Module: **Intelligent house 4.0**

Submodule: **Installation and configuration of smart light control**

Student's tasks – separated in small steps

Information:

In the Living room switching of the ceiling lights is done by two-way circuits with conventional switches. Another luminaire is a floor lamp, which is connected to the power supply via a 230V socket. To implement the customer order, in a first step the control of the floor lamp connected to the socket and the conventionally constructed two-way circuit should be replaced by smart home components.

The smart home components required to implement the customer order are offered by a large number of manufacturers. The customer has decided on the basis of its own research as well as positive feedback from friends for the smart home system from Bosch.

For practical implementation, the "Smart wall" is available.

Tasks:

1. Create and document a work plan and a list of material which must be available for this task.

2. Connect the smart home controller to the Bosch server via Internet and to make some update if necessary. Then you can configure the controller by using the app. The easiest way is to use the QR-Code which is available for every Bosch smart home device (**Notice:** *This step is necessary when you connect the controller first time with the Bosch server*)

3. If you have done the second step successfully you can add and configure smart home components like the smart plug to your smart home system by using the app.

   If you want to replace the conventional two-way-switches through a smart home device you have to follow those steps:

   3.1. Switch off power supply.

   3.2. Check the absence of electrical tension with a Duspol or another approved voltmeter.

   3.3. Replace the **first** switch (**S1, module 2**) through a Bosch smart switch.

      Notice:

      - Use the installation Information of the manufacturer for connecting the smart switch.
      - It is not necessary to replace the second conventional switch. The smart switch is able to detect the switching position of the second conventional switch of the two-way circuit automatically.
      - For power supply, the smart switch needs to be connected to L1 and N.

   3.4. Switch on power supply and connect the smart switch to the controller via app by using the QR-Code of the smart switch.

   3.5. Test the correct function.

4. Documentation

4.1. Document the working steps you have done

4.2. Describe the problems during installation and configuration as well as the way to solve those problems

Links and documents:

Installation of Bosch smart home devices: https://www.bosch-smarthome.com/de/de/produkte

Manual smart light switch: https://tt-smarthome.resource.bosch.com/documents/Manual/DE/System_Solutions/Unterputz_Licht/BOSCH_17_0053_Unterputz_Licht_web.pdf

FAQ's: https://www.bosch-smarthome.com/de/de/service/faq

Description of the "Smart Wall": 1_Smart_Light_control_students-description-Smart-Wall-ENG.pdf