Program for Design of Helical Gear, Problem 2.

Problem Statement: A helical gear of 250 mm diameter transmits a torque of 200 N-m. The pressure angle in a plane normal to the teeth is 20 degrees . The helix angle is 45 degrees. Determine the gear tooth loads.

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clc;

clear all;

Intializing the given data:

d = 250

Mt = 200\*1e3

alpha\_n = 20

beta = 45

Tagential force, axial force and radial component in Newtons is found using the figure 12.7:

[Ft,Fa,Fr] = Figure\_12\_7(Mt,d,beta,alpha\_n)