

38th INTERNATIONAL CONFERENCE ON HIGH ENERGY PHYSICS

AUGUST 3 - 10, 2016 CHICAGO

Contribution ID: 724

Type: Poster

High Speed Visible Light Comunication System based on SiPM

Saturday 6 August 2016 18:00 (2 hours)

A SiPM device has very high sensitivity, rapid response and high performance when it is operated in oversaturation conditions and detects very small variations in incident optical radiation. A SiPM detects low power light beams that are imperceptibles for other photodetectors. In this paper, we present a SiPM-based receiver that discriminate small light signals from background noise, while exposed to ambient light conditions without optical filters or another additional device and it is added to a High Speed Visible Light Communication System. This system works under normal ambient illumination conditions. This prototype is an innovation in the communications industry, built with technology developed by nuclear physics community. This new technology is a link between the science and communications industry.

Author: Mr CASTAÑEDA MELO, LUIS FERNANDO (Universidad Antonio Nariño)

Co-authors: Dr HERNANDEZ DUARTE, Andres Ignacio (Universidad Antonio Nariño); YEPES RAMIREZ, Harold (IFIC-ANTARES); Mr CASTAÑO FORERO, Javier Fernando (Universidad Antonio Nariño); Dr GUTIERREZ SALAMANCA, Rafael M. (Universidad Antonio Nariño)

Presenters: Mr CASTAÑO FORERO, Javier Fernando (Universidad Antonio Nariño); Mr CASTAÑEDA MELO, LUIS FERNANDO (Universidad Antonio Nariño)

Session Classification: Poster Session

Track Classification: Technology Applications and Industrial Opportunities