



Innovation TIMES

ISSUE 62 | July 2025

FEATURE STORY

Contributor:
Zubair Kachi
Advance Business Development

The Constant of 60+ years & still counting...

Divgi-TTS' transfer case powers the off-road capability of the
Indian Car of the Year 2025



In the 1965 War against Pakistan, the Mahindra CJ-3B Jeeps armed with the Vickers 105 mm recoilless guns proved to be the nemesis of the Pakistani Army annihilating nearly two Pakistani Armoured Regiments in a single day. Divgi-TTS founder, Shri Bhaskar Divgi, was very proud that he helped manufacture many of the critical parts of the Borg Warner T90 transmission and Dana Model T18 transfer case of this vehicle.

Inspired by this history, Divgi-TTS continued to supply components to Mahindra CJ-3B's upgraded versions, the Mahindra MM540/MM550 (1980s-1990s) and the complex and precision-engineered transfer case to its modernized successors, the Mahindra Thar CRDe (2010), the New Mahindra Thar (2020) and the Mahindra ROXX (2024), winner of the **Indian Car of the Year (ICOTY) 2025** award.

For over 60 years, from the CJ-3B to the ROXX, Divgi-TTS has ensured that Mahindra's off-roaders have evolved from barebones workhorses to modern adventure machines. And it continues to play a pivotal role in Mahindra's automotive legacy.

**ICOTY**
INDIAN CAR OF THE YEAR



EVENTS

Contributor:
Vijay Nevrekar
 Advance Business Development



From Lab to Road | Divgi-TTS sets up the “Centre of Research Excellence in Automotive Transmission Engineering” in collaboration with BITS Pilani, Goa.

On March 22, 2025, Divgi-TTS signed a Memorandum of Understanding with the BITS Pilani Goa Campus to set up a “Centre of Research Excellence in Automotive Transmission Engineering” (C.R.E.A.T.E).

The purpose of the Centre is to jointly explore ideas in cutting-edge research in the areas of Automotive Transmission Systems Engineering Design, Development and Manufacturing with a focus on manual, automatic, electric, and four-wheel-drive transmission technologies.

The Centre shall provide close guidance and support in the students' endeavour to publish technology papers in top global professional automotive industry associations.

In an event hosted for the purpose, Prof. V. Ramgopal Rao, Group Vice Chancellor, BITS Pilani, said “BITS Pilani has a strong industry interface with its practice school and work integrated learning programs. We are only expanding the scope and alignment with Divgi-TTS, and joining them in their R&D roadmap realization”



Echoing this sentiment, Mr. Jiten Divgi, Managing Director, Divgi-TTS, stated, “Our vision is to create a world-class benchmark that is made in India, and establish a legacy for the next generation. I am happy to have my alma mater, BITS Pilani join in this shared vision.”

With “out-of-the-box” ideation from the country’s top intellectual student fraternity, C.R.E.A.T.E. is committed to boosting India’s technology and innovation in automotive transmission systems with a focus on advanced research and industry collaboration and help India become a leader in automobile engineering and manufacturing.



MoU for Collaborative Research between BITS Pilani and Divgi Torq Transfer Systems Ltd, Pune

- 1** Create a Centre of Excellence for Automotive Transmission Systems Engineering in Design, Development and Manufacturing.
- 2** Create a world class benchmark for industry academia collaboration and make a distinct contribution to developing these linkages in India.
- 3** Expand the current PSI and PSII engagement into joint research and curriculum development.
- 4** Create a robust framework and process for joint research that can help BITS Pilani emulate this work with other companies and expand its industry linkage beyond PS to funded research, problem solving and IP creation.
- 5** Measure outcomes in publications, PhD research and patents.

PRODUCT SCOPE

- 1** Manual Transmissions
- 2** Four-Wheel-Drive Systems
- 3** EV Transmissions
- 4** Automatic Transmissions

AREAS OF RESEARCH

- Design Architecture and Analysis
- PLM Studies
- Rapid Prototyping
- Product Durability and Reliability Testing
- Advances in Gear Cutting and Finishing
- Advanced Metallurgy and Heat Treatment
- Advanced Automatic Assembly
- Performance Testing
- Global Supply Chain Management
- Advanced Quality Management Systems
- Advanced Lean Production Systems
- Advanced Automation and AI Systems

Technology News

Contributor:
Sandeep Deshpande
Manufacturing Engineering

Viper Venom: Injecting Speed, Precision, and Punch into Pinion Production

In FY 23-24, the requirement for our legacy transfer case products near-doubled due to orders from international automotive vendors. The number of units to be produced shot up from a few lakhs to several lakh units per annum. Enhancing the existing capacity became the need of the hour. The “Klingelnberg Speed Viper² 180” Cylindrical Gear Grinding Machine did that job.

Divgi-TTS upscales Gear Grinding with the acquisition of the New Klingelnberg Speed Viper² 180

- **Twist-free grinding and polish grinding** enables surface roughness of less than $0.15\mu\text{m}$ (Ra) that is so critical for high quality requirement of EV transmission components.

Cutting-edge Technology – Seamless Production

- **Seamless Integration** into production lines minimizes manual intervention thereby maximizing efficiency.
- **Multitasking** capability allows analysis, planning, and control functions to run parallel to production helps streamlining work flows.

High Productivity – Minimizing Auxiliary Time

- The **Dual-Spindle System** enables loading and processing of one job on one spindle even as a previously loaded and processed job is being unloaded. The parallel job processing cuts slack time inherent to single spindle systems.
- The **Hitech Compact Loader** optimizes workflow, reducing manual intervention during production.
- The **Automatic Tool Clamping System** significantly reduces set up time, enabling quicker transitions between tasks.
- A **Continuous Feed Conveyor Belt** synchronized with the Automatic Tool Clamping System further reduces auxiliary time.



- **A Closed-Loop Quality Control System** with the Klingelnberg Precision Measuring Center (P-series) automatically recycles “inconsistent” components into the production cycle for remedial action, eliminating manual intervention, thereby enhancing both efficiency and accuracy in production.

With Divgi-TTS' acquisition of the state-of-the-art “Klingelnberg Speed Viper² 180” Cylindrical Gear Grinding Machine, OEMs now have a simple “go-to” address for their growing needs of the EV transmissions.

High Precision Processing –Consistent Quality, Faster Cycle Times

- The **Intelligent Advanced Processing Software** is optimized to produce high-quality DIN CLASS 6 standard pinions even in series production.



FOPL

Face of Product Leadership

Contributor:
Tushar Sawant
Human Resources



Tête-à-Tête

A mindshare with the stalwarts of our workforce

Abhijit Dusanis
Senior Project Manager

Education : MBA in Operations and BE Mechanical
Total Experience : 11 years
Divgi-TTS Experience : 9 years 11 months
Career Goals : <i>Short Term:</i> To become Director of Project Management or Portfolio Manager, overseeing project strategy and best practices across the organization. <i>Long Term:</i> To be a thought leader in the automotive industry, driving strategic direction and sharing my expertise to help advance the field.
Hobbies: <ul style="list-style-type: none"> • Cycling, Gardening, and Hiking; enjoy exploring new destinations and cuisines • Music; play some instruments in my leisure time • Participate in sports like football, cricket, badminton, swimming • Enjoy video gaming as a tech enthusiast
Family: Wife: Shraddha, Architect Son: Arjun, a tot Mother: retired from Glaxo Smith Kline Sister: Mrunal, a noted Marathi film actress.

1) What is your current role in Divgi-TTS?

As a Senior Project Manager, I lead a team ensuring timely project delivery aligned with quality, cost, and delivery expectations. I manage cross-functional teams, develop project plans, lead APQP reviews, and monitor progress. Responsibilities include budget tracking, capacity planning, and oversight of development through production and customer approvals. I also manage KPIs, lessons learned, and customer satisfaction metrics. Notably, I've led launches of key product lines like synchronizers, drivetrain components & played a crucial role resuming the export business post the COVID era.

2) What has been your experience with Divgi-TTS?

Divgi-TTS has shaped my professional journey from a Management Trainee to a Senior Project Manager. The organization has provided growth opportunities and leadership support, especially from mentors like Mr. Abhijeet S Pingale. A key milestone was transitioning from Product Development Manager to leading Project

Management, which expanded my technical and leadership skills. I've been empowered to lead, innovate, and evolve as a balanced professional.

3) What has been your contribution to Divgi-TTS' Product Leadership initiatives?

In 2022, I helped establish the Project Management Department, a major strategic move post TATA's MSA audit. This strengthened project delivery and customer satisfaction. I developed a robust project management framework, built a strong team, and fostered collaboration with cross-functional groups, customers, and suppliers for market-aligned product launches.

4) What do you believe are some of your notable achievements at Divgi-TTS?

- Developed 20+ innovative products.
- Fastest development of Eicher Polaris Synchronizer in 4 weeks.
- Led 6-Speed Manual Transmission development in 50 weeks.
- Delivered G35TC and G32TC synchronizers during the pandemic for Force Motors.
- Played a key role in customer engagement, especially with Force Motors.
- Established the Project Management Department to drive efficiency and innovation.
- Played a crucial role in resuming the export business post-the COVID era.

Rapid fire

Favourite Quote	A good leader is one who believes in the dreams of his people and works towards realizing them Shree Atal Bihari Vajpayee
Favourite Book	The Boy, the Mole, the Fox and the Horse," The book explores themes of kindness, friendship, vulnerability, and self-acceptance.
Family is	Everything.
On Sundays	Spend time with my loved ones.