

Ye-Chen Pan



Ye-Chen Pan, Ph. D.

Biography

Education: PhD in Mechanical Engineering, 1988

Experience in Crash/Safety CAE: Since 1991

Leadership positions in GM:

- Vehicle Performance Owner for MDO
- Chairman for side crash analysis QIT
- Technical Integration Engineer in Vehicle Structure and Safety Integration Center
- Group leader for Opel/ITDC Crash analysis group
- Safety Lead for '1999 and '2000 model year U-van
- Technical Lead in Side and Rear impact in Mid-Lux crash group
- Project Leader for several Crashworthiness Technology

Development Projects and DFSS projects

Accomplishments since 2002 (back from ISP assignment in Opel/ITDC):

- Awarded **Tool/Method/Secret** for GM patent submission P022097:"**Novel Method for Tire Creation**" - 2012
- Chair simulation(1) session in 12th International LS-DYNA Users Conference 2012
- Chair Automotive(3) session in 11th International LS-DYNA Users Conference 2010
- Awarded **Tool/Method/Secret** for GM patent submission P002300,"Advanced Finite Element Side Moving Deformable Barrier Models" -2007
- Awarded **Tool/Method/Secret** for GM patent submission GP309281," Auto Extraction Of Exterior Surfaces/Meshes Process " -2006
- Developed Master Model Management Process Training Process and class
- Developed MDO process and training class
- DFSS Green Belt and Black Belt certification
- Evaluated and recommended Animator as a GM Global standard post-processor for LS-DYNA simulations. Developed, Trained and Migrated all crash simulation engineers in all GM Regional Engineering Centers to use Animator.
- Migrated all the users to use Primer as pre-processor for LS-DYNA simulations globally
- Developed various process automation tools for crash CAE simulation standard work to improve productivity
- Trains and mentors new Crash CAE integration engineers globally
- Chairs monthly global side crash QIT meetings

- Led and completed DFSS project “ Countermeasure development for FMVSS214 NPRM loadcases “
- Led and completed DFSS project “ SID II-s and ES-2 dummy performance variability”
- Led and complete GATS project “LINCAP variability”
- Led and completed development and improvement of front ODB and side-NCAP barrier models.
- Directed GM-SPA (Safety Process Automator) tool development for crash simulations
- Directed GM-CARDS tool development for crash/DOE simulations
- Developed Rapid powertrain modeling methodology for crash analysis
- Created web based powertrain model library for crash analysis
- Completed global simulation guidelines for side impact load cases and Danner load cases
- Organized Advanced LS-DYNA training class for the entire GMNA CAE LS-DYNA user community.
- Completed UAT activities for window XP workstation migration, CAE crash application product releases, new DYNA versions, HPC/MPP testing, side impact dummy model releases, etc.

Community Involvement:

- Mr. Pan has been instrumental in preserving and promoting Chinese culture and language in among Chinese Americans in the Metro-Detroit area. In 1997 to 1999 he has served as Vice President, President and Chairman of the board for the Southern Michigan Chinese School in Troy, MI. He has continued helping and supporting the school since in various capacities.