

Digitalizing E-Bus Projects

Learning on the Mobility Academy



What does the course offer?

- Detailed information on how to implement future ready e-bus projects with the latest digital tools and services.
- A focus on the use of digital tools at three project stages: *planning & procurement, operations monitoring & management* and *project evaluation*.
- A look at the data sharing challenges that transit agencies face and potential approaches to deal with them.

Who is the course for?

Decision makers in public transport authorities and electric bus project managers/operators!

Participating Cities

126 Cities
41 Countries

MEXICO
Hermosillo
Mérida
Mexicali
Mexico City
Monterrey
Puebla
Saltillo
San Luis Potosí
Tlalnepatla de Baz

Santo Domingo,
Dominican Republic

San José, Costa Rica

Port of Spain,
Trinidad and Tobago

COLOMBIA
Bogotá
Bucaramanga
Manizales
Medellín
Pasto
Popayán

ECUADOR
Azogues
Cuenca
Gualaquío
Guyaquil
Quito

Lima, Peru

Santiago, Chile

BRAZIL
Belo Horizonte
Brasília
Campinas/SP
Caxias Do Sul
Curitiba
Florianópolis
Joinville
Porto Alegre
Praia Grande
Recife/PE
Rio Branco
Rio de Janeiro
São José dos Campos
São Paulo

Abidjan, Côte
d'Ivoire
Cotonou, Benin
Dakar, Senegal
Gulu, Uganda
Kumasi, Ghana
Lagos, Nigeria
Ojota, Nigeria
Lusaka, Zambia
Monrovia, Liberia
Praia, Cabo Verde
São Vicente,
Cabo Verde

SOUTH AFRICA
Cape Town
Durban
Johannesburg
Richards Bay

KENYA
Keroka
Kisumu
Mombasa
Nairobi
Nakuru

Maputo, Mozambique
Victoria, Seychelles

INDONESIA
Banda Aceh
Bandung
Bekasi
Depok
Jakarta
Kab Bogor
Karawang
Klaten
Kota Bandung
Kutai Kartanegara
Madiun
Malang
Makassar
Surabaya
Tangernag City
Yogyakarta

Ankara, Turkey
Balıkesir, Turkey
Shenzhen, China
Chongqing, China

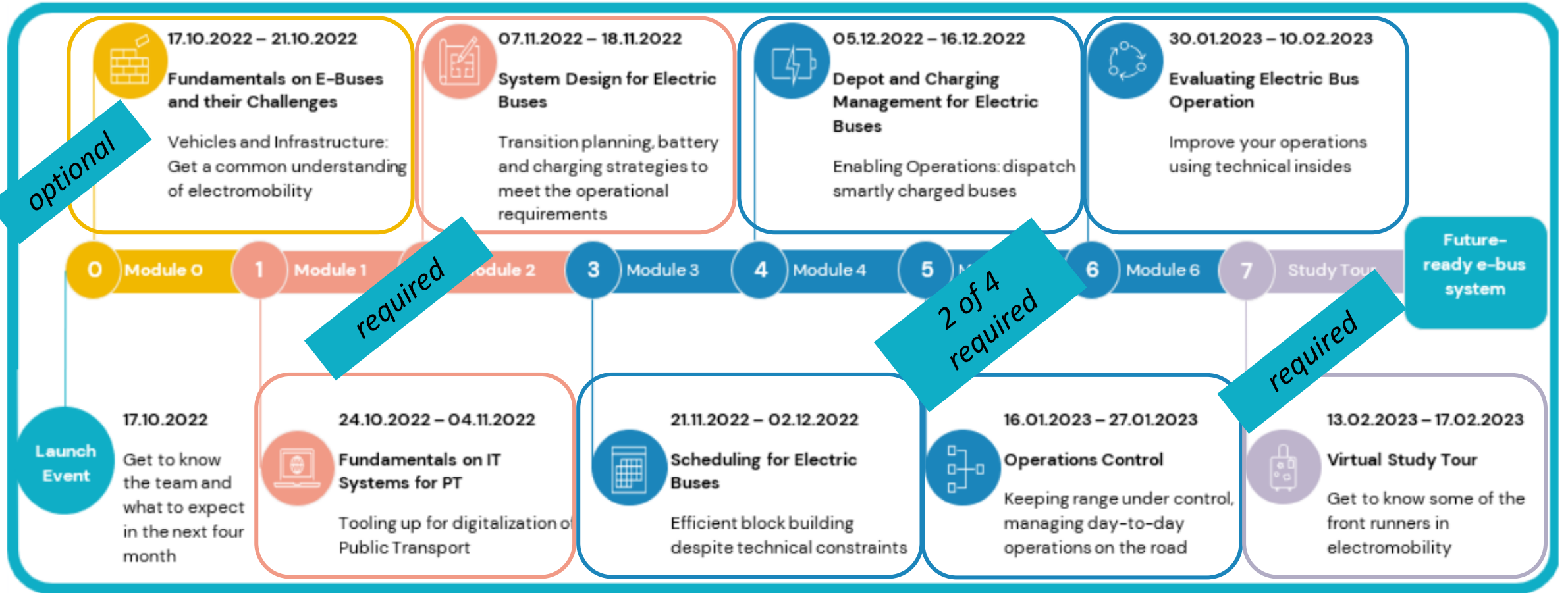
Nasinu, Fiji
Suva, Fiji

Dhaka, Bangladesh
Colombo, Sri Lanka
Kuala Lumpur, Malaysia
Seoul, South Korea

Berlin, Darmstadt & Dresden,
Germany
Brussels, Belgium
Budapest, Hungary
Charneca de Caparica, Portugal
Kartuzy & Rzeszów, Poland
London, UK
Lviv & Rivne, Ukraine
Madrid, Spain
Rome & Torino, Italy
Tirana, Albania

INDIA
Ahmedabad
Belgaum
Bengaluru
Bhopal
Chennai
Cuttack
Dehli
Durgapur
Gaya
Haryana
Hyderabad
Jodhpur
Kochi
Kollam
Korba
Kozhikode
Mumbai
Panaji
Pune
Surat
Vadodana
Vijayawada

Course overview



Time commitment

	Week 1	Week 2 + Week 3	Week 4 + Week 5	Week 6 + Week 7	Week 8 + Week 9	Week 10 - Week 13	Week 14 + Week 15	Week 16 + Week 17	Week 18
	Module 0	Module 1	Module 2	Module 3	Module 4	Holidays	Module 5	Module 6	Virtual Study Tour
Opening webinar (live)	30 min	30 min	30 min	30 min	30 min	-	30 min	30 min	30 min
Recorded lectures	15 min / day	15 min / day	15 min / day	15 min / day	15 min / day	-	15 min / day	15 min / day	-
Discussion questions and moderated exchange in the discussion forum	10 - 20 min / day	10 - 20 min / day	10 - 20 min / day	10 - 20 min / day	10 - 20 min / day	-	10 - 20 min / day	10 - 20 min / day	10 - 20 min / day
Virtual visit to three cities	-	-	-	-	-	-	-	-	1,5 hours
Quiz	-	20 min	20 min	20 min	20 min	-	20 min	20 min	-
Recorded Case Study	-	30 min	30 min	30 min	30 min	-	30 min	30 min	-
Summary of key lessons and messages	15 min	15 min	15 min	15 min	15 min	-	15 min	15 min	15 min
Total time commitment per module	3,5 hours	7,5 hours	7,5 hours	7,5 hours	7,5 hours		7,5 hours	7,5 hours	3,5






Live webinar now available in recorded version. Whole course can now be taken on self paced basis by enrolling [here](#).

Course lectures

Internal

Attractive, emission-free public transport to satisfy future mobility needs

Mobility needs	Action needed	Legal/political requirements
 <p>■ Since 2008 more people live in cities than in suburban areas and cities are still growing</p> <p>■ Potential for private transport limited → Public transport is a key factor for urban areas</p>	 <p>■ High pollution levels in cities (NOx, PM, noise)</p> <p>■ Attractive and emission-free public transport is key for a high quality of life</p>	 <p>■ CO₂ target limits for emissions (national / local)</p> <p>■ Environmental zones / entry restrictions</p> <p>■ Funding programme electric mobility</p>

Play (Alt + K) 0:22 / 3:39

tumi E-Bus Mission

TUMI E

About video
Comments
Video settings
Help

Discussion questions and discussion forum

Wrap-up Session 1, Part 1

Please share in the discussion forum:

- What is the main motivation for introducing e-buses
- What are your city's goals for the electrification of its
- What are your timelines/deadlines to reach these go
- Are your goals and timelines self-imposed or extern



MOBILITY ACADEMY Courses by topic Courses by project The SUMP Self-Assessment About the Academy English (en)

Digitalizing E-Bus Projects

Home / Courses / TUMI E-Bus Mission / TUMI / Digitalizing E-Bus Projects / Discussion Forum

Discussion Forum

Add a new discussion topic

Discussion	Started by	Last post ↓	Replies	Subscribe
☆ Session 1.1 question: Please share your goals for e-buses in your city	Bonnie Fenton 14 Oct 2022	Bonnie Fenton 14 Oct 2022	0	<input type="checkbox"/>
☆ Please introduce yourselves	Shreesh Vaid... 12 Oct 2022	Shreesh Vaid... 12 Oct 2022	0	<input type="checkbox"/>

← Announcements Jump to... Technical Support →

Virtual study tour

Bogota, Colombia

- Transmilenio has revolutionised local transport in the Colombian metropolis.



Hannover, Germany

- Optimum charging schedules, up-to-date vehicle data, and secure ranges
- IVU.suite's integrated load and charging management system for eCitaro buses.



Language in the Mobility Academy

English

- Course lectures will be created in English with Spanish and Portuguese translations.
- Case study interviews will be in either English or Spanish with translation into the other language and Portuguese.
- You are welcome to write your discussion forum entries in English, Spanish or Portuguese. The translation tool www.deepl.com works well if you would like to translate any entries by others.
- The slide set of each course module is available in English, Spanish and Portuguese.

Español

- Las conferencias del curso se crearán en inglés con traducción al español y al portugués.
- Las entrevistas de los casos prácticos aparecerán en inglés o en español con traducción al otro idioma y al portugués.
- Puede escribir sus entradas en el foro de debate en inglés, español o portugués. La herramienta de traducción www.deepl.com funciona bien si quieres traducir las entradas de otros.
- El conjunto de diapositivas de cada módulo del curso está disponible en inglés, español y portugués.

Português

- As palestras do curso serão criadas em inglês com traduções em espanhol e português.
- As entrevistas de estudo de caso aparecerão em inglês ou espanhol com tradução para o outro idioma e para o português.
- Você está convidado a escrever suas entradas para o fórum de discussão em inglês, espanhol ou português. A ferramenta de tradução www.deepl.com funciona bem se você gostaria de traduzir qualquer entrada de outros.
- O conjunto de slides de cada módulo do curso está disponível em inglês, espanhol e português.

The team behind the course



Certificate of completion

Successful completion of a module entails:

- *Listening to all recorded lectures and the case study interview*
- *Completion of the module quiz*
- *Responding in the discussion forum to the questions posed by the moderators in the lectures*



Certificate
to recognize the successful
learning accomplishment of

Name Last Name

for participating in the TUMI E-Bus
Mission online learning program


Digitalizing E-Bus Projects

A course offering persons working in the field of electric buses detailed information on how to implement future ready e-bus projects using digital tools and services

Insa Ilgen
GIZ Sector Project Sustainable Mobility

Jens Giersdorf
TUMI Management Head


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Name Last Name

Has completed the following modules by taking part in discussions and exchanges with other participants and experts and successfully completing a quiz for each module:

- Fundamentals on E-Buses and their Challenges**
The technical context and challenges of e-buses
- Fundamentals on IT Systems for PT**
Supply and resource planning, Monitoring, control and evaluation of operations
- System Design for Electric Buses**
Battery and charging technologies, fleet transition approaches and planning
- Scheduling for Electric Buses**
E-bus peculiarities in vehicle scheduling
- Depot and Charging Management for Electric Buses**
Vehicle dispatch and charging management
- Operations Control**
Intermodal data control system
- Evaluating Electric Bus Operation**
Data and how to exploit it



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Thank You!



Herman Kwoba

On behalf of Rohan Modi,

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