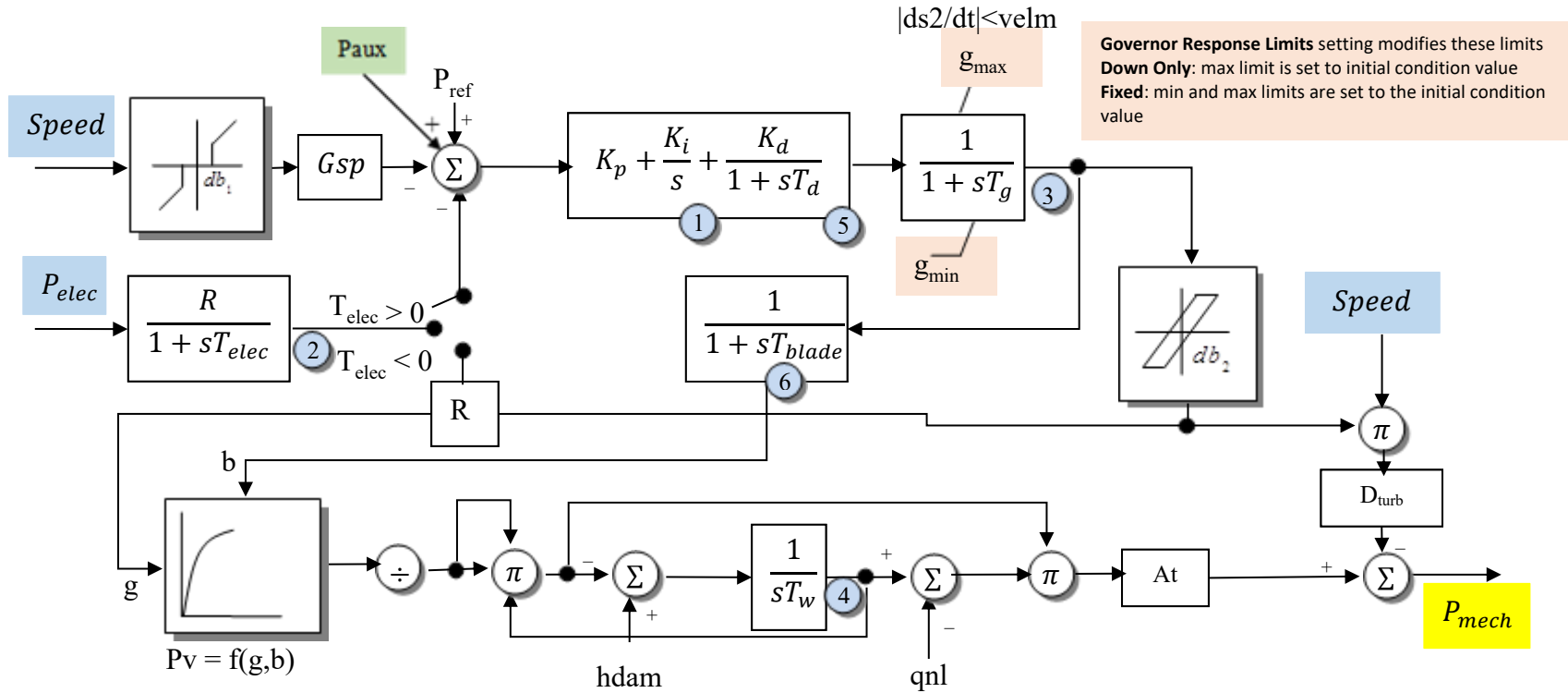


Governor HYPID



States:

- 1 – Ki
2 – RPelec
3 – Gate
4 – Turbine Flow
5 – Derivative
6 - Blade

Model supported by PSLF

Parameters:

MWCap	Turbine Rating, MW
Relec	Steady-state droop, pu, for electric power feedback
Tpelec	Electrical power transducer time constant, sec
Kp	Proportional gain, pu
Ki	Integral gain, pu
Kd	Derivative gain, pu
Td	Input filter time constant, sec
Tg	Gate servo time constant, sec
Velm	Maximum gate velocity, pu/sec
Gmax	Maximum gate velocity, pu of mwcap
Gmin	Minimum gate velocity, pu of mwcap
Tw	Water inertia time constant, sec
At	Turbine gain, pu
Dturb	Turbine damping coefficient, pu
Qnl	No-load flow at nominal head, pu
Gsp	Speed input gain
db1	Intentional deadband width, Hz
Eps	Intentional db hysteresis, Hz
db2	Unintentional deadband, MW
Gv0	Nonlinear gain point 0, pu gv
Pgv0	Nonlinear gain point 0, pu power
Gv1	Nonlinear gain point 1, pu gv
Pgv1	Nonlinear gain point 1, pu power
Gv2	Nonlinear gain point 2, pu gv
Pgv2	Nonlinear gain point 2, pu power
Gv3	Nonlinear gain point 3, pu gv
Pgv3	Nonlinear gain point 3, pu power
Gv4	Nonlinear gain point 4, pu gv
Pgv4	Nonlinear gain point 4, pu power
Gv5	Nonlinear gain point 5, pu gv
Pgv5	Nonlinear gain point 5, pu power
Hdam	Head available at dam, pu
Bgv0	Kaplan blade servo point 0, pu
Bgv1	Kaplan blade servo point 1, pu
Bgv2	Kaplan blade servo point 2, pu
Bgv3	Kaplan blade servo point 3, pu
Bgv4	Kaplan blade servo point 4, pu
Bgv5	Kaplan blade servo point 5, pu
Bmax	Maximum blade adjustment factor
Tblade	Blade servo time constant, sec