

GOVERNMENT OF INDIA  
MINISTRY OF RAILWAYS

**RAJYA SABHA**  
**UNSTARRED QUESTION NO. 3004**  
**ANSWERED ON 20.12.2024**

**ADVANTAGES OF ELECTRONIC INTERLOCKING SYSTEM**

3004 SHRI AJIT KUMAR BHUYAN:

Will the Minister of RAILWAYS be pleased to state:

- (a) the details of electronic interlocking and its advantages over mechanical and relay-based interlocking;
- (b) the details of existing guidelines for provision of electronic interlocking in Indian Railways;
- (c) the details of stations that have been provided with electronic interlocking during the last five years; and
- (d) the details of budgetary allocations that have been made to support the ongoing development and maintenance of electronic interlocking infrastructure in the Indian Railways?

**ANSWER**

MINISTER OF RAILWAYS, INFORMATION & BROADCASTING AND  
ELECTRONICS & INFORMATION TECHNOLOGY

(SHRI ASHWINI VAISHNAW)

(a) to (d): Electronic interlocking (EI) is a computer based interlocking system, which ensures safety in train operations by establishing a sequence of operations i.e. route setting and route locking before any signal can be taken off for movement of train.

As compared to Mechanical and Relay based interlocking, Electronic Interlocking using digital

technology results in faster operations, requires less space & power, is more reliable and easy to install. Electronic Interlocking is also easier to interface with other sub systems like Automatic Train Protection (ATP) and Centralised Traffic Control (CTC).

As per the existing guidelines, Electronic Interlocking is required to be provided at stations having maximum of 500 routes. For stations having more than 500 routes, relay based RRI or Distributed Electronic Interlocking is required to be provided.

The details of stations provided with Electronic Interlocking/ Distributed Electronic Interlocking is as under:

Period	No. of stations provided with Electronic Interlocking
2004-2014	837
2014-2024	2964 (3.52 times)

Budget allocation during year 2024-2025 for Signalling and Telecom works is Rs. 4647.28 Crore.

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