



कोंकण रेलवे कॉर्पोरेशन लिमिटेड  
Konkan Railway Corporation Limited

# NEXUS

*Next-level Upskilling For Success*

# Konkan Railway: A Journey Through Innovation

**Established:** 19 July 1990

**Ownership:** Ministry of Railways + Governments of Maharashtra, Goa, Karnataka & Kerala

**740 km Route:** Built through *Western Ghats & Coastal Terrain*

**First major BOT model project** in Indian Railways

**Commissioned:** January 1998



# Engineering marvels that transformed coastal connectivity

**142 Tunnels (including J&K) | 187 km –**  
Among India's most advanced tunneling projects

**Bridges, Viaducts & Complex Infrastructure** – Expertise in difficult terrain

**100% Electrification & Modern Signalling** – Tech-driven rail operations  
**Consulting & O&M Services** – Surface + Metro Rail (India & International)

**Recognized by World Bank** –  
Benchmark for infrastructure & resource management

**Focus on Sustainability, Innovation & Safety**





**OPERATIONAL  
EXCELLENCE**

# Salient Operational Features

- Average **55 Nos.** of **Express/Passenger Trains** & **17 Nos.** of **Freight trains** run daily.
- **31 mn passengers** in FY24 & **31.61 mn** passengers in FY25.
- Coaching Maintenance Depot: **Madgaon**.
- Freight Maintenance Depots: **Verna & Thokur**.
- Satellite Depots: **Chiplun, Ratnagiri & Surathkal**.
- Maintenance of Locomotives, Coaches, Wagons, Rescue Trains, Utility Vehicles, Tower wagons, RMVs, Track Machines.
- **13 Traction Sub Stations** and **42 Switching Posts** remotely controlled through SCADA.
- **8 OHE cum PSI** maintenance depots.
- **Total: Goods sheds – 13; Private Sidings – 4**
- **Freight:Passenger Revenue Ratio in Indian railways 2:1, In Konkan railway 2:3**



# Innovative Facilities



**Roll-on-roll-off (roro) service.  
Warehousing incl.**

**Cold chain warehouse at  
Ratnagiri Capacity : 2000 MT.  
8 chambers (250 MT each) with  
temperature range from 12  
degree to -18 degree .**

**Containerization Terminals  
Gati shakti cargo terminal Veer.  
Freight terminal at Bhoke.**

# Passenger Delight Services



# Passenger Delight Services



# Passenger Delight Services



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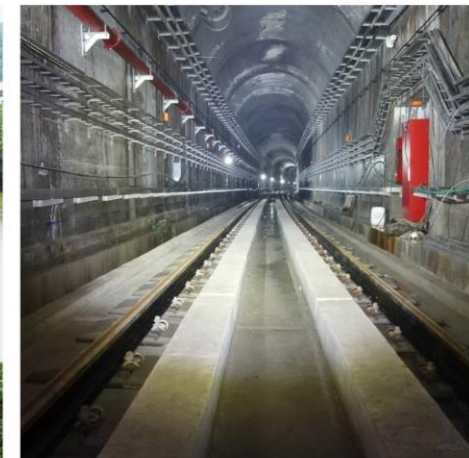
# Passenger Delight Services





**ENGINEERING  
EXCELLENCE**

# ENGINEERING EXCELLENCE



# Salient Features



**Route KM :** 739 (ROHA in Maharashtra State to THOKUR in Karnataka State)

**Track KM :** 1003

**Stations :** 72 Nos

**Tunnels :** 91 Nos , Total Length 84.50 KM (Longest 6.5 KM)  
(11.45% of track is running through tunnel)

**Bridges :** 1891 (Liner waterway 25.40 KM (Major Bridges-190)

**ROB/RUB :** 378 Nos.

**Cuttings :** 563 (Total Length-223.8km)

**LC Gates :** 87 Nos. (All Manned)

**Fully Electrified route**

**(43% of track is either in Tunnels or Cuttings)**

# Bridges



***Major Bridges – 190, Minor Bridges - 1701, ROB/RUB/FOB - 378***

# Tunnels



**Total Nos. - 91, Total Length - 84 KM, Longest - 6.5 KM**

# Cuttings



**No. of Cuttings - 563, Height 5 M to 50 M, Length 224 KM**

# Embankments



*Total length 410 KM, Maximum height 26 M*

# Engineering maintenance machines



# P-way Maintenance Works



*Inspection of High Depth Cuttings Through Boom Lift*

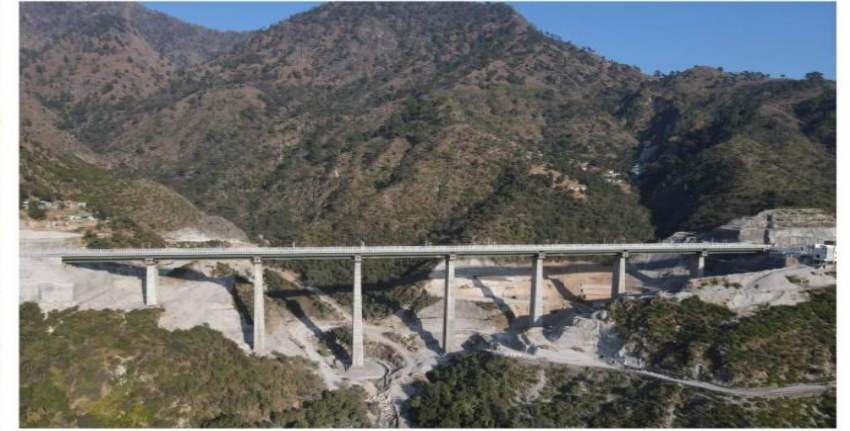


*Remote Operated Robotic Vehicle works*



# **PROJECT EXCELLENCE**

# KRCL's Foray into Projects



# Project Domains

## Pre Project Consultancy

Feasibility studies  
Detailed Project Reports  
Financial Analysis

**(Total – 61 Assignments taken up)**

## Design Consultancy

Bridges, Tunnels,  
Alignments

**(Total – 54 Assignments taken up)**

## Project Management Consultancy

Supervision,  
Design Support  
3<sup>rd</sup> Party Inspection

**(Total – 149 Assignments taken up)**

## Operation of Metro and Railways

5

Supply of rolling stock  
Operations and maintenance  
Railway Maintenance Technologies  
Railway Safety System  
Rail Logistics  
Training & Skillin

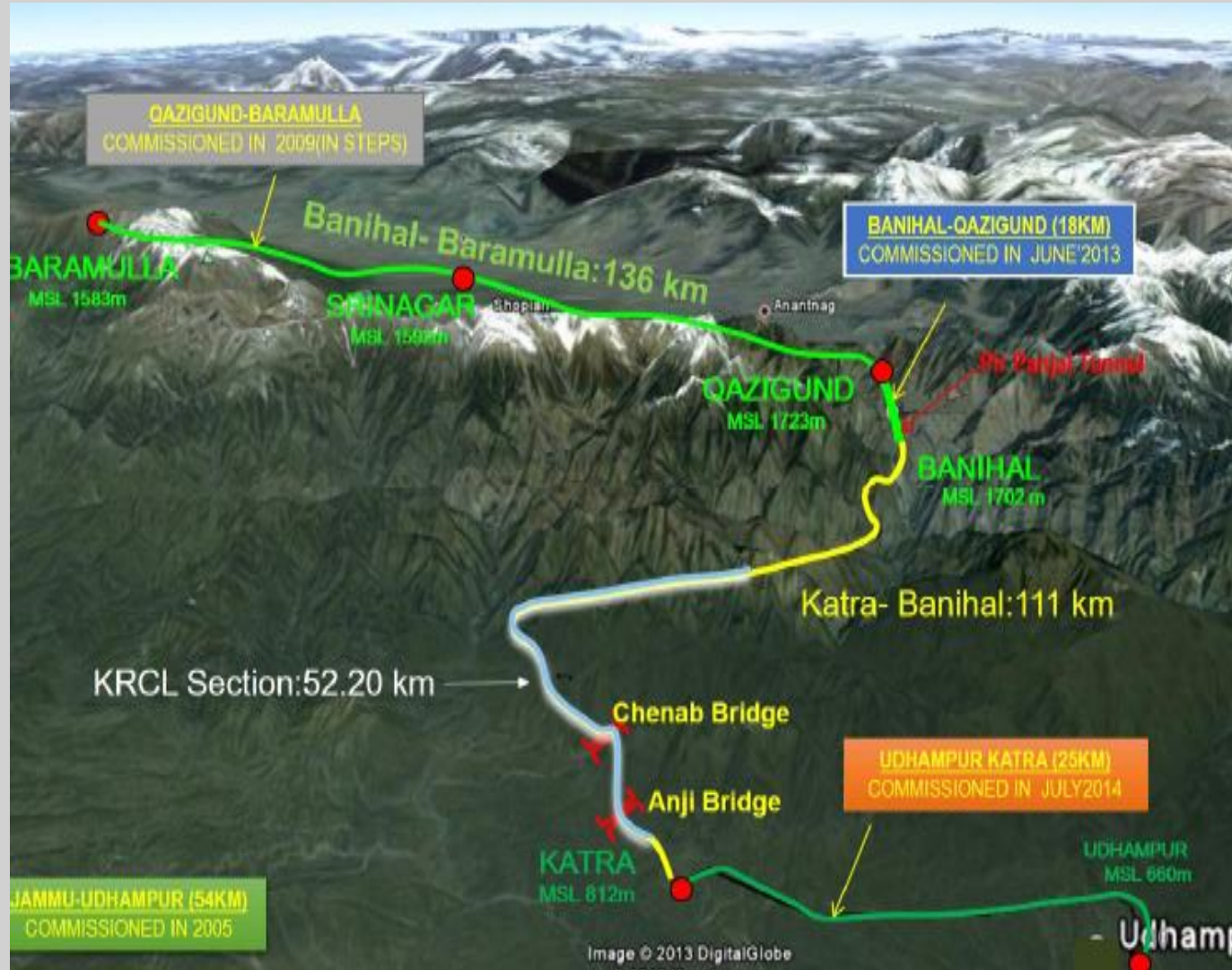
## Project Implementation

4

Railways, Metros  
Highways, Waterways  
Setting up of factories  
Buildings



# USBRL : KRCL Portion



## USBRL : KRCL Portion

### Udhampur-Srinagar-Baramulla Rail Link

- ❖ **Length** : 52.20 KM  
(Katra to Dharam Section)
- ❖ **Tunnels -16 Nos** : 44.59 KM (85.5%)
- ❖ **Bridges - 24 Nos** : 4.6 KM (8.6%)
- ❖ **Approach Roads** : 172 KM
- ❖ **Stations** : 5 Nos
- ❖ **Revised Estimate** : Rs.19,700 Cr.
- ❖ **Financial progress** : Rs. 19,485 Cr.
- ❖ **Physical progress** : Completed, likely to be dedicated to the nation by Hon'ble PM of India this month.

# USBRL : Chenab bridge



## Chenab Bridge Salient Features (World's Highest Bridge)

- ❖ Total Length of Bridge : 1315 M
- ❖ Arch Span : 467 M
- ❖ Design life of bridge : 120 years
- ❖ Height of Bridge (*Riverbed to formation*) : 359m
- ❖ Total Span : 17 Nos
- ❖ Span of Cable crane : 915 M
- ❖ Max designed Wind speed : 266 KMPH
- ❖ Estimated cost : INR 1460 Cr.

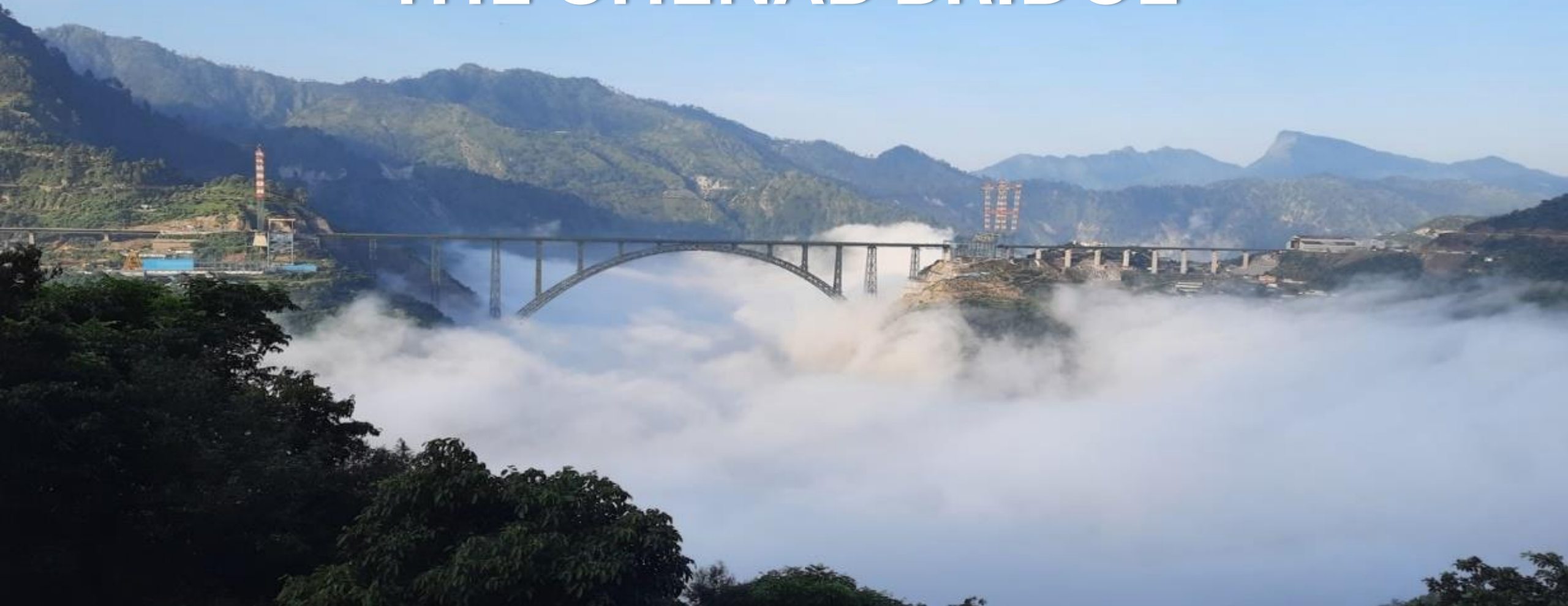
# USBRL : Anji Bridge



## Anji Bridge Salient Features (First Cable Stayed Railway Bridge in India)

- ❖ Total Length of Bridge : 725.5 M
- ❖ Height of Y Inverted Pylon : 193 M
- ❖ Height of Bridge Deck : 196 M
- ❖ Height of Bridge (Riverbed to Pylon) : 331 M
- ❖ Total Span of Cable Stay : 290 M
- ❖ Estimated Cost : INR 585 Cr

# THE CHENAB BRIDGE

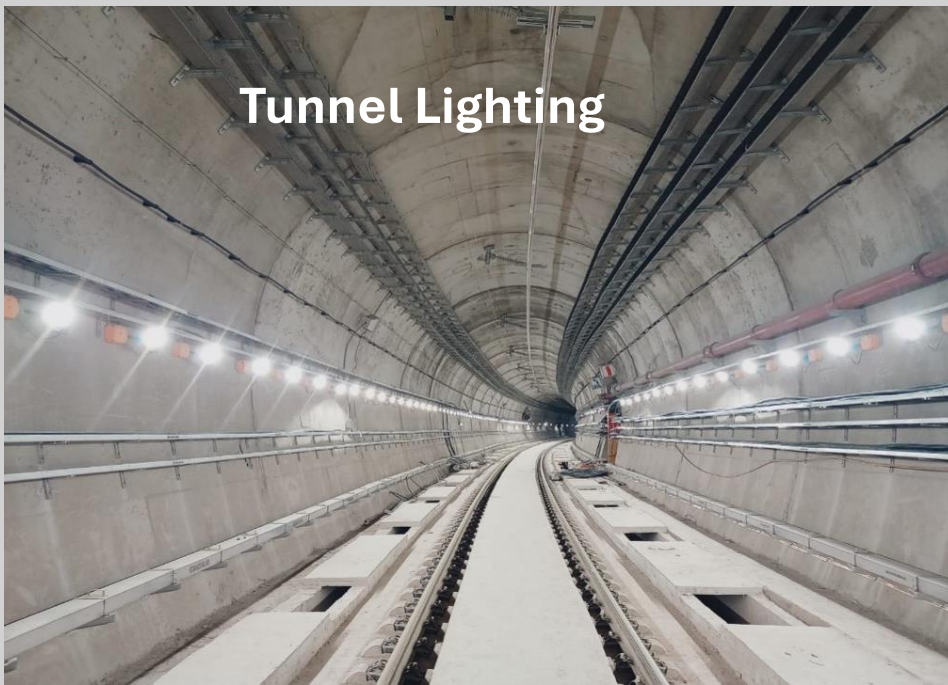


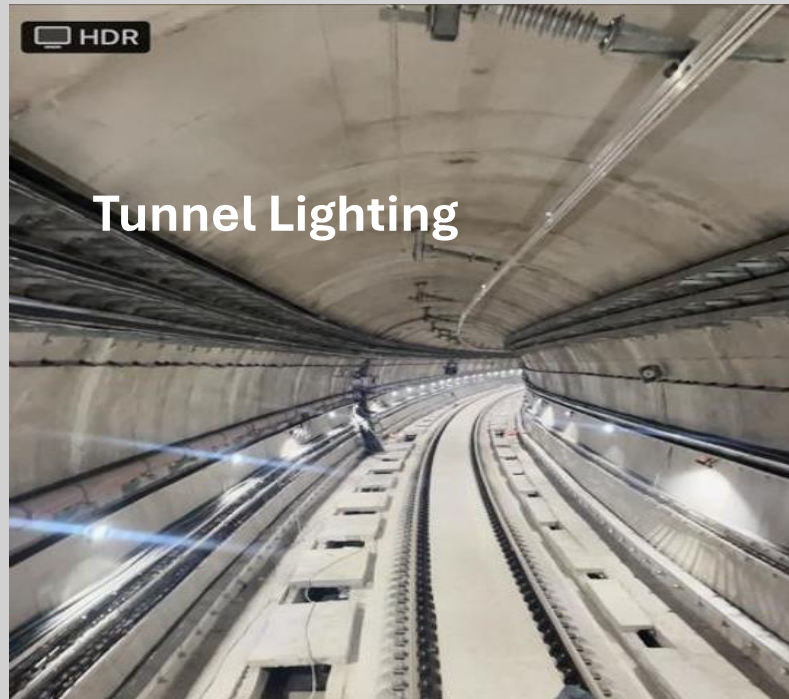
# USBRL: Other Bridges











Tunnel Lighting



Rigid Overhead Conductor System (ROCS)

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Underground Sub Station



Equipment Control Room

# USBRL: Station Buildings



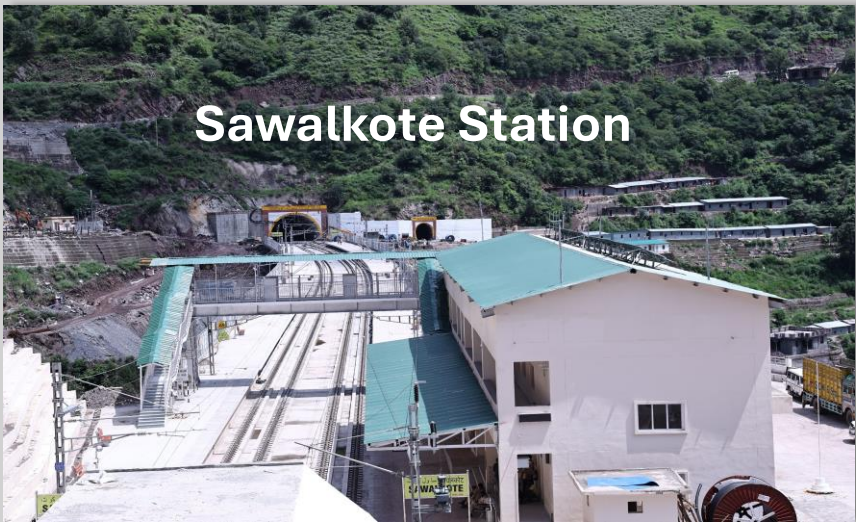
Reasi Station



Bakkal Station



Dugga Station



Sawalkote Station



Sangaldan Station

# Ongoing Projects Engineering

**Rail Connectivity to Vizhinjam International Seaport**  
**Twin Tube Rd Tunnel, Anakkampoyil-Kalladi- Meppadi,**  
**Kerala**  
**Khurda Road-Bolangir new BG Rail Link, Odisha**  
**Two New BG line project in Ajmer division of NWR**



# Mechanical: (Incl. Nepal & Metro Projects)

- Const. of Rolling Stock Component Factory, Chiplun
- Maintenance of BLC rakes for CONCOR
- O&M of Nepal Railways for 18 Months
- Supply of Loco to MPA, Vasco



*RSCF Chiplun*



# KRCL: ROHA - VEER Doubling

## Salient Features

- Length of Line : 46.89 KM
- Track Length : 55 KM
- ROBs / RUBs : 18 Nos.
- Level Crossings : 16 Nos.
- Major Bridges : 11 Nos.
- Minor Bridges : 176 Nos.
- Stations : 5
- New crossing Stations : 2 Nos



# NTPC Kudgi

## Salient Features

Length of Line : 11.65 KM

Track Length : 38 KM

ROBs / RUBs : 01 Nos.

Steel FOB : 03 Nos.

Major Bridges : 02 Nos.

*(PSC Viaduct of 700 Mts, 35 X 19.8 M*

*PSC Girder Bridge, 3 X 19.8 M)*

Minor Bridges : 14 Nos.

Stations : 1 Nos. (850 SQ M)

Electrical Sub Station : 2 Nos(50 sqm )

Loco Repair Shed : 1 Nos. (100 SQ M)

IMWB Building : 2 Nos. (50 SQ M)



# NTPC Gadawara

## Salient Features

- Length of Line : 10.99 KM (Lead Line)  
4.86 KM (ROR Line)
- Track Length : 43 KM
- RUBs : 01 Nos.
- Steel FOB : 02 Nos.
- Major Bridges : 09 Nos.  
(PSC Slab & Composite Girder Bridges)
- Minor Bridges : 14 Nos.
- Stations : 1 Nos. (768 SQ M)
- Electrical Sub Station : 1 Nos. (62 SQ M)
- Loco Repair Shed : 1 Nos. (1120 SQ M)
- S&T Building : 2 Nos. (282 SQ M)



# KRCL: Rail Electrification Project



| Salient Features             |              |                       |                                      |
|------------------------------|--------------|-----------------------|--------------------------------------|
| Track Kilometers (TKM)       | 970 KMs      | Traction Sub Stations | 13 Nos.<br>(MH-06, Goa-02 & KA-05)   |
| Route Kilometer (RKM)        | 740 KMs      | Switching Stations    | 43 Nos.<br>(SP-14 Nos & SSP -29 Nos) |
| Total project cost           | INR 1287 Cr. | SCADA                 | RCC – 1 No (At Belapur)              |
| OHE & PSI Maintenance Depots |              |                       | 8 Nos.                               |

# Ongoing Projects Electrical

- Complete RE works of USBRL Project (Katra – Dharam Section)
- Itarsi (Incl.)–Khandwa ,Bhopal Division,WCR
- Katni Jn - Singrauli, Jabalpur Division, WCR
- Chennai – Reningunta , Chennai Division, SR
- Project Supervision Services ,Hubballi Division, SWR
- DSETC of 25KV Feeder Line, supply of spares & RE work, USBRL,NR Const. of 132KV/2x25KV TSS & SWS, Kota Div, WCR
- Survey for electrification of sections of SWR/CN
- Erection of Sub Stations including SCADA, Sivok – Rangpo(Sikkim) new BG Line



# Signal & Telecommunication

- Yard Re-modeling of PATLI station, DLI Division in NR
- Provision of ABS, BIKANER division of NWR
- Comprehensive Maintenance of S&T Systems, Mormugao Port Authority
- Railway Signaling Work from PEN-JSWD Section of CR
- Telecommunication works at Vizhinjam International Seaport



# SHAPING LEARNING EXCELLENCE



# Training Centers: Konkan Railway Academy & GFITT



## Konkan Railway Academy (KRA)

- Established in 1998 and operates through 6 Centers.
- Mandatory safety training and other training programs for KRCL are provided by this Academy.
- The training is being provided to Foreign Railways, Public Sector Undertakings, Ports, Private Sidings, Metro Railways, Steel Plants, Banks, Insurance Companies, Private Corporates Engineering colleges and Management institutes.



## George Fernandes Institute of Tunnel Technology

- Offers specialized Training on Tunneling in association with Hagerbach Test Gallery & ETS.
- Collaboration with premium global institutes like Swiss Federal Institute of Technology-ETH Zurich , Versuchs Stollen Hagerbach AG, Flums, Switzerland, and Indian Institute of Technology (IIT), Mumbai - India.
- Training programs for Senior Management, Policy makers, Key Decision makers, Engineers, Design engineers, and Site engineers.

# Our Patrons and Partners

- Indian Railway, Nepal Railways, Ghana Railways, PSUs, Ports, Metro Railways, Steel Plants, CTOs
- Infrastructure companies, Banks, Insurance Companies
- Engineering & Management Colleges
- Private Corporates and International Delegates

## Unique Features:

- Real-world case studies & practical learning
- Customized modules for diverse sectors
- Leadership and efficiency-focused approach



# OUR DOMAINS



# GHANA RAILWAY ENGINEERING TRAINING



# Nepal Railway Staff Training



POCO  
SHOT ON POCO F1

# NEPAL RAILWAYS Training of Security Personnel



# Nepal Railway Field training



# Masterclass on Tunneling (4 days in Goa)



# Masterclass on Tunneling (4 days in EU )



# Masterclass on Tunneling (4 days in EU )



# Masterclass on Tunneling (4 days in EU )



# Masterclass on Bridge Construction and Maintenance(4 days in GOA)



# Masterclass on Bridge Construction and Maintenance (4 days in UK)



# Railway Sector Programs

## IRMS Probationers



## CONCOR Contract Management



## NTPC



## SAIL Safe Wagon Handling



# Management Development Programs



# CTO and Private Siding Training



# Hospitality and Tourism Courses



# Empowering Academic Excellence



# International Immersion Programs

## *Leadership & Management Excellence with Global Institutions*

**General Management  
Emerging Leaders Program**

**Advanced Management Programs  
Customized Programs**



# *Why Konkan Rail Academy?*

Guidance from expert railway professionals with global recognition in construction, operations, and management

**Experienced Trainers & Industry Experts**



**Field visits**

Field Visits and Real-Time Case Studies in Key Railway Systems



**Masters of Efficiency and Proficiency**

Training shaped by real-world practices to boost efficiency and foster collaborative, solution-focused learning

**Unique Programs for PSUs & Corporates**



**Safety & Compliance Excellence**

Equipping participants with safety, operational, and compliance skills for efficient railway operations



*"The single biggest driver of business impact is the strength of an organization's learning culture"*

- Josh Bersin

# THANK YOU

For More details

Visit us: <https://www.konkanrailway.com/>

Contact us: [gm.training@krcl.co.in](mailto:gm.training@krcl.co.in)