AUTOMOTIVE SYSTEMS
Research focuses on maximising fuel efficiency and NVH performance of vehicle powertrains and the safety of on-road vehicles through innovative solutions in power transmission and suspension.

CURRENT PROJECTS
• Dynamics and control of dual clutch transmission;
• Optimal power management of hybrid car powertrains;
• Investigation into vehicle dynamic stability under specific test manoeuvres;
• Theory and experimental validation of hydraulically interconnected suspensions – case study on Kinetic™ suspensions;
• Active suspensions using interconnected fluid circuits with minimum power consumption.

CEMPE MECHANICAL TEAM
• Leader: Dr. N. Zhang, Associate Professor in Mechanical Engineering
• Team members:
  - Dr. J. Jeyakumaran, Senior Lecturer, Powertrain design and testing
  - Dr. H. Du, Senior Research Associate, System dynamics and control
  - Dr. W. Gao, Senior Research Associate, Random vibration and reliability analysis
  - Dr. J. C. Ji, Senior Research Associate, Nonlinear system dynamics

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