Contemporary Data Processing Technology (CCOD)
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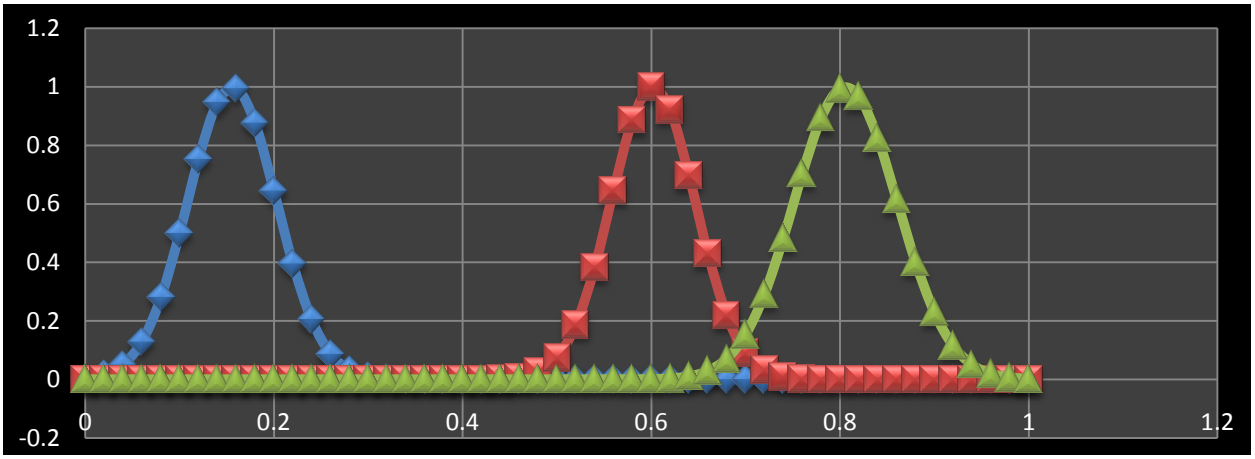

Столбец1	Столбец2	Столбец3	Столбец4	Столбец5
	Family A	Family B	Family C	
	Rule -1	Rule -2	Rule -3	
Rule	x1=medium,x2=medium,x3=small,x4=small	x1=large,x2=medium,x3=medium,x4=medium	x1=large,x2=medium,x3=large,x4=large	
№	A or B or C or other	A or B or C or other	A or B or C or other	
1	A	B	C	good
2	A	B	C	good
3	A	B	C	good
4	A	B	C	good
5	A	B	C	good
6	A	B	C	good
7	A	C	B	good
8	A	B	C	good
success rate	100%	100%	100%	100%

We have a set of x : 0.62 0.70 0.22 0.04

Step 1: Use Gaussian membership function of small, medium and large calculate for each rule:

Small: $e^{(-\frac{(x-0.1556)^2}{0.00447})}$

Medium: $e^{(-\frac{(x-0.6019)^2}{0.004})}$

Large: $e^{(-\frac{(x-0.806)^2}{0.006})}$

Step 2: Calculate M1, M2 and M3

R1: if x1=large and x2=large and x3=medium and x4=medium

$$M1 = \mu1 * \mu2 * \mu3 * \mu4 =$$
$$= 0.9213617870913847 * 0.3954143687660622 * 0.43002905620830423$$
$$* 0.050309266432882756 = 0.007881854780223485$$

R2: If x1=large and x2=medium and x3=large and x4=large

$$M2 = \mu1 * \mu2 * \mu3 * \mu4 =$$
$$= 0.003132261535592472 * 0.43002905620830423 * 1.4614936897470511e - 16$$
$$* 0.050309266432882756 = 9.903774601459668 * 10^{-21} \approx 0$$

R3: if x1=medium and x2=large and x3=small and x4=small

$$M3 = \mu1 * \mu2 * \mu3 * \mu4$$
$$= 0.003132261535592472 * 0.43002905620830423 * 1.3936980168236355e - 25$$
$$* 3.3820848270380204 * 10^{*43} \approx 0$$

$$y = \frac{M1 + 2M2 + 3M3}{M1 + M2 + M3} = 1$$

If y=1 That A