

## **Badge Details**

Name	1485 – Applied Principles of Smart Sensors
Description	This comprehensive course guides students through detailed project-oriented learning activities. Starting with the basics of each sensor, students perform practical exercises in a simplified work environment, allowing them to focus on smart sensors. Students can also connect these sensors to a PLC over PROFINET®, Ethernet/IP™ or Modbus®, just like in industry. Once the fundamentals are mastered, more complex I4.0 learning systems such as MPS, CP Lab, or CP Factory, offer further training opportunities: the wide variety of sensors integrated into these systems allows students to put their knowledge into practice and deepen their understanding of the role of sensors within a complete manufacturing system.
Criteria	<ul> <li>Candidates receiving this certification will take an exam with the following criteria:</li> <li>1. Understanding the benefits of smart sensors in the context of Industry 4.0</li> <li>2. Selecting up, parameterizing, monitoring, and adjusting sensors</li> <li>3. Setting up IO-Link® communication</li> <li>4. Integrating sensors into different manufacturing communication layers</li> <li>5. Performing predictive maintenance</li> <li>6. Replacing sensors and uploading settings automatically</li> <li>7. Troubleshooting sensors</li> </ul>