technology (SIT).

The FCP will bolster Singapore's effort for the next bound, further strengthening our research community's capabilities in this area.

Connectivity Testbed@SUTD

SUTD is primed to accelerate the development of innovative technologies through the new Connectivity Testbed@SUTD. The software-defined, modular, reconfigurable R&D testbed will facilitate targeted research on future generations of communications technologies, as well as validate technologies and IPs developed in this programme.

¹ Translational research seeks to produce more meaningful, applicable results. Translation refers to the development of research ideas into market-ready solutions.

Translation Lab@SIT

The Translation Lab@SIT will facilitate industry adoption of nascent technologies. This includes development of enhanced applications tapping on mobile communications and translating future comms technologies into market-ready solutions. Set to open in end-2021 at SIT@Dover, the lab will support translation work in four technology domains – Artificial Intelligence (AI), Augmented Reality & Virtual Reality (AR/VR), Robotics and the Internet-of-Things (IoT). This includes facilitating the broader adoption of such technologies by Small and Medium Enterprises (SMEs).

Grant Calls for Future Communications Technologies

Grant calls will be issued by SUTD for both research and translation efforts that will focus on Connectivity, Edge Computing & Intelligence, Security, and Hardware. The programme aims to encourage use of research to solve global industry challenges and push demand led research outcomes towards products for the industry. Submission from RIs and IHLs are strongly encouraged to have identified industry and or public agency partners.

Building a Pipeline of Singaporean Talent

The FCP will support Masters-level scholarships for local students to pursue research and translation projects in future communications technologies, from 2021 to 2024. This is open to both individuals aiming to deepen their expertise, as well as sponsored employees, to support the strengthening of innovation capacity in companies.

International Collaborations on 6G

FCP will collaborate with international organisations and other countries by participating in activities such as 3rd Generation Partnership Project (3GPP²) standardisation, IEEE³ standardisation, as well as events and initiatives held by international consortia such as the Next Generation Mobile Networks Alliance and Industrial Internet Consortium. This aims to provide greater visibility of FCP research outcomes and, bring together resources, data, and talent worldwide to work on FCP projects.

Under the FCP programme, a Memorandum of Understanding ("**MOU**") with 6G Flagship, a partnership with the University of Oulu, Finland, has been signed. Through the MOU, the parties will explore cooperation opportunities, such as organising 6G workshops, joint research and/or educational projects between the researchers of both institutes.

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² The 3rd Generation Partnership Project (3GPP) refers to a group of standards organisations which develop protocols for mobile telecommunications.

³ The Institute of Electrical and Electronics Engineers Standards Association (IEEE SA) is an Operating Unit within IEEE that develops global standards in a broad range of industries, including: artificial intelligence systems, internet of things, consumer technology and consumer electronics, information technology and robotics, telecommunication and home automation, emerging technologies, and many more.

About Infocomm Media Development Authority (IMDA)

The Infocomm Media Development Authority (IMDA) leads Singapore's digital transformation with infocomm media. To do this, IMDA will develop a dynamic digital economy and a cohesive digital society, driven by an exceptional infocomm media (ICM) ecosystem – by developing talent, strengthening business capabilities, and enhancing Singapore's ICM infrastructure. IMDA also regulates the telecommunications and media sectors to safeguard consumer interests while fostering a pro-business environment and enhances Singapore's data protection regime through the Personal Data Protection Commission.

For more news and information, visit www.imda.gov.sg or follow IMDA on Facebook IMDAsg and Twitter @IMDAsg.

About National Research Foundation

The National Research Foundation (NRF) is a department within the Prime Minister's Office. The NRF sets the national direction for research, innovation and enterprise (RIE) in Singapore. It seeks to invest in science, technology and engineering, build up the technological capacity of our companies, encourage innovation by industry to exploit new opportunities that drive economic growth, and facilitate public-private partnerships to address national challenges.

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