

22nd International Conference on

ADVANCED MATERIALS AND NANOTECHNOLOGY

September 19-21, 2018 Tokyo, Japan

Development of Neighborhood Electric Vehicle (NEV) light weight body based on substantiation**H S Song¹, S Y Lee¹, Y S Lee¹, H S Jung² and W H Choi²**¹Ulsan technoPark, Republic of Korea²TOPIND, Republic of Korea

As global fossil fuel depletion, greenhouse gas emission regulations, and fuel economy regulations are strengthened, domestic and overseas automakers are accelerating the development of eco-friendly cars. Competition for pre-emption in the early market is accelerating with the launch of various line-ups from high-end electric cars to low-cost electric cars. In this research project, based on frame body design technology specialized in low speed electric vehicle (NEV), 1.7GPa hot stamping part molding technology, 1.0GPa cold forming technology, skin part vacuum molding technology, assembly technology, and inspection tool manufacturing technology to secure the commercialization technology of electric vehicle and autonomous vehicle. We evaluated the basic properties of hot stamping parts which have not been applied to existing parts, developed joint properties and evaluation techniques, and conducted structural stiffness and torsional stiffness tests to verify the frame body manufactured on the basis of structural analysis. With the development of a small-sized electric vehicle equipped with a lightweight frame body with safety, it is expected that the technology that has been focused on the development of existing urban electric vehicles and high-speed electric vehicles can be diversified industrially.

Biography

H S Song is student at Ulsan TechnoPark, Republic of Korea . Her research experience includes various programs, contributions and participation in different countries for diverse fields of study. She is a recipient of many awards and grants for Her valuable contributions and discoveries in major area of research. Her research interests lie in Major areas of Study. She is committed to highest standards of excellence and it proves through her work and experience.

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