

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

18 May - 2 June 2021 - 3 Weeks

Ticketing is the key for public transport operators or authority to collect fare from the passengers. Nowadays, the increasing use of technology supports the need of various fare types, payment method transforming from classic paper tickets to contactless cards and smart phones, while opening up endless opportunities for data collection and analysis. The challenge starts with 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, **the course aims at:**

- Understand, analyse and discuss available **ticketing systems and fare management trends**
- Giving 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
- Detailing 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

- Getting inspired by trainers, understanding the main aspects of ticketing and fare management systems
- Participate to interactive plenary sessions with introduction by course leaders, presentation by the trainer and open discussion with 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 to practical exercises and case studies
- Benefit from a 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, 18th May 2021

10:00 **Welcome & Introduction to the course**

10:20 **Session 1A: Ticketing and Tariff structures**

Guido BRUGGEMAN, Independent Senior Urban Transport Consultant

- 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

11:30 **Session 1B: Pricing and Fare policy**

Guido BRUGGEMAN, Independent Senior Urban Transport Consultant

- 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

12:30 End of Day 1

Wednesday, 19th May 2021

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

Paul Gwynn, International Business Development Director, INIT, Germany

- From paper ticketing to E-ticketing
- The technology: How does it work?
- Automated Fare Collection Systems, Smart Card Systems
- Advantages and disadvantages
- Open or closed systems
- Examples of check-in systems and check-in/check-out systems
- NFC, EMV, ID-based ticketing
- Account Based Ticketing, blockchain, mobile
- Interoperability / cross country / exchange rate etc.
- Ticketing Alliances

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

Guido BRUGGEMAN, Independent Senior Urban Transport Consultant

Hong Kong introduced Octopus cards in 1998, the 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.

- 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

12:00 End of Day 2

Thursday, 20th May 2021

10:00 **Session 3A: Mobile ticketing**

Jaspal SINGH, Senior Expert IT & Development Knowledge & Innovation

- 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

Tuesday, 25th May 2021

10:00 **Session 4A: Interoperability and International Ticketing Alliance**

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, Head of Sales and Client Support, SIA

12:00 End of Day 4

Wednesday, 26th May 2021

10:00 **Session 5A: Equitable revenue sharing with Mobility as a Service (MaaS) models**

Jaspal SINGH, Senior Expert IT & Development Knowledge & Innovation

- Investment and ownership models for opex and capex of ticketing systems
- Public-private-partnership models which are offering paradigm shift
- Ticketing as a service (TaaS) or Software as a service (SaaS) models that can transform the industry
- Revenue sharing models in a multi-stakeholder scenario
- Unlocking Mobility as a Service (MaaS)

11:00 **Session 5B: Check-In/Check-Out based on mobile: How Switzerland became the first country to implement a hardware-free nationwide automated ticketing solution**

Gian-Mattia SCHUCAN, Founder & CEO of FAIRTIQ Ltd., Berne, Switzerland

12:00 End of Day 5

Monday, 31st May 2021

10:00 **Session 6A: 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)

11:00 **Session 6B: Benefit of open-payments in Public Transportation**

Rita Okcuoglu, Senior Account Manager, MasterCard

Solutions can be applicable for different infrastructure and size of agencies, which are presented with some case studies all around the globe.

12:00 End of Day 6

Wednesday, 2nd June 2021

10:00 **Session 7: Account-based ticketing: Best practices for contactless ticketing system**

Paul Gwynn, International Business Development Director, INIT, Germany

- Current practices around the world
- Migrating from a traditional ticketing to ABT

11:30 End of training programme

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

Guido BRUGGEMAN

Independent Senior Urban Transport Consultant



Guido Bruggeman is a world-class international urban transport expert with 30 years experience in the urban transport sector. He started his career in 1980 at the Municipal Transport Company (GVB) in Amsterdam (Netherlands) and afterwards became an urban transport consultant. From 2000, he worked for 7 years as an Urban Transport Specialist at the European Bank of Reconstruction and Development (EBRD). Currently he is working as an independent urban transport consultant. He is an experienced project manager and team player with strong communication and interpersonal skills. Guido has hands-on experience in analysing and developing institutional and organisational frameworks for urban transport; scoping and preparation of Urban

Transport Investment Programmes within budget constraints; defining and managing Reform and Corporate Development Programs for transport operators and sustainable transport strategies. Broad knowledge of and experience with different kind of public transport modes (minibus, bus, BRT, trolleybus, electric bus, tram, light-rail, metro and regional bus and rail). He has worked in over more than 25 countries on urban transport projects.

Jaspal SINGH

Senior Expert IT & Development Knowledge & Innovation



Jaspal Singh, based in Toronto, Canada, is an urban mobility expert. He has more than 13 years of experience in management consultancy and working with Startups. He is currently working as Senior Expert – IT and Development and responsible for startups initiative at UITP. Prior to this he was working as Head of UITP India Office since 2013.

He is also the founder of consultancy firm – Valoriser Consultants, Inc. which is engaged with companies in the areas of new mobility, cleantech, startups, electric mobility, and ITS. Previously, he was working with a public transit authority, reforming the urban transport system in India.

He has received several awards for his contribution in the field of public transport and social work, as well as, has been widely quoted in publications.

He is pursuing his Master of Management and Innovation (MMIE) at Queen's University and has received his Master's in Business Administration specialized in International Business.

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.

Elena GAETINI

Head of Sales and Client Support, SIA SpA



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).

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 traveler's experience and therefore improving their everyday life.

Dr. Gian-Mattia SCHUCAN

Founder and Chief Executive Officer FAIRTIQ Ltd.



Dr. Gian-Mattia Schucan, Founder and CEO of FAIRTIQ Ltd.

Having a PhD in physics, Gian-Mattia Schucan has become an expert in the distribution of public transport tickets.

His extensive management experience as the head of sales of the Swiss Federal Railways SBB, consulting at McKinsey and the establishment of his own consulting company, formed the basis for the founding of FAIRTIQ. As CEO of FAIRTIQ he managed to establish the company as the market leader in smart mobile ticketing within just two years.

Rita OKCUOGLU

Director, Business Development Global Cities Mastercard



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.