

**Birzeit University**

**Faculty of Engineering & Techonology**

**Department of Electrical & Computer Engineering**

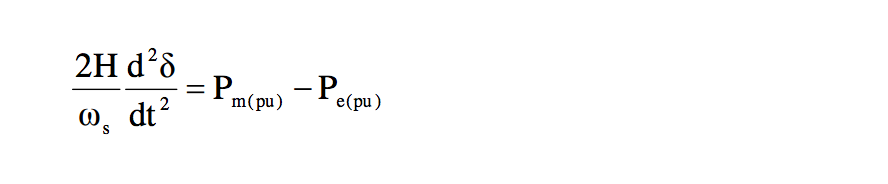
**“Swing Equation Modeling”**

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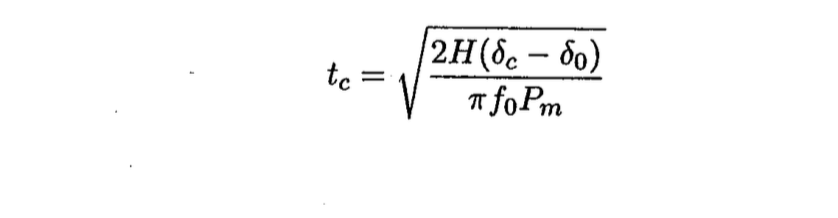
**Instructor:Dr.Mahran Quraan**

**Date: 4-3-2017**

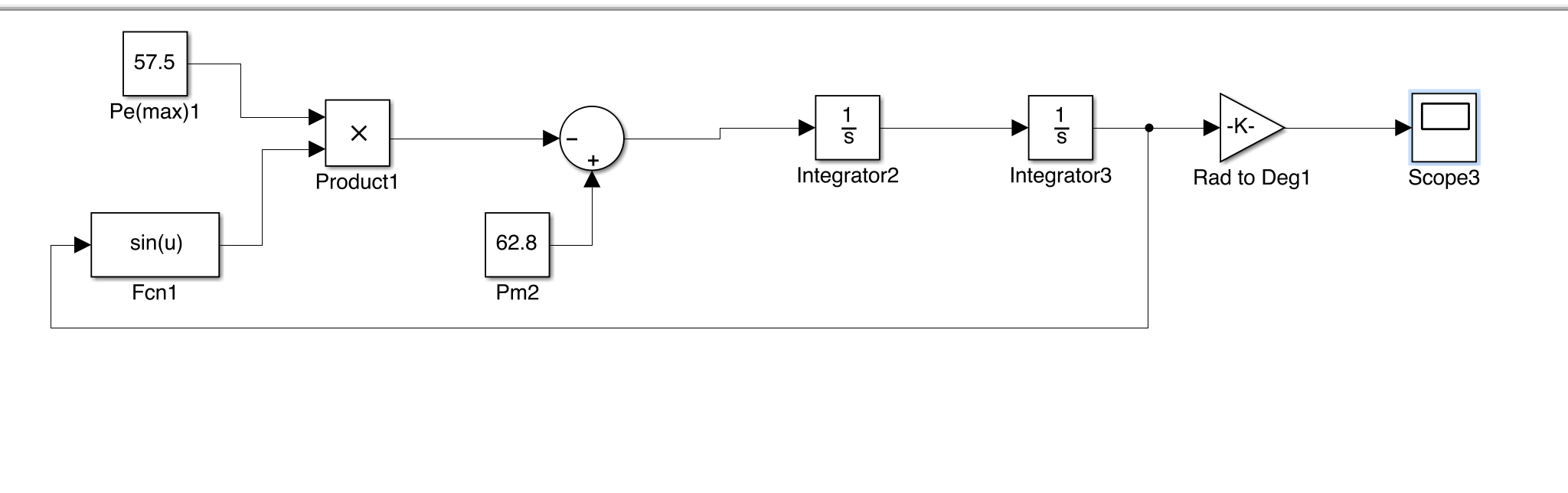
**The swing equation is given by:**

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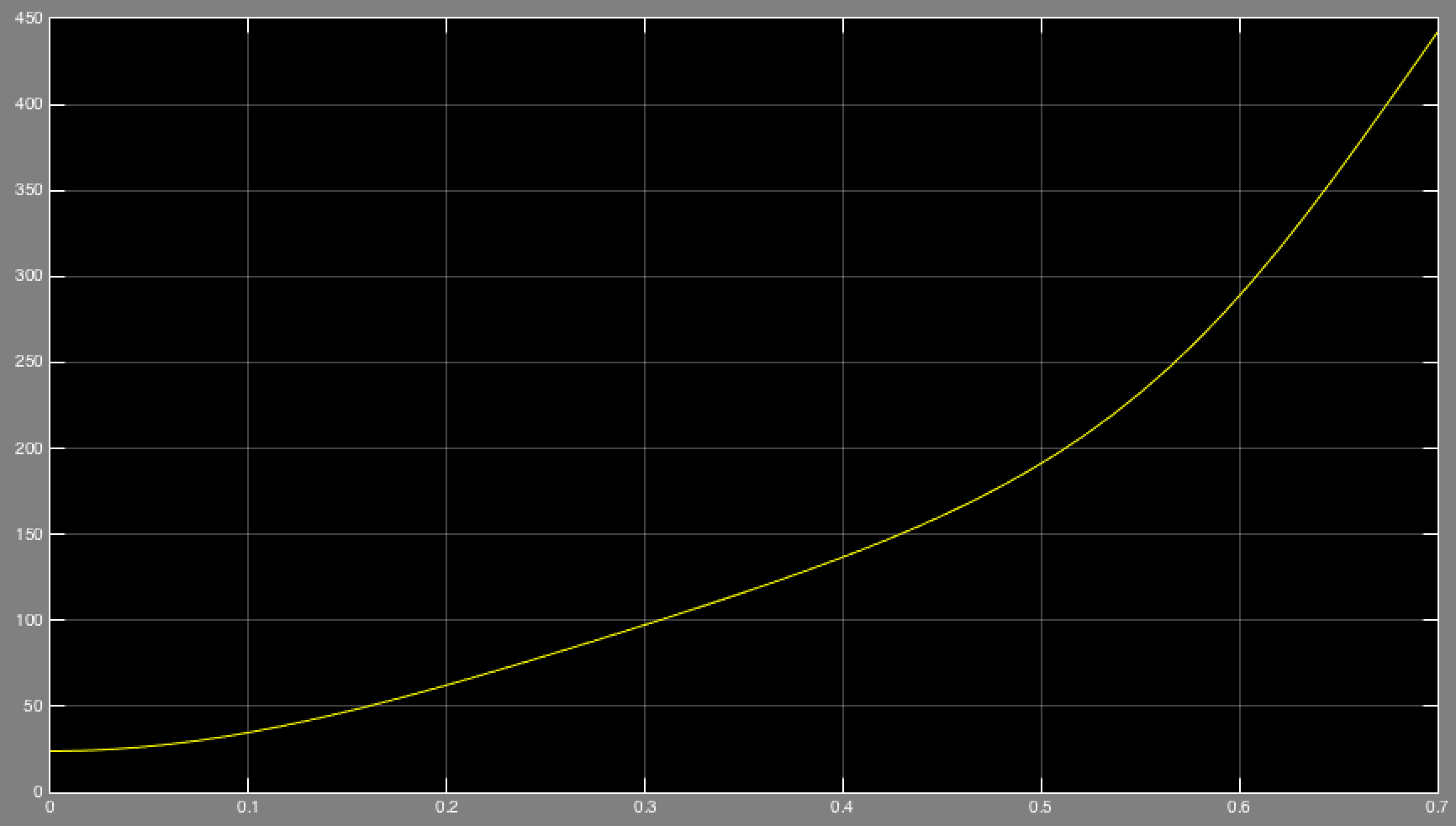
**The critical clearing time equation is given by:**

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**So the simulink model and results are shown in the next figure :**

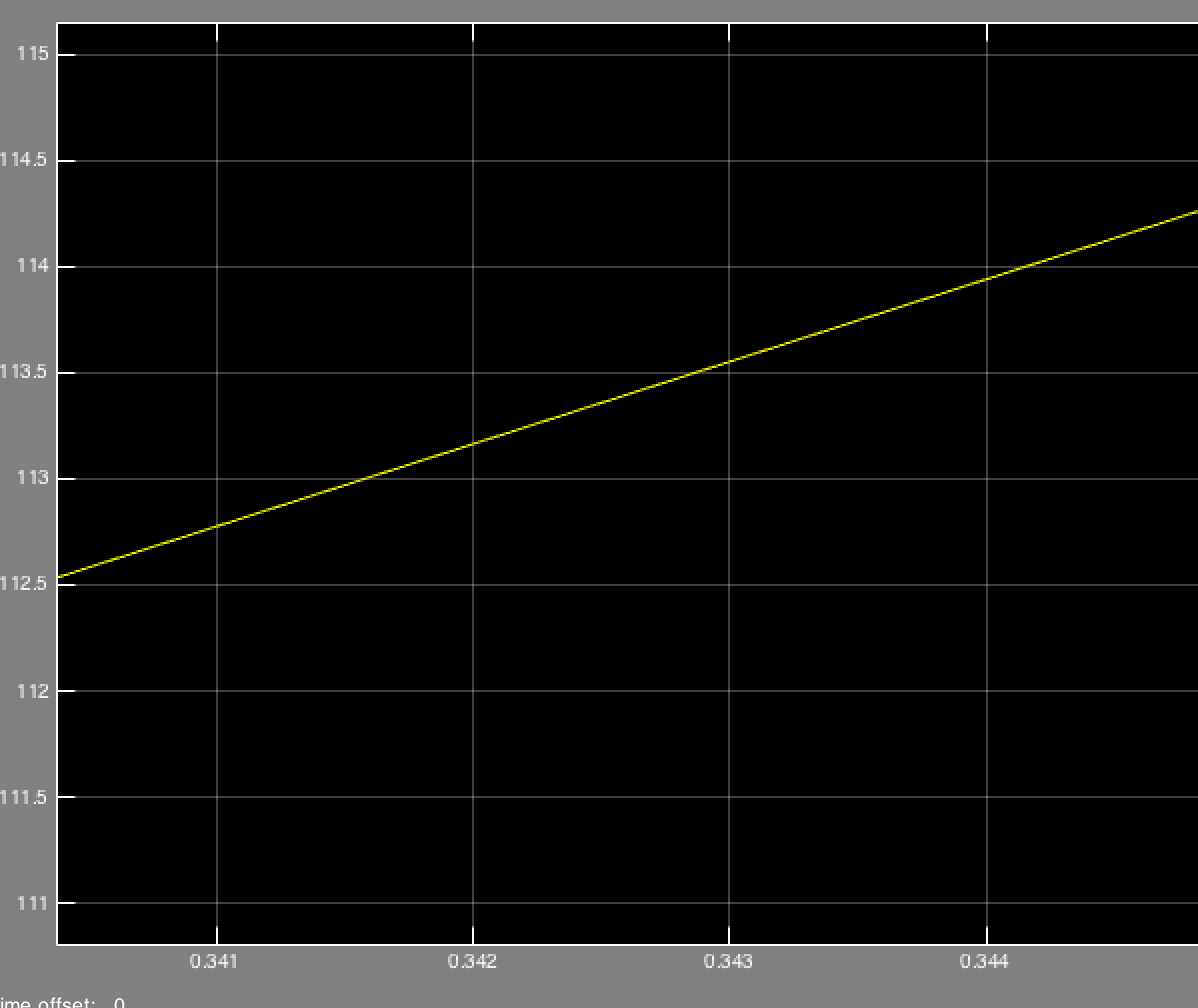
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**the results for the given values (H=3,Pe,max=0.9251,Delta critical= 113.5,ws=2\*pi\*60)**

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**To find the Tcr we llok near the critical angle 113.5 degrees so :**

**( Tcr= 0.3415)**

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