

# **Abstract**

**Roshdy AbolAzayem El-Sayed AbdelRassoul**

## **A High-Speed Analog Comparator in 0.5 $\mu$ m CMOS Technology**

This paper describes a design of a high-speed analog comparator that is realized in 0.5- $\mu$ m CMOS technology. A response time of 1.62 ns was recorded at an average power consumption of 0.58 mW and a supply voltage of 3V. The comparator has been employed in the realization of an 8-bit flash type ADC where a maximum sampling rate of 300Mb/s was reached.