

**CCOD**  
**Lab 6 08.10.2016**  
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Below you can see 3 Gaussian Membership Function of small, medium and large x-y coordinate:



I've created 3 rules for each family A, B, C:

Rule 1: If  $x_1=\text{large}$ ;  $x_2=\text{medium}$ ;  $x_3=\text{small}$ ;  $x_4=\text{small}$ , then Family A.

Rule 2: If  $x_1=\text{large}$ ;  $x_2=\text{large}$ ;  $x_3=\text{large}$ ;  $x_4=\text{large}$ , then Family B.

Rule 3: If  $x_1=\text{large}$ ;  $x_2=\text{medium}$ ;  $x_3=\text{large}$ ;  $x_4=\text{large}$ , then Family C.

Data to evaluate

**Iris Flower Database to validate**

Setosa				Versicolor				Virginica			
$x_1$	$x_2$	$x_3$	$x_4$	$x_1$	$x_2$	$x_3$	$x_4$	$x_1$	$x_2$	$x_3$	$x_4$
0.65	0.80	0.20	0.08	0.89	0.73	0.68	0.56	0.80	0.75	0.87	1.00
0.62	0.68	0.20	0.08	0.81	0.73	0.65	0.60	0.73	0.61	0.74	0.76
0.59	0.73	0.19	0.08	0.87	0.70	0.71	0.60	0.90	0.68	0.86	0.84
0.58	0.70	0.22	0.08	0.70	0.52	0.58	0.52	0.80	0.66	0.81	0.72
0.63	0.82	0.20	0.08	0.82	0.64	0.67	0.60	0.82	0.68	0.84	0.88
0.68	0.89	0.25	0.16	0.72	0.64	0.65	0.52	0.96	0.68	0.96	0.84
0.58	0.77	0.20	0.12	0.80	0.75	0.68	0.64	0.62	0.57	0.65	0.68
0.63	0.77	0.22	0.08	0.62	0.55	0.48	0.40	0.92	0.66	0.91	0.72

Below you can see evaluated rules

Data №:	Family A	Family B	Family C	Result:
Nº 1	A	B	B	Not Good
Nº 2	A	B	C	Good
Nº 3	A	B	C	Good
Nº 4	A	B	C	Good
Nº 5	A	B	C	Good
Nº 6	Other	B	B	Not Good
Nº 7	A	B	C	Good
Nº 8	A	Other	C	Not good
Success Rate:	87.5%	87.5%	75%	62.5%