

MSTC GKP

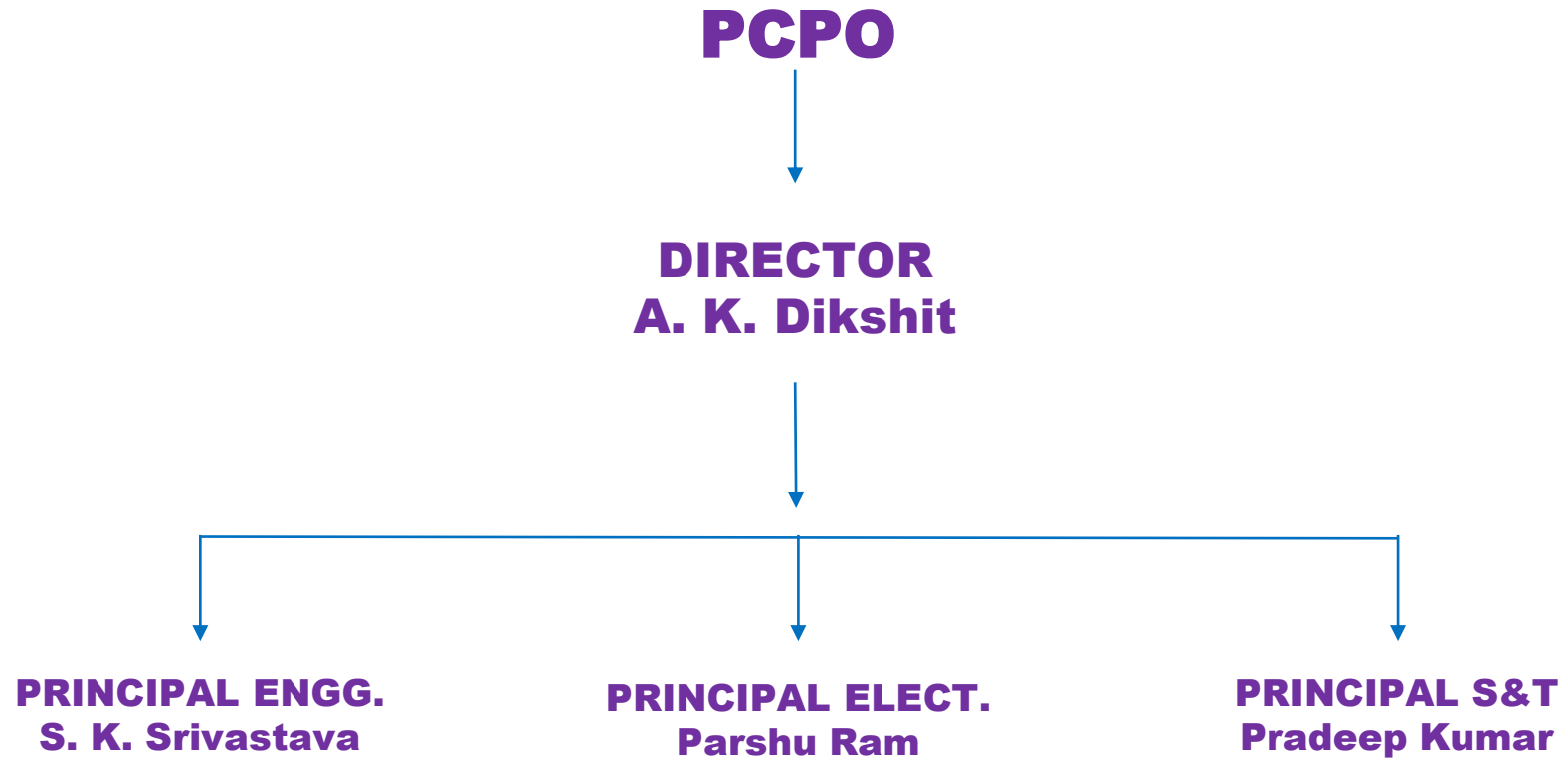
Brochure

Multidisciplinary System Training Centre

North Eastern Railway, Gorakhpur



ORGANISATION CHART



- ❖ Training Centre established in February 1947.
- ❖ After bifurcation of N.F. Railway from N.E. Railway, it was named as System Technical School in August 1958.
- ❖ It was again renamed as Supervisors' Training Centre in July, 1995 , and after merger of all training centres as MSTC in April 2018.
- ❖ To impart training to Supervisory / Artisan staff of Mechanical, Engineering , Signal, Electrical and other departments.
- ❖ It also runs few other inter-disciplinary courses such as Disaster Management, Fire Fighting etc

CADRE STRUCTURE (Mech/Engg)

Designation	Sanction	Act.	Designation	Sanction	Act.
Director	1	1	Inst Running/CLI	7	5
Principal (Engg)	1	1	Inst Engg (P-way & Works)	2	2
Lect./Inst. C&W	3	2	Hostel Supervisor	1	1
Lect./Inst. Diesel	2	2	Store Supervisor	1	0
Sports Supervisor	1	1	Janitor	1	1
Inst. Civil Def	1	0	Mess Supervisor	1	0
Inst. Transportation	1	1	Inst. Traction	1	0
Inst. Memu	1	0	Ministerial	08	5
Inst A/V	1	1	Class IV	15	10
Total				49	33

CADRE STRUCTURE (Signal)

Designation	Sanction	Act.
Principal	1	1
Chief Instructor/Signal	4	1
Chief Instructor/Tele	2	2
Senior Instructor/Tele	1	Nil
Sr Instructor/Signal	2	Nil
Ministerial Staff	1	1
Class IV	4	3
Total	15	8

CADRE STRUCTURE (Electrical)

Designation	Sanction	Act.
Principal	1	1
Instructor(TL&AC)	1	1
Instructor(TRD)	1	1
Ministerial Staff	2 Against HQ BOS	2
Technician	1 Against Dy CEE/Colony BOS	1
SSE/Electrical(Gen Services)	1 Against HQ BOS	1
Total	3	7

Selection Position(Mech/Elec/Engg)

Designation	Date of notification	Date of Selection	Name of the selected candidate(Mr)	Status
Instructor/Pway	23-01-23	03-07-23	Girjanand Yadav	Joined
Instructor/TRD	30-01-23	23-01-23	Nagendra Kumar Yadav	Joined
Instructor/TLAC	15-09-22	17-04-23	Santosh Kumar	Joined
Instructor/C&W	23-02-23	22-08-23	Arvind Kumar Singh	Not yet joined
Instructor/MEMU	21-03-23	11-08-23	Alok Kumar Srivastava	Not yet joined
Lecturer/C&W	23-02-23	-	-	Selection in process Exam on 23.09.2023
Hostel Supervisor	24-01-23	27-07-23	Rajendra	Joined
Mess Supervisor	-	-	-	Notification issued on 05.09.2023
Store Supervisor	-	-	-	
Instructor Civil defence	28-06-23	-	-	No application received hence date extended upto 28-09-23
Instructor/Traction	19-06-23	-	-	Selection in process Exam on 23.09.2023

Selection position(Signal)

Designation	Date of notification	Date of Selection	Name of the selected candidate(Mr)	Status
Chief Instructor /Signal	10-03-23	-	-	Selection in process. Written Exam conducted on 07.09.2023.
Senior Instructor /Signal	21-03-23	-	-	Selection in process. Written Exam conducted on 07.09.2023.

TRAINING INFRASTRUCTURE

S.N.	Description	Mech.	Engg.	S&T	Elect	Total
1.	No. of class rooms	11	02	05	02	20
2.	Conference hall	01	-	-	-	01
3.	E-Learning	-	-	01	-	01
4.	Interactive Panel	10	01	-	-	11
5.	LCD Projector	15	02	08	03	28
6.	Computer	35	04	31	09	79
7.	Model room	01	01	-	03	05
8.	Assembly Hall	01	-	-	-	01
9.	Library	01	-	01	01	03

TRAINING INFRASTRUCTURE

S.N.	Description	Mech.	Engg.	S&T	Elect	Total
10.	Outdoor Yards	-	-	02	-	02
11.	Model Yard	-	-	01	-	01
12.	Lab	02	-	06	-	08
13.	Mobile Training Car	01				01

CONFERENCE HALL



MSTC Library



YOGA DAY FUNCTION IN ASSEMBLY HALL



Models Available(Mech/Engg)

- 1. H Type CBC Working Model**
- 2. Bio Toilet Cut Model**
- 3. Electric & Diesel Locomotive Parts**
- 4. Cut Models of Diesel Power Pack**
- 5. LHB Fiat Bogie with Brake System**
- 6. BCN Bogie with Brake System**
- 7. Model Track**
- 8. LHB FIAT Bogie**
- 9. Axle Mounted Brake Control System with WSP**
- 10. Air Compressor for Air Brake Testing**
- 11. RTR & SCTR**
- 12. Pressurized Flushing System**

CBC & ICF Bogie Model



ICF Trolley with Twin Pipe Air Brake System



H Type CBC



Model Room (Mech)



Model Room (Mech/Elec)

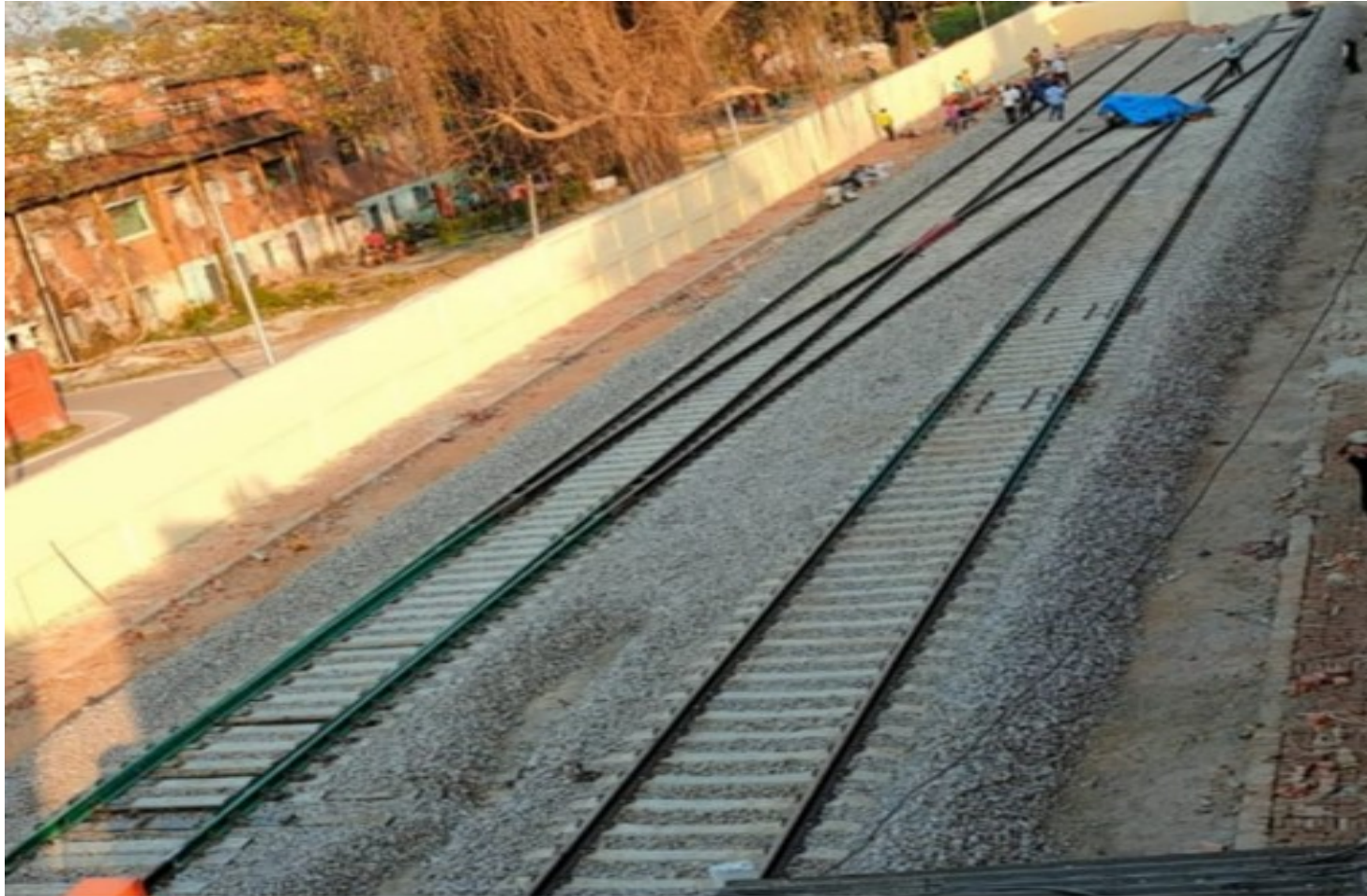


Model Room (Engg)



MODEL TRACK

Turnout with curved switches & Thick web switch on PSC Lay out 60 kg 1 in 12 BG and Plane track on PSC sleeper with 60 kg Rails.



MODEL TRACK

MODEL TRACK consists of:-

TRACK ITEMS

- (i) Thick web Switch 60 Kg/m Rail on PSC sleeper, (ii) 10125 mm Over Riding Curves Switch 60 Kg/m Rail, on PSC sleeper (iii) CMS Xing 60 Kg on PSC sleeper (iv) Glued Joint BG. 60 Kg/m Rail and (v) New design SEJ (Double Gap) BG. (60 Kg/m Rail) at MSTC Gorakhpur.

SIGNAL ITEMS

- (i) MACLS(2 Aspect / 3 Aspect)
- Home Signal with Route indicator and Calling On Signal.
 - Starter Signal with Dependent Shunt
 - Advance Starter Signal

MODEL TRACK

(ii) Electric Point Machine

- High Thrust (220mm Stroke) Thick Web Switch.
 - ☐ It ensures and proves the proper setting of both stock and switch rails.
 - ☐ The unique feature of thick web switch is broad crossing angle so that train can negotiate with higher speeds.
 - ☐ A Clamp Lock clamps together closed switch against the stock rail.
- Rotary Type (143mm Stroke)
 - ☐ IRS Point Machine is rotary locking type point machine.
 - ☐ It is designed to operate all type of points /switches.

OBJECTIVE

Trainees gain practical onsite knowledge of track and signal components which is then reinforced with theoretical classes. It clears their doubts and helps in understanding the concepts better, without going on running track.

MODEL TRACK



MODEL TRACK



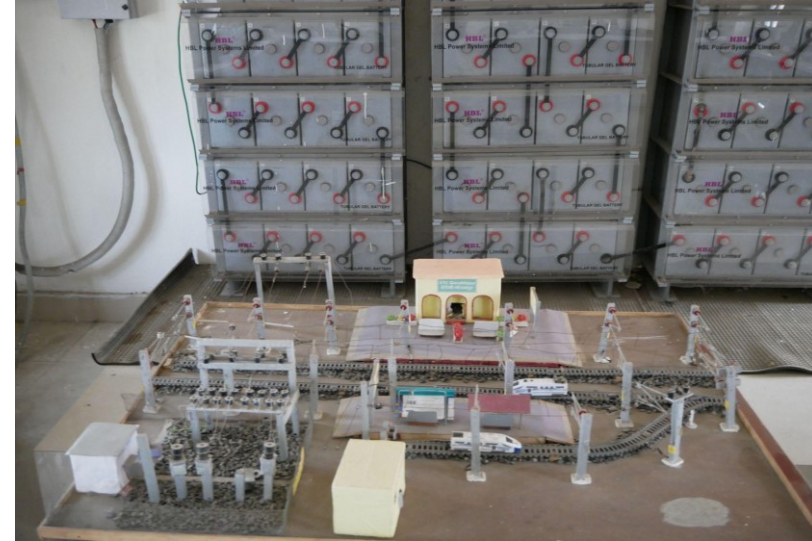
Models Available(Elec/S&T):

- 1. OHE Model**
- 2. Electronic Interlocking**
- 3. Panel Interlocking**
- 4. Block Panel**
- 5. Axle Counter**
- 6. Integrated Power Supply**
- 7. Telecom Lab**
- 8. V Belt Matching Machine**
- 9. Alternator & RRU Drive**
- 10. RMPU Control Panel**
- 11. General Power Supply Equipment**

MODEL ROOM (ELEC.)



MODEL ROOM (ELEC.)



S & T Labs

(i) ELECTRONIC INTERLOCKING(EI) Lab:

Make- MEDHA,

System configuration-

Hot standby, Dual VDU

BPAC S/L using UFSBI (Make- Deltron)

Data logger (Make- Efftronics)

Maintenance free - earth and surge protection



(ii) BPAC(D/L) using UFSBI Lab:-

BPAC with UFSBI is used to impart training in working principle and fault rectification.



(iii) Panel Interlocking Route Setting Type Lab(RRI):-

PI with Data Logger (Make- Efftronics) installed for training on fault finding & troubleshooting.

Electrical point Machine(EPM) is also operated from this PI.



(iv) Block Signalling Lab:

Training is imparted on four type of Block Instruments:-

- 1. Single Line Neal's Token/Tablet type Block Instrument.**
- 2. IRS Push Button Type Token-less Block Instrument.**
- 3. Diado (Handle Type) Block Instrument.**
- 4. Double Line SGE Block Instrument(DLBI).**



(v) Axle Counter Lab:-

Axle counter (G.G.Tronics) with two detection points are provided for training on SSDAC



(vi) IPS Lab:-

Amar Raja make IPS is installed to impart training as well as to cater for power supply requirements of various labs.



Telecom Lab

- ❖ DTMF HQ Control Equipment, Way Station Decoder & Control Phone.
- ❖ Universal Type Control Phone.
- ❖ Master-Slave Gate Phone.
- ❖ PCP/ECP, Emergency Socket, VF Transformer.
- ❖ Magneto Phone
- ❖ PA System
- ❖ Measuring Equipments.



Telecom Lab(outdoor)

- ❖ Study of nomenclature of Telecom cables
- ❖ Study of PIJF cable construction
- ❖ Study of 6 Quad cable construction and its jointing with RTSF kit (Reinforced Thermo Shrink Filled kit)
- ❖ Earth resistance measurement



Telephony Lab

- ❖ IP based intercom exchange along with associated accessories
- ❖ Study of Analog, Digital Multi Key Telephone(DMKT) & IP phones



OFC Communication Lab

- ❖ **SDH Add/ Drop MUXs(STM-1 & STM-4), Primary D/I MUXs along with associated accessories & Network management system for Provision of Indoor OFC work**



E- Learning

- ❖ It is connected with IRISSET/ Secunderabad. A video Conferencing facility is also available with all S & T Training centres of Indian Railways.
- ❖ Ten nodes are available for E-Learning.
- ❖ Computer appreciation programme for enhancing skills of trainees.



OUTDOOR YARD

There are 2 outdoor yards as under:-

(i) **Electrical yard:** Field Training is imparted on the following:-

- LED signal with route indicator
- Independent Shunt signal position light
- Single Rail DC Track circuit for RE section



(ii) Electro-Mechanical yard:-

Field Training is imparted on the following:-

- IRS electric point machine Rotary Locking Type SSDAC with 2 detection point(G.G.TRONICS)
- Electrical Lifting Barrier LC Gate with sliding boom.
- Mechanical signals
- Different Type of Cranks, Joints & Compensators etc.
- Goods Warning Board
- Lever frame Catch Handle type
- Single ended point with lock-bar and Facing Point Lock (FPL)

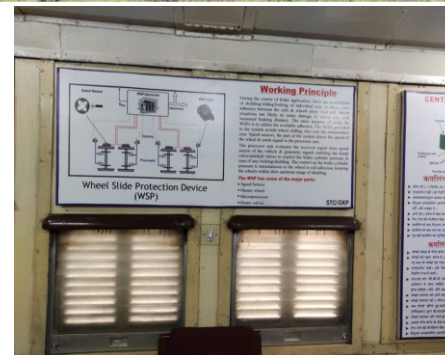


Mobile Training Car

❖ For on spot training in Division Mobile training car no.87922RE/NE(Return Date 12/24) was provided in 2004 to System Training Centre Gorakhpur.

Facilities available in Mobile Trg Car:-

- One kitchen.
- One bedroom and one cabin.
- Two washrooms.
- One classroom with projector, computer and PA system.
- Technical Course Flexi-boards displayed in Mobile Training car classroom.
- Classroom capacity of 30 trainees at a time.
- Last movement of mobile training car was on 06/07.07.2023 to KGM for training of Lobby staff.



Interior Improvement during POH



HOSTEL INFRASTRUCTURE

S.N.	Description	Mech	Engg	S&T	Elect	Total
1.	No. of Hostel Building	04	01	02	01	08
2.	No. of rooms	102	08	36	10	156
	Capacity	261	32	76	24	393
4.	Dining Hall	01	-	01	-	02
	Capacity	96		56		152



MSTC HOSTEL



FACILITIES AVAILABLE AT HOSTEL

R.O. with water cooler

Geyser

Cooler

LED TV

Washing Machine

Recreation Room

Gymnasium

Yoga Hall



MSTC Recreation Room





GYM



FACILITY



MSTC Yoga Hall



MSTC Mess



Dining Area



Automatic Roti Maker



**Hot Bain Marie
/ LCD TV**



Dishwasher

Electrical and Engg Hostels



RECENT INFRASTRUCTURAL ADDITIONS

- 70 No Beds for Hostel**
- 50 No Three seater Steel Benches**
- 04 No Washing Machines for hostel**
- Indoor Gym Facilities**
- Enhanced CCTV Camera Coverage**
- 11 No Interactive Panels for Classrooms**
- Roti Maker Machine for Mess**
- 02 no Dishwasher Equipment for Mess**
- Hot Bain Marie for Dining Hall**
- Inverter for Dining Hall**
- 20 Nos Split AC installed in Assembly/Exam Hall**

Type of Training Courses

- 1. Initial Courses for JE, ALP, Tech & ESM**
- 2. Promotional Courses**
- 3. Refresher Courses**
- 4. Special Need Based Courses**
- 5. Other Courses**
- 6. Pre Selection Coaching**

PROMOTION & REFRESHER COURSES CONDUCTED

Name of Course	2020-21		2021-22		2022-23		2023-24 up to Aug	
	No of Courses	No of trainees	No of Courses	No of trainees	No of Courses	No of trainee	No of Courses	No of trainee
Loco Pilot Passenger Promotion	02	129	04	162	4	54	2	29
Loco Pilot Goods Promotion	02	107	06	367	3	83	2	46
Loco Pilot Refresher	06	146	GD	GD	GD	GD	GD	GD
Diesel Supervisor Refresher	-	-	-	-	4	13	-	-
C&W Supervisor Refresher incl Wkshp	04	109	05	64	6	41	4	20
DEMU refresher	00	00	04	32	4	27	3	18
MEMU refresher	-	-	-	-	-	-	1	06
CLI refresher	-	-	02	24	4	21	2	9
Total	17	562	21	649	25	239	14	128

INITIAL COURSES CONDUCTED

Category of Trainees	2020-21	2021-2022	2022-2023	2023-2024 up to Aug
	No of trainees	No of trainees	No of trainees	No of trainees
SSE & JE through RRB of all stream (C&W/Wkshp/Loco)	02	124	129	05
Intermediate/LDCE JE of all stream (C&W/Wkshp/Loco)	30	10	10	-
Promoted Trainees JE of all stream (C&W/Wkshp/Loco)	-	08	6	04
Assistant Loco Pilot(RRB)	671	107	-	-
Total	703	249	143	07

SPECIAL COURSES CONDUCTED

Name of Course	2020-21		2021-22		2022-23		2023-24 up to Aug	
	No of Courses	No of trainee	No of Courses	No of trainee	No of Courses	No of trainees	No of Courses	No of trainees
Fire Fighting & First Aid	12	953	11	514	12	511	5	223
DEMU Conversion	04	140	04	201	04	41	3	10
Disaster management	02	26	-	-	12	43	1	15
LP/ALP Electric Conversion	02	94	9	294	03	57	1	7
WDG4G/6G	01	97	3	296	05	111	2	34
Special CLI Initial	-	-	1	10	01	06	1	20
Drafted Crew controller Initial	-	-	1	5	04	43	2	14
Pre-coaching CLI	-	-	2	6	02	19	1	22
Pre-coaching JE	-	-	1	29	03	78	-	-
Loco Troubleshooting for LP/ALP	-	-	3	55	05	181	2	26
Demu Course for Guards	-	-	3	17	00	00	-	-
Vigilance/ Ministerial	-	-	2	68	00	00	2	27
Total	21	1310	40	1495	51	1090	19	392

SPECIAL COURSES CONDUCTED

Name of Course	2020-21		2021-22		2022-23		2023-24 up to Aug	
	No of Courses	No of trainee	No of Courses	No of trainee	No of Courses	No of trainee	No of Courses	No of trainees
Train-18 Operations Course	-	-	-	-	3	31	3	47
TL&AC Course for Mech Supervisors	-	-	-	-	4	65	5	67
WAG-12 course for ALP/LP	-	-	-	-	-	-	1	54
Introduction to Trainset: Features & Maintenance	-	-	-	-	-	-	1	21
Investigation of Derailment	-	-	-	-	2	4	0	0
Publicity Inspector	-	-	-	-	1	6	0	0
MEMU Training Course	-	-	-	-	2	67	1	29
CMS Report	-	-	-	-	-	-	2	29
Total	21	1310	40	1495	14	193	13	247
Gross Total	21	1310	40	1495	65	1283	32	639

COURSES CONDUCTED BY ELECTRICAL TRG CENTER

SN	COURSES	No. of Trainees 2020-21	No. of Trainees 2021-22	No. of Trainees 2022-23	No. of Trainees 2023-24 up to Aug 23
1	Initial Course JE/Elect	05	95	35	02
2	Initial Course Technician	96	215	47	09
3	Refresher Course SSE/JE	26	7	17	20
4	Refresher Course Technician	249	90	63	116
5	Special Courses SSE/JE	-	12	94	98
6	Special Courses Technician	147	144	125	45
7	Initial Course Group-D	18	28	06	22
	Total	541	591	387	312

COURSES CONDUCTED BY ENGG TRG CENTER

SN	COURSES	No. of Trainees 2020-21	No. of Trainees 2021-22	No. of Trainees 2022-23	No. of Trainees 2023-24
1	Induction course of App JE/P-way & Promotional Course of JE/P-way LDCE	5	113	24	12
2	Induction course of App JE/Works & Promotional course of JE/Works LDCE	1	22	4	06
3	Refresher course for SSE/JE P-way & SSE/JE works	21	11	7	06
	Total	27	146	35	24

COURSES CONDUCTED BY S&T TRG CENTER

SN	COURSES	No. of Trainees 2020-21	No. of Trainees 2021-22	No. of Trainees 2022-23	No. of Trainees 2023-24 up to Aug
1	Refresher course for Technician	192	305	312	123
3	Refresher course for Helper	00	06	18	3
2	Foundation course for Promotee Technician Grade-III	00	24	37	13
4	Initial course for Promotee JE 40%	09	22	21	1
5	Induction course for Unskilled Helper	00	00	11	257
6	Initial course for Apprentice Technician Gr-I	3	4	3	3
7	Initial course for Apprentice Technician Gr-III	157	47	61	15
8	Special Initial course for Apprentice Technician Gr-III	00	52	00	00
9	Pre selection coaching for Technician Gr-III	00	06	13	00
10	Other specialized courses	165	53	38	29
	Total	526	519	514	444

DETAILS OF TRAINING COURSES

Department	Trade	Courses	Duration	Approved By
Running	ALP	Induction	109 Days	Railway Board
	ALP to LPG	Promotional	78 Days	Railway Board
	LPG to LPP	Promotional	48 Days	Railway Board
	CLI	Induction	18 days	Railway Board
	CLI	Pre-Coaching	21 days	Railway Board
	CLI	Refresher	09 days	Headquarter
	MEMU	Initial	35 days	Headquarter
	MEMU	Refresher	09 days	Headquarter
	DEMU	Initial	30 days	Headquarter
	DEMU	Refresher	06 days	Headquarter
	TSD	Special	06 days	Headquarter
	WDG4G/6G	Initial	06 days	Headquarter
	Train-18 (बन्दे भारत)	Initial	06 days	Headquarter
	WAG-12	Special	06 days	Headquarter
	ALP (Diesel to Electrical)	Electric Conversion	36 Days	Headquarter
	LP & CLI (Diesel to Electrical)	Electric Conversion	36 Days	Headquarter
	Drafted CC/PC (1st)	Special	12 days	Headquarter
	Drafted CC/PC (2nd)	Special	06 days	Headquarter

DETAILS OF TRAINING COURSES

Department	Trade	Courses	Duration	Approved By
Mechanical	SSE/JE C&W, Workshop, Loco , Drawing	Induction	52 week	Railway Board
	Inter App JE Workshop ,C&W ,Loco	Promotional	52 week	Railway Board
	Trainee JE Workshop ,C&W ,Loco	Promotional	13 week	Railway Board
	SSE/JE Workshop,C&W,Loco	Refresher	18 days	Railway Board
Engineering	SSE/JE P-Way	Induction & Foundation	52 Week	Railway Board
	SSE/JE P-Way	Refresher	17 days	Railway Board
	SSE/JE P-Way	Special courses	03 days	Railway Board
	SSE/JE Works	Induction & Foundation	52 Week	Railway Board
	SSE/JE Works	Refresher	17 days	Railway Board
	SSE/JE Works	Special courses	03 days	Railway Board
Signal	Sig/Tele Technician	Refresher	4 weeks	Railway Board
	Helper Signal/Tele	Refresher	2 weeks	Railway Board
	Promotee Sig/Tele Technician Gr-III	Foundation	8 weeks	Railway Board
	Promotee JE Sig/Tele	Initial	17/12 weeks	Railway Board
	Helper Signal/Tele	Induction	4 weeks	Railway Board
	Signal Technician Gr I	Initial	25 weeks	Railway Board
	Signal/Tele Technician Gr III	Initial	17 weeks	Railway Board

DETAILS OF TRAINING COURSES

Electrical	SSE/JE	Induction	52 Week	Railway Board
	Technician (ITI)	Induction	6 months	Railway Board
	Technician (non - ITI)	Induction	03 years	Railway Board
	Technician	Prom.	21 days	Railway Board
	SSE/JE	Prom.	21 days	Railway Board
	Group D to Technician	Prom.	21 days	Railway Board
	Unskilled to Skilled Artisan	Prom.	18 days	Railway Board
	Technician to JE	Prom.	36 days	Railway Board
	SSE/JE	Refresher	12 days	Railway Board
	Technician	Refresher	12 days	Railway Board

SPECIAL COURSES

All Dept.	Disaster Management (All Departments)	Special	06 Days	Head Quarter
	Fire Fighting & First Aid (Front line staff)	Special	02 Days	Head Quarter
	Coaching (SC/ST candidate) Mech Group B Promotion	Special	21 Days	Railway Board
	TL&AC Course for Mechanical Supervisors	Special	06 Days	Head Quarter
	Investigation of Derailment	Special	06 Days	Head Quarter
Running	GDR (Guard Driver Report)	Special	03 Days	Head Quarter

CAPACITY UTILIZATION

(Mech & Engg)

S.N.	YEAR	Trg Cap /Yr	Total Trainees days in Yr	Cap Uty in Yr %
1	2020-21	71535	87147	121.1%
2	2021-22	85215	95556	112.1%
3	2022-23	85785	47083	54.9%
4	2023-24 Up to Aug	35340	20003	57%

CAPACITY UTILIZATION

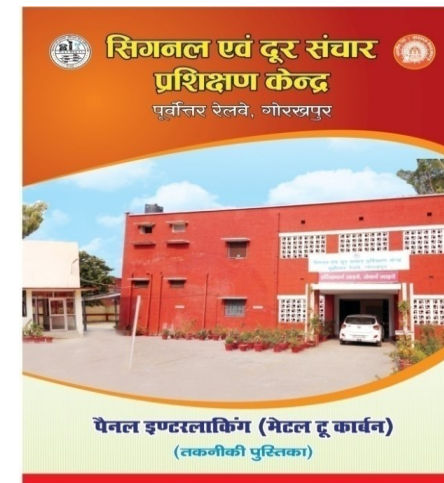
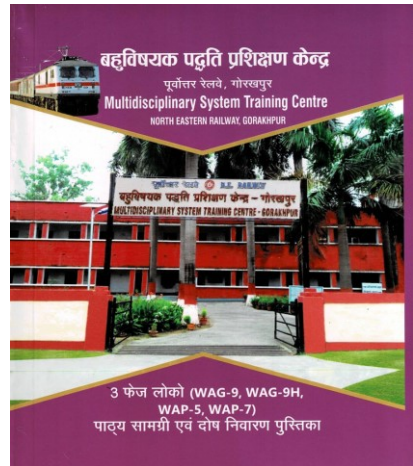
(Signal & Telecom)

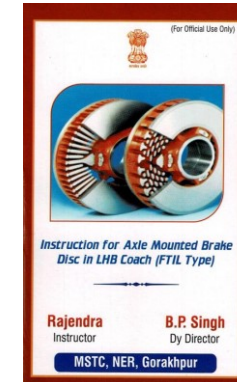
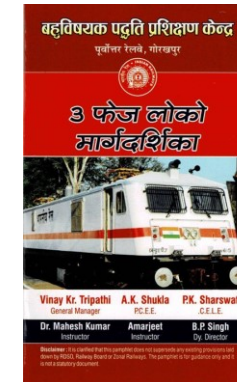
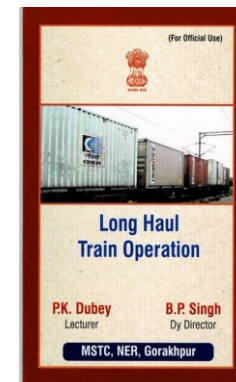
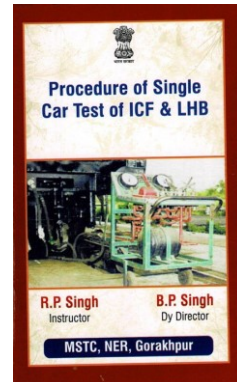
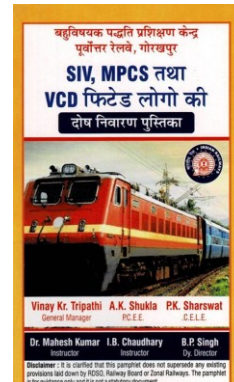
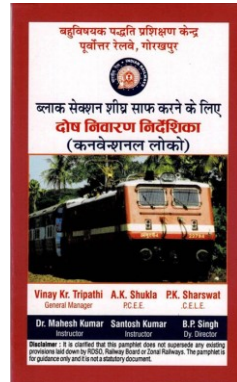
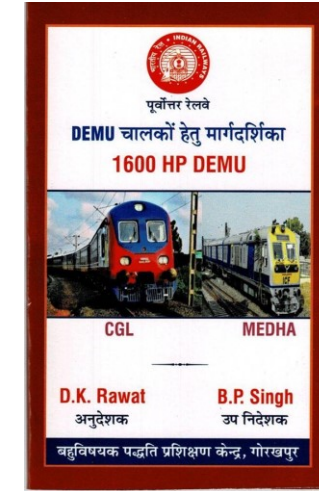
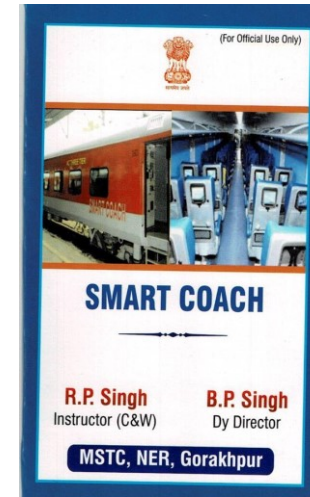
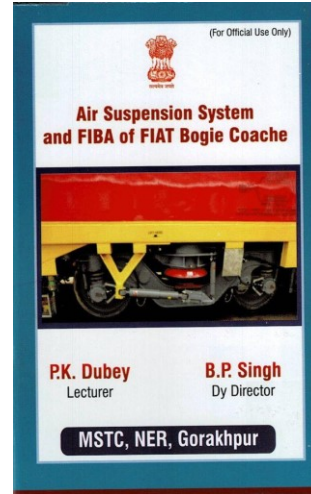
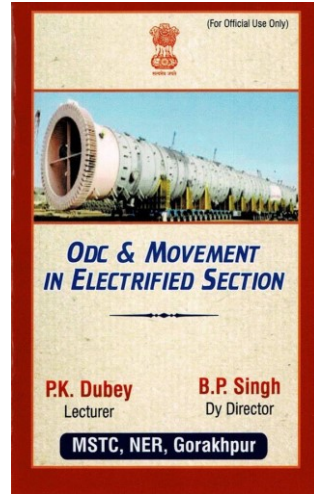
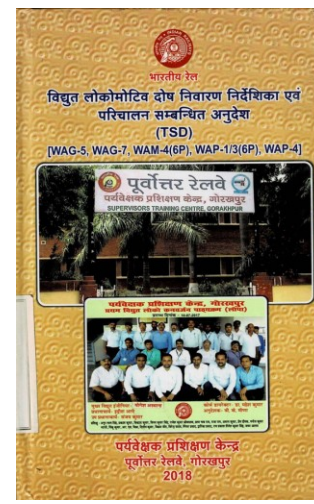
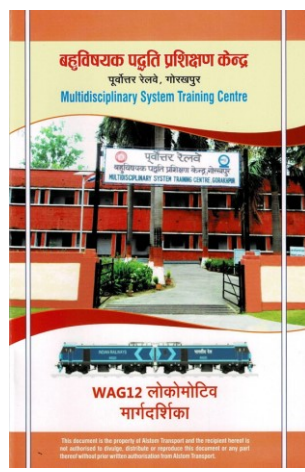
S.N.	YEAR	Trg Cap /Yr	Total Trainees days in Yr	Cap Uty in Yr %
1	2020-21	14256	11986	84.07%
2	2021-22	16107	22112	137.28%
3	2022-23	21660	16140	74.51%
4	2023-24 Up to Aug	99025	10725	118.83%

CAPACITY UTILIZATION (Electrical)

S.N.	YEAR	Trg Cap /Yr	Total Trainees days in Yr	Cap Uty in Yr %
1	2020-21	6900	13361	193.63%
2	2021-22	7450	19149	257%
3	2022-23	7525	8921	118.55%
4	2023-24 Up to Aug	3475	3458	99.51%

Technical Books Published





Recent Technical Books Published

- Three Phase Locomotive TSD
- WAG-12 Loco TSD
- Initial Book for Three Phase Locomotive
- Initial Book for Conventional Electric Locomotive
- Pamphlet for Coach , Wagon & Locomotive

Technical Books Under Publication

- ✓ Memu Operations
- ✓ 3-Phase Memu Operations
- ✓ Trainset Operations
- ✓ Conventional Electric Loco TSD
- ✓ WDG4G/6G TSD

SANCTIONED WORKS

Name of Work	PH	San. Year	Value	Status of Work	Exp. Till dt.	Remark
Dev of Trg & Hostel	65	2017-18	2.49 Cr	90% Completed.	2.25 Cr	Only supply of 52 Almirahs for Hostel pending. PO under placement after spec modification.
Provision of WSP	65	2021-22	0.28 Cr	Completed.	0.28 Cr	Completed. Deleted from IRPSM.
Construction of Toilet Block	65	2021-22	0.60 Cr	Work progress 14%, First floor roof casting work in progress		
Simulator 3 Phase	Umbrella Work PB 2023-24 (Item nos 1419 & 1420)	2021-22	14.7 Cr	Vetted proposal approved by RB. Procurement to be done by NR.		
WAG-9 Desktop Type Simulator	65	2021-22	54.74 Lakhs	PO issued. Firm to install Simulator at MSTC after RITES inspection.		
WAG-7 (True scale) Troubleshooting	65	2021-22	2.19 cr.	Detailed Estimate Vetted by Finance in August and DS2 under placement.		
Supplying & laying of new Turn Out with Curved Switches & Thick Web switches on PSC lay out(Model Track)	65	2022-23	2.07cr	Detailed estimate under preparation by Dy CE/GA. -Engg work got completed by Construction Organization. -S&T work also partially completed by their Construction Wing. -TRD work to be completed.		

TRG RELATED WORKS IN PROGRESS

- ❖ Supply & Commissioning of 3 phase (WAG-9) Loco Desk Type Simulator – Item being offered for RITES Inspection
- ❖ Supply & Commissioning of WAG-7 Troubleshooting Car
- Vetted by Finance and under procurement
- ❖ KYOSAN make Electronic Interlocking with Model Track in progress at S&T Trg Centre

WORKS TO BE PROPOSED

- ❖ Augmented Reality / Virtual Reality Training Centre to be proposed at cost of 2.3 crores on lines of similar centre at NFR.

- ❖ Upgradation of MSTC & MSTC Hostel
 - Complete renovation of one of the hostel top floor wings
 - Demolition and reconstruction of first floor above kitchen
 - Repair and modification to prevent rain-water ingress in dining hall area.
 - Renovation of Yoga Hall

 - Provision of Galvanium Profile Sheets for leak-proofing of MSTC top roof
 - Provision of Interactive Panels & ACs in all MSTC classrooms
 - Provision of Delegate Unit System in Conference Room
 - Provision of additional capacity in MSTC Computer Lab
 - Provision of sufficient electrical backup facility for Exam Hall / Classes
 - Provision of new furniture in classes with old bench type seating

 - Provision of disabled-friendly toilet along with wheelchair ramp at both MSTC and Hostel ground floors
 - Provision of wired / wireless internet cum rail-net connectivity in both MSTC premises and MSTC Hostels

Training Improvement

- New courses started:-
 - ❖ Introduction to Trainset: Features & Maintenance
 - ❖ WAG-12 Operations Course
 - ❖ TL&AC Course for Mechanical Supervisors
- Training of JEs of Loco Sheds maintaining both electric and diesel locos started on pattern of JE/TRS with 06 months at STC, IRIEEN, Nasik for electric loco related input.
- Training of JEs of Mechanical wing started with modified curriculum including input for DEMU, MEMU, TRAINSET, POWER CAR etc to cater to changing field requirements.
- Where latest version related input is required , Vendor seminars being included as part of courses like CGL and Medha seminars for DEMU course etc. These seminars are also being recorded for future courses.
- Addition of 32 new titles and 42 books to MSTC Library in current fiscal.

- ❖ Training of different courses organized for Instructors to effect knowledge updation / upgradation.

SN	Course name	Name of Institute where trained	No. of instructors trained
1	WDG4G/6G	ROZA	05
2	Electric conversion	GZB	02
3	DEMU training	Saharanpur	02
4	MEMU training	GZB MSTC GKP	01 04
5	Train-18	GZB	09
6	TOT	BRC	04
Total			27

Assistance Required

- Selection of Instructor/Traction, Lecturer/C&W, Instructor/Civil Defence, Chief Instructor/Instructor/Signal, Mess & Store supervisors may be expedited.
- Relieving and joining of duly selected instructors / supervisors like Instructor/C&W and Instructor/ Memu may be ensured.
- Posting of 02 LIs against LJN Division vacant posts operated at MSTC by Sr DEE (Ops.)/ LJN post suitability evaluation by CELE.
- Requirement of monthly/ Quarterly compendium of new modifications, maintenance /operational procedure changes etc from HQs of all technical departments for effective incorporation in the teaching syllabus.
- System of mid-tenure short duration(say 03 months) placement in new emerging areas for hands-on practical input for posted instructors.

Assistance Required

- 01 SSE/Pway post was decided to be temporarily transferred from LJN Division to MSTC with Engg/HQ approval as one of the existing Instructor/Pway posts had been converted into Instructor/Works post and additional workload of training Works Supervisors was shifted to MSTC. When chased for providing the memorandum in this regard, DRM/Ljn has decided not to effect the temporary transfer. There are only 02 instructors available in Engg Wing at MSTC and it sometimes becomes difficult to manage both Works and PWay trainees.
- Electrical Trg Center is managing their Instructor, Technician and Ministerial Staff requirements against HQ posts. Regular posts may be provided in their BOS. Also there is requirement of 01 additional Instructor post to fully engage the trainee batches.

WAG-9 Desktop type Locomotive Simulator





**WAG7 Locomotive (True Scale)
Trouble shooting Model**



**Multi Mode True Scale WAG-7
Troubleshooting Model Car**



**Training session on Model Car for
Troubleshooting**



**Cab view with Audio interaction
facility**



**Practical Demo of Manual Operation
of GR Drum**



**Explanation of Pneumatic System
with Practical Demo**



**Troubleshooting session with Faculty
and Trainees**



**Relay Panel for displaying various
types and modes of operation**



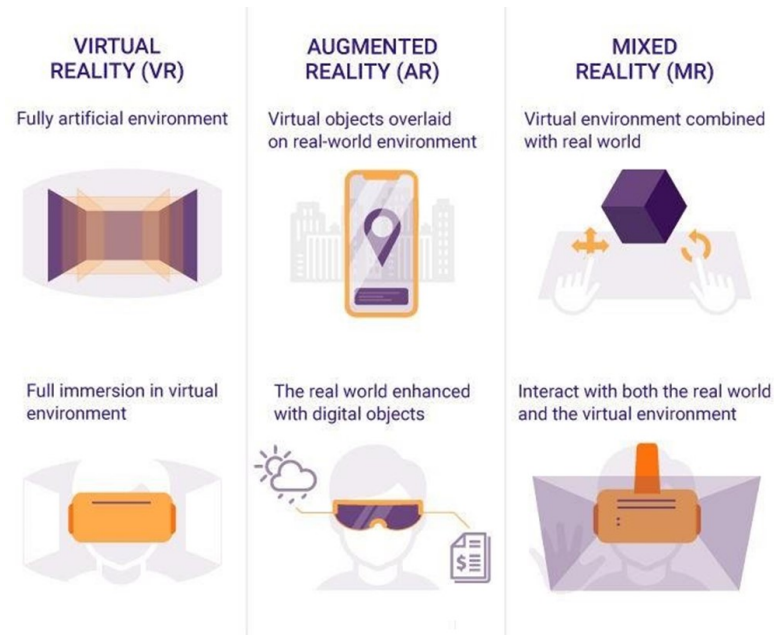
**Static Inverter Panel for Displaying
and mode of operation**



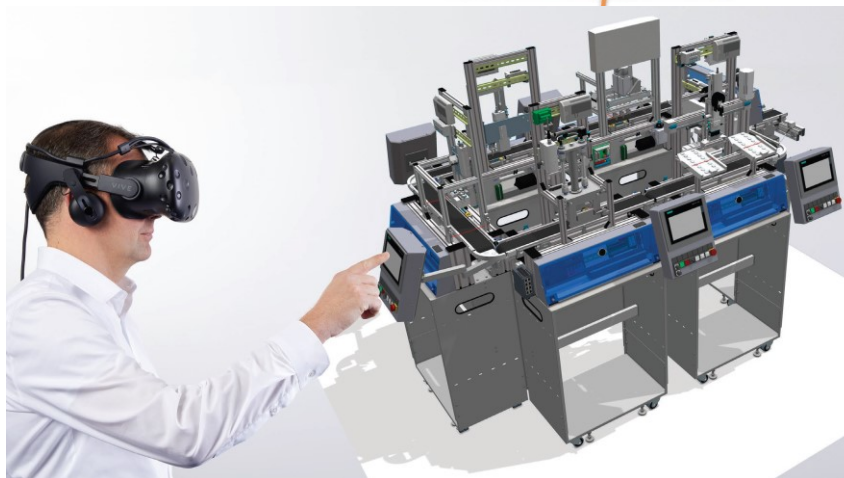
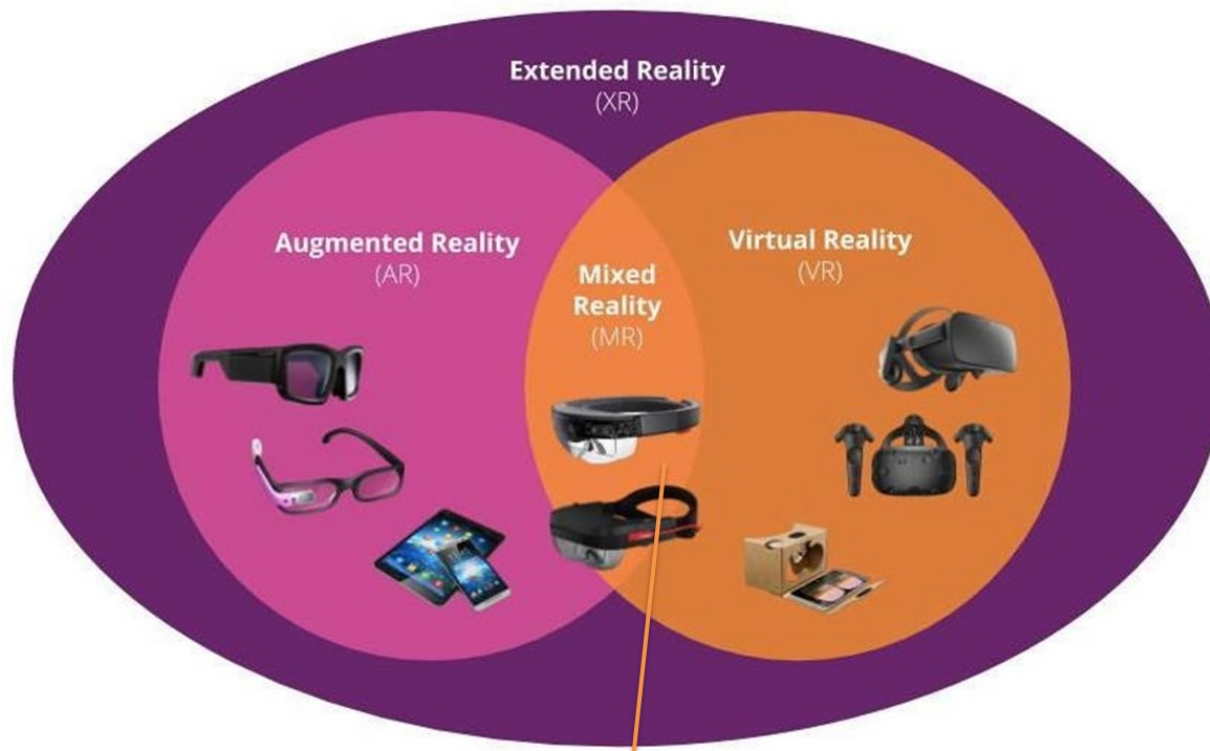
Location Identification of Roof Equipment



Instructor Console



Virtual reality	Augmented reality	Mixed reality
Completely a digital and virtual world completely independent of the real world	It incorporates real world with the digital information overlay	Real and virtual world intertwined in this case
User need not to be present for experiencing the imaginary world	User's presence is required for the experience	It also needs user's presence
Fully enclosed reality	Partially enclosed reality	It is not constrained by the boundaries
Synthetic experience with no sense of the real world	Real world remains central to the experience, enhanced by virtual details	Interaction with and manipulation of both physical and virtual world



THANK YOU