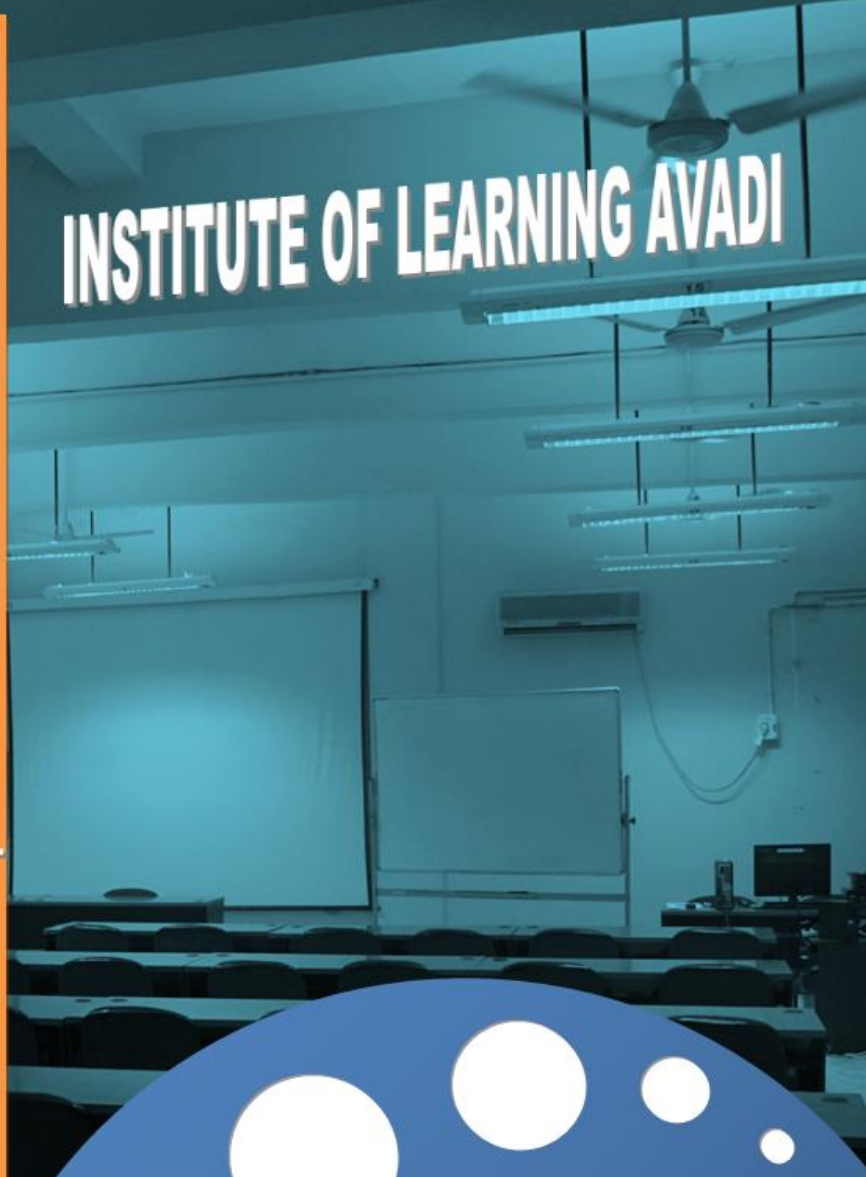


AVANI



INSTITUTE OF LEARNING AVADI



LEARNING is the EVOLUTION of the MIND



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1. Introduction

AVNL Institute of Learning, Avadi (AVNL IOLAV) is setup in the year 1996 as Regional Training Institute by erstwhile Ordnance Factory Board, Kolkata under Ministry of Defence for imparting training to Group B & C officials of Ordnance Factories and their Allied Establishments. RTI was renamed as Ordnance Factories Institute of Learning in the year 2005.



Armoured Vehicle Nigam Limited Institute of Learning Avadi is one of the 3 training institutes functioning under AVNL from 01-10-2021.

Armoured Vehicle Nigam Limited Institute of Learning is an ISO 9001:2015 accredited unit with two storey landmark situated within HVF Estate, Avadi, Chennai.

Location:

AVNLIOL Avadi is located in HVF Estate. It is about 25 KMs from Chennai Central Suburban Railway Station. Out station participants can alight at Chennai Central Station from where local trains can be boarded to reach Avadi Suburban Railway station (12th local railway station from Chennai Central). The frequency of both train and bus is good and the running time to reach Avadi is about 50 minutes. AVNLIOL is 3 KMs from Avadi Railway Station and Bus Stand. AVNLIOL hostel, where the outstation participants are to report first is about 1 KM from Avadi Railway Station and Bus Stand. The climate at Chennai is pleasant from October to March. This city is hot from April to July and rainy from September to December.

Tourist attractions in and around Chennai are Mamallapuram, Kancheepuram, Planetarium, Snake Park, Gandhi Mandapam, Kamaraj Memorial Hall, Anna Memorial, M G R Memorial, Zoological Park at Vandaloor and various amusement parks for entertainment besides wonderful beaches.

Registered Office Of AVNL	Communication Address of AVNLIOL Avadi
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Mission

To facilitate Continual Learning for Continual Improvement and Innovation.

Vision

- To be leading Learning Institute facilitating achievement of Organizational goals.
- To be a leading facility for virtual mode of learning.

Competence:

AVNLIOL Avadi believes that Human Resource Development is the framework for helping employees to develop their skills, knowledge and abilities which in turn improves an Organization's effectiveness.

AVNLIOL Avadi endeavour is to provide training in HR, Quality, latest and best Technology subjects.

The core areas of training at AVNL IOLAV are:

- AV Technology
- Personnel Management
- Quality & Industrial Engineering

The assortment of courses conducted by AVNLIOL Avadi cover from Human Resource Development, Quality, Manufacturing, Operation, Defect Investigation, IPR with specialization in Patent Drafting & filing to Industry 4.0 including Artificial Intelligence.

2. Highlights of Training:

AV Technology

- The AV Technology course curriculum is well structured and designed to cater the requirements in Automotive, Gun Control and Communication system of Armoured Vehicle.
- Theoretical inputs are delivered with the PowerPoint Presentation/Animation/Videos by the Expert Faculties from Heavy Vehicles Factory (HVF), Engine Factory (EFA), CQA(HV), CQA(AVA), CQA(AVL) and CVRDE besides AVNL IOLAV faculties.
- Hands on Practical Training is imparted to the Army Field Unit Personnel and Civilian personnel from various Ordnance Factories and Allied Establishments for Disassembly and Assembly of



major and sub assemblies of T72, T90, MBT and BLT in AV Technology courses.

- Testing of assembled systems, Alignment of all equipment at HVF, EFA and CVRDE.
- Defect investigation – Root Cause analysis and remedial measures are being shown to the participants with the defective/worn out parts of the assemblies.
- Performance problems being faced at User Unit level are discussed & deliberated and suggestive remedial measures to overcome the problem with participants.
- Operating, maintenance procedures and possible causes of failures and remedial measures in the printed bilingual booklet is being issued to the participants of AV courses for their ready reference.
- To make the learning more effective, the theoretical inputs are to be supported with **Computer Based Training (CBT)** with Animation.
- The participants attending the AV Courses at AVNL IOLAV are able to operate and maintain the Armoured Vehicles effectively which are resulting in elimination of defects.

Personnel Management

- Outbound learning
- Discussion of Case studies
- Exercises on calculation of pay fixation, terminal benefits
- Mock enquiry being conducted in the courses of Role of IO PO

Quality & Industrial Engineering

- Discussion on Internal Standards with our Ordnance Factory manufacturing process.
- Risk is identified and opportunities for improvement are being discussed in the area of Process Control.
- The role and functions of Auditor and Auditee is being discussed in process control
- Audit points are reviewed with case study.
- Conduction of mock audit (off-site audit) at the classroom and conduction of onsite audit in the shop floor by the participants.
- Preparation of Audit report by the participants and follow up action based on the audit.

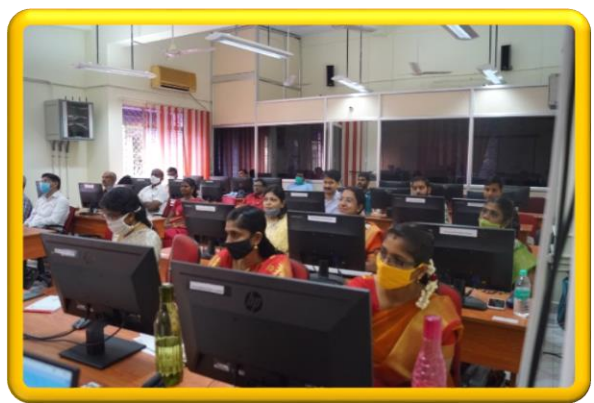
Civil Trade Courses conducted at AVNL IOLAV:

- Internal Quality Audit on QMS (for Indian Air Force)
- Awareness on ISO 9001:2015 (for Indian Air Force)
- GST, GeM & e-Procurement (CPPP) (for Indian Air Force)
- Awareness on ISO 9001:2015 (for CVRDE)
- Training on Internal Quality Auditor (for CVRDE)
- Quality Management System (for MSME Vendors)
- Parliamentary Official Language Questionnaire (TOLIC Members)
- CorelDRAW 2020 (for TOLIC Members and General Public)

3. UNIQUE CAPABILITY:

Infrastructure:

- Two Nos. of State of Art A/c classrooms equipped with Internet and Audio Visual System.



- Auditorium/Presentation Hall with total seating capacity of 70 Participants at a time.
- LAN Room with 30 PC users seating capacity.
- AVNL IOLAV has created a Cut cum working model room and a Demonstration facility with the support of HVF & EFA for Live demonstration and Hands on Practical Training on Dis-Assembly & Assembly of various sub systems of Armoured Vehicle such as Engine, IGB, BGU, Air compressor, Side Gear Boxes, Suspension system etc., to the participants. Efforts are also being made to create more cut cum working models of AV Tank sub assembly and give more emphasize to practical oriented training programme on AV Technology.

Library:

The Library is equipped with Books on Management, Computer, Engineering Production and Human Resources Development, Govt. Rules and Regulations duly updated from time to time. A wide variety of Magazines & Newspapers on Different Languages have also been subscribed for the Benefit of the Participants.



Hostel:

The present Hostel building can accommodate 62 Participants. Accommodation with AC rooms, Messing catered through a contract at a reasonable cost, Mini Gym, Volley Ball Court and Table Tennis Facilities are available for participants.



ISO Certification:

AVNL IOLAV is a certified institute of "Quality Management System ISO 9001: 2015".

4. Transformational Role:

After the formation of Armoured Vehicles Nigam Limited, the New Defence Company, its HR Directorate has carried out a visioning exercise to re-orient and transform the Institutes of Learning into premier Training Institute in the Country. The following transformational roles and goals have been devised and assigned to all the IOLs under AVNL.

5. Centre of Excellence:

AVNL HR has envisioned that all AVNLIOLs shall be develop into “Centre of Excellence”. AVNL IOL Avadi has chosen “Imparting Training on Maintenance and Operational Procedures of Armoured vehicles” to achieve the status of “Centre of Excellence”.

Working Models:

This institute has a **Armoured Vehicle Cut Cum working Model Room** consists of **V46-6 Engine, V92-S2 Engine, BMP UTD20 engine, Side Gear Box, Air Compressor, Suspension System, Transmission System, IGB** and various sub assemblies related to Armoured Vehicles.

This Institute is also having an **Armoured Vehicle Demonstration room** to provide participants a hands on **practice for disassembly and assembly of IGB, Side Gear Box, Hydraulics Shock absorber, Bevel Gear unit, Fan friction Clutch, Air Compressor, Air Filters, Engine**etc.,



In addition, the class rooms are equipped with various teaching aids to support the study of components and systems for better understanding and visualization.

Training on Theoretical and Practical hands on given to the participants in the area of defect investigation, alignment process, disassembly and assembly of various sub assemblies of Armoured Vehicles.

6. Memorandum of Understanding:

Each AVNL IOL shall seek to be recognised as reputed Training Institutes by signing MOUs for mutual collaboration with other reputed Institutes.

This Institute has signed an MOU with M/s Diagonal CADD technology centre of AIEMA (Ambattur Industrial Estate Manufacturer’s Association). Purpose of this MOU is to exchange faculty services in the defined technical areas. Many more such MOUs are in the process.

IOLAV has initiated action for entering into an MoU with CDAC (Centre for Development of Advanced Computing) to promote skill development efforts for the unemployed youth to generate job opportunity.

IOLAV and CDAC jointly can conduct training programmes in the basic, intermediate and advanced level for the Women to prepare them for careers in Information Technology (IT), Business Process Outsourcing (BPO) and other IT enabled services.

This will leverage acquiring the requisite **skill by the youth** which in turn will create **Self-Reliant India**.

7. Expanding Horizon:

As per the goal and directions set by AVNL HR, each AVNL IOL shall seek to expand its wing, broaden its horizon and reach out to external customers as well.

The Institute is in the process of entering into an MOU/agreement with C-DAC (Centre for Development of Advanced Computing). The purpose of the MoU is promoting a project of “Up skilling of suitable candidate in contemporary and emerging ICT verticals”

Registration with Government e-Marketplace as a seller:

As mandated by AVNL HR, the Institute is in the process of enrolling with Government e-Marketplace (GeM) as a seller to offer Training Programmes to other Government departments and external customers as well.

8. Specialised Courses

AVNL has entrusted IOLAV to conduct specialised courses in the following areas.

- HR
- Quality
- Technical Core Courses

IOLAV has planned to conduct the following courses in the area of HR, Quality and Core Technical area

Sl.No	Course	Duration
1.	Managerial Effectiveness & Leadership Essentials	3 days
2.	Corporate Communication	2 days
3.	Spoken Hindi	5 days
4.	Accounts & Book keeping (Fundamentals)	5 days
5.	Certified Course on Quality Guide	7 weeks
6.	Certified Course on Quality Patron	5 days
7.	Getting Hands on With Internet of Things – Rpi, Python & use cases	5 days

8.	Machine Learning	5 days
9.	Data Analytics	5 days
10.	Virtualisation and Cloud Computing	5 days
11.	PHP and MySQL	5 days
12.	Bootstrap	5 days
13.	Advanced Excel	3 days
14.	Corel Draw for e-publication	5 days
15.	Intellectual Property Rights	3 days
16.	Solar & Renewable sources of Energy	5 days
17.	Energy conservation, Energy Management & Energy Audit	5 days
18.	Welding Technology & NDT	5 days
19.	CNC Programming	5 days
20.	CNC Maintenance	5 days
21.	Lean, 6 Sigma-Awareness and Auditing	5 days
22.	ISO 14001: 2015 Awareness and Internal Audit	5 days
23.	ISO 45001: 2018 Awareness and Internal Audit	5 days
24.	Metallurgical – Chemical Analysis	5 days
25.	Destructive Testing	5 days
26.	Non Destructive Testing (UT, RT, MPT, LPT, Eddy current)	5 days
27.	Supply Chain Management	5 days
28.	Implementation of Official Language for Newly recruited Hindi Translators (outside departments)	5 days
29.	Filling up of Parliamentary Questionnaire	5 days
30.	Input Material Inspection - Chemical Analysis & Metallurgical Testing	5 days
31.	Heat Treatment of Steel and Alloys	5 days

9. Achievements and Awards:

The flagless commitments of the Officers and staff of this institute in imparting an effective training fetched Best OFIL Award for the year:



- ✓ OFILAV has been adjudged as joint winner of BEST OFIL for the year 2004-05
- ✓ 2007-2008, jointly with OFIL Ambarnath
- ✓ For the year 2011, OFB Efficiency Trophy to the Best OFIL.
- ✓ Appreciation from DGMF, MOD, New Delhi
- ✓ Appreciation from Indian Air force for the training programme conducted for their Personnel
- ✓ Appreciation from CVRDE for the training programme conducted for their employees
- ✓ From 2006 to till date this institute has received 9 times Southern Region Rajbhasha Sammelan Award

10. Need for Continuation/Re-orientation

AVNL IOLAV is the only Nodal Institute under OFB with Core Competence in imparting training in Armoured Vehicle Technology to the personnel from Army Field Units of DGAC & DGEME and Group B & C Civilian personnel from various Ordnance Factories and Allied Establishments.

The courses conducted by AVNL IOLAV on Armoured Vehicle Technology are practical oriented and have been well received by Army Personnel from Field units & EME workshops, Ordnance Factories and Allied Establishments. The total number of Army Personnel trained in AV courses as of now is 2372. The participants, after attending past training modules, have highlighted in their feedback that the courses are very effective and useful with emphasis on practical lessons/inputs. It has enabled them to acquire skills and knowledge required for the operation and maintenance of Armoured Vehicles.

The Feedback were also received from the Army Field Unit Commandants and Factories that the participants were able to educate their fellow soldiers about the technical aspects of the equipments and also able to identify & rectify majority of the issues encountered during operation of A Vehicles.

Further, during the meeting held at the office of Secretary (DP) / MOD in 2017-18, it was suggested that training programmes could be organized by OFB/HVF for sensitizing Unit Personnel on Operation and Maintenance Aspects, highlighting precautions to be taken during exploitation and maintenance of Tanks. Accordingly AVNL IOLAV has planned to conduct two new courses one on Operational Aspects and another on Maintenance Aspects of Armoured Vehicles exclusively for Army Units and EME Personnel in every quarter. The objective of these courses is to reduce number of defects and failures arising during operation and maintenance at Units. The duration of each of the above courses will be one week each. Though the courses on operation and maintenance are independent and conducted separately, they are scheduled on consecutive weeks so that the participants can be detailed for attending both the courses together also if required. This will facilitate the participants for trouble and defect free operation of various Tanks.

As a follow-up of the above discussions held at Office of Secretary (DP) / Ministry of Defence (Department of Defence Production), AVNL IOLAV has conducted the course on

“Operational Aspects and Maintenance Aspects of Armoured Vehicles” for the past four years.

Based on the feedback received from the participants who attended various Armoured Vehicle training programme, AVNL IOLAV has conducted a new long term course “Comprehensive training on system incorporated in T-72, T-90, BLT& MBT” for a duration of **04 Weeks** exclusively for Army Personnel. The objective of this course is to provide holistic knowledge on Armoured Vehicle Technology by covering the entire systems of Armoured Vehicles. The knowledge gained by the participants will help reduce the number of defects and failures arising during operation and maintenance at units. The outcome of the training will facilitate trouble free and defect free operation of various tanks.

It is understood from DGQA that the Army Field Units reported that defects were drastically reduced and mobility of the Armoured Vehicle at Unit Level are ensured with proper maintenance by implementing the practical oriented training acquired by the Army Personnel at AVNL IOLAV. This results in reduction of expenditure on maintenance thereby huge **saving by the Government exchequer**.

The training programmes being conducted at AVNL IOLAV will definitely be a step forward in the direction of updating the knowledge and skills of personnel involved on operation/maintenance of Armoured Vehicles thereby improving the fitness/availability of vital war equipment. By imparting training on Armoured Vehicle Technology by this Institution could continue to be of service **to the requirements of the Indian Army**.



AVNL INSTITUTE OF LEARNING AVADI
UNIT OF ARMoured VEHICLES NIGAM LIMITED
A GOVT. OF INDIA ENTERPRISE
MINISTRY OF DEFENCE

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