



Integral Coach Factory

(A Production Unit under Ministry of Railways)

Chennai - 600 038



TRAINING CALENDAR 2025-26



ADVANCED WELDING TRAINING INSTITUTE

General Information

Name of the Principal	K. Thiagan
Phone Number	
Email ID	ptcttc2015@gmail.com, awtiicf@gmail.com
Working hours	Monday to Friday: 08:00 to 12: 00 Hrs &12: 30 to 17:00 Hrs Saturday : 08:00 to 13:00Hrs
Hostel Facility	ICF Subordinate Rest House for Out station Supervisors & Apprentice Hostel for outstation Technician Trainees

Important Contact Numbers

Admin	Name & Design.	Rly.Phone	Mobile	BSNL
General	M.Selvamani, SSE	47211	9003149476	044-261 47211
Office	S. Fredy, OS	47210	9944696386	044-261 47210
Hostel	Abdul Razaack, SSE D. Balaguravaiah, SSE	47757	9003149716 8056050209	044-261 47757

List of Holidays for the year 2025 - 2026

Date	Holiday	Date	Holiday
14.04.2025	Tamil new year/ Dr. Ambedkar Birthday	25.12.2025	Christmas
01.05.2025	May day	26.12.2025 to 31.12.2025	Factory Holidays
15.08.2025	Independence day	01.01.2026	New year
27.08.2025	Vinayakar Chathurthi	14.01.2026	Pongal
02.10.2025	Gandhi Jayanthi	26.01.2026	Republic day
20.10.2025	Deepavali		

About AWTI

- Established in the year 2010
- Equipped with state of art training facilities
- Provides training in MMAW, GMAW, GTAW & RSW
- Conducting Welders training and evaluation to IS 817 & ISO 9606 -1
- Provides Training of Technical & Lab Supervisors in the field of Welding, Inspection & allied fields

I. CALENDER COURSES FOR THE YEAR 2025 – 26

TM – Technician Module EM – Engineers Module

MOD. No.	COURSE TITLE	DURATION	Capacity	2025												2026			Course In Charge
				April	May	June	July	August	September	October	November	December	January	February	March				
TM010	Basic course for beginners & ICF PQ Welders	4 wk	20	07	05	02	07	04	01	06	03		05	02	02	KTS			
TM020	Refresher course for Welders	3 wk	20		05		14		08		10	01	12		09	CCV			
TM030	TIG welding for Technicians	1 wk	10	21		09		18		13		01		09		NHS			
TM080	Stainless Steel Welding for Welders	1 wk	20		12		21		15		17		19		16	CCV			
TM110	Short refresher course for Welders	1 wk	20	07	19	16	14	18	22	06	24	08	05	16	23	GTK			
TM240	Trouble shooting of MIG / MAG Welding plant for welders	2D	15			18			24			17			11	NHS			
EM090	Stainless Steel Welding for Supervisors	1 wk	30	23		11		06		08		10		04		STR			
EM150	Cost reduction methods in Fabrication for supervisors	3D	30		07			11			26			11		MSM			
EM340	Welding course for design & plg. Engineers	3D	30			23			10			15			16	MSM			
EM360*	Course on visual inspection as per ISO : 3834 &en 15085 requirements	6D	20		07			20			19			18		KVK			
EM410	Weld measurement & usage of Gauges for supervisors	3D	20	16			23				05				25	AG			
EM900*	Welding co-ordinators for Railway Applications for Supervisors	8D	15			04			17				21		18	STR			
*Certificates will be issued after successful completion of the course.																			

*Certificates will be issued after successfully qualifying the course assessment. Eligibility of candidates to be confirmed with SSE/GL/AWTI before nomination.

II. NEED BASED SPECIAL COURSES FOR WELDERS AGAINST SPECIFIC DEMAND & FIELDS

Sl.no.	Course code	Target audience	Title and topics of the course	Course In charge	Duration
1	TM 160	Technicians	Welder qualification as per ISO: 9606 (Workshops and Zonal Rlys.)	KVK	2 Days
2	TM300	Technicians	Self inspection course for Welders & Fitters	GTK	1 Day
3	TM110A	Technicians	Pre - Promotional Refresher Training for Welders	GTK	3 Days
4	TM330	Technicians	Training on GMAW Welding Process	CCV	1 Week
5	VM200	Vendors	Welder/Welding Operator Qualification for Vendors as per ISO:9606/ ISO:14732	KVK	1 Day

III. NEED BASED COURSES FOR WELDING INSPECTORS, METALLURGISTS & ENGINEERS

Sl.no.	Course code	Target audience	Title and topics of the course	Course In charge	Duration
1	EM380	Supervisors	Welding power sources and its selection	CCV	3 Days
2	EM420	Supervisors	Training on Advanced Welding Processes (CMT, Robotic & Laser Welding)	CCV	2 Days
3	EM 430	Supervisors	Training Program on Quality Management	STR	3 Days
4	EM 450	Supervisors	Metallurgy & heat treatment for Non-Metallurgist	RN	3 Days
5	EM 460	Supervisors	Metallography of Ferrous Materials	RN	3 Days
6	EM240A	Supervisors	Special Course on trouble shooting of Welding Power sources for Welding Supervisors	NHS	2 Days
7	EM450A	Supervisors	Special course on welding Metallurgy for Practicing engineers	RN	2 Days
8	EM560	Supervisors	Special practical course on resistance Spot Welding quality assurance	VGM	2 Days

Sl.no.	Course code	Target audience	Title and topics of the course	Course in charge	Duration
9	EM180A	Supervisors	Special refresher course on welding codes Standards and certification	AG	2 Days
10	EM510	Supervisors	Special course on welding Distortion and Control	CCV	2 Days
11	EM900A	Supervisors	Special course for welding coordinators	STR	3 Days
12	EM360A	Supervisors	Special course for visual inspection of welds As per ISO:3834 & EN 15085 requirements	KVK	3 Days
13	EM 600	Supervisors	Special practical course on qualification of Welders as per ISO 9606 - 1	VGM	2 Days
14	EM 610	Supervisors	Special practical course on qualification of WPS as per ISO 15614 - 1	AG	2 Days
15	EM090A	Supervisors	Special Welding Course on Stainless Steel Welding for Supervisors	STR	2 Days

* Special Courses and need-based courses will be conducted with minimum nomination of 10 participants.

FACULTY PROFILE

NAME OF FACULTY	QUALIFICATION	PROFESSIONAL QUALIFICATION
M. Selvamani (MSM)	AMIE, MBA	IWT, CWI, ISO: 9712 Level-II(VT)
S. TirupatiRao(STR)	AMIE	IWT, ISO: 9712 Level -II(VT)
N. HariharaSwaminathan(NHS)	AMIE, BBA, PGDCA	IWS, SNTTC-IA Level II (VT), ISO9712 Level-II (VT),CWI
V. Gnanamurthy (VGM)	M.Sc., AIIM.	SNT-TC-IA Level II (VT,MPT,UT,RT,DPT), ISO: 9712 Level-II(VT,MPT,DPT)
A. Ganesh (AG)	B.Tech., MS	SNT-TC-IA Level II (VT,MPT,UT,RT,DPT), ISO: 9712 Level-II (VT,UT, DPT)
R. Niranjana(RN)	B.E	ISO: 9712 Level-II (VT, MPT, DPT), SNTTC-IA Level II (UT)
K. Venkata Kumar (KVK)	B.Tech	--
G. Thirukumaran (GTK)	AMIE,M.E	D.R.T.M
C.C. Vinod(CCV)	DME, MBA	IWT
K.T. Salson (KTS)	B.Tech	ISO 9606-1 certified
D. Balaguravaiah	DME, AMIE(SeeA)	Dip.Rly.Engg.

AWTI Faculty Accolades:

1. "Bimal Kumar Das Memorial Award"-Best Paper Presented on Training and Skill development in Welding at National Welding Seminar-2022
2. "D&H Scheron Award" -Second Runner up award in Young Engineer -2022 contest organized by IIW, Cochin
3. "Prof. A.K. Bhaduri Memorial Award"- Winners of Inter corporate Weld Quiz contest-2022 organized by IIT Madras and IIW, Chennai

IMPORTANT INSTRUCTIONS

Trainees/Participants coming for training at AWTI shall adhere to following instructions

1. Discipline, sincerity and punctuality are the foremost qualities expected from the trainees/participants.
2. Trainees/Participants shall bring their own safety shoes and working dress for doing welding practice.
3. Trainees/Participants having corrected vision must wear their spectacles during welding.
4. Trainees/Participants shall report with Photo ID card and relieving letter.
5. Trainees/Participants shall bring two passport size photographs.
6. Hostel accommodation is available for outstation trainees only on nominal fees as per Circular.
No PB/LW/2406/SRH dt: 01.03.2021. No mess facility is available in the hostel but canteen services are available in administrative office during office hours.
7. No cooking is allowed in the hostel.
8. Hostel accommodation shall be confirmed well in advance through ptcttc2015@gmail.com

Note: It is advised to send the nominations atleast 10 days before course start date to ensure course capacity not exceeded and to ensure availability of the accommodation for outstation candidates

Annexure -1 Regular Training Module Syllabus

Module No.	Course Title	Target Audience	Topics Covered
TM010	Basic Course in welding for Beginners	New recruits / Technicians from other trades redeployed as welders	Introduction to different welding processes. Weld defects causes and remedies. Introduction to Oxy-acetylene gas cutting. Practical in MMAW. Test for IS: 817 standard. (About 30 Hours Theory & 100 Hours of Practical)
TM020	Refresher Course For Welders	Welders who have completed Basic Welding course (TM010) / welders of all grades.	Principles and techniques of welding (MMAW, GMAW & SAW). FCAW with CO2 gas shielding. Weld defects causes and remedies. Distortion and its control. Different positions welding in GMAW. Introduction to ISO 9606 standards. (About 25 Hours Theory & 75 Hours of Practical)
TM030	TIG Welding for artisans	Welders who have completed TM010 or TM020 or welding technicians with 2 yrs experience.	Introduction to TIG welding process. TIG welding accessories, consumables and techniques. TIG Welding defects causes and remedies. Practical training on TIG welding. Introduction to ISO: 9606 / IS: 7310 testing standards. (About 8 Hours Theory & 28 Hours of Practical)
TM080	Stainless Steel Welding for Welders	Welders who have completed Basic Welding course / welders of all grades	Introduction to stainless steel welding techniques. Defects causes and remedies. Distortion control. Practical in MMAW, FCAW & MIG welding for stainless steel. Introduction to ISO 9606 / IS 7310 testing standards, Fabrication Challenges. (About 8 Hours Theory & 28 Hours of Practical)
TM110	Short Refresher course for welders	Welders of all Grades with minimum 2 years of experience.	Principles of CS & SS Welding (MMAW, GMAW, FCAW & TIG). Weld Joint Preparation. Weld defects causes and Remedies. Distortion Control. Critical Weld Joints in ICF coaches. Introduction to ISO 9606 / IS 7310 testing standards. (About 8 Hours Theory & 28 Hours of Practical)
TM110A	Pre-Promotional Refresher Training for Welders	Welders before the next grade promotion	Weld defects causes and Remedies. Distortion Control. Critical Weld Joints in ICF coaches. Introduction to ISO 9606 / IS 7310 testing standards
TM160	Certification for welders as per ISO 9606-1	IS: 7318 / IS: 7310 qualified welders with 2 yrs experience	Introduction to ISO 9606-1 and its need in the present scenario. Explaining welders about the evaluation procedure followed by test. (2 hours briefing followed by practice and test)
TM240	Troubleshooting of MIG / MAG welding plants	Welders of IR having minimum 2yrs of experience or who have completed TM020 module.	Setting up MIG welding plant & wire feeder. Understanding recommended parameters for welding. Good maintenance practices in welding plant and wire feeder. Usage of different shielding gases. Trouble shooting in MIG torch. (About 6 Hours Theory & 12 Hours of Practical)
TM300	Self-inspection course for welders & Fitters	Welders & Fitters of all grades	Points to be checked before, during & after welding, Understanding WPS and welding symbols in drawing. Types of defects and their identification. Corrective and preventive actions to be followed.
TM330	Training on GMAW welding	Welders who have completed Basic Welding course / welders of all grades.	Introduction to MIG welding process. MIG power source, accessories, consumables and techniques. MIG Welding defects causes and remedies. Practical training on MIG welding. (About 8 Hours Theory & 28 Hours of Practical)
VM200	Welder certification programs as per ISO:9606	Welders from vendors of ICF/ other Railways having sufficient experience.	Introduction to ISO 9606-1 and its need in the present scenario. Explaining welders about the evaluation procedure followed by test. (2 hrs briefing followed by practice and test)

Module No.	Course Title	Target Audience	Topics Covered
EM050	Training for Newly Recruited Supervisors in Welding and NDT	Apprentice JEs and SSEs (Direct recruits from RRB and promoted JEs).	Introduction to welding processes and metallurgy. Introduction to SS welding. Inspection and testing of welding. Welding defects causes and remedies. Introduction to Oxy- acetylene gas cutting and plasma cutting. Resistance welding, LASER welding, Introduction to ISO 3834 standards. Objective type Test.
EM090	Stainless Steel Welding Course for Supervisors	The supervisors engaged in fabrication / repair of coach and wagon using Stainless Steel welding-	Introduction to SS welding. Application of TIG, MIG, Pulse MIG. Dissimilar metal welding. Welding defects causes and remedies. Welding codes and practices. WPS & PQR preparation as per ASME Section IX. EN 287, EN 15085 & ISO 3834 standards. Distortion control. Post weld surface treatment for SS. Welding practice. Objective Test.
EM150	Cost reduction methods in fabrication	All SSE, JE, & CMT staff of Indian Railways including Design staff.	Productivity improvement, automation and robotics, Time study methods, Lean Manufacturing, 5S principles, 6 sigma & 7 QC tools as applicable to fabrication. Welding economics..
EM340	Welding course for design & planning engineers.	Design and planning engineers of Production Units, Workshops, Zonal Railways of IR.	Introduction to various welding processes. Design of weld joints. Design requirement as per EN 15085, welding symbols as per ISO- 2553. Weld defects, causes and remedies. WPS as per ISO 15609. Pre and Post weld heat treatments. Failure analysis. Cost saving ideas for design engineers. Checklist for prototype inspection including usage of gauges and other instruments.
EM360	Course on Visual inspection as per ISO 3834 & EN 15085 requirements	Inspection and Production Personnel of Indian Railways engaged for rolling stock fabrication & maintenance.	Introduction to ISO 3834 & EN 15085 standards. Visual inspection as per ISO 17637. Welding defects causes and remedies. Various Welding Processes, welding symbols WPS preparation as per ISO 15609. Practical usage of gauges for weld measurements. Acceptance criteria as per ISO 5817. Examination (both theory and practical)
EM380	Welding Power source and its selection	SSEs & JEs of ICF and other Railway workshops	Types of power sources, Thyristor, MOSFET & IGBT controlled, elementary level trouble shooting
EM410	Weld measurement & usage of gauges	SSEs & JEs of ICF & other Railway workshops	Weld dimensions like Leg Size, Throat Size, etc. Welding defects measurement procedures. Usage of measuring instruments like Cam gauge, Universal gauge, Vernier caliper, depth gauge etc.
EM900	Welding coordinators for railway applications	Supervisors with prior work experience in welding area	Various welding processes, materials, welding metallurgy, DT & NDT, ISO: 3834 and EN 15085 requirements, Welder qualification, Welding Symbols, welding procedure specification, role of welding coordinator. (Objective type exam & Oral viva-voce evaluation)

PHOTO GALLERY



Welding Workshop of AWTI



Cold Metal transfer (CMT) Welding



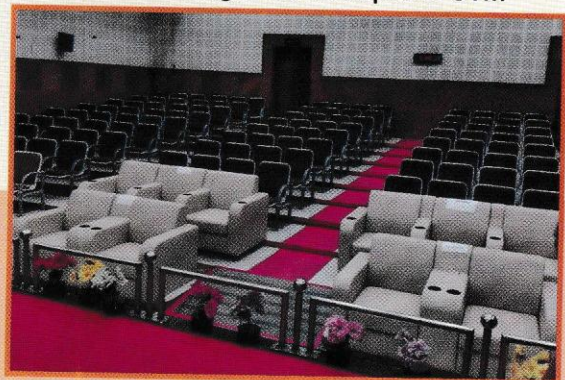
Weld Training Booth



Tensile testing of weld samples in UTM



EN 15085-2 Certification



Auditorium

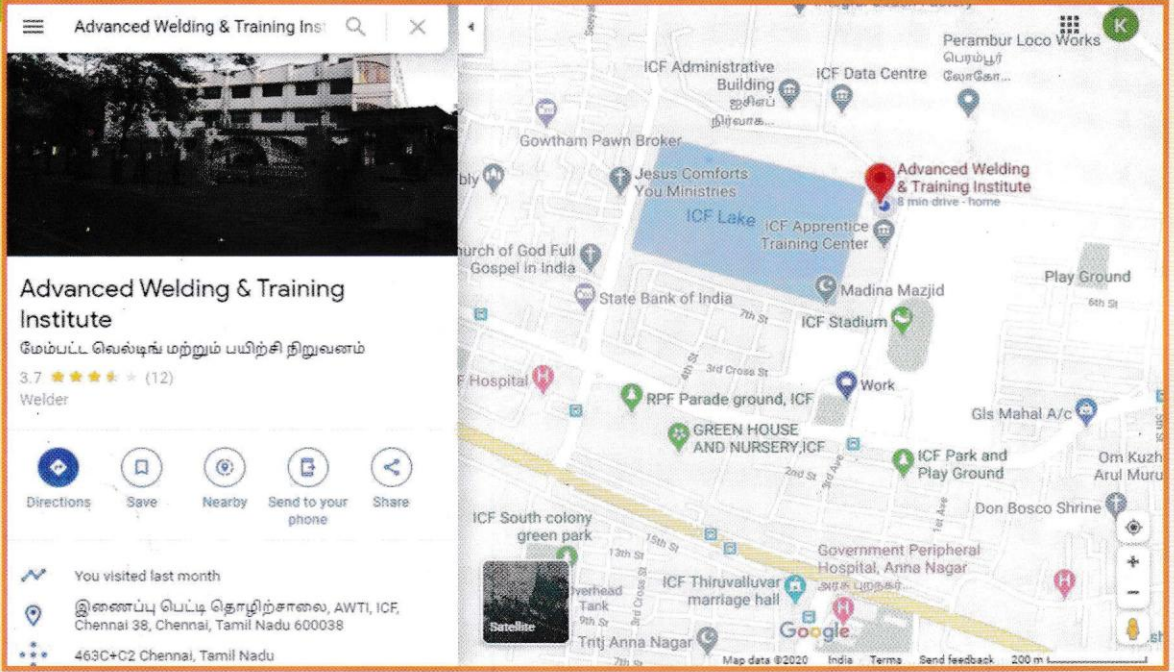


Smart Class room



Display of Weld Samples Cut sections

Route Map to AWTI



How to Reach

- By train:** From Chennai Central- Catch suburban train towards AVADI direction and alight at Loco Works / Villivakkam Railway station then by walk /Auto rickshaw
- By Bus :** Bus No.20,20A,20B,20C &120 from Chennai Central & 27D from Chennai Egmore, 46, 46G, 48C From CMBT. Bus Stop – “**Kambar Arangam**” on Konnur High road



Scan Here for Location

