

## **TECHNOLOGY DEVELOPMENT**

RDSO is the sole R&D organisation of Indian Railways(IR) and functions as the technical advisor to Railway Board, Zonal Railways and Production Units. One of the major roles that RDSO has played is that of developing and maintaining standards and specifications which ensure that all different technologies are able to work together as a system, in turn making it possible for IR to operate seamlessly without any technology limitations.

RDSO also offers international consultancy services in matters pertaining to design, testing and inspection of some of the important activities and projects undertaken/completed by RDSO during the year 2014-15 are given below:

### **Safety**

- Development of Radio Based Advance Warning System(RBAWS) for Unmanned Level Crossing
- Safety against fire in IR coaches
- Safety at Unmanned Level Crossing- provision of hoarding to warn road users
- Development of Crashworthy Design of Coach

### **Passenger Amenities**

- Development of Double Decker Coach Design
- Development of Hotel Load Converter
- On-Board Wireless Public Address System
- Code of practice for improved passenger amenities to be provided at Adarsh Stations on IR

### **Infrastructure**

- Wagon to carry bulldozer for Accident Relief
- Investigation of ballastless track problems in tunnels on Konkan Railway
- Development of high rise OHE

- STT-49 maintenance schedule of MTRC system for GSM-R
- Remote Unmanned Data Logger

### **Operational Efficiency**

- Development of specification for 2200hp Diesel Engine for DMUs over IR
- Specification for 4500/5000 HP Dual Mode locomotive for passenger service
- Preparation of draft specification for Dual Mode Goods Locomotive
- Alternate Drive Gear System suitable for 200 kmph
- New Insulation Scheme used for EMU/MEMU (Type-4601)

### **Indigenous Development**

- Improvement in ride quality and speed potential of WDG5 locomotives
- Design modification of HTSC FAB-II fabricated bogie frame for HHP locomotives
- HTSC fabricated bogie frame with TBU application for HHP locomotives
- Design & development of Cast ALCO Engine Block

### **Tests and Trials**

- High Speed Trial of Train : High speed trial of train at 160 kmph utilizing 3-phase WAP5 electric loco was carried out between New Delhi to Agra on 03.07.2014. Trial was carried out to verify all parameters of safety and compliance of all was found within limit. This was the highest speed recorded by a train in the country.