Implementation of ZigBee-VLC system to support light control network configuration

In this paper, ZigBee-VLC Transmitter and Receiver are designed, implemented and tested. By utilizing the ZigBee-VLC Transmitter and Receiver, commissioning procedures for light control network configuration are simplified and commissioning time is drastically reduced. With this configuration, lighting control network configured to use a maximum of 216 lighting is possible. As a result of this research, the transmitter is complete with ZigBee-VLC features implemented in the Single MCU without rising production costs and the 1-board solution receiver including a ZigBee and VLC functions are implemented. In addition, as a result of the test work using the light control app, dramatically shortening commissioning time, easy lighting control is possible was confirmed.