

Occupant Kinematics in Rail Crashes and the Subsequent Crashworthy Performance of the Interiors

By

Bernadette Stanley Beng Ceng MIEE MIRA Limited







Should a Robust Solution be Active

- Current interior design depends on passive safety mechanisms
 - Many seating configurations
 - Different 'furniture' designs (Geometry)
 - Other potential hazards eg grab handles, poles etc
 - Inconsistent range of pulses
- Many compromises to be made when designing safe interiors for all scenarios







A Potential Active Device. Seat Belts

- By restraining all occupants in their seats, the seating layout becomes less of an issue
- Table and partition walls etc would not be as hazardous
- Evacuation could be less problematic?
- Issues
 - Vandalism
 - Use
 - Cost
 - Standing Passengers



