ACTLab STUDENT PROJECT

UNIVERSITÄT PASSAU

Encoded light – Using light to transfer data

In this project the goal is to transmit data encoded in light. With LED lighting coming into buildings, information could be easily encoded into lighting by e.g. manipulating the PWM driver. Using a light sensor mounted to smart eyeglasses such information could be received and used for indoor navigation or transmitting information relevant to the location, e.g. advertising. In this project, first a laboratory setup should be developed to test different encoding approaches. After successful laboratory evaluation, a living lab installation should be built which is then used to evaluate the system in real life situations.

Project type	Master project
Starting date	Immediate
Work distribution	40% experiments, 20% theory, 40% programming
Useful knowledge	• Attended course Mustererkennung und Zeitreihenanalyse • Experience with the Arduino platform • Proficient in C/C++
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