

## Training Schedule

### ECS-700 system

Time	Subject	Contents
1 <sup>st</sup> day	<b>ECS-700 hardware</b>	<ul style="list-style-type: none"> <li>✧ System specification: structure, scale, parameters,</li> <li>✧ Control Station hardware.</li> </ul>
	<b>Visit SUPCON</b>	<ul style="list-style-type: none"> <li>✧ Visit SUPCON.</li> </ul>
2 <sup>nd</sup> day	<b>ECS-700 hardware</b>	<ul style="list-style-type: none"> <li>✧ Engineer Station and Operator Station hardware;</li> <li>✧ Network connect, IP address setting.</li> </ul>
	<b>ECS-700 hardware practice</b>	<ul style="list-style-type: none"> <li>✧ Key points about ECS-700 system hardware maintenance;</li> <li>✧ Hardware practice (in the laboratory).</li> </ul>
	<b>System Configuration</b>	<ul style="list-style-type: none"> <li>✧ Install ECS-700 system software;</li> <li>✧ Create a new project;</li> <li>✧ Control Domain &amp; Operation Domain Configuration;</li> <li>✧ Engineer Configuration;</li> <li>✧ Global Default Settings.</li> </ul>
3 <sup>rd</sup> day	<b>Control Configuration (Hardware)</b>	<ul style="list-style-type: none"> <li>✧ MCU(Controller ) configuration;</li> <li>✧ Cabinet configuration;</li> <li>✧ I/O rack, I/O module configuration;</li> <li>✧ I/O channel configuration.</li> </ul>
	<b>Control Configuration (I/O Tag)</b>	<ul style="list-style-type: none"> <li>✧ Tag property setting;</li> <li>✧ Parameter upload;</li> <li>✧ Check tag.</li> </ul>
4 <sup>th</sup> day	<b>Control Configuration Practice</b>	<ul style="list-style-type: none"> <li>✧ Basic method to optimize the configuration, such as: to modify the parameters of I/O signals, to add some new signals, to delete I/O signal;</li> <li>✧ Compile &amp; Download.</li> </ul>

Time	Subject	Contents
	<b>HMI Configuration</b>	<ul style="list-style-type: none"> <li>✧ Operation team;</li> <li>✧ Trend settings;</li> <li>✧ Alarm settings;</li> <li>✧ User authorities;</li> <li>✧ Compile &amp; Publish.</li> </ul>
5 <sup>th</sup> day	<b>Graphics</b>	<ul style="list-style-type: none"> <li>✧ The static object, such as Diagram layer, Static tools, System template;</li> <li>✧ Dynamic data, Dynamic property, Action;</li> <li>✧ Pop-up graphics;</li> <li>✧ Practice.</li> </ul>
6 <sup>th</sup> day	<b>Supervision</b>	<ul style="list-style-type: none"> <li>✧ Supervision operation such as panels operation, graphics operation, alarm related operation; trend related operation, Operation log, etc.</li> <li>✧ Supervision Setting—global setting;</li> <li>✧ System status—fault diagnosis;</li> <li>✧ Practice.</li> </ul>
	<b>Report</b>	<ul style="list-style-type: none"> <li>✧ Shift report configuration: Event definition, Time &amp; tag filling, Output setting.</li> </ul>
7 <sup>th</sup> day	<b>Experiment (in the lab)</b>	<ul style="list-style-type: none"> <li>✧ Hardware installation;</li> <li>✧ Network connection and debug;</li> <li>✧ I/O signal commissioning;</li> <li>✧ Redundancy commissioning;</li> <li>✧ Modification to configuration;</li> </ul>
8 <sup>th</sup> day	<b>Programming</b>	<ul style="list-style-type: none"> <li>✧ General introduction: data type, Variable type, etc.</li> <li>✧ Control scheme programming with FBD.</li> </ul>
9 <sup>th</sup> day	<b>Programming</b>	<ul style="list-style-type: none"> <li>✧ ST programming;</li> <li>✧ SFC programming;</li> <li>✧ Practice and debug.</li> </ul>

**TCS-900 system**

<b>Time</b>	<b>Subject</b>	<b>Contents</b>
10 <sup>th</sup> day	<b>SIS concept TCS900 Hardware</b>	<ul style="list-style-type: none"> <li>✧ System specification;</li> <li>✧ Control station components;</li> <li>✧ Operation hardware;</li> <li>✧ Network setting;</li> </ul>
11 <sup>th</sup> day	<b>SafeContrix Configuration</b>	<ul style="list-style-type: none"> <li>✧ Practice in lab</li> <li>✧ Software installation</li> <li>✧ Hardware configuration and variable configuration,</li> </ul>
12 <sup>th</sup> day	<b>SafeContrix Configuration</b>	<ul style="list-style-type: none"> <li>✧ Control strategy development</li> <li>✧ System diagnosis</li> <li>✧ SOE Management software</li> <li>✧ SafeManager software</li> <li>✧ Clock synchronization</li> </ul>
13 <sup>th</sup> day	<b>Database Configuration</b>	<ul style="list-style-type: none"> <li>✧ TCS-900 driver setting;</li> <li>✧ Domain configuration;</li> <li>✧ Tag property setting;</li> </ul>
	<b>HMI Configuration</b>	<ul style="list-style-type: none"> <li>✧ Graphic configuration;</li> <li>✧ Supervision;</li> </ul>
14 <sup>th</sup> day	<b>Experiment</b>	<ul style="list-style-type: none"> <li>✧ Experiment in the lab.</li> <li>✧ Modbus communication practice.</li> </ul>
	<b>Test &amp; Graduation Ceremony</b>	<ul style="list-style-type: none"> <li>✧ Examination of the training course.</li> <li>✧ Graduation ceremony.</li> </ul>

**GCS 系统**

Time	Subject	Contents
15 <sup>th</sup> day	<b>G5 Hardware</b>	<ul style="list-style-type: none"> <li>✧ System structure, scale, parameter</li> <li>✧ Controller module</li> <li>✧ Remote communication module</li> <li>✧ Communication module</li> <li>✧ IO module</li> <li>✧ Terminal matching module</li> <li>✧ Network</li> </ul>
	<b>G5 hardware configuration</b>	<ul style="list-style-type: none"> <li>✧ GCSManager software</li> <li>✧ Add new project</li> <li>✧ Add modules</li> <li>✧ Variable parameter setting</li> <li>✧ Compile and download</li> </ul>

**Duration: 15 working days**