## Greg Viots Fuzzy Cruise Controller



\* Cruise Controller is designed to Keep the vehicle's Speed Constant in the long run drive.

\* It will help driver to manage the lechile speed where it will be automatically upheld.

\* By wing Cruise Control buttons, the speed of the beechile will managed and automatically upheld based on the required speed without the application of the accelerator bedal.

It This Greg Voit's fuzzy Crise controller is used to maintain a Webide at a desired speed.

\* The system Consists of two fuzzy hputs;

(1) Speed difference

(Ti) Acceleration output

(i) throttle Control

Speed difference Fuzzy cruise Throttle Control
Ameleration > Controller

Greg Viot's Fuzzy comise Controller

\* Fuzzy Rule base!

A sample furry rule best R governing the crime Control is as given?

## Sample Fuzzy Cruise Control Rule Lase?

0	2)
-	

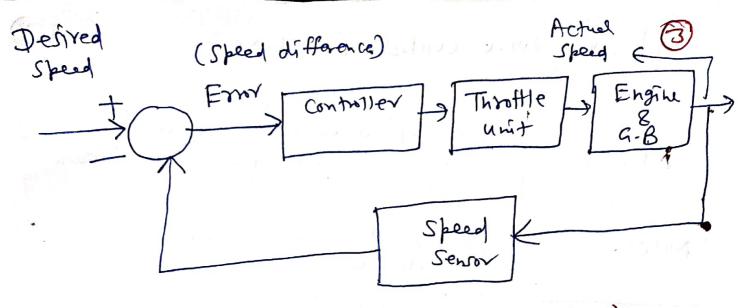
	•	1 P P P P P P P P P P P P P P P P P P P
		difference
		If (Speed Control is NL and
	Rule-1	a (relevation is ZE) then (throttle control
		îs PL)
-		gf (speed difference is ZE) and
1	R41e-2	acceleration is NL) than (tentile control
		1 h
		a c (Cheed difference is NM) and
	Rule-3	a relevation is ZE) then (thattle Control
	- Hosting	1
		a c c cheed dufference 13 NS) and
	Rule-4	a crelevation is PS) (then throttle control
	1	is PS?
	Rule-5	9f (sped difference is Ps.) and
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	a (referation is NS) (then throttle Control
	" Lylou	(2N six
	2.10-6	4f (speed difference is PL) and
	Rule-6	a (relevation 1 7E) (Than I will
	Harman Albert	Control is NL).
	2010-7	Pof (Speed difference is ZE) and
	Rule-7	a meleration is NS) then (throttle
	andre of	Control 10 PS).
	, a , , , , , , , , , , , , , , , ,	
	- The same of the same	9f (5 peed difference is ZE) and
		a cheleration is NM) then (floattle
	Ryle-8	a crelevation is
	13110	Control is PMD.
		12 1 grap PS -> Positive Small

NL-> Negative Large

P PM. -> Positive (Medium NS-> Negative Small

PL-> Positive Large

L2 -> Lovethe zwall NM -> Negative Medium



## Block diagram of Gireg Viot)s Fuzzy Controller

The libert signal to the Controller is the speed and difference between the defined speed and difference between the defined speed and the actual speed, A coording to this error, the actual speed, A coording to this error, the actual something to the throttle controller will enable. The changed that adjust the throttle changed the opening range of the throttle changed by Controller will change the engine speed. By Controller will change the engine speed. The craise Controller regulates the vertice the vertice speed based on derived speed vertice speed speed on derived speed and actual speed comes from the feedback speed securing speed securing.

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