$$C\frac{\partial T}{\partial t} - \frac{\partial}{\partial x}\left[D(1-x^2)\frac{\partial T}{\partial x}\right] = S[1-A(V)] - I$$

$$\frac{\partial V}{\partial t} = s\frac{1}{C}\frac{\partial}{\partial x}\left[D(1-x^2)\frac{\partial V}{\partial x}\right] + G(T)V(1-V) - d(T)V$$

$$G(T) = g_{max}\left\{1 - [w(T_v - T)]^2\right\}$$