Indoor cellular optical wireless communication systems

Main original contributions

- Mathematical modelling of cellular indoor OWC links.
- Optimization of beam pattern.
- Handover algorithm and practical implementation.

Main goals

The main aim of this cellular indoor OWC system is to investigate the key challenges which include eye safety, intersymbol interference (ISI), blocking problem and so on. In addition, investigation of efficient modulation and coding schemes, improving BER, high data rate, eye safety, and coverage are desirable to enhance the performance of the system. Furthermore, the multiple access protocols for the cellular indoor OWC system are modelled and studied as well.

Publications


