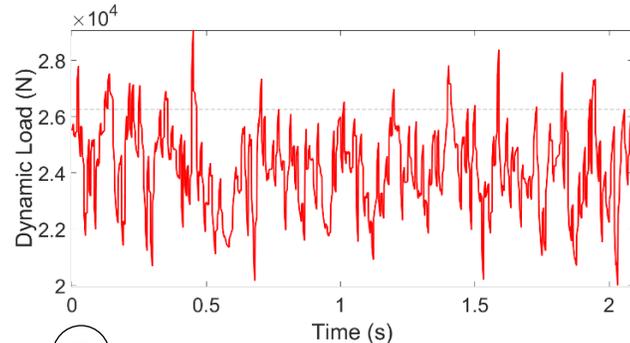
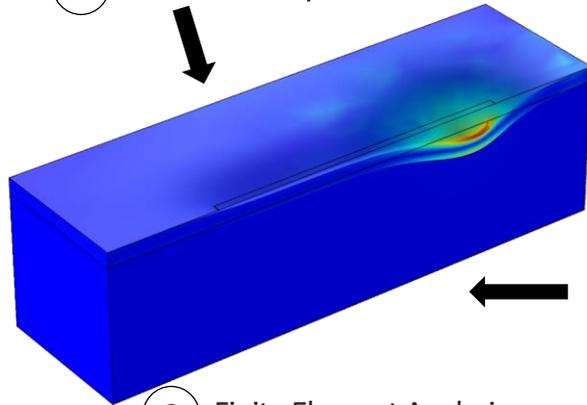


# Dynamic Loading and Viscoelastic Analysis of Pavements

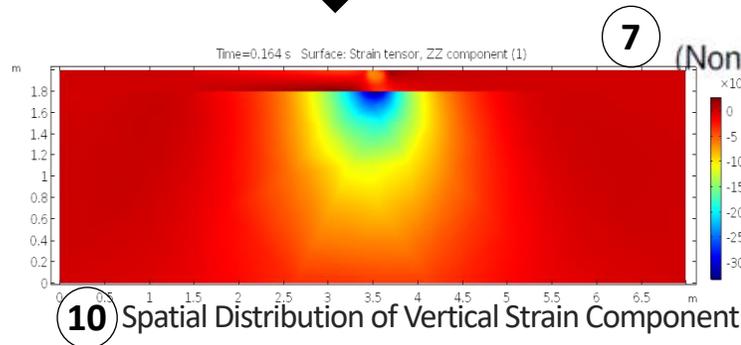
- Kavinmathi K (CE14D042)



8 Load Boundary Condition

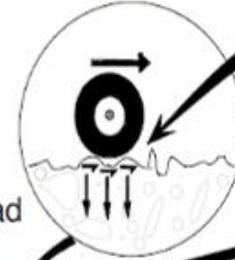


9 Finite Element Analysis

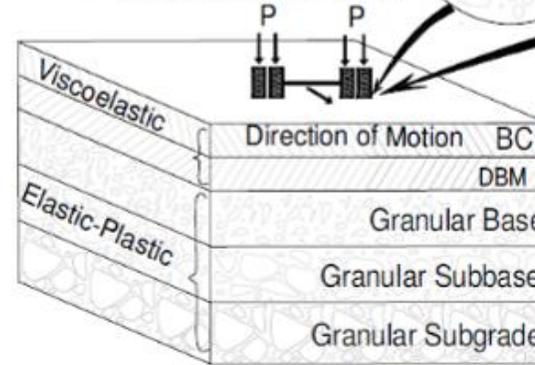


10 Spatial Distribution of Vertical Strain Component

5 Horizontal + Vertical Traction Components



6 Moving Wheel Load



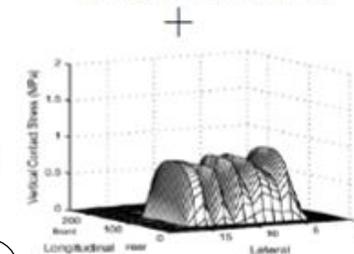
7 (Nonlinearity, Inhomogeneity, Anisotropy)



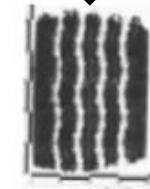
1 Road Profile



2 Non-uniform Load Transferred (Whittemore, Allan P. 1969)



3 Non-uniform Contact Stress



4 Non-uniform Contact Area (adopted from De Beer., 1996)

## Objectives:

- Influence of surface roughness on truck (dynamic) load
- Viscoelastic response of pavements to dynamic truck load