**Coding for study of field disturbance in non-edible ester oil using COMSOL Multiphysics**

% Create the COMSOL model

model = ModelUtil.create('Model');

% Define material properties for Non-Edible Ester Oil

rho = 920; % Density in kg/m^3

mu = 0.05; % Viscosity in Pa.s

% Create geometry (2D rectangle channel)

model.geom.create('geom1', 2); % 2D Geometry

model.geom('geom1').lengthUnit('m'); % Length units in meters

model.geom('geom1').create('Rectangle1', 'Rectangle');

model.geom('geom1').feature('Rectangle1').set('size', {'0.1', '0.05'}); % Size (0.1m x 0.05m)

model.geom('geom1').run();

% Define material for Non-Edible Ester Oil

material = model.material.create('mat1');

material.propertyGroup('def').set('density', rho); % Set density

material.propertyGroup('def').set('dynamicviscosity', mu); % Set viscosity

% Physics setup - Laminar Flow

model.physics.create('spf', 'LaminarFlow', 'geom1');

model.physics('spf').field('velocity').component('u').set('U', '0.1'); % Inlet velocity in m/s

% Apply boundary conditions

model.physics('spf').create('inlet', 'Inlet', 1); % Inlet boundary

model.physics('spf').feature('inlet').set('U0', '0.1'); % Set inlet velocity

model.physics('spf').create('outlet', 'Outlet', 2); % Outlet boundary

model.physics('spf').feature('outlet').set('p0', '0'); % Set outlet pressure to 0

model.physics('spf').create('wall', 'Wall', 3); % Wall boundary (no slip)

model.physics('spf').feature('wall').set('noSlip', true);

% Mesh creation

model.mesh.create('mesh1', 'geom1');

model.mesh('mesh1').run();

% Study setup - Stationary Study for steady-state solution

model.study.create('std1');

model.study('std1').create('stat', 'Stationary');

model.study('std1').feature('stat').set('solnum', 1); % Solve steady state

% Solve the model

model.study('std1').run();

% Post-processing: Visualize results (e.g., velocity field)

model.result.create('pg1', 'PlotGroup2D');

model.result('pg1').create('surf1', 'Surface');

model.result('pg1').feature('surf1').set('expr', 'spf.u'); % Plot velocity field

model.result('pg1').run();