



P.R.No.52/2024

Date: 23.07.2024

Press Release

Chennai Metro Rail's Ventilation Innovation for Phase 2 project Gets Recognition at ISAVFT 2024 Symposium, Copenhagen

Chennai Metro Rail's innovative tunnel ventilation solution for its Phase 2 project has been shortlisted for award under the category "Sustainability in underground design and construction" at the prestigious 20th International Symposium on Aerodynamics, Ventilation and Fire in Tunnels. The award will be given at the symposium which will be held in Copenhagen, Denmark, from October 28th to 30th, 2024.

ISAVFT LTD organizes unique, internationally recognized technical conferences and symposia that bring together expert speakers, delegates, exhibitors, and sponsors from all over the world. They work in close coordination with technical advisory committees, which represent the key influencers and shapers in each technological community with which we work.

Challenges of Building Underground Stations in Dense Cities

The paper, titled "Chennai Metro, India- A case study" by Thiru.Hari Prasad, AGM (Mechanical System), CMRL and Thiru. R. Singh, S. Vassoudevane (M/s Systra, Infrastructure) explored the unique challenges of designing underground stations in densely populated cities. Space is a major constraint, forcing designers to find ways to minimize the footprint of essential service areas (electrical and mechanical rooms) without sacrificing functionality, passenger experience, comfort, or safety.

The study aims to optimize ventilation system layouts in the Chennai Metro Rail to save space and reduce costs. It proposes placing Tunnel Ventilation Fan (TVF)'s at one end of the station and using TVFs for both tunnel ventilation and trackway exhaust when not needed. This reduces the number of fans from eight to two, resulting in significant space and cost savings. The study also demonstrates that even with a single TVF, the system meets all fire safety requirements. The savings achieved in the Chennai Metro Rail Phase 2 project are attributed to optimizing civil space, reducing the number of fans, and lowering connected electrical load and cabling needs.

Chennai Metro Rail's commitment to sustainable solutions takes another leap forward with its innovative ventilation system. This ingenious design not only reduces costs but also maintains the highest safety and efficiency standards.

Issued By: Joint Director / Public Relations Officer

CMRL, Chennai – 600 035.