Applying Robust Controller for Wavelength Stabilizer in Optical Network

In this paper we propose to use a robust controller to control the wavelength instability of the laser output due to the effects of temperature, current drift and device aging, We will use an equivalent model to demonstrate the equivalent effects of various factors affecting the wavelength instability of the laser output, From this model we will then analyze the required robust controller. This method of analysis can be applied to various environmental temperatures or devices and enable to easily design the required controller.