Inputs of the circuit: 28V bus (+28V, -0V) and a tachometer signal w/ a square wave (50% duty cycle, period/frequency depends on fan spin speed.)

A voltage regulator will be used to transform the input from 28V to 5V

A intergrator will be used (aka High pass filter). This will insure that the 555 will trigger at falling edge only. The intergrator will be pull up to Vcc, and a cut-off diode will be used to ensure the voltage does not spike on leading edges.

Input signal will be from tachometer. It will have a signal with T period and 50% duty cycle.
555 timer will trigger on fall edge
PWM on for as long as T_on (calculated below).
555 will output low for as long as T - T_on.
Pluse width period will be the same as input signal period, but duty cycle will have changed. (This fact will be used in our low pass filter and Sallen-Key filter to calculate the avgerage voltage of this signal)

$R1 := 1 \cdot 10^{6} \qquad C1 := 10 \cdot 10^{-9}$

$T_{on} := R1 \cdot C1 \cdot \ln(3) = 0.011$

Passive Low Pass Filter

$R4 := 10 \cdot 10^{3} \qquad C6 := 10 \cdot 10^{-9}$

$f_{cLPF} := \frac{1}{2 \cdot \pi \cdot R4 \cdot C6} = 1.592 \cdot 10^{3}$

Sallen-Key Filter

$R2 := 100 \cdot 10^{3} \qquad C4 := 1 \cdot 10^{-6}$

$R3 := R2 = 1 \cdot 10^{5} \qquad C5 := C4 = 1 \cdot 10^{-6}$

$f_{cSKF} := \frac{1}{2 \cdot \pi \cdot R2 \cdot C4} = 1.592$

the passive LPF is to ensure no high frequencies are going into the OP-AMP. Most of the filter is done by the Sallen-key. The Sallen-key will avgerage out the voltage. This is becuase fc is less then the input frequency.

Comparator using a Schimitt trigger with positive feed back. The comparator will have an output high or low depending on input voltage. This comparator circuit has a hysteresis effect

built in of roughly 5Hz (0.275V). The calculation for upper and lower thershold (UT and LT)is below

$R6 := 1 \cdot 10^3$ $R7 := 20 \cdot 10^3$ $V_L := 0$ $V_H := 5$ $V_{ref} := 2.45$ $f_{hysteresis} := 5$

$T_{UT} := T_{on} \cdot \frac{V_H}{V_{ref}} = 0.022$ $f_{UT} := \frac{1}{T_{UT}} = 44.602$ $V_{UT} := V_{ref}$

$f_{LT} := f_{UT} - f_{hysteresis} = 39.602$ $T_{LT} := \frac{1}{f_{LT}} = 0.025$

$V_{LT} := T_{on} \cdot \frac{V_H}{T_{LT}} = 2.175$ $V_{UT} = 2.45$ $V_{hysteresis} := V_{UT} - V_{LT} = 0.275$

Vref will be created using a voltage divider circuit from Vcc. Vref is the UT and will depend on what design wants it to be. The LT will depend on how much hysteresis you would like. This will change your resistor values. R6 and R7 are used in the following formula:
Vlt = -R1*V_H/R2 - Vref

$V_{actualUT} := V_{ref} = 2.45$ $V_{actualLT} := \frac{-R6}{R7} \cdot V_H + V_{ref} = 2.2$

Using those resistor values. Those are the actual UT and LT for voltage. The LT for frequency and period would also have changed.

MOSFET circuit is just an on and off circuit. the drain will be the output of the circuit. R8 is a circuit limitter, and R9 is for safety when switching MOSFET from on and off states.