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Empowering Readers: Our Most Precious Asset

“Konkan Railway is known for its innovations and we would like to explore sharing knowledge and initiate tie-ups at InnoTrans Berlin”

It was such a pleasure to know that **Santosh Kumar Jha, CMD, Konkan Railway Corporation Ltd (KRCL)** had received the invite from the InnoTrans, Berlin organisers to attend the event. Feeling elated that such a dynamic and forthcoming CMD is going to the event we thought it a great opportunity to interview him. **Excerpts**

You and your team from KRCL are visiting InnoTrans, Berlin. What is the main purpose?

Inno Trans is the world's largest Rail Exhibition showcasing the latest technological development in train operations in both passenger and freight business areas. Purpose to visit InnoTrans will be to gain knowledge about such latest developments and also explore the possibilities of tying up with the firms engaged in such innovations. Focus area will be to freight trains carrying RORO operations, high speed trains and latest metro coaches.

Being a leading international trade fair on transport technology with segments specifically on railway technology, railway Infrastructure we felt it would be an ideal event to visit. InnoTrans is a global hub for seeing the mobility trends, interacting with experts from different specialties in same sector. There will be panel discussions and dialogue forums that give an opportunity to network. Konkan Railway is known for its innovations and would like to explore sharing knowledge and initiate tie-ups at InnoTrans, Berlin with relevant companies for betterment of its services to customers.

How are KRCL global relations and major tie ups?

At present KRCL is managing the entire operations and maintenance of Nepal Railway including supply of coaches and also is engaged in consultancy of Rehabilitation and maintenance of assets and operations with Tata Chemicals Ltd at Nairobi. KRCL is exploring possibility of engaging in major civil, electrical and signaling projects in Latin America, Africa and Middle East Countries and shall be bidding aggressively in various projects including O&M business.

You mentioned about starting a training institute. Can you elaborate and how will it make a difference?

Konkan Railway is a leader in executing challenging infrastructure projects. This includes the recent achievement of construction of the Chenab Railway Bridge in Jammu and Kashmir, recognized globally as the highest railway bridge ever built, showcasing our commitment to innovation and excellence in engineering. The project has established crucial rail connectivity to the



picturesque Kashmir Valley, traversing the young Himalayas with tectonic thrusts and faults.

Scores of tunnels and bridges have been constructed by Konkan Railway in treacherous ghats, in high seismic zones and other geological locations thus giving Konkan Railway the unique edge and unparalleled competence to share in-depth knowledge on tunneling and bridging works through difficult terrains. For this purpose, we have formed a Tunnel Training Institute at Goa with the aim to broaden the knowledge base of Senior engineers, Project planners, On-site engineers, and officials from Finance background and equip them with knowledge on core issues regarding Tunneling, viz. deciding on proper alignment, selection of tunneling methodology, costing and most importantly the construction of tunnels without cost or time overruns. Many projects fail or face cost and time over-runs if there is no proper selection of alignment or the right methodology is not selected. Our training Institute addresses these core issues.

We have a tie-up with reputed international Organizations and Institutes for giving a holistic experience to the trainees and we are also interested in expanding this tie-up with other reputed engineering organizations and institutes globally.

KRCL is trying to bring a paradigm shift in training department and is in process of converting training centers and training activities from cost center to profit center. Other than training its own employees and officers, KRCL has already trained officials and staff of Northern Railway, NTPC, CONCOR, Margaon Port Trust and several other organizations. KRCL had already engaged and signed MoU with MIT Pune, Goa Institute of Management & Hagerbach AG Flums, Switzerland, and the Swiss Federal Institute of Technology-ETH Zurich. We are shortly going to offer specialized tunnel construction training through the George Fernandes Institute of Tunnel Technology in Goa.



Recently one of your team members visited Israel. Any highlights?

Our team member's visit to

Israel was quite productive. Israel is known for its technological advancements and innovative approaches, particularly in areas like smart transportation solutions and infrastructure development. The visit opened up potential opportunities for collaboration and we are looking forward to leveraging through joint ventures mainly city's light rail network.

Any innovations and unique projects that you would like to highlight?

Our ongoing projects in sustainable rail infrastructure, which focus on reducing environmental impact and improving energy efficiency, are making significant strides.

Udhampur - Srinagar - Baramulla Rail Link (USBRL) Project is a National Project to provide rail connectivity from rest of the country to the beautiful valley of Kashmir. A part of this project from Katra - Dharam has been assigned to KRCL for execution. It comprises of about 45 km (86%) of route in tunnels, 4.6 km (9%) of route on bridges and balance 6% of route in cuttings and embankments.

Konkan Railway had made 172km of roads including road tunnels and many temporary Bailey bridges for execution of this work. Special bridge across the river Chenab for this project is built at height of 359m, from the bed level. Chenab Bridge is having the central span of 467 m and is the World's tallest railway arch bridge. The design of bridge also takes care of “Blast” load, which is internationally an unique feature. For construction of Arch portion of the bridge over the river, a novel method of construction using the cable car is designed and commissioned. This cable car runs on 54mm cables laid across the river valley and connected through 127 m high pylons (towers) on either side of river. The consumption of structural steel for the project is very huge and for Chenab Bridge the quantity is of the magnitude of 29,000 MT. Anji bridge of this project is first cable stayed Railway Bridge in the country which has length 725.5 m.

Your views on the impact of AI (Artificial Intelligence) on railways and allied industries.

AI is changing the way in which we have been operating trains. The impact of the new technology is so astronomical that its various facets and usage in railways are yet not fully fathomed or implemented. This is the just the beginning. The AI is not just automating customer interface – AskDISHA is a chatbot that's



doing it – but also enabling streamlining booking processes, in predictive maintenance, examining track conditions and notifying to avert potential derailments. The AI is already being leveraged in train safety, scheduling and speed management. By analysing real-time data, AI algorithms can adjust train schedules to accommodate unforeseen disruptions. This results in reduced waiting time and improved punctuality and hence better passenger experience. Konkan Railway too is experimenting with the technology for its operational efficiency.



You are creating an excellent reputation in consultancy services. How did you start and any major projects?

Our consultancy services began with a focus on delivering high-quality, specialized solutions in the railway sector. Over time, our commitment to excellence and innovation has built our reputation as a trusted partner. Major projects that highlight our expertise include the development of large-scale railway infrastructure projects and the implementation of cutting-edge technologies.

Government of India and Government of Nepal have cooperated for the preparation of Final Location Survey (FLS) for the proposed New Electrified Broad Gauge Railway line between Raxaul in India and Kathmandu in Nepal.

KRCL is currently offering Project Management Consultancy services for 16 projects and working with MMRDA, SMC, and the R&B Division of PWD in Anand, Rajkot, and GWSSB. Additionally, we are providing comprehensive Consultancy Services including Design, Drawing, Survey, and Inspection for various projects of Central Railway, NHAI, Western Railway, and KWIL.

What are the major challenges faced by Railway sector? And how can we overcome them?

The railway sector faces several challenges globally, including aging infrastructure, funding constraints, and the need for modernization. Addressing these challenges requires a multifaceted approach: investing in infrastructure upgrades, adopting new technologies for efficiency and safety, and exploring innovative funding models such as PPPs. Additionally, focusing on sustainability and reducing the environmental impact of rail operations is crucial. By prioritizing these areas and fostering collaboration between stakeholders, we can overcome these challenges and drive the sector forward.