Table of Contents


```
function [] = PS05_blind_exec_hkolagan()

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
% ENGR 132
% Program Description
% Determines the transmission, absorption, and reflection of solar
 energy through
%   horizontal venetian blinds.
%
% Function Call
%  PS05_blind_exec_hkolagan()
%
% Input Arguments
% NONE
%
% Output Arguments
% NONE
%
% Assigment Information
%   Assignment:     PS 05, Problem 2
%   Author:         Harith Kolaganti, hkolagan@purdue.edu
%   Team ID:        005-12
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

INITIALIZATION

```
%Defines blind parameters
blind_para = [30 35 0.52 deg2rad(10) deg2rad(30)];

%Executes first UDf function
[Fvec] = PS05_blind_subUDF_asartor_thuter(blind_para);

%Executes second UDF Function
```

```
[fractrans, fracabs] = PS05_blind_subUDF_hkolagan_raghavav(blind_para,
 Fvec);
```

CALCULATIONS

```
%Calculates total reflected fraction of light
ref = 1 - fracabs - fractrans;

slatang = blind_para(1,5);
```

FORMATTED TEXT DISPLAY

```
fprintf('When the slat angle is %.2f deg, the transmission is
 %.2f, the absorption is %.2f, and the reflection is %.2f.\n',
 rad2deg(slatang), fractrans, fracabs, ref)
```

When the slat angle is 30.00 deg, the transmission is 0.32, the absorption is 0.49, and the reflection is 0.18.

COMMAND WINDOW OUTPUTS

```
%PS05_blind_exec_hkolagan()
%When the slat angle is 20.00 deg, the transmission is 0.48, the
 absorption is 0.39, and the reflection is 0.13.

%PS05_blind_exec_hkolagan
%When the slat angle is 30.00 deg, the transmission is 0.32, the
 absorption is 0.49, and the reflection is 0.18.
```

ACADEMIC INTEGRITY STATEMENT

I/We have not used source code obtained from any other unauthorized source, either modified or unmodified. Neither have I/we provided access to my/our code to another. The project I/we am/are submitting is my/our own original work.

Published with MATLAB® R2016a