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## **INVESTIGATION OF NVH-BEHAVIOUR OF PASSENGER CARS USING MULTI-BODY-SIMULATION MODELLING**

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**ABSTRACT** - Vehicle acoustics encompasses an area of conflict constituting many development criteria and is therefore affected by many conflicting goals. Since the vibrations of the drivetrain can lead to disturbing cabin noise phenomena, the high vibration excitation of the modern injection engines place high demands on the matching of the drivetrain components. To this end, simulation models help develop a deeper understanding of the occurring vibration phenomena in a system. By adopting a systematic approach to develop simulation models and by exploiting the advantages of various simulation tools, complex circumstances can be represented and analysed. With the help of such a combination, a balance between agility and comfort of the system has been reached, for the phenomenon of shuffle.

**MAIN SECTION** - Although vehicle acoustics is just one of the many criteria in the development of an automobile, it has steadily gained in importance. On many occasions, the emphasis fields of vehicle development can result in a conflict of goals with acoustics.