

## **Optical Extinction Ratio Monitoring Techniques Using Optical Spectrum Analysis**

Chun-Liang Yang , San-Liang Lee

---



***Chun-Liang Yang***

*Assistant Professor , Department of Electrical  
Engineering, Tamkang University  
clyang@mail.tku.edu.tw*

---

### **Biography**

Chun-Liang Yang was born in I-Lan, Taiwan, R.O.C., in May 1971. He received the B.S., M.S., and Ph.D. degrees in electronic engineering from the National Taiwan University of Science and Technology (NTUST) in 1996, 1998, and 2004, respectively.

He is currently an Assistant Professor with the Department of Electrical Engineering, Tamkang University (TKU). His research interests include optical performance monitoring and optical networks.

### **Abstract**

An optical extinction ratio monitoring technique for wavelength-division-multiplexed passive optical network systems is proposed. This technique is based on the optical spectrum analysis. It can accurately measure the optical extinction ratio of optical signals and does not change with the transmission distance. In our experiments, the transient chirp hardly affects the measured results if the optical extinction ratio is lower than 7 dB, and the measured errors are less than 0.5 dB.