

ONLINE TRAINING PROGRAMME ON CONTACTLESS, MOBILE AND ACCOUNT-BASED TICKETING

27 October - 12 November 2020 - 3 Weeks

Ticketing is the key for public transport operators or authority to collect fares from the passengers. The technological advancements support the need of various tariff structures, electronic payment media transforming the classic paper tickets to contactless cards and smart phones, while opening up endless opportunities for data collection and analysis. While the passenger experience has simplified there are significant complexities at the backend. The challenge starts when one is trying to understand about closed-loop vs open-loop, card-centric vs system-centric, prepaid vs post-paid, account-based ticketing, open payment, SIM-centric mobile ticketing, Secure Element, HCE, interoperability, multiservice, beacons, NFC, QR code...and so on.

With the aim to improve operational efficiency and adapt to new challenges on fare management and ticketing, **this course aims to:**

- Understand, analyse and discuss available **ticketing systems and fare management trends**
- Give a worldwide overview of **practices and solutions** in ticketing
- Lay the basis of **tariff structures, pricing and fare policy**, essential to the design of a ticketing solution
- Detail the different **technologies and solutions** on the market
- Discuss the opportunities created by **account based and mobile ticketing** and learn from practice on their implementation
- Discuss implications for **Mobility as a Service (MaaS)**

Methodology

- Get inspired by trainers and practitioners, understanding the main aspects of ticketing and fare management systems
- Participate in interactive sessions with course leaders, trainers and have open discussion among participants
- Challenge your practical knowledge on ticketing and fare management
- Address the topic from an international perspective, enriched by different cultural approaches and points of views
- Participate in practical exercises and case studies
- Benefit from an unique exchange of knowledge and experience between professionals
- Exchange experiences and discuss key topics during workshops in smaller groups

Target audience

- Staff from public transport operators or authorities responsible for the ticketing systems
- Staff from the industry worldwide involved in the market uptake in this area: ITS companies, app-developers, software compilers.
- Professionals from operations, engineering, finance departments.
- Professionals interested in obtaining a wider and international perspective on ticketing and fare management and eager to learn more from best practice worldwide

Inspiring trainers & guest speakers

All UITP trainers are top level transport and mobility professionals with extensive experience in public transport and operations from different regions of the world. In addition, UITP invites guest speakers to illustrate specific solutions, practices and case studies.

Tuesday, 27th October 2020

10:00 Welcome & Introduction to the course

Lukas Kurzmann, Training Manager, Regional Training Centre Karlsruhe
Ozlem Tatar, Training Manager, UITP Academy

10:20 Session 1A: Ticketing and Tariff structures

Alok Jain, Managing Director, Trans-Consult, Hong Kong

- Fundamental objectives of fare collection
- Tariff structures, product range, fare levels, payment media
- Strategic issues, regulatory and Institutional frameworks
- Cost Coverage Ratio, Compensation and concessionary fares, Subvention, Funding Alternatives

10:50 Session 1B: Pricing and Fare policy

Alok Jain, Managing Director, Trans-Consult, Hong Kong

- Setting Fare Principles, Price Setting, Affordability, Equity, Fare Elasticity
- Fare Adjustment Mechanisms, Fare Adjustment Formula
- Ticket & Fare integration, Revenue Distribution
- Fare Products, Fare capping, Frequency-based discounts, Mileage service, Sales channels incentives, Time-of-day pricing, Minus ride system
- Fare avoidance and fare evasion (Can be a separate session covering different types of fare avoidance and evasion, and strategies to control them; psychology of fare evasion; revenue control mechanisms)
- Fare-free Public Transport Ticketing

11:20 Exercise hand out

Lukas Kurzmann, Training Manager, Regional Training Centre Karlsruhe

11:30 End of Day 1

Wednesday, 28th October 2020

10:00 Session 2A: Electronic ticketing: solutions, technologies & usage

Suvi Schwab, Regional Director Asia, INIT

- Traditional ticketing
- Traditional ticketing products
- Challenges in traditional ticketing
- Requirements from ticketing
- Open or closed systems, account-based ticketing, EMV, ...
- ID-based / account-based ticketing
- EMV contactless transit payments
- Integration of third parties
- Trends of ticketing

10:45 Session 2B: The Hong Kong case study

Alok Jain, Managing Director, Trans-Consult, Hong Kong

Hong Kong introduced Octopus cards in 1998, world's first contactless smartcard ticketing system for public transport. Since then it has evolved into a lifestyle product and remains among the most used and pervasive ticketing system in the world. This session will cover –

- History and evolution of Octopus
- Role in transforming travel experience in Hong Kong
- Going beyond mobility to a lifestyle product
- Current characteristics and usage patterns
- Future directions

11:30 End of Day 2

Thursday, 29th October 2020

10:00 Session 3A: Benefit of open-payments in Public Transportation

Rita Okcuoglu, Senior Account Manager, MasterCard

Solutions can be applicable for different infrastructure and size of agencies,
Case studies around the globe.

10:45 Session 3B: Mobile ticketing

Alok Jain, Managing Director, Trans-Consult, Hong Kong

- Technologies packed in to an average mobile phone and its computational capabilities
- Introduction to SMS, NFC, be-in/be-out, BLE beacons, Li-fi, QR code
- Can mobile ticketing provide legacy leap solution to public transport ticketing?
- Pros and cons of adopting mobile ticketing
- Real examples from around the world

11:30 End of Day 3

Monday, 2nd November 2020

10:00 Session 4A: Interoperability and International Ticketing Alliances

Paul Gwynn, International Business Development Director, INIT, Germany

The development of interoperable smart ticketing is supported by several initiatives at national, European and international levels. This session will provide a short overview of the proposed solutions followed by a discussion on the main challenges.

10:45 Session 4B: Best practices for contactless ticketing system

Elena Gaetini, Senior Account Manager Mobility Solutions, SIA SpA

11:30 End of Day 4

Wednesday, 4th November 2020

- 10:00** **Session 5A: Account-based ticketing: Concept and Migration Scenarios**
Paul Gwynn, International Business Development Director, INIT, Germany
- Concept of Account-based Ticketing
 - Advantages of account-based ticketing (system/infrastructure design; operational advantage and customer service advantages)
 - ABT as a way to enhance revenue yield from customers while providing more fulfilment to their lifestyle (a Customer relationship management CRM tool)
 - Current practices around the world
 - Migrating from a traditional ticketing to ABT
- 10:45** **Session 5B: Account based ticketing: From scratch or migration, using mobile and contactless as media**
Ufuk Demir Alan, Technical Business Development Director, Kentkart
- 11:15** **Session 5C: Why transport authorities and operators are delivering ABT, mobile ticketing and MaaS using 'as-a-service' platforms**
Elizabeth Palit, Senior Product Manager, Masabi
- Public transport has been held back by bespoke ticketing systems which are expensive, slow to deploy and lock out innovation. This session will highlight how Fare Payments-as-a-Service is being embraced by transport authorities and operators around the world, helping them keep up with the pace of technology change while reducing the total cost of fare collection, meaning more money can be put back into running transport services, making it easier for passengers to discover, access and ride.
- 11:45** End of Day 5

Tuesday, 10th November 2020**10:00 Session 6A: Contactless transit mobile ticketing, the latest insights**

Louis BROSSE, CEO, Wizway Solutions, Paris, France

Since many years, closed loop contactless transit cards have provided the best customer experience for transit: safe, secure, simple. Now technology makes it possible for smartphones to offer the same experience, with the advantages of digital tools. Learn from examples in France and elsewhere how this solution perfectly fits into the post-COVID requirements

11:00 Session 6B: Contactless and mobile ticketing in City of Turku

Pihlava Topias, Development Manager, Turko Finland

11:45 End of Day 6

Thursday, 12th November 2020**10:00 Session 7: Best practices for contactless ticketing system**

Paul Gwynn, International Business Development Director, INIT, Germany

10:45 Presentations of exercise & Conclusion

11:45 End of Day 7

**UITP reserves the right to make amendments to the programme or any related activity at its discretion*

PROFILES OF TRAINERS

Alok Jain, former D. Operations Director of KMB Hong Kong and General Manager-Marketing of MTR Corporation, and presently Managing Director, Trans-Consult, Hong Kong



Alok is the Managing Director of Trans-consult Asia, a boutique management- consulting firm, with offices in Hong Kong and India, specializing in Traffic and Transport advisory services. From June 2013 to December 2016, Alok was Deputy Operations Director of The Kowloon Motor Bus Co. (1933) Ltd. (KMB), and led the strategy and planning for improving efficiency, instilling process management, and restructuring the network. His portfolio also included all the ticketing and fare related aspects. He spearheaded the R&D work on the implementation of new technology and SMART mobility.

Prior to KMB, he was Director of Trans-consult Asia Ltd., Hong Kong, and MVA Asia Ltd., Hong Kong, and led the design and planning of many large-scale transport infrastructure projects in South-Asian region. Alok earlier worked for MTR Corporation / KCR Corporation, Hong Kong for 12 years. In his last position as General Manager-Marketing, he was heading the Marketing Department, accountable for meeting revenue targets and developing business strategies for pricing, ticketing, railway service planning, advertising, promotion and passenger communications. He has also worked in the areas of railway/metro project planning and management, operations planning, testing and commissioning of new lines, revenue management, financial appraisals, and strategic planning, and been part of many metro benchmarking studies as a part of his involvement with UITP and COMET/NOVA. Alok played an active role in a number of other business organizations and worked in many countries in a career spanning over 25 years. With several publications to his credit including contribution to a book on best practices in railways operations and management, he is a regular speaker on multi-modal integration, public transport operations & management, SMART mobility, and clean vehicle technologies. He is an Assistant Professor (part-time) at University of Hong Kong, and serves as a Member in Transport Policy Committee of the Chartered Institute of Logistics and Transport in Hong Kong.

Rita Okcuoglu, Director, Business Development Global Cities Mastercard, Brussels, Belgium



Rita is Director Global Business Development – Mastercard Enterprise Partnerships and is responsible for bringing Mastercard's existing assets; our network, data analytics, products and solutions to bear in areas outside of Mastercard's traditional domain with a major focus on Urban Mobility/Transit. Within her role Rita is responsible for translating Mastercard's global emerging payment technology and data analytics in order to transform consumer experience and deliver solutions that address the challenges faced by Urban Mobility space. Rita has been with Mastercard more than 14 years and has held a number of Sales, Country management and BD positions covering different geographies.

Rita currently lives in Brussels, Belgium where Mastercard European HQ is located.

Ufuk Demir Alan, Technical Business Development Manager Kentkart



Ufuk Demir Alan, PhD is currently working as Technical Business Development Manager at Kentkart since 2014. Prior, she was working as Software Team Leader at the same company. Between 2005-2007, she was a research associate at Dokuz Eylül University Department of Computer Engineering.

She has played a part in various R&D projects in the field of public transport and continues to do so. Her areas of expertise include chip cards, card technologies, server-based systems, account-based ticketing, next-generation contactless payment and security technologies. She has been active in the sector for 14 years

She graduated from Dokuz Eylül University Department of Computer Engineering in 2005. She did her master's degree in 2007 at the same department and did her doctorate in 2018 at Institute of Science Department of Computer Engineering DEU. Her doctoral thesis was based on server-based fee collection in public transport and account management. She has had various articles and statements published in local and foreign scientific magazines.

Paul Gwynn, International Business Development Director INIT Group



Paul is currently International Business Development Director at INIT GmbH, HQ in Karlsruhe. INIT is the German based leading supplier of integrated telematics and ticketing solutions for more than 700 public transport organizations worldwide.

Paul is originally an electronics engineer, has a 45 year career in military and civilian technologies, the last 20 years in helping people to use Public Transport. Projects in London, Dublin, Nottingham, Pilzen Portland, New York, Hong Kong, Singapore, Australia & New Zealand.

Paul is a long serving member of (15 years) the UITP, he's chaired the technology committee, been member of the Policy Board. He currently chairs the UITP Cyber Security working group; which is developing UITP strategy and a working cyber framework for members.

Paul is a well-known speaker on Public Transport Technology issues at UITP, American Public Transport Association (APTA), Bus and Coach Association (NZ), Bus Industry Confederation Australia, Asia-Pacific Rail and various technology and education events globally.

Elizabeth Palit, Senior Product Manager at Masabi



Elizabeth Palit, Senior Product Manager at Masabi, builds cutting edge Fare Payments as a Service technology that benefits millions of people across the globe. Her background is rooted in software having worked in tech companies serving a variety of industries for more than a decade. At Masabi, she works closely with transport authorities worldwide to ensure the products and features provided by Masabi's Fare Payments as a Service technology continue to satisfy and exceed customer expectations.

Suvi SCHWAB, Regional Director, INIT Asia-Pacific Pte Ltd.



Suvi has more than 10 years of experience in working with Public Transport and technology. After finishing her Master of Science degree in Economics and Business Administration from Turku School of Economics, Finland she joined INIT – the worldwide leading supplier of fare collection and integrated telematics solutions for public transport. She started in the company's HQ in Germany and since 2013 Suvi is based in Singapore. She is the Regional Director for INIT Asia-Pacific looking after the Asian market. Suvi has extensive experience working with several types of Public Transport ITS topics including Inclusive Public Transport, Electromobility, Fare Collection, Passenger Counting, Mobility-as-a-Service, Scheduling & Dispatching and Fleet Management. She is also very active in social media writing articles and sharing about Public Transport. In 2020 Suvi was elected to the Council of ITS Singapore.

Louis Brosse, CEO, Wizway Solutions - Mobile Ticketing



With more than 20 years' experience with board responsibilities in transport, m-commerce and IT, mostly within SNCF group, Louis has always focused on customer satisfaction as the key success factor: he developed train digital sales to the 3Bn€ mark in France. launched one of the most downloaded mobile apps for travel in Europe, and implemented successful customer relation & IT projects. Louis heads Wizway Solutions since its creation in early 2016, providing transport operators with a unique SaaS offering for NFC mobile ticketing.

Louis holds a Master in Management and a MSc from EDHEC Grande Ecole in Lille, France.

Elena Gaetini, Head of Sales & Client Support at SIA S.p.A. - Capital Markets



Elena Gaetini is a Senior Account Manager at SIA SpA in the Public Sector, in this space she focuses on exporting the Italian model abroad and looking for new opportunities around the globe.

Elena Joined SIA in 2017 in the Capital Markets team, prior to which she lived abroad for 24 years in Paris and London. She started her career at Euronext in Paris before moving to London as Director of Public Affairs for Europe with the NY Company Depository and Trust Clearing Cooperation (DTCC).

A long time ago (!) she earned masters degrees at Harvard and University of Paris X; today her interest is Transit were she believes there is still a lot to do to improve the traveller's experience and therefore improving their everyday life.

Pihlava Topias, Development Manager, Turko Finland



Topias Pihlava is responsible for the Regional Public Transport development in the city of Turku region. His focus is especially in new developments, such as public transport ticketing development, electric busses, MaaS services and sustainable modes of transport. These projects have introduced for example electric busses, city bikeshare system, MaaS, co-operation and contactless payments in public transport.

Mr. Pihlava has been developing and leading several projects such as ID-based ticketing development activities, contactless payment project, public transport traffic signal priority deployment and many different co-operation projects of ticketing sales API implementation. The knowhow areas include development of new services for the public transport users, project management, co-operation with different collaboration parties and communication activities. Mr. Pihlava is experienced in the strategic management, planning, leadership and communication. He is skilled in leading several demanding projects at the same time with ambitious timetables.