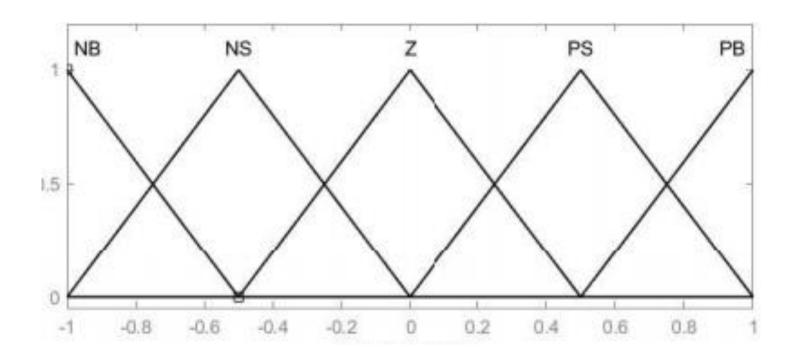
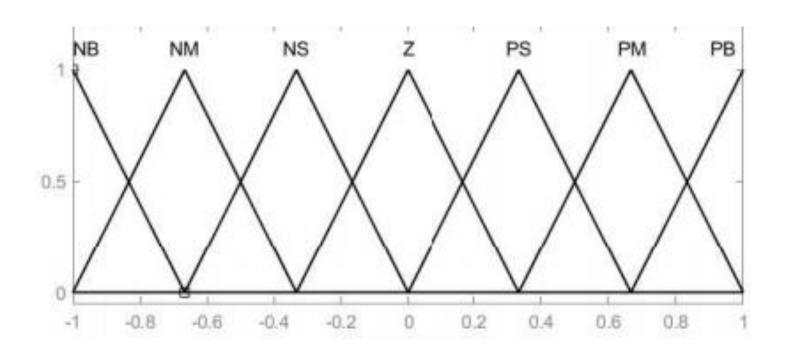
# GA ALGORITHM EXAMPLE

### MEMBERSHIP FUNCTION FOR INPUTS



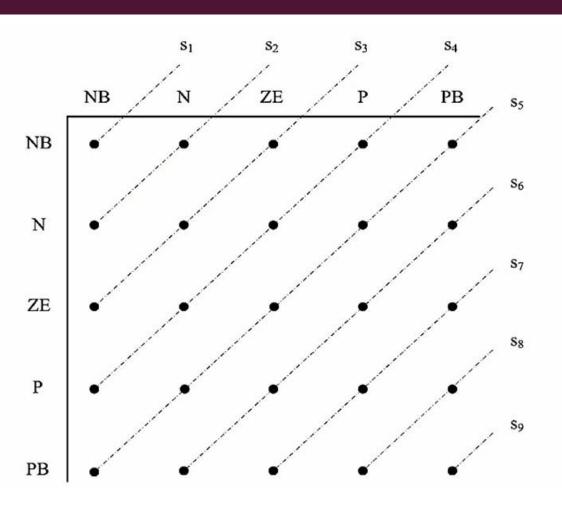
### MEMBERSHIP FUNCTION FOR OUTPUT



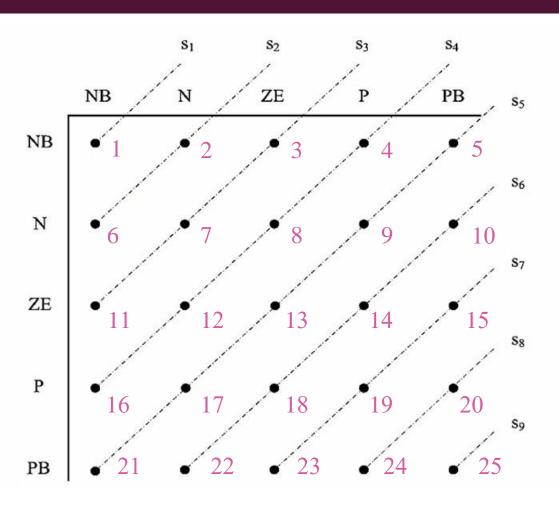
### **FUZZY RULES**

$\Delta oldsymbol{e}/oldsymbol{e}$	NB	NS	Z	PS	РВ
NB	NB	NM	NS	NS	Z
NS	NM	NS	NS	Z	PS
Z	NS	NS	Z	PS	PS
PS	NS	Z	PS	PS	PM
PB	Z	PS	PS	PM	РВ

## **FUZZY RULES DATABASE**



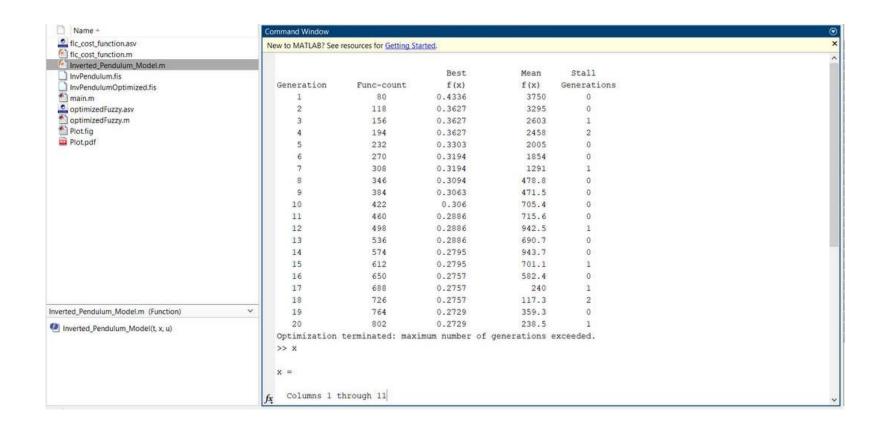
## BASE OF FUZZY RULES



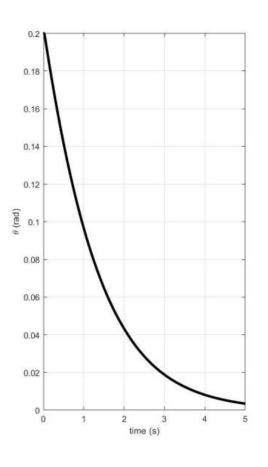
#### DECISION MAKING PARAMETERS

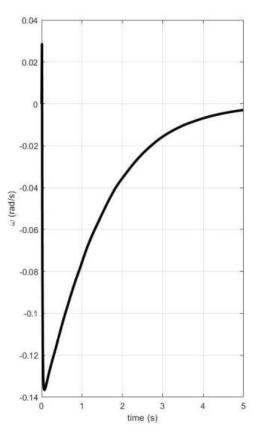
- 5 for fuzzy rules database
- 2 for mfs of inputs
- 2 for mfs of output
- 3 for input/output gain

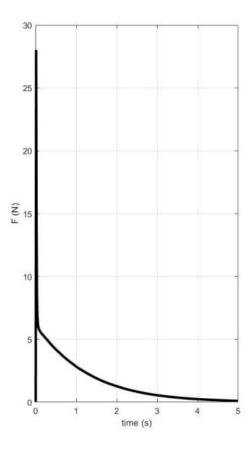
#### MATLAB RESULTS



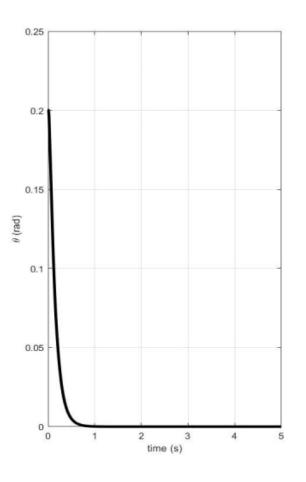
## NORMAL RESULTS

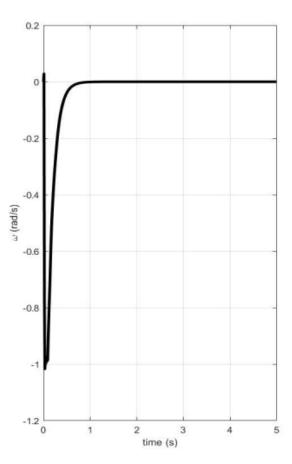


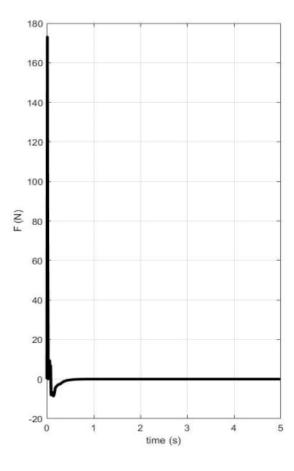




### **OPTIMIZED RESULTS**







### THANKS FOR YOUR ATTENTION