Sections in Kundur

Chapter 3.1 - 3.9  s/g

5.1 neglect pΨ in the stator voltage vΨ.

neglect Δω in the stator voltage vΨ.
5.2 danger withs

5.3 constant flex

linkage wavelength
Excitation Systems

8.1 Requirements
8.2 Elements of
8.3 Types
8.6 Modeling & more later
Prime Movers 9.0

9.1 Hydraulic

Turbines &

Governing systems.

11.1 P + f control
AGC
Automatic Generation Control
AGC

Electrical System
- Generators
- Transmission
- Loads
Proof 4

Values a gate the same. Pin constant

speed f

\[ K.E. = \frac{1}{2} J \omega^2 \]

\[ \frac{1}{3} \gamma = 500 \quad 2G \text{T at} \ 60 \text{MPH} \]
Energy Equation

\[ P_1 + \frac{u_1^2}{2g} + z_1 = P_2 + \frac{u_2^2}{2g} + z_2 + h_L \]

\( P \) \text{ pressure in section 1}\n
\( u \) \text{ velocity [m/s]}
specific weight \( \gamma \) = \( \frac{F}{V} \)

\( V = \frac{10}{\gamma} \)

\( \gamma = 9.79 \text{ kN/m}^3 \)
\[ P = \left( \frac{N \Delta t}{m^2} \right) = [n] \]
Section #1 in the upper pool

Section #2 in the lower pool

\( P_1 = 0 \)

\( V_1 = 0 \)

\( Z_1 = 1500 \text{ m} \)

\( Z_2 = 1300 \text{ m} \)

\( h_2 = 0 \)
\[ z_1 - z_2 = 200 m = h_t + h_u \]

\[ Q = 100 \text{ m}^3/\text{s} \]

\[ P = F \nu = QR h_t \]

\[ E = F_y \]

\[ P = 100 \times 10^4 \times 200 \]
$P = 2 \times 10^8 = 200 \text{ MW}$
\[ z_1 - z_2 = \frac{P_2}{y} + \frac{V_2^2}{2g} + h_L + h_T \]

\[ z_1 - z_2 = h_L + h_T \]

\[ \frac{V_2^2}{2g} = -\frac{P_2}{y} \]
\[
\frac{V_2^2}{2g} = -\frac{P_2}{\gamma} = +H
\]

\[
V_2 = \sqrt{2g \cdot VH}
\]

\[
V_2 = k_u C \sqrt{H}
\]
\[ Q = AV \]

\[ \frac{4B}{s} = \frac{m^2}{n} \]
G = Gate position