Abstract

This paper proposed an efficient implementation of digital circuit based on the Euclidean Algorithm with modular arithmetic to find Greatest Common Divisor (GCD) of two Binary Numbers given as input to the circuit. Output of the circuit is the GCD of the given inputs. In this paper subtraction-based narrative defined by Euclid is described, the remainder calculation replaced by repeated subtraction. The selection of the Division Method using subtractor is due to ease of implementation and less complexity in connection with reduced hardware. The circuit is built using basic digital electronic components like Multiplexers & comparator (A