**Referat VLSI**

1. Inversor

Schema Inversor:

Diagram

Description automatically generated

Inversor (In = 0, Out = 1)

A screenshot of a computer

Description automatically generated with low confidence

Inversor (In = 1, Out = 0)

Diagram

Description automatically generated

Codul Verilog pentru Inversor:

Text, letter

Description automatically generated

Mastile pentru Inversor:

(Out = 0,01 pF)

A screenshot of a computer

Description automatically generated with medium confidence

Simularea Inversorului:

A computer screen capture

Description automatically generated with low confidence

1. AND

Schema AND:

A picture containing text

Description automatically generated

AND (In1 = 0, In2 = 0 => Out = 0)

Schematic

Description automatically generated with medium confidence

AND (In1 = 0, In2 = 1 => Out = 0)

A screenshot of a computer

Description automatically generated with medium confidence

AND (In1 = 1, In2 = 0 => Out = 0)

A picture containing diagram

Description automatically generated

AND (In1 = 1, In2 = 1 => Out = 1)

A screenshot of a computer

Description automatically generated with medium confidence

Generare cod Verilog AND:

Text

Description automatically generated with medium confidence

Masca generata cu capacitanta pe iesire pentru AND: (Out = 0.01 pF)

A screenshot of a computer

Description automatically generated with medium confidence

Simularea pentru AND:

A picture containing diagram

Description automatically generated

1. OR

Schema pentru OR:

Graphical user interface

Description automatically generated

OR (In1 = 0, In2 = 0 => Out1 = 0)A screenshot of a computer screen

Description automatically generated with medium confidence

OR (In1 = 1, In2 = 0 => Out1 = 1)Diagram

Description automatically generated

OR (In1 = 0, In2 = 1 => Out1 = 1)Diagram

Description automatically generated

OR (In1 = 1, In2 = 1 => Out1 = 1)Diagram

Description automatically generated

Generarea codului Verilog pentru OR:

Text, letter

Description automatically generated

Masca generata cu capacitanta pe iesire pentru OR: (Out = 0.01 pF)

A screenshot of a computer

Description automatically generated with medium confidence

Simularea OR:

A picture containing diagram

Description automatically generated

1. XOR

Schema XOR:

A screenshot of a computer

Description automatically generated with low confidence

XOR (In1 = 0, In2 = 0 => Out1 = 0)

A screenshot of a computer

Description automatically generated with medium confidence

XOR (In1 = 1, In2 = 0 => Out1 = 1)

Diagram

Description automatically generated with low confidence

XOR (In1 = 0, In2 = 1 => Out1 = 1)

A screenshot of a computer

Description automatically generated with medium confidence

XOR (In1 = 1 In2 = 1 => Out1 = 0)

Diagram

Description automatically generated

Generarea codului Verilog XOR:

A screenshot of a computer

Description automatically generated with low confidence

Masca generata XOR:

A screenshot of a computer

Description automatically generated with low confidence

Simularea XOR:

A computer screen capture

Description automatically generated with low confidence

1. Sumator

Schema Sumator: A picture containing text, green, clock

Description automatically generated

Sumator (In1 = 0, In2 = 0 => S = 0, Carry = 0)

A picture containing text, light, green, street

Description automatically generated

Sumator (In1 = 1, In2 = 0 => S = 1, Carry = 0)A picture containing text, light, night

Description automatically generated

Sumator (In1 = 1, In2 = 1 => S = 0, Carry = 1)

A picture containing text, light

Description automatically generated

Sumator (In1 = 1, In2 = 1, Cin = 1 => S = 1, Carry = 1)A picture containing text, clock

Description automatically generated

Generarea codului Verilog:Text

Description automatically generated

Generarea mastilor:A screenshot of a computer

Description automatically generated with medium confidence

Simularea sumatorului:

Diagram

Description automatically generated

1. Sumator 4 bit CLA

Schema:A picture containing text, electronics

Description automatically generated

Sumator 4bit CLA:A screenshot of a computer

Description automatically generated with low confidence

A picture containing text, light, dark

Description automatically generated

Generarea codului Verilog:Table

Description automatically generated

Generarea mastii Sumator 4bit CLA:A screenshot of a computer

Description automatically generated with low confidence

Simulare:

Graphical user interface

Description automatically generated

8.Incrementator 4 biti:

Schema:

A screenshot of a computer

Description automatically generated with low confidence

Functionalitate:

A picture containing text, night

Description automatically generated

A picture containing text, light

Description automatically generatedGenerarea codului Verilog:A picture containing table

Description automatically generated

Table

Description automatically generated

Generarea mastii:

Background pattern

Description automatically generated with medium confidence

Simularea:

A screenshot of a computer

Description automatically generated with medium confidence

10. Convertor cod Gray 4 biti

Schema:A picture containing text, clock

Description automatically generated

BinaryToGray ( 0010 => 0011)Graphical user interface

Description automatically generated with medium confidence

BinaryToGray (1011 = > 1110)Diagram, schematic

Description automatically generated

BinaryToGray (1111 => 1000)A picture containing graphical user interface

Description automatically generated

Generarea codului Verilog Convertor:

Table

Description automatically generated

Masca generata cu capacitanta pe iesire pentru Convertor:

A picture containing lit, night, light, dark

Description automatically generated

Simularea Convertorului:

Diagram

Description automatically generated