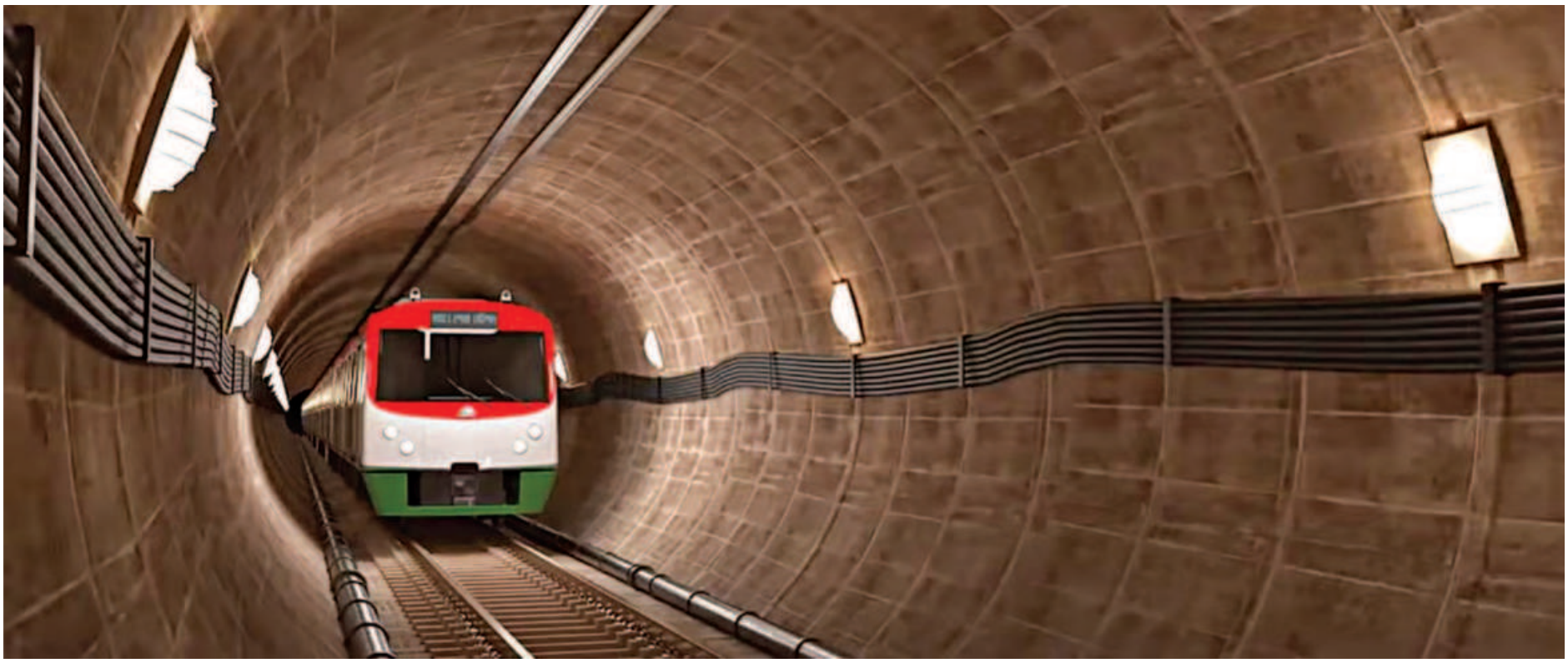

Bangladesh enters the world of high-tech underground mass transit

Bangladesh's first underground metro rail, the MRT-1, was inaugurated today by Prime Minister Sheikh Hasina. With this, Bangladesh's transport sector enters the world of underground mass transit. The 31.241-km first-ever underground and elevated MRT-1 will run between Airport-Kamalapur and Purbachal-Natun Bazar-Pitalganj.

Here are the top 5 features of the new MRT-1 that you need to know.Soundless Tunnel Boring Machine

A Soundless Tunnel Boring Machine (TBM) is a type of tunnel construction equipment that operates without creating significant noise or vibration. This technology is designed to minimise the impact of tunnelling on the surrounding environment and communities. Soundless TBMs use advanced soundproofing materials and techniques, such as specialised cutting heads and sound-absorbing liners, to reduce noise levels.

They also employ vibration-damping systems to reduce ground-borne vibration during tunnelling. This makes them ideal for use in densely populated urban areas, where the reduction of construction-related noise and vibration is of utmost importance.

The use of soundless TBMs will make it possible to build MRT-1's underground infrastructure without disrupting the daily lives of residents and businesses.

Automated fare collection system

The AFC system automates the fare collection process, reducing the need for manual ticket checking and improving the efficiency of the transportation system. It also enables real-time tracking of passenger journeys and revenue collection, making it easier for transport operators to manage their operations and track their financial performance.

In MRT-1, passengers will be able to use their MRT passes or Rapid Passes to utilise the AFC system.

The Operation Control Centre (OCC)

The Operation Control Centre (OCC) of the MRT-1 in Bangladesh is a high-tech facility designed to manage and monitor the operation of the underground metro rail system. The OCC will be equipped with advanced technology and tools, including real-time train tracking systems, communication systems, and computer-aided dispatch systems, to ensure the smooth and efficient operation of the MRT-1. The OCC will be staffed by highly trained personnel who will monitor the train movements, manage passenger flow, and respond to emergencies. The OCC will also be responsible for ensuring the reliability and safety of the MRT-1 by continuously monitoring the system and taking corrective action if necessary.

Advanced soundproofing

The MRT-1 will employ various techniques and materials to reduce noise levels and vibration during tunnelling and train operations. This includes the use of specialised cutting heads and sound-absorbing liners, as well as vibration-damping systems. The trains themselves will also be designed with noise-reducing features, such as insulated cabins and the earth around the tunnels in the underground part of the MRT-1 will also help in soundproofing.

Sustainable and eco-friendly

The MRT-1 is also designed to be environmentally friendly and sustainable. It will run on electricity, reducing air pollution in the city. The construction of the project will also follow strict environmental standards to minimise its impact on the local community.