

Communication for Charging Systems - ISO 15118 Advanced Features Plug and Charge

Agenda VectorAcademy

Delivery Format:	This course is offered in Remote Format
Duration:	4h
Target Group:	Everybody, who needs to understand advanced ISO 15118 features, such as Plug-and-Charge and Tariff Information
Prerequisites:	Communication for Charging Systems – Basic Charging and ISO15118 High-Level Communication
Goal:	In this course you will get a deeper insight into the charging communication, specifically for Plug-and-Charge (PnC). For advanced features, such as PnC, many Cyber Security Functions are being used. You will get introduced to the most important security topics, e.g. Transport Layer Security (TLS), Certificates, Signatures.

1. **Combined Charging System 2.0 Advanced Features**
2. **Short overview of High-Level Communication and ISO 15118 Protocol Stack**
3. **Vehicle-to-Grid Transfer Protocol over TCP and TLS**
4. **Security Fundamentals**
 - > Symetric- and Asymmetric Cryptography
 - > Certificates
 - > Signatures
5. **SECC Discovery Protocol (SDP), TCP and TLS Connection Set Up**
6. **Certificates and Public Key Infrastructure (PKI)**
7. **Security by XML based Signatures for V2G Messages**
8. **Power Schedules and Sales Tariff Information**
9. **Value Added Service**
10. **Vehicle-to-Grid Message Updates**