



# Contactless Technologies

ISO 14443 type A, type B, MIFARE, ISO 10373-6...

## Technical training **with** Practical Work

Day 1	Day 2	Day 3 (optional)
<p><u>Contactless – Introduction</u></p> <ul style="list-style-type: none"> <li>▶ Principle of Contactless – Technologies – Applications</li> <li>▶ Standards in force</li> <li>▶ Theory / Basic principles</li> </ul> <p><u>Practical Work (PW)</u></p> <ul style="list-style-type: none"> <li>▶ Antenna calibration (readers) PW: <a href="#">ISO 10373-6 Test Apparatus</a></li> <li>▶ Characterisation of the operational volume of a Contactless reader PW: <a href="#">Scanner of 3D Fields</a></li> <li>▶ Retro modulation measurements of Contactless smartcard PW: <a href="#">Calibration coil, PCB antenna...</a></li> </ul>	<p><u>Tools / Simulators</u></p> <ul style="list-style-type: none"> <li>▶ Smartcard reader simulator PW: Use a <a href="#">Class 185</a></li> <li>▶ Contactless smartcard simulator PW: Use a <a href="#">Class 3150</a> Protocol Tests</li> </ul> <p><u>Interoperability</u></p> <ul style="list-style-type: none"> <li>▶ Card/reader exchange and dialogue observation</li> <li>▶ Decoding and protocol analysis PW: Use a <a href="#">ClassScope</a></li> </ul> 	<p><u>Technical tests and expertise</u> on samples provided by the customer (Cards, badges, passports, readers...)</p> <ul style="list-style-type: none"> <li>▶ Study of products</li> <li>▶ Technical features</li> <li>▶ Performance evaluation</li> <li>▶ Optimisation of products</li> <li>▶ <a href="#">Statements of Conformity</a></li> </ul> 

Public concerned ⇒ Technical Manager, Project Manager, Engineers, Technicians, Software/Hardware Developers

Number of participants ⇒ 1 to 3

Place ⇒ [Lille](#) – Paris – Caen (France)

Dates/Cost/Detailed Program ⇒ On request ([contact@expert-eyes.net](mailto:contact@expert-eyes.net))