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ARAI
Progress through Research

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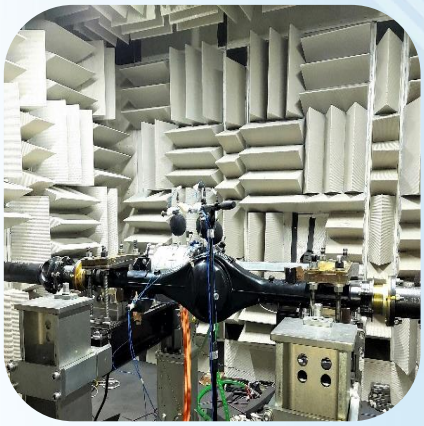
Excellence in Education

2 Days Certificate Programme on

# Automotive Transmission Design (including EV Powertrain & DVP)

**Date: 19th & 20th January 2026**

**Venue: ARAI Academy, Chakan, Pune**



## SPEAKERS

**Dr. Husain Kanchwala**
Assistant Professor, IIT, Delhi

**Mr. Abhijeet Pingale**
Head Divgi TorqTransfer Systems

**Mr. Amol Korde**
Design Engineer, Hexagon

**Mr. Rakesh V. Mulik**
General Manager, ARAI, Pune

**Mr. Shashank Y. Badgujar**
Dy. General Manager, ARAI, Pune

**Mr. Nilesh Sakle**
Sr. Manager, ARAI, Pune

## 01 OBJECTIVES:

Automotive transmissions plays a crucial role in operation & performance of a vehicle and it has increased more as hybrid & electric vehicle are liked by customers more. Indian market has also witnessed more hybrid drivetrain model and more advance transmission like DCT, AT, AMT in recent year. Considering the market trend, a design engineer requires a comprehensive understanding of various engineering principles & transmission technologies. This training program covers Overview, opportunities, development cycle, components, theory, fundamental design principals, calculations, Rotor dynamics and vibration analysis. Development of advanced powertrains like E-axles and validation plan for drivetrain components are also discussed. Understanding these concept requires a multidisciplinary approach. This training will help engineers to meet challenges and innovate in rapidly evolving automotive industry, ensuring the development of efficient, reliable, and environmentally conscious transmission systems. Continuous learning and adaptation to emerging technologies are crucial in this dynamic field.

## 02 SCHEDULE OF THE PROGRAMME:

| Day One: 19th January 2026 | |
|---|---|
| **Start** | **Subject** |
| **8:30** | Registration & Breakfast |
| **9:30** | Introduction to Vehicular Transmissions |
| **10:15** | Transmission Design: Tractive calculations and fixing gear ratios |
| **10:45** | Transmission vibrations introduction |
| **11:45** | Rotordynamics models for transmission |
| **13:45** | LUNCH BREAK |
| **14:45** | Holder's and Myklestad Prohl method for torsional and out of the plane bending vibrations |
| **15:45** | Transmission Development Cycle, Opportunities and industry Case - Study |
| **16:15** | Conclusion |
| **Day Two: 20th January 2026** | |
| **09.00** | Development of Powertrain Architecture for Hybrid Electric Vehicle - HEV Transmission Systems |
| **11.00** | From blank sheet to ePowertrain design |
| **12.30** | DVP Plan Driveline Components |
| **13.00** | Lunch break |
| **14.00** | Design and Development of Axle based Advanced Powertrains for EV |
| **16.00** | Test Set Demo on E-Powertrain Setup |
| **16:30** | Feedback & Assessment |

## 03 REGISTRATION FEES:

# Registration Fees (Rs.)

**(per participant) Rs.10,000 + 18% GST = Rs. 11,800**

**10% DISCOUNT if 5 or more delegates are registered from the same organization**

Limited seats for Faculty/Student with a special discount.

## 04 PAYMENT INFORMATION:

**Mode of Payment:** Online Transaction
**ARAI Pune Account No:** 04470200000280
**IFSC/RTGS/NEFT Code:** BARB0KARVER (0=Zero)

Note: Participants from organization in SEZ must confirm the applicability for GST before making the payment.

**Register Now!**

## 05 REGISTRATION CONTACT:

**Contact Details**
**Phone:** 02135-630795/90 or 02135-396695/90
**Email:** training.pga@araiindia.com; patil.pga@araiindia.com
**Website: :** https://www.araiindia.com/services/knowledge-dissemination
**Venue:** ARAI Academy, ARAI-FID, B-16/1, MIDC, Chakan, Mahalunge Ingale, Maharashtra 410501

## Who should attend:

- Automotive Engineers
- Mechanical Engineers
- Researchers and Working Professionals in the Automotive Transmissions, Hybrid & Electric Vehicle
- Government Officials and Policymakers