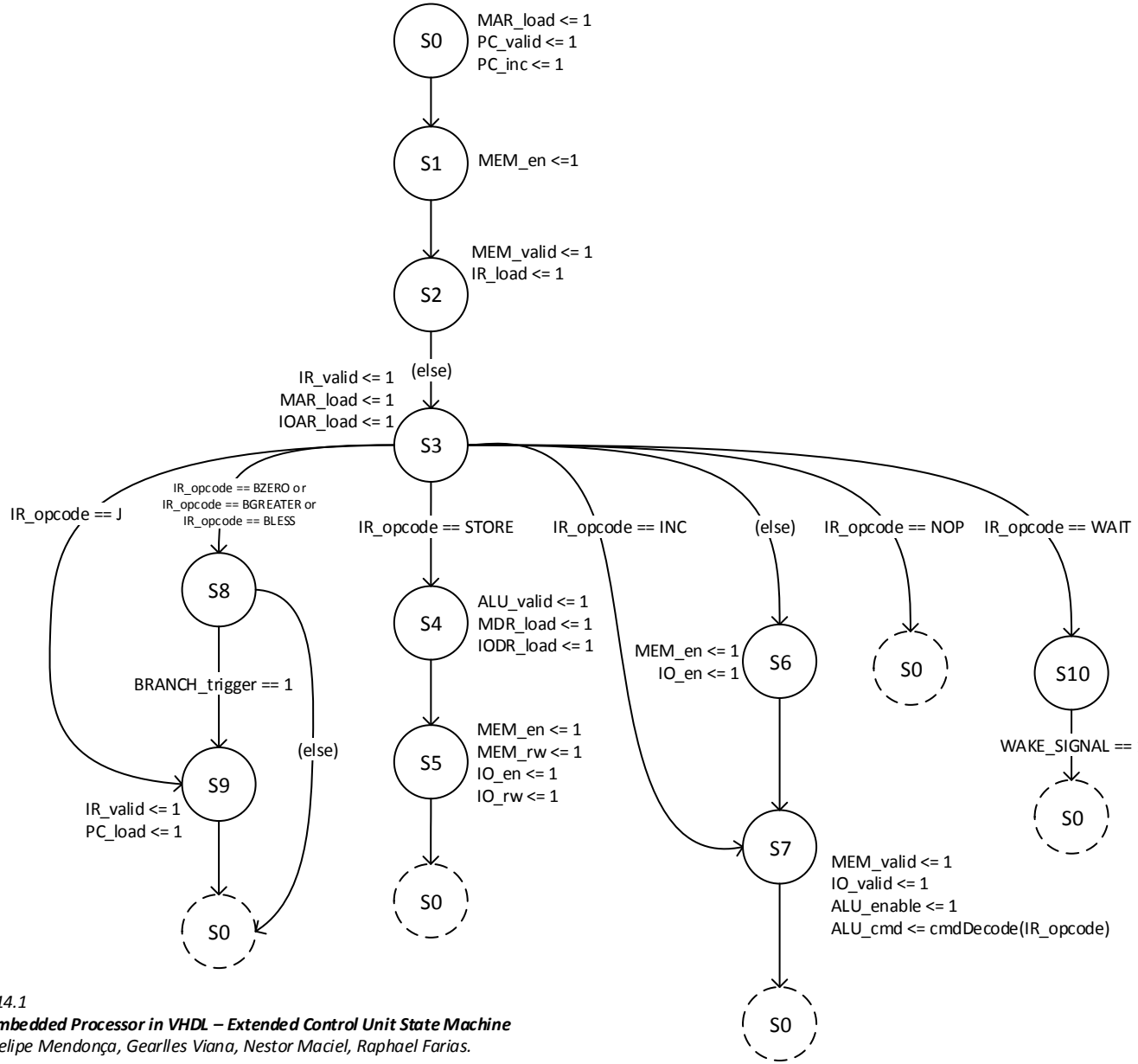
S0
MAR_load <= 1
PC_valid <= 1
PC_inc <= 1
S1
MEM_en <=1
S2
MEM_valid <= 1
IR_load <= 1
(else)
IR_valid <= 1
MAR_load <= 1
IOAR_load <= 1
S3
IR_opcode == J
IR_opcode == BZERO or
IR_opcode == BGREATER or
IR_opcode == BLESS
IR_opcode == STORE
IR_opcode == INC
(else)
IR_opcode == NOP
IR_opcode == WAIT
S8
BRANCH_trigger == 1
(else)
S9
IR_valid <= 1
PC_load <= 1
S0
S4
ALU_valid <= 1
MDR_load <= 1
IODR_load <= 1
S5
MEM_en <= 1
MEM_rw <= 1
IO_en <= 1
IO_rw <= 1
S0
S6
MEM_en <= 1
IO_en <= 1
S7
MEM_valid <= 1
IO_valid <= 1
ALU_enable <= 1
ALU_cmd <= cmdDecode(IR_opcode)
S0
S0
S10
WAKE_SIGNAL == 1
S0