





SILVESTER PRAKASAM

Senior Advisor, Fare Systems

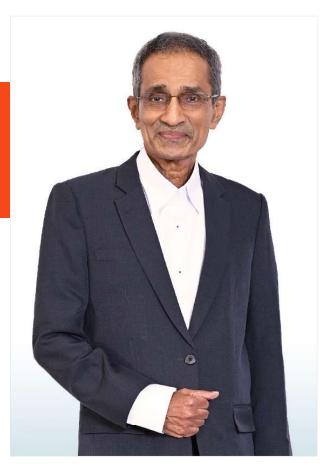
Mr Silvester Prakasam has more than 20 years of experience in the development of automatic fare collection for transit railway and public bus system.

In the 1990s, he spearheaded the development of the Integrated Ticketing System that enabled commuters to use a single stored value farecard to travel within the public transport network that includes buses and trains seamlessly.

Since 1994 he initiated the conceptualisation of a contactless smart card ticket for public transport and was deeply involved in the shaping the smart card based ticket that is more commonly known today as the ez-link card. He was subsequently appointed Project Director in 1999 for the implementation, of a contactless card environment for the Public Transport in Singapore. This project also implemented the Clearinghouse and card manager system for the ez-link card.

After having implemented the contactless smart card system, Mr Prakasam was asked to manage Ez-link Pte Ltd, the company that managed the issuing of 7 million ez-link cards in Singapore which he undertook till the company was appropriately set up.

Moving on from the successful implementation of the ez-link card, he led his team to jointly develop, with the Inforcomm Development Authority of Singaporean leading card suppliers, a new standard within Singapore for common e-purse applications (CEPAS). This standard was officially launched in 2006 and adopted for public transport ticketing and retailers for electronic payment.



Subsequently he led a team that implemented an open system to merge payments for Public Transport and congestion pricing based on CEPAS The system known as SeP (Symphony for e-Payments) was launched in January 2009 and successfully cut-over on 1st October 2009. His team then went on to introduce a new fare structure called Distance Fares which was launched in July 2010.

He is actively involved in various National Committees in the promotion of e-payments and related standards.

Having accumulated vast technical and management experience and knowledge in fare collection and electronic payment system, Mr Prakasam is well respected in the industry and has been invited to share his knowledge in many regional and international seminars and conferences.



DEBORAH WONG

Senior Vice-President, Digital Mobility Solutions

Ms Deborah Wong has over 30 years of experience in Automatic Fare Collections System Development in Singapore. She played key roles in the evolution of AFC system for Public Transport in Singapore spanning ITS, EIFS, SeP and ABT(SimplyGo).



In the early years, her groundwork on 'Lo-C to 'Hi-C' magnetic tickets facilitated the introduction of Integrated Ticketing System where interoperability for the bus and train was achieved. Subsequently under her leadership. the in-house development team was built up to architect, design, develop and deploy for mega AFC projects, most notably the SeP (Symphony are for ePayment) based on CEPAS (Singapore Contactless ePayment Application Standard) and SimplyGo (Account-based Ticketing) where new schemes like VISA and Mastercard are being accepted for fare payment in Singapore Public Transport.

She continues to lead the system development team in new areas like Facial Recognition, MaaS, mobile ticketing, etc.



Charles Lee

Senior Vice-President, Corporate Services

> Charles has about 30 years of experience in the management of corporate services functions like finance, human resources, information technology, and general administration, across a variety of industries like media & print, aerospace, oil & gas, electronics, information technology, and public service, both within Singapore and on regional basis.

He holds a MSc in CFO Leadership and a BA in Business Administration (Accounting major), and was awarded the Public Administration Medal (Bronze).





Mak Weng Cheong

Senior Vice-President, Legal Advisory, Procurement & Contacts Management

Mr. Mak Weng Cheong has over 40 years of experience in procurement, contracts administration and other roles relating to engineering projects.

Mr. Mak has qualifications in both Engineering and Law.



Mr. Mak has over 37 years of experience in the procurement and administration of Electrical and Mechanical (E&M) contracts relating to land transportation systems, including automatic fare collection (AFC) system. Prior to his roles in procurement and contracts administration, Mr. Mak had 6 years of working experience in various roles in the engineering field, including design, project management and maintenance.

Mr. Mak was involved with all MRT/LRT projects implemented by LTA since the launch of Singapore's first MRT project in 1983. Notable experience include:

- The North-East Line (NEL) project the world's first fully automated driverless metro.
- Migration of Singapore's integrated AFC system for public transport - (a) first from a magnetic contact card system to a contactless card system, and (b) subsequently from a fully contactless card system to an Account Based Ticketing system (ABT).

- The Circle Line (CCL) project the first and only LTA's transit project for which the core E&M systems were procured through a single contract package.
- Re-signalling of the North-South/East West Line - replacement of a fixed block signaling system with a Communication Based Train Control system (CBTC).

Mr. Mak also has extensive experience with road related projects such as the Electronic Road Pricing system (ERP), Expressways Monitoring & Advisory System (EMAS), Intelligent Transport/Traffic Light Control System, Bus Arrival Information System and Traffic/Environmental Management System for underground expressways. Mr. Mak had played a major role in procuring Singapore's first batch of bus operation contracts through open tenders.

Mr. Mak has academic qualifications in Electrical Engineering, Systems Engineering, Law and Business Administration.



MELVYN THONG

Project Management Services Business Unit

> Mr Thong has over 30 years of experience in design, supervision and project management of electrical and mechanical installation for power plants, industrial, commercial, institutional, road and railway transit projects.

Over 20 years of experience in the design, supervision and project management of Power and Traction Power systems for Singapore Road and Rapid Transit Systems. He is experienced in the design development, implementation MRT Lines in Singapore such as Thomson East Coast Line (TEL), Downtown Line (DTL), etc.

Melvyn is now holding the post of Deputy Group Director Rail, E&M and concurrently hold the post of Director, Rail Services and Chief Specialist E&M (Power). He is also the Head of Project Management under MSI Global Pte Ltd (a wholly owned subsidiary of LTA) having oversights on overseas MRT developmental projects in Doha, Kuala Lumpur, Bangkok and Australia, etc.

Melvyn has been instrumental in building up engineering capabilities in traction power design within LTA. Under his leadership, LTA delivered their first in-house designed power supply system in DTL with the TEL currently being delivered.



He is also leading the team tasked with replacing the aging power supply system for Singapore's first MRT line build over 30 years ago that is currently ongoing. In his capacity of business unit head for project management under MSI, Melvyn has also recently led the team to successfully support MSI client to complete Qatar's first MRT network as Design Verification Engineers. As part of the Pioneer batch of Chartered Railway Engineer under the auspices of IES, he has been actively promoting professional recognition to the railway fraternity in Singapore.



YAP KWEE SENG

Systems Assurance / Integration Business Unit

Mr. Yap has over 23 years of experience in application of Reliability, Availability, Maintainability and Safety (RAMS) Analyses / Studies on various Rail Transit Systems in Singapore e.g. North East Line, Circle Line, Downtown Line, Thomson East Coast Line (Driverless metros), Changi Airport Line. He is also involved in the application of System Engineering and System Integration.

He pioneered the Safety Certification process for Rail Transit System and Road Systems in Singapore (Project Safety Review process) and assisted in the successful Safety Certification of various railway and road tunnel projects in Singapore. He has extensive knowledge in the management of Systems Assurance process for several modern MRT/LRT and road tunnel projects in Singapore.

Mr. Yap led in tender preparation and execution of various MSI overseas projects relating to Systems Integration/Systems Assurance/Electromagnetic Compatibility (EMC), including Dubai LRT project, Turkey Marmaray Project, Shanghai Metro Line 10, Doha Metro, Consultancy for HKMTRC on Driverless Operation, Consultancy for London Underground on System Engineering master plan and Human factor Integration, Copenhagen Metro tender document review, Kuala Lumpur Klang Valley MRT document review and



implementation of Operation Mode and Principles Document, Regulatory review for Macau Metro and Mauritius Metro and conducted training on Systems engineering to Pune Metro.