Instructions	OP-CODES				Function-Bits			BIT_14	BIT_13	BIT_12	BIT_11	BIT_10	BIT_9	BIT_8	BIT_7	BIT_6	BIT_5	BIT_4	BIT_3	BIT_2	BIT_1	BIT_0
								s4	s5	s3	s2	s1	s9	WE	s6	s7	s8	ALU2	ALU1	ALU0	MWE	OUTLD
ADD	0	0	0	0	0	0	0	1	0	0	0	0	X(0)	1	0	1	0	0	0	0	0	0
SUB	0	0	0	0	0	0	1	1	0	0	0	0	X(0)	1	0	1	0	0	0	1	0	0
AND	0	0	0	0	0	1	0	1	0	0	0	0	X(0)	1	0	1	0	0	1	0	0	0
OR	0	0	0	0	0	1	1	1	0	0	0	0	X(0)	1	0	1	0	0	1	1	0	0
NOR	0	0	0	0	1	0	0	1	0	0	0	0	X(0)	1	0	1	0	1	0	0	0	0
XOR	0	0	0	0	1	0	1	1	0	0	0	0	X(0)	1	0	1	0	1	0	1	0	0
SLL	0	0	0	0	1	1	0	1	0	0	0	0	X(0)	1	0	1	0	1	1	0	0	0
SRL	0	0	0	0	1	1	1	1	0	0	0	0	X(0)	1	0	1	0	1	1	1	0	0
ADDI	0	1	0	0	0	0	0	0	0	0	0	0	X(0)	1	0	1	1	0	0	0	0	0
ANDI	0	1	0	1	0	1	0	0	0	0	0	0	X(0)	1	0	1	1	0	1	0	0	0
ORI	0	1	1	0	0	1	1	0	0	0	0	0	X(0)	1	0	1	1	0	1	1	0	0
LW	0	1	1	1	X(0)	X(0)	X(0)	0	0	0	0	0	X(0)	1	0	0	X(0)	X(0)	X(0)	X(0)	0	0
SW	1	0	0	0	X(0)	X(0)	X(0)	X(0)	X(0)	0	0	0	X(0)	0	X(0)	X(0)	X(0)	X(0)	X(0)	X(0)	1	0
J	1	0	1	1	X(0)	X(0)	X(0)	X(0)	X(0)	0	1	0	X(0)	0	X(0)	X(0)	X(0)	X(0)	X(0)	X(0)	0	0
JAL	1	1	0	0	X(0)	X(0)	X(0)	X(0)	1	0	1	0	X(0)	1	X(0)	X(0)	X(0)	X(0)	X(0)	X(0)	0	0
JR	0	0	1	1	X(0)	X(0)	X(0)	X(0)	X(0)	0	1	1	X(0)	0	X(0)	X(0)	X(0)	X(0)	X(0)	X(0)	0	0
BEQ	1	0	0	1	0	0	1	X(0)	X(0)	0	0	1	1	0	X(0)	X(0)	0	0	0	1	0	0
BNE	1	0	1	0	0	0	1	X(0)	X(0)	0	0	1	0	0	X(0)	X(0)	0	0	0	1	0	0
IN	0	0	0	1	X(0)	X(0)	X(0)	1	0	0	0	0	X(0)	1	1	1	X(0)	X(0)	X(0)	X(0)	0	0
OUT	0	0	1	0	X(0)	X(0)	X(0)	X(0)	X(0)	0	0	0	X(0)	0	X(0)	X(0)	X(0)	X(0)	X(0)	X(0)	0	1
NOP	1	1	1	0	X(0)	X(0)	X(0)	X(0)	X(0)	0	0	0	X(0)	0	X(0)	X(0)	X(0)	X(0)	X(0)	X(0)	0	0
HLT	1	1	1	1	X(0)	X(0)	X(0)	X(0)	X(0)	1	X(0)	X(0)	X(0)	0	X(0)	X(0)	X(0)	X(0)	X(0)	X(0)	0	0