

Speed Control, Signal Reading and Halts Will Be Fully Automated

Train operators to sit back as metro to run on autopilot

Graphic: Kannan Sundar

Karthikeyan Hemalatha | TNN

It could be the easiest job in the world: Chennai Metro Rail Limited advertised 87 spots for train operators last Saturday. Metro trains are fully automated, from speed control to responding to signals.

"It will be a very easy and relaxed job," said a CMRL official. Even the advertisement calling for candidates doesn't make the job sound too challenging: "Shall report... at least half an hour before scheduled departure of the train... shall be alert... ensure the rake for revenue service is properly certified." The train operator will also have to keep a log book.

Manual operation will be minimal since the new trains to be used in the first phase will have automatic train operation (ATO) and automatic train protection (ATP) systems.

ATO takes care of how a train runs, from reading information from the control room and telling the trains about approaching stops to when and how hard to hit the brakes. Automatic train protection ensures that trains run only at designated speeds on different sections of the line.

The trains can run without an operator, but having one is essential to soothe the Indian mentality, say officials. "People are not used to seeing trains without operators. With the trains expected to carry a large number of passengers, we cannot run it without operators," said the official.

Operators will also take charge during emergencies. Metro rail may consider "unattended train operations" in the third phase.

Though the operator has little role in an automatic set-up, he/she will report to the authorities in case of emergencies without delay. The operator will maintain speed restrictions as per directions given to him. The job is also simpler because the lines are not as complicated as the ones at the railways.

"The trains will arrive by April and the depots will be ready by November. We need to recruit before that and begin training," said the official.

Apart from train operators, CMRL has announced 60 spots for station controllers and 97 for junior engineers. Trial runs on the first stretch between St Thomas Mount and Koyambedu will happen by end of this year.

AT THE METRO WHEEL

CMRL has called for 84 train operators. But unlike other trains, metro trains don't need a driver as they are automated. An operator takes charge only during emergencies



1 The metro will not need a driver to run, but it will have a person in the motor cab to open and close doors



2 The metro rail rakes will be equipped with automatic train control system. Rakes will automatically read information sent by operators from a control room and move on its own



3 The rakes will read sensors on the track, read pre-determined commands to identify routes, stations, speed and other information supplied from a control centre. The driver's role will be to monitor the functions

TRAIN OPERATION AND FUNCTIONS OF TRAIN OPERATOR

The operator will serve as a back-up to automated systems that control the trains and, via constant communication with a central Operation Control Centre, will be in charge in any emergency such as a fire or loss of power

The rakes will read track sensors, follow commands to identify routes, stations, halts and speed. The operator's role will be to ensure that everything functions well and, Chennai Metro Rail officials say, reassure passengers that there is someone in charge of the train

ACCORDING TO CHENNAI METRO RAIL LTD, THE TRAIN OPERATOR WILL HAVE TO...

▶ Be alert and equipped with full complement of equipment supplied to him

▶ Ensure that the rake for revenue service is properly certified by the depot supervisor and that the cabs are closed and locked properly

▶ Ensure availability of train log book in the rake

▶ Be responsible for safe train operations

▶ Report anything unusual to the control centre

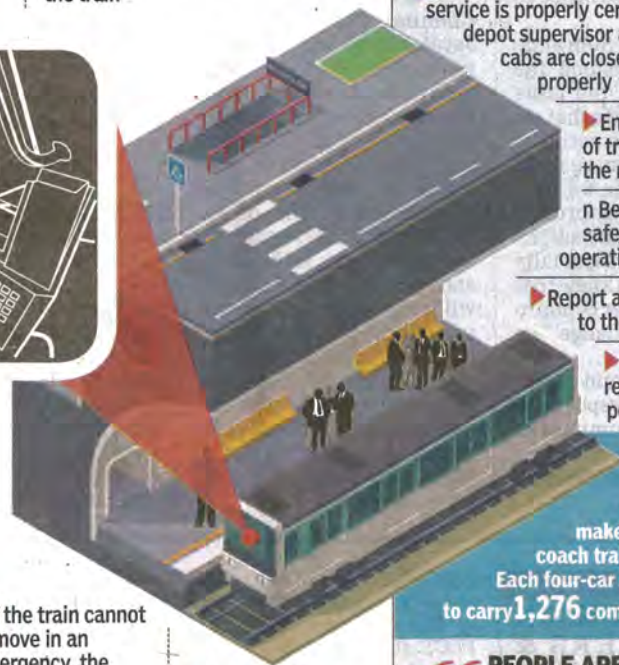
▶ Maintain speed restrictions as per directions



The operator will monitor passengers entering and exiting a train through screens installed in his cabin, control doors and perform other related functions. Each coach will be connected by intercom for emergency communication between passengers and the driver

If the train cannot move in an emergency, the operator may launch emergency ramps from the train to the side-walks for the passengers to get off the train

If the operator is unable to communicate with the control centre, the centre can directly talk to passengers



Transport company Alstom will

make 42 sets of four-coach trains for CMRL. Each four-car rake will be able to carry 1,276 commuters

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Metro rail official