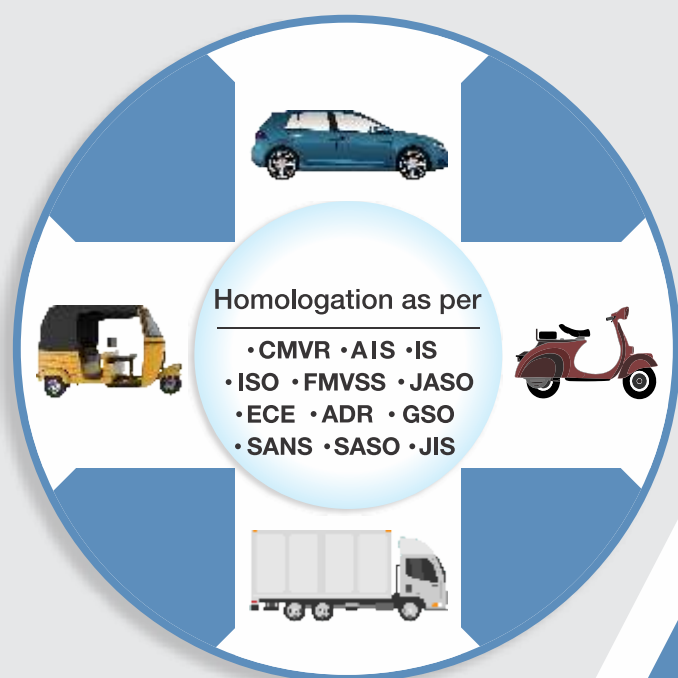


HOMOLOGATION MANAGEMENT & REGULATIONS



HOMOLOGATION MANAGEMENT AND REGULATIONS (HMR)

HMR department is the Central Coordination Cell at ARAI with a vision to offer a Single Window Service to customers for Type Approval of vehicles to comply with the Central Motor Vehicle Rules. Currently, the department plays a pivotal role in ARAI's Type Approval process by comprehending customer requirements, engaging in co-hesive planning, co-ordinating processing with connected departments and laboratories within ARAI, and ultimately delivering the final type approval and other associated services. Additionally, the department has expanded its responsibilities to include activity for export Homologation in addition to Type Approval activities for CMVR compliance. Moreover, the department actively assists National-level Technical committees in the formulation of new standards, rules, and regulations.

Evaluation of Vehicles as per



REGULATORY AREAS FOR DIFFERENT VEHICLES

◆ Environment

- Exhaust Emissions
- Vehicular Noise
- BS VI emission & beyond
- EMI / EMC

◆ Alternate Fuels

- Type Approval Procedure
- Installation requirements & code of practice
- CNG • LPG • Bio-CNG • Bio-Diesel • Fuel Cell • Hybrids
- LNG • Ethanol • E20 • E85 • E100 • DME

◆ Hybrid / Electric Vehicles

- Constructional and Functional Safety Requirements
- Measurement of Electrical Energy Consumption and Range
- Measurement of Net Power and Maximum 30 minute power
- CMVR Type Approval
- Safety Requirements of Traction Batteries

◆ Passive Safety

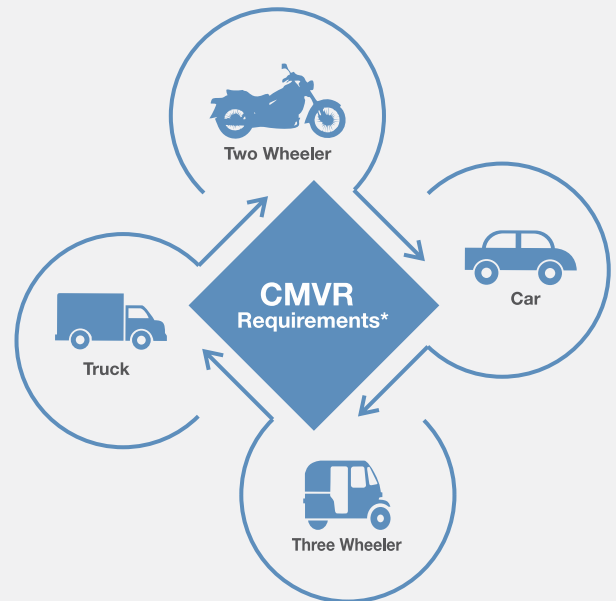
- Seat Belt assemblies & anchorages
- Seats, their anchorages & head restraint
- Tell tale symbols and controls
- Interior fittings
- Door Locks
- Rear, Side, Front Underrun Protective Device (RUPD,SUPD,FUPD)
- Temporary Cabin
- Survival Space
- Frontal
 - Offset frontal collision
 - Lateral collision • Rear Impact
- Pedestrian Protection
- Child Restraint system
- Airbag

◆ Active Safety

- Advanced Emergency Braking System
- Lane Departure Warning System
- Blind Spot Information System
- Driver Drowsiness
- Moving off information system
- Cybersecurity
- Software updates management system
- Quiet Road Transport Vehicle
- Brakes • Steering • Gradeability
- Forward & Rearward motion
- Spray Suppression Devices
- Rear View Mirror
- Windscreen Wiping System
- Horn • Tyres • Safety Glass
- Speedometer • Speed Limiter Devices

◆ Light / Light signalling devices

- Installation & Performance Requirements
- Position of Indicators
- Deflection of Indicators
- Parking Light
- Head Lamps
- Warning Triangle
- Automobile Lamp
- Reflector
- Retro Reflective Marking
- Adaptive Front Lighting System (AFS)
- Light Emitting Diode (LED) Light Sources



OUR KEY ACTIVITIES

1. CMVR Type Approvals and Whole Vehicle Safety Conformity of Production (WVSCoP) of following categories of vehicles/components and equipments

- | | | |
|---|----------------------------------|---|
| • Two, three and four wheeled vehicles running on fuels notified under CMVR | • School Bus Construction | • Motor Caravan |
| • Battery Operated Two, three and four wheeled vehicles | • Sleeper Bus Construction | • Cash Van |
| • Construction Equipment Vehicles | • Double Decker Bus Construction | • Modular Hydraulic Trailer |
| • Agricultural Tractor | • First Responder Fire | • Mobile Canteen |
| • Gensets | • Adapted Vehicles | • Road Train |
| • Combine Harvester | • Three Wheel Moped | • Reefer Van |
| • Bus Body Construction | • Truck Body Construction | • Retrofitment on Vehicle (Existing ICE Vehicle into Hybrid/ Electric Powertrain) |
| • CSFC-CoP for more than 3.5T M&N Categories of Vehicle | • Trailer Construction | |
| | • Ambulance Code | |

2. Export Homologation

- ARAI provides support for export homologation to countries such as Australia, Japan, Singapore, South Africa, Bangladesh, Srilanka, Nepal and GCC. The above mentioned Countries directly accept CMVR test reports & certificates
- ARAI has tie up with various testing/ certifying agencies for European homologation services, Manufactures from South East Asia are approaching us for their Export Homologation requirement
- ARAI is Authorized Audit partner for RDW, Netherlands for COP site audits for component manufactures of Asian Countries

3. Regulatory support to Government of India

- The Central Motor Vehicles Rules-Technical Standing Committee (CMVR-TSC) was constituted by the Government of India in the year 1997. This Committee advises the Ministry of Road Transport and Highways (MoRTH) on various technical aspects related to CMVR and plays a significant role in the development and implementation of Safety Regulations for vehicles and auto components in India. ARAI provides the Technical Secretariat service to CMVR-TSC.
- The Automotive Industry Standards Committee (AISC) was established under CMVR-TSC by the Ministry of Road Transport and Highways (MoRTH) in the year 1997. Its primary objective is to formulate safety standards for vehicles, systems, and components, as well as to review existing standards for possible amendments and recommend their implementation. ARAI provides Technical Secretariat Services to address technical issues discussed within AISC.
- The World Forum for Harmonization of Vehicle Regulations (WP.29) established a National Standing Committee on WP.29 in 2003 to address the topics under discussion within WP.29. ARAI plays a crucial role by providing Technical Secretariat services to this committee, as well as to various working Sub-Groups designated to deliberate on technical subjects within respective groups, such as GRRF, GRPE, GRSG, GRSP, GRB, and GRE, operating under WP.29 of UN ECE, Geneva.

4. Publishing of Automotive Industry Standards, Upgradation/ Amendments

- Since the formation of AISC, ARAI has published more than 200 AIS standards and several amendments to AIS

ALLIED SERVICES OFFERED

1. Web based Platform for Homologation and Regulations

- **CMVR -TAS:** The pathway to effortless vehicle and engine certification that has been seamlessly crafted by the innovative HMR Department, CMVR-TAS stands as a cutting-edge Online Portal tailored for the hassle-free certification of diverse Vehicles and Engines. CMVR- TAS establishes itself as the sole destination for our valued customers as they gain access to Digitally Approved Specifications, CMVR Certificates, Proforma Invoices, Final Invoices and a repository of all details, all in one unified platform.
- **CMVR Type Approval Certificates:** Our customers experience enhanced efficiency and accessibility with our transition from traditional hardcopy CMVR Certificates to cutting-edge digitally signed certificates thus elevating the quality of certification while enabling e-controlled access to archived data from previous Type approvals, thereby redefining convenience and reliability.
- **CMVR Handbook:** This handbook provides all details regarding regulatory compliance with all essential vehicle requirements and a wealth of regulations applicable to diverse vehicle categories, all crucial for securing the coveted CMVR Certificate.
- **Expert Advice:** HMR team helps to navigate homologation, regulations, and global automotive standards with confidence by tapping into the expertise of ARAI's seasoned professionals. Our advisory services offer you a clear path to success in the complex world of automotive compliance.

2. Navigating towards Excellence:

Your Gateway to a Comprehensive Repository of Automotive Industry Standards vide our link <https://www.araiindia.com/pages/downloads>

3. Driving "Make In India" Forward:

Empowering Industry through Certification Services for Government initiatives like Advance Automotive Technology Production Linked Incentive (AAT PLI) and Faster Adoption and Manufacturing of Hybrid and Electric Vehicles Phase II (FAME II)

4. Ensuring Quality Beyond Boundaries:

ARAI's Whole Vehicle Safety Conformation of Production (WVSCoP) Certificate is the Assurance of consistent quality & performance.

5. Global certification support at your doorstep :

Our international representatives in China and Korea support manufacturers with seamless certification processes.



The Automotive Research Association of India

(Affiliated to Ministry of Heavy Industries, Govt. of India)

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