

## Gang Wang



**Biography:** Gang Wang received his B.S. degree from the Beijing University of Posts and Telecommunications (BUPT), Beijing, P.R. China, in 2014. He is now a Ph.D. candidate of School of Information and Communication Engineering (SICE), BUPT. His research interest is mainly on key theories and technologies in broadband access network.

**Session Title:** Asynchronous Delivery Oriented Efficient Resource Allocation in TWDM-PON Enabled Fronthaul

**Abstract:** Mobile internet traffic is increasing explosively, while many type of applications are delay-elastic in nature. We investigate the asynchronous delivery oriented algorithms to decrease peak-to-average ratio (PAR), i.e., the ratio of optical resource usage in the peak period to the average per-period usage of the fronthaul, while improve the optical resource allocation efficiency. In this paper, we formulate an integer non-linear programming (INLP) optimization model and propose an adaptive generic algorithm (GA) to realize the optimization in a limited time. The simulation results show that the maximum PAR decreases by 32% with asynchronous delivery oriented optical resource optimization. Besides, optical resource saving can be achieved with minimal influence on topology, and the load difference can be further reduced.