

**Homework H.2.I**

**Given:** A mechanism is made up of rigid links OA, AB, BC and DE. A slider is pinned to end E of link DE and is constrained to move along a horizontal guide. For the position shown, link OA is rotating in the counterclockwise sense about O with a constant rotation rate of  $\omega_{OA}$ , with links OA and BC being vertically oriented and link AB being horizontally oriented.

**Find:** For the position shown:

- Use the instant center approach to determine the angular velocities of links AB, BC and DE, along with the speed of slider E.
- Use vector analysis to determine the angular accelerations of links AB, BC and DE, along with the acceleration of slider E. Is the speed of E increasing, decreasing or constant at this instant?

