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## Editorial

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**Dr. Samraj J Dhinagar**  
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ARAI is placed at the center of critical juncture where the entire automotive industry is evolving from conventional combustion engine centered to a software centered smart mobility Industry. ARAI Journal of Mobility Technology captures this essence of transition very clearly. The readers will indeed get a glimpse of these technologies that are built in India and across global institutions and organizations.

As I recollect my memories of walking through the mist-covered hilltop centre of ARAI back in the 1990s for calibration of the smoke meter which was the only measuring equipment used to check and control the visible pollutants from diesel engines. Today's ARAI has morphed itself into an institution where every modern aspect of these software-driven automotive products are created, assessed and regulated to create a sustainable future.

Any nation's progress purely relies on the utilization of its full potential. Our capability to create products and services that fulfil the aspiration and needs of our consumers. We are the home to the software industry that designs software module or software packages that runs in machines today be it consumer appliances, automobiles, aircraft, banks, security systems, defence equipment and many more where software is an integral part of a product.

Crystallization of ideas and products which helps individuals to move or for the general public to move in large numbers within our growing cities and in between cities is very well encompassed in this technical journal which helps researchers and engineers to visualize different products for the mobility industry.

As a nation having the largest pool of young, qualified and highly capable engineers, the education system that propels the youth into a capable engineer with skills across multiple engineering domains is the fuel for the growth of both the component and vehicle industries. This human capital combined with the core research into components like sensors, actuators, magnetics, multiple cell chemistries, fast acting low-loss switches getting enabled through the latest communication technologies is the strength of our ecosystem to create software-defined automobiles of the future. This Journal from ARAI places a critical role in all these areas.

The partnership between components and product creators in the automotive industry is in a transition phase through which Industry is undergoing will definitely witness a sea change in its capabilities to support and create next-gen mobility products. To identify, inform and eliminate the risk of failure on the part, every mobility product of today and in future has a vast amount of electronics and software inbuilt to effectively use such

products to its fullest potential. These components will configure and change over a period of time inside these intelligent products to optimize the product performance over its lifetime.

This journal of mobility technology and the authors of various articles herein bring great insight into every technical aspect and align leaders in the mission of creating software-centred autonomous and semi-autonomous products.

Wishing all success to the editorial team for bringing this together and happy reading to all the readers.

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