Realization of microcontroller-based polarization control system with genetic algorithm

ABSTRACT

Realization of a PIC32 microcontroller-based polarization control system is described. Genetic algorithm is used for control purposes. The controller measures the signal intensity to estimate the genetic value. To reach optimum performance, the code is optimized by using the best genetic parameter to achieve the fastest execution time. This algorithm consumes low size of memory besides providing fast speed. The implementation of microcontroller allows for more economic polarization control solution.