

DEPARTMENT	MODULE SUB-MODULE	PROGRESS OF DEVELOPMENT				Remarks
		100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
	<u>INSTRUCTOR AND SUPERVISORY TRAINING</u>					
	TM1 PEDAGOGY TRAINING	/		/		
	TM2 BASIC TRAINING METHODOLOGY FOR INSTRUCTOR	/				
	TM3 SKILL ANALYSIS	/				
	TM4 WRITTEN INSTRUCTIONAL MATERIALS	/	/			Standard format to be finalized
	TM5 AUDIO-VISUAL AIDS	/				
	TM6 TEST AND TESTING METHODS	/				
	TM7 TRAINING ADMINISTRATION		/			
	TM8 BASIC INSTRUCTIONAL TECHNIQUES FOR IN PLANT TRAINERS					
	TM9 BASIC INSTRUCTIONAL TECHNIQUES FOR IN PLANT SUPERVISORS	/		/		No course conducted
	TM10 MODULE TRAINING SYSTEMS DESIGN	/				

DEPARTMENT	MODULE SUB-MODULE	PROGRESS OF DEVELOPMENT				Remarks
		100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
	ST1 METHOD AND WORK STUDY	/				
	ST2 QUALITY CONTROL	/				
	ST3 PRODUCTION PLANNING AND CONTROL	/				
	ST4 MAINTENANCE MANAGEMENT	/				
	ST5 INDUSTRIAL SAFETY	/				
	ST6 LEADERSHIP AND HUMAN RELATION	/				
	ST7 DISCIPLINE IN INDUSTRY				/	

DEPARTMENT MODULE SUB-MODULE	PROGRESS OF DEVELOPMENT				Remarks
	100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
<u>AUTOMOTIVE</u>					
A1 PETROL/DIESEL ENGINE SERVICE	/				
A1.1 Specialized Engine Service	/				
A1.2 Fuel Injection System Service	/				
A1.3 Engine Electrical & Electronic Equipment Service	/				
A2 TROUBLE ANALYSIS					
A2.1 Engine Trouble Analysis	/				
A2.2 Chassis Trouble Analysis	/				
A3 PERFORMANCE TEST					
A3.1 Engine Performance Test	/				
A3.2 Chassis Performance Test	/				
A4 VEHICLE CHASSIS REPAIR					
A4.1 Specialized Chassis Repair		/			Information sheet yet to be completed.
A4.2 Body Electrical Equipment Service.		/			

DEPARTMENT	MODULE	SUB-MODULE	PROGRESS OF DEVELOPMENT				Remarks
			100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
A5	VEHICLE BODY REPAIR		/				
	A5.1	Vehicle Body Parts Repair	/				
	A5.2	Vehicle Frame Repair		/			
	A5.3	Vehicle Body Parts Painting	/				
A6	VEHICLE INSPECTION						
	A6.1	Vehicle Regular Checking	/				
	A6.2	Vehicle Inspection					In the process of printing.

DEPARTMENT	MODULE SUB-MODULE	PROGRESS OF DEVELOPMENT				Remarks
		100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
	<u>MACHINE OPERATION AND DIE MAKING</u>					
	MD1 DIE MAKING AND REPAIR	/				
	MD1A Shearing Die Making	/				
	MD1B Drawing Die Making	/				
	MD1C Plastic Mould Making			/		
	MD2 TOOL AND JIG MAKING AND REPAIR		/			
	MD3 FINISHING/FITTING					
	MD3.1 Surface, Cylindrical and Centreless Grinding	/				
	MD3.2 Form and Optical Projection Profile Grinding	/				
	MD3.3 Tool and Cutter Grinding	/				
	MD4 MACHINING (INCLUDING NC MACHINE)					

DEPARTMENT	MODULE	SUB-MODULE	PROCESS OF DEVELOPMENT				Remarks
			100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
	MD4A	NC MACHINING					
		MD4A.1 NC Turning	/				
		MD4A.2 NC Milling	/				
	MD4B	NC EDM AND AUTOMATIC COPY MILLING.					
		MD4B.1 NC Wirecutting	/				
		MD4B.2 NC Edm	/				
		MD4B.3 Automatic Copy Milling	/				
	H1	FORGING AND HEAT TREATMENT					
	H1A	HEAT TREATMENT PROCESS					
		H1A.1 Heat Treatment Process	/				
		H1A.2 Advanced Heat Treatment	/				
	H1B	Forging Process					
		H1B.1 Forging Process			/		
		H1B.2 Testing for Forging		/			

DEPARTMENT	MODULE	SUB-MODULE	PROCESS OF DEVELOPMENT				Remarks
			100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
<u>FABRICATION</u>	F1	WELDING	/				
		F1.1	CO ₂ Arc Welding	/			
		F1.2	Manual Arc Welding	/			
		F1.3	Tig and Mig Welding	/			
	F2	METAL FABRICATION					
		F2.1	Basic Metal Fabrication	/			
		F2.2	Advanced Metal Fabrication			/	
	F3	PRESS WORK					
		F3.1	Bending Work	/			
		F3.2	Shearing Work	/			
		F3.3	Drawing Work	/			
		F3.4	Inspection and Maintenance of Press Machine		/		Almost Completed.

DEPARTMENT	MODULE	SUB-MODULE	PROGRESS OF DEVELOPMENT				Remarks	
			100% Completed	> 50% Completed	< 50% Completed	Yet to be developed		
<u>HEAVYSHOP</u>	H2	FOUNDRY	/					
			H2.1	Gating and Riser System	/			
			H2.2	Cast Iron Casting	/			
	H3	DIE CASTING TECHNIQUE	H2.3	Steel, Copper Alloy and Aluminium Alloy Casting	/			
			H3.1	Die Casting Technique			/	
	H4	INVESTMENT CASTING TECHNIQUE	H3.2	Advanced Die Casting Technique			/	
			H4.1	Investment Casting Technique	/			
			H4.2	Advanced Investment Casting Technique	/			

DEPARTMENT	MODULE	SUB-MODULE	PROGRESS OF DEVELOPMENT				Remarks
			100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
	H5	RUBBER MOULDING TECHNIQUE	/				
		H5.1 Rubber Moulding Process and Moulding Product	/				
		H5.2 Rubber Materials, the Compounding and Mixing Technique	/				
		H5.3 Rubber Moulding (Injection Type)	/	/			
	H6	PLASTIC MOULDING TECHNIQUE					
		H6.1 Plastic Injection Moulding Machine and Mould	/				
		H6.2 Plastic Materials and Injection Moulding Process	/				

DEPARTMENT	MODULE	SUB-MODULE	PROGRESS OF DEVELOPMENT				Remarks
			100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
ELECTRICAL/ELECTRONIC	EE1	RELAY MAINTENANCE AND REPAIR	/				
	EE1.1	Contact Circuit Relay Maintenance and Repair	/				
	EE1.2	Non-Arcing Circuit Relay Maintenance and Repair	/				
	EE1.3	Industrial Wiring and Distribution Panel Works	/				
	EE2	MOTOR TROUBLE ANALYSIS AND REPAIR	/				
	EE2.1	Motor Trouble Analysis and Repair	/				
	EE2.2	Transformer Trouble Analysis and Repair	/				
	EE3	MOTOR-TESTING	/				
	EE3.1	Motor Generator Control Testing	/				
	EE3.2	Motor Automatic Control	/		/		40% already completed.

DEPARTMENT	MODULE SUB-MODULE	PROGRESS OF DEVELOPMENT				Remarks
		100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
EE4	ADVANCED RADIO SERVICE AND REPAIR	/		/		
EE5	ADVANCED TV SERVICE AND REPAIR			/		
EE6	INTER-OFFICE COMMUNICATION EQUIPMENT SERVICE AND REPAIR				/	
EE7	ELECTRICAL/ELECTRONIC EQUIPMENT SERVICE AND REPAIR					
EE7.1	Disk Operating System	/				
EE7.2	Assembly Language (8080A/8085)	/				
EE7.3	High-Level Language (FORTRAN).	/				

DEPARTMENT	MODULE SUB-MODULE	PROGRESS OF DEVELOPMENT				Remarks
		100% Completed	> 50% Completed	< 50% Completed	Yet to be developed	
	<u>INSTRUMENTS AND AUTOMATIC CONTROL</u>					
	I1. PROCESS MEASUREMENTS					
	I1.1 Temperature Measurement	/				
	I1.2 Pressure/Level Measurement	/				
	I1.3 Flow Measurement	/				
	I2. INDUSTRIAL INSTRUMENTS					
	I2.1 Pneumatic Instruments	/				
	I2.2 Electronic Instruments	/				
	I3. ELECTRICAL (HYDRAULIC) CONTROL					
	I3.1 Feedback Control	/				
	I3.2 Hydraulic Control				/	

ANNEX '4'

JANUARY TO OCTOBER

1986 COURSE DATA

THE CENTER FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

Date : 31.10.86

COURSE PARTICIPANTS' OUTPUT FOR 1986

NO.	SECTION	SEX		EMPLOYER	EDUCATIONAL B.C.										A. PLACE OF EMPLOYMENT BY REGION										TO-TAL COURSES	Capacity
		M	F		Pub- lic	Rate	Dg	Dp	S	LS	P	PER	KED	PG	PK	KEL	TER	PAE	K.L	S&L	N.S	MEL	JOB	SAB		
1.	Instructor	204	12	187	29	11	48	90	46	21	-	2	-	1	1	1	155	42	11	-	2	1	-	216	14	184
2.	Supervisory	36	1	15	24	3	8	24	2	-	-	3	3	2	-	1	10	16	-	-	2	-	-	37	4	42
3.	Automotive	82	-	61	21	2	1	52	27	-	-	1	1	5	9	2	34	21	5	1	3	-	-	82	12	120
4.	Machine Operation and Die Making	27	-	21	6	-	1	20	6	-	-	-	1	-	2	-	19	-	-	-	2	-	-	27	8	55
5.	Forging and Heat Treatment	9	-	7	2	-	1	7	-	1	-	-	-	-	-	-	-	8	1	-	-	-	-	9	3	26
6.	Welding and Metal Fabrication	25	-	16	9	1	-	9	15	-	1	2	2	4	1	-	6	9	-	-	-	-	-	25	4	40
7.	Press Work	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8.	Foundry and Casting	11	-	7	4	2	-	9	-	-	-	-	-	1	-	1	4	3	-	-	2	-	-	11	4	40
9.	Rubber Moulding	7	1	2	6	4	2	2	-	-	-	3	-	-	-	-	3	2	-	-	-	-	-	8	2	20
10.	Plastic Moulding	14	1	6	9	4	1	7	3	-	-	-	-	-	-	-	-	15	-	-	-	-	-	15	3	30
11.	Electrical	41	-	26	15	-	1	34	6	-	-	5	10	-	-	-	6	16	1	-	3	-	-	41	6	60
12.	Electronic	4	-	1	3	-	-	4	-	-	-	-	-	-	-	-	3	1	-	-	-	-	-	4	2	10
13.	Instrumentation and Automatic Control	39	1	14	26	1	1	38	-	-	-	-	-	-	2	-	21	14	-	-	3	-	-	40	7	56
TOTAL		499	16	361	154	28	64	296	105	22	1	14	17	10	16	5	244	166	18	1	17	1	-	515	69	683

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

COURSES DATA 1986 - JANUARY TO OCTOBER

SECTION: INSTRUCTOR TRAINING

DEPARTMENT: INSTRUCTOR AND SUPERVISORY TRAINING.

NO.	MODULE (SUB-MODULE)		COURSE PERIOD	CAPA-CITY (C)	ENROL-MENT (E)	OUT-PUT (O)		REMARKS
	NO.	TITLE				CERT	UNCERT	
1.	TM.1	Instructor Training Course	30.9.85 - 21.3.86	20	13	11	2	
2.	TM.5	Audio-Visual Aids	17.2.86 - 28.2.86	12	12	12	-	
3.	TM.4	Written Instructional Material	17.3.86 - 28.3.86	12	9	9	-	
4.	TM.2	Basic Training Methodology For Instructor	24.3.86 - 4.4.86	12	8	8	-	
5.	TM.3	Skill Analysis	14.4.86 - 25.4.86	12	10	10	-	
6.	TM.9	Basic Instructional Technique For Inplant Supervisor	21.4.86 - 25.4.86	12	9	9	-	
7.	TM.5	Audio Visual Aids	12.5.86 - 23.5.86	12	13	11	2	
8.	TM.2	Basic Training Methodology For Instructor	19.5.86 - 30.5.86	12	21	20	1	
9.	TM.3	Skill Analysis	16.6.86 - 27.6.86	12	21	20	1	
10.	TM.4	Written Instructional Material	30.6.86 - 11.7.86	12	21	20	1	
11.	TM.5	Audio Visual Aids	14.7.86 - 25.7.86	12	21	20	1	
12.	TM.6	Test and Testing	28.7.86 - 8.8.86	12	21	20	1	
		TOTAL	C/F	152	179	170	9	CON'T..

DATE: 31.10.86

PERCENTAGE E/C

CERT/E

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

COURSES DATA 1986 - JANUARY TO OCTOBER

DEPARTMENT: INSTRUCTOR AND SUPERVISORY SKILL TRAINING SECTION: SUPERVISORY TRAINING

NO.	MODULE (SUB-MODULE) TITLE	COURSE PERIOD	CAPA-CITY (C)	ENROL-MENT (E)	OUT-PUT (O)		REMARKS
					CERT	UNCERT	
1. ST.1	Method and Work Study	3.3.86 - 14.3.86	12	10	10	-	
2. ST.5	Industrial Safety	21.4.86 - 25.4.86	10	10	10	-	
3. ST.4	Maintenance Management	29.9.86 - 10.10.86	10	13	13	-	
4. ST.3	Production Planning and Control	20.10.86 - 31.10.86	10	4	4	-	
TOTAL			42	37	37	-	

DAT : 31.10.86 PERCENTAGE E/C = 80.1% CERT/E = 100%

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

COURSES DATA 1986 - JANUARY TO OCTOBER

DEPARTMENT: AUTOMOTIVE

SECTION:

NO.	MODULE (SUB-MODULE)		COURSE PERIOD	CAPA-CITY (C)	ENROL-MENT (E)	OUT-PUT (O)		REMARKS
	NO.	TITLE				CERT	UNCERT	
1.	A1.1	Specialized Engine Service	21.1.86 - 7.2.86	10	8	8	-	
2.	A1.2	Fuel Injection System Service	17.2.86 - 28.2.86	10	3	3	-	
3.	A6.1	Vehicle Regular Checking	17.2.86 - 28.2.86	10	8	8	-	
4.	A2.1	Engine Trouble Analysis	17.2.86 - 7.3.86	10	3	3	-	
5.	A1.3	Engine Electrical & Electronic Equipment Services	3.3.86 - 7.3.86	10	3	3	-	
6.	A1.2	Fuel Injection System Service	7.4.86 - 18.4.86	10	6	6	-	
7.	A1.1	Specialized Engine Service	12.5.86 - 3.6.86	10	10	10	-	
8.	A3.1	Engine Performance Test	28.7.86 - 16.8.86	10	7	3	4	
9.	A6.2	Vehicle Inspection	7.7.86 - 18.7.86	10	9	9	-	
10.	A2.1	Engine Trouble Analysis	25.8.86 - 12.9.86	10	5	5	-	
11.	A1.1	Specialized Engine Service	15.9.86 - 3.10.86	10	12	12	-	
12.	A1.2	Fuel Injection System Service	6.10.86 - 17.10.86	10	7	7	-	
		TOTAL		120	82	78	4	

DATE: 31.10.86

PERCENTAGE E/C= 68.3% CERT/E = 95.1 %

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

COURSES DATA 1986 - JANUARY TO OCTOBER

DEPARTMENT: MACHINE OPERATION AND DIE MAKING

SECTION:

NO.	MODULE (SUB-MODULE)		COURSE PERIOD	CAPA-CITY (C)	ENROL-MENT (E)	OUT-PUT (O)		REMARKS
	NO.	TITLE				CERT	UNCERT	
1.	MD1B	Drawing Die Making	11.2.86 - 21.3.86	10	1	1		
2.	MD4E1	NC Wire Cutting	27.1.86 - 7.2.86	6	1	1		
3.	MD4A1	NC Turning	24.2.86 - 14.3.86	8	6	-		Practical Not Completed because machine break-
4.	MD4E2	NC EDM	28.4.86 - 9.5.86	6	4	4		down. Test to be Conducted Later.
5.	MD4B3	Automatic Copy Milling	16.6.86 - 27.6.86	6	3	3		
6.	H1A.2	Advanced Heat Treatment	3.2.86 - 21.2.86	10	2	2		
7.	H1A.1	Heat Treatment	7.7.86 - 25.7.86	8	4	4		
8.	MD3.3	Tool and Cutter Grinding	28.7.86 - 8.8.86	5	4	4		
9.	MD4A.2	N.C. Milling	11.8.86 - 29.8.86	8	3	3		
10.	MD.3.1	Surface, Cylindrical & Centreless Grinding	15.9.86 - 26.9.86	6	5	5		
11.	H1A.2	Advanced Heat Treatment	6.10.86 - 24.10.86	8	3	3		
		TOTAL		81	36	30		

DATE: 31.10.86

PERCENTAGE E/C= 44.4% CERT/E = 83.3%

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

COURSES DATA 1986 - JANUARY TO OCTOBER

DEPARTMENT: FABRICATION

SECTION: WELDING

NO.	MODULE (SUB-MODULE)		COURSE PERIOD	CAPA- CITY (C)	ENROL- MENT (E)	OUT-PUT (O)		REMARKS
	NO.	TITLE				CERT	UNCERT	
1.	Fl.2	Manual Arc Welding	6.1.86 - 17.1.86	10	3	3	-	
2.	Fl.3	Tig and Mig Welding	16.6.86 - 27.6.86	10	7	7		
3.	Fl.1	CO ₂ Arc Welding	25.8.86 - 12.9.86	10	8	8	-	
4.	Fl.2	Manual Arc Welding	13.10.86 - 31.10.86	10	7	5	2	
				40	25	23	2	
		TOTAL						

DATE: 31.10.86 PERCENTAGE E/C= 62.5 CERT/E= 92%

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

COURSES DATA 1986 - JANUARY TO OCTOBER

SECTION:

DEPARTMENT: HEAVYSHOP

NO.	MODULE (SUB-MODULE) TITLE	COURSE PERIOD	CAPACITY (C)	ENROLLMENT (E)	OUT-PUT (O)		REMARKS
					CERT	UNCERT	
1.	H5.1 Rubber Moulding and Moulding Product	17.2.86 - 28.2.86	10	6	5	1	
2.	H4.1 Investment Casting Technique	7.4.86 - 25.4.86	10	5	5	-	
3.	H6.1 Plastic Injection Moulding Machine and Mould	7.4.86 - 25.4.86	10	6	6	-	
4.	H6.2 Plastic Materials and Injection Moulding Process	7.7.86 - 25.7.86	10	3	3	-	
5.	H2.3 Steel, Copper Alloy and Aluminum Alloy Casting	14.7.86 - 1.8.86	10	2	2	-	
6.	H2.2 Cast Iron Casting	2.9.86 - 23.9.86	10	1	1	-	
7.	H6.1 Plastic Injection Moulding Machine and Mould	2.9.86 - 23.9.86	10	6	4	2	
8.	H5.2 Rubber Materials, The Compounding and Mixing Technique	23.9.86 - 10.10.86	10	2	1	1	
9.	H2.1 Gating And Riser System	6.10.86 - 24.10.86	10	3	3	-	
TOTAL			90	34	30	4	

PERCENTAGE E/C = 37.7% CERT/E = 88.2%

DATE: 31.10.86

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

COURSES DATA 1986 - JANUARY TO OCTOBER

DEPARTMENT: ELECTRICAL AND ELECTRONIC

SECTION:

NO.	MODULE (SUB-MODULE)		COURSE PERIOD	CAPACITY (C)	ENROLLMENT (E)	OUT-PUT (O)		REMARKS
	NO.	TITLE				CERT	UNCERT	
1.	EE1.1	Contact Circuit Relay Maintenance and Repair	28.1.86 - 19.2.86	10	9	8	1	
2.	EE3.1	Motor Generator Control Testing	3.3.86 - 21.3.86	10	8	8	-	
3.	EE7A.3	High Level Language / (Fortran)	12.5.86 - 3.6.86	5	2	2	-	
4.	EE7.2	Assembly Language (Computer)	30.6.86 - 18.7.86	5	2	2	-	
5.	EE1.3	Industrial Wiring and Distribution Panel Work	23.6.86 - 11.7.86	10	7	7	-	
6.	EE2.2	Transformer Trouble Analysis and Repair	28.7.86 - 8.8.86	10	6	6	-	
7.	EE1.2	Non Arcing Circuit Relay Maintenance and Repair	2.9.86 - 16.9.86	10	7	7	-	
8.	EE2.1	Motor Trouble Analysis & Repair	13.10.86 - 31.10.86	10	4	4	-	
		TOTAL		70	45	44	1	

DATE: 31.10.86

PERCENTAGE E/C = 64.2% CERT/E = 97.7%

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

COURSES DATA 1986 - JANUARY TO OCTOBER

DEPARTMENT: INSTRUMENT AND AUTOMATIC CONTROL

SECTION:

NO.	MODULE (SUB-MODULE)		COURSE PERIOD	CAPA-CITY (C)	ENROL-MENT (E)	OUT-PUT (O)		REMARKS
	NO.	TITLE				CERT	UNCERT	
1.	11.1	Temperature Measurement	24.2.86 - 7.3.86	8	8	8	-	
2.	11.2	Pressure and Level Measurement	24.3.86 - 4.4.86	8	6	6	-	
3.	11.3	Flow Measurement	28.4.86 - 9.5.86	8	8	8	-	
4.	12.1	Pneumatic Instruments	23.6.86 - 11.7.86	8	6	6	-	
5.	12.2	Electronic Instrument	14.7.86 - 1.8.86	8	6	6	-	
6.	13.1	Automatic Control	2.9.86 - 29.9.86	8	5	5	-	
7.	11.1	Temperature Measurement	13.10.86 - 24.10.86	8	1	1	-	
				56	40	40	-	

TOTAL

DATE: 31.10.86

PERCENTAGE E/C= 71.4% CERT/E = 100%

ANNEX '4A'

COURSE DATA FROM

MAY 1984 TO

OCTOBER 1986

The Centre For Instructor And Advanced Skill Training
Course Data from May 1984 to October 1986

Department (Section)	C/part Assigned	Module Developed	Courses Conducted	Total Capacity	participants	
					Enrolled	Certifi- cated
INSTRUCTOR & SUPERVISORY						
TRAINING:						
i) Instructor	9	6	32	404	460	445
ii) Supervisor	3	6	11	122	82	78
AUTOMOTIVE	7	11	25	250	177	172
MACHINE OPERATION AND DIE MAKING						
i) Machining & Die Making	7	10	12	87	43	37
ii) Forging & Heat Treat.	2	2	4	36	13	13
FABRICATION						
i) Welding & Metal Fab.	5	4	5	50	26	24
ii) Press work	1	3	3	30	5	5
HEAVYSHOP						
i) Foundry & Casting	5	5	5	50	14	14
ii) Rubber Moulding	2	2	2	20	8	6
iii) Plastic Moulding	2	2	6	60	28	26
ELECTRICAL & ELECTRONIC						
i) Electrical	4	6	9	90	57	52
ii) Electronic (Comp)	4	3	3	15	6	6
INSTRUMENTATION AND AUTOMATIC CONTROL	4	6	9	72	48	48
Total	55	66	126	1286	967	926

The Centre For Instructor And Advanced Skill Training

PHASE I-1

Course data, 1984 - May to December

Department (Section)	C/part Assigned	Module Developed	Courses Conducted	Total Capacity	participants	
					Enrolled	Certified
INSTRUCTOR AND SUPERVISORY						
i) INSTRUCTOR	6		7	80	100	100
ii) SUPERVISOR	3					
AUTOMOTIVE	5	3	2	20	12	12
Total	14	3	9	100	112	112

Course data, 1985 -- January to April

Department (Section)	C/part Assigned	Module Developed	Courses Conducted	Total Capacity	participants	
					Enrolled	Certified
INSTRUCTOR AND SUPERVISORY						
TRAINING :-						
i) INSTRUCTOR	5		2	24	24	24
ii) SUPERVISOR	3	1	1	12	7	7
AUTOMOTIVE	6	1	3	30	32	31
Total	14	2	6	66	63	62

The Centre For Instructor And Advanced Skill Training

PHASE II-1

Course data, 1985 - May to December

Department (Section)	C/part Assigned	Module Developed	Courses Conducted	Total Capacity	participants	
					Enrolled	Certified
INSTRUCTOR AND SUPERVISORY TRAINING:						
i) INSTRUCTOR	7	1	9	116	120	118
ii) SUPERVISOR	3	1	6	68	38	34
AUTOMOTIVE						
	6	2	8	80	51	51
MACHINE OPERATION AND DIE MAKING:						
i) MACHINE & DIE MAKING	6	2	4	32	16	16
ii) FORGING & HEAT TREAT.	1	1	1	10	4	4
FABRICATION:						
i) WELDING & METAL FAB.	3	1	1	10	1	1
ii) PRESS WORK	2	3	3	30	5	5
HEAVYSHOP:						
i) FOUNDRY & CASTING	4	1	1	10	3	3
ii) RUBBER MOULDING	1	-	-	-	-	-
iii) PLASTIC MOULDING	2	-	3	30	13	13
ELECTRICAL & ELECTRONIC:						
i) ELECTRICAL	3	3	3	30	16	12
ii) ELECTRONIC	4	1	1	5	2	2
INSTRUMENT AND AUTOMATIC CONTROL						
	3	2	2	16	8	8
Total						
	45	18	42	437	277	267

The Centre For Instructor And Advanced Skill Training
 Course data, 1986 - January to October

PHASE II-2

Department (Section)	C/part Assigned	Module Developed	Courses Conducted	Total Capacity	participants	
					Enrolled	Certified
INSTRUCTOR AND SUPERVISORY TRAINING:						
i) INSTRUCTOR	9	5	14	184	216	203
ii) SUPERVISOR	3	4	4	42	37	37
AUTOMOTIVE:	7	5	12	120	82	78
MACHINE OPERATION AND DIE MAKING:						
i) MACHINE & DIE MAKING	7	8	8	55	27	21
ii) FORGING & HEAT TREAT.	2	1	3	26	9	9
FABRICATION:						
i) WELDING & METAL FAB.	5	3	4	40	25	23
ii) PRESS WORK	1	-	-	-	-	
HEAVYSHOP:						
i) FOUNDRY & CASTING	5	4	4	40	11	11
ii) RUBBER MOULDING	2	2	2	20	8	6
iii) PLASTIC MOULDING	2	2	3	30	15	13
ELECTRICAL & ELECTRONIC						
i) ELECTRICAL	4	3	6	60	41	40
ii) ELECTRONIC (COMP)	4	2	2	10	4	4
INSTRUMENTATION AND AUTOMATIC CONTROL	4	4	7	56	40	40
Total	55	43	69	683	515	485

AGENDA: 2

OPERATIONAL PLAN

OPERATIONAL PLAN

The plan covers an 11-month training schedule till end of Technical Cooperation period in July 1987 as in Annex 5. It includes the following:-

- (i) To complete the remaining modules
- (ii) To conduct training on all completed modules at frequencies of not less than 2 per course.
- (iii) To provide 11 places for counterparts training in Japan.

ANNEX '5'

11 - MONTH TRAINING SCHEDULE

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING
 INSTRUCTOR & SUPERVISORY SKILL TRAINING
 TRAINING SCHEDULE (1986-9 1987.7)

(C)

Dept.: INSTRUCTOR & SUPERVISORY SKILL TRAINING

Section: INSTRUCTOR TRAINING

MODULE	1		2		3		4		5		6		7		8		9		10		11		12																													
	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	SEP	OCT																												
SUB-MODULE (CAPACITY)	35 18 15 12	36 19 16 13	37 20 17 14	38 21 18 15	39 22 19 16	40 23 20 17	41 24 21 18	42 25 22 19	43 26 23 20	44 27 24 21	45 28 25 22	46 29 26 23	47 30 27 24	48 31 28 25	49 1 28 25	50 2 29 26	51 3 30 27	52 4 31 28	53 5 1 29	54 6 2 30	55 7 3 31	56 8 4 1	57 9 5 2	58 10 6 3	59 11 7 4	60 12 8 5	61 13 9 6	62 14 10 7	63 15 11 8	64 16 12 9	65 17 13 10	66 18 14 11	67 19 15 12	68 20 16 13	69 21 17 14	70 22 18 15	71 23 19 16	72 24 20 17	73 25 21 18	74 26 22 19	75 27 23 20	76 28 24 21	77 29 25 22	78 30 26 23	79 31 27 24							
TM.1 TRAINING METHODOLOGY FOR INSTRUCTOR	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	
TM.2 BASIC TRAINING METHODOLOGY FOR INSTRUCTOR	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	
TM.3 SKILL ANALYSIS	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	
TM.4 WRITTEN INSTRUCTIONAL MATERIALS	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	
TM.5 AUDIO-VISUAL AIDS	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	
TM.6 TEST AND TESTING	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	
TM.7 TRAINING ADMINISTRATION	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	
TM.8 INSTRUCTIONAL TECHNIQUES FOR IN-PLANT TRAINERS	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	
TM.9 BASIC INSTRUCTIONAL TECHNIQUES FOR IN-PLANT SUPERVISORS	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	
TM.10 MODULE TRAINING SYSTEM DESIGN	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	
REMARKS	A (An)		B (B)		C (C)		D (D)		E (E)		F (F)		G (G)		H (H)		I (I)		J (J)		K (K)		L (L)		M (M)		N (N)		O (O)		P (P)		Q (Q)		R (R)		S (S)		T (T)		U (U)		V (V)		W (W)		X (X)		Y (Y)		Z (Z)	

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

Dept INSTRUCTOR & SUPERVISORY SKILL TRAINING TRAINING SCHEDULE (1986.9.1987.7)

(A)

Section: SUPERVISORY TRAINING

MODULE	6.							7.						
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul			
SUB-MODULE (CAPACITY)	38 07 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31		
ST1: METHOD AND WORK STUDY														
ST2: QUALITY CONTROL														
ST3: PRODUCTION PLANNING AND CONTROL														
ST4: MAINTENANCE MANAGEMENT														
ST5: INDUSTRIAL SAFETY														
ST6: LEADERSHIP AND HUMAN RELATION														
ST7: DISCIPLINE IN INDUSTRY														
REMARKS	I = IBRAHIM L = LATIF K = HASMAN. X, Y & Z: ADDITIONAL STAFFS, DIPLOMA HOLDER SHOULD BE ASSIGNED BY FEBRUARY 1987. Short-term Expert for ST.7 Participants/counterparts will be Mr. Ibrahim, Mr. Latiff and Mr. Hasman.													

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING
 TRAINING SCHEDULE (1986-89 1987.7)

Dept.: AUTOMOTIVE

Section: (A)

MODULE	1		2		3		4		5		6		7	
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul			
SUB-MODULE (CAPACITY)	35 1 5	37 6 12	38 13 19	40 15 21	41 16 22	42 17 23	43 18 24	44 19 25	45 20 26	46 21 27	47 22 28	48 23 29	49 24 30	50 25 31
A1. <u>PETROL & DIESEL ENGINE SERVICE</u>														
A1.1 Specialized Engine Service	R(K)				R(K)									
A1.2 Fuel Injection System Service														
A1.3 Engine Electrical and Electronic Equipment Services														
A2. <u>TROUBLE ANALYSIS</u>														
A2.1 Engine Trouble Analysis														
A2.2 Chassis Trouble Analysis														
A3. <u>PERFORMANCE TEST</u>														
A3.1 Engine Performance Test														
A3.2 Vehicle Performance Test														
A4. <u>VEHICLE CHASSIS REPAIR</u>														
A4.1 Specialized Chassis Repair														
A4.2 Body Electrical Equipment														

REMARKS

**REGIONAL TRAINING

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING
TRAINING SCHEDULE (1986.9 1987.7)
(B)

Dept.: FABRICATION
Section: WELDING

MODULE	1							2							3							4							5							6							7																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
SUB-MODULE (CAPACITY)	36 15 22 29	41 30 27	44 33 31	45 34 31	46 35 32	47 36 33	48 37 34	49 38 35	50 39 36	51 40 37	52 41 38	53 42 39	54 43 40	55 44 41	56 45 42	57 46 43	58 47 44	59 48 45	60 49 46	61 50 47	62 51 48	63 52 49	64 53 50	65 54 51	66 55 52	67 56 53	68 57 54	69 58 55	70 59 56	71 60 57	72 61 58	73 62 59	74 63 60	75 64 61	76 65 62	77 66 63	78 67 64	79 68 65	80 69 66	81 70 67	82 71 68	83 72 69	84 73 70	85 74 71	86 75 72	87 76 73	88 77 74	89 78 75	90 79 76	91 80 77	92 81 78	93 82 79	94 83 80	95 84 81	96 85 82	97 86 83	98 87 84	99 88 85	100 89 86	101 90 87	102 91 88	103 92 89	104 93 90	105 94 91	106 95 92	107 96 93	108 97 94	109 98 95	110 99 96	111 100 97	112 101 98	113 102 99	114 103 100	115 104 101	116 105 102	117 106 103	118 107 104	119 108 105	120 109 106	121 110 107	122 111 108	123 112 109	124 113 110	125 114 111	126 115 112	127 116 113	128 117 114	129 118 115	130 119 116	131 120 117	132 121 118	133 122 119	134 123 120	135 124 121	136 125 122	137 126 123	138 127 124	139 128 125	140 129 126	141 130 127	142 131 128	143 132 129	144 133 130	145 134 131	146 135 132	147 136 133	148 137 134	149 138 135	150 139 136	151 140 137	152 141 138	153 142 139	154 143 140	155 144 141	156 145 142	157 146 143	158 147 144	159 148 145	160 149 146	161 150 147	162 151 148	163 152 149	164 153 150	165 154 151	166 155 152	167 156 153	168 157 154	169 158 155	170 159 156	171 160 157	172 161 158	173 162 159	174 163 160	175 164 161	176 165 162	177 166 163	178 167 164	179 168 165	180 169 166	181 170 167	182 171 168	183 172 169	184 173 170	185 174 171	186 175 172	187 176 173	188 177 174	189 178 175	190 179 176	191 180 177	192 181 178	193 182 179	194 183 180	195 184 181	196 185 182	197 186 183	198 187 184	199 188 185	200 189 186	201 190 187	202 191 188	203 192 189	204 193 190	205 194 191	206 195 192	207 196 193	208 197 194	209 198 195	210 199 196	211 200 197	212 201 198	213 202 199	214 203 200	215 204 201	216 205 202	217 206 203	218 207 204	219 208 205	220 209 206	221 210 207	222 211 208	223 212 209	224 213 210	225 214 211	226 215 212	227 216 213	228 217 214	229 218 215	230 219 216	231 220 217	232 221 218	233 222 219	234 223 220	235 224 221	236 225 222	237 226 223	238 227 224	239 228 225	240 229 226	241 230 227	242 231 228	243 232 229	244 233 230	245 234 231	246 235 232	247 236 233	248 237 234	249 238 235	250 239 236	251 240 237	252 241 238	253 242 239	254 243 240	255 244 241	256 245 242	257 246 243	258 247 244	259 248 245	260 249 246	261 250 247	262 251 248	263 252 249	264 253 250	265 254 251	266 255 252	267 256 253	268 257 254	269 258 255	270 259 256	271 260 257	272 261 258	273 262 259	274 263 260	275 264 261	276 265 262	277 266 263	278 267 264	279 268 265	280 269 266	281 270 267	282 271 268	283 272 269	284 273 270	285 274 271	286 275 272	287 276 273	288 277 274	289 278 275	290 279 276	291 280 277	292 281 278	293 282 279	294 283 280	295 284 281	296 285 282	297 286 283	298 287 284	299 288 285	300 289 286	301 290 287	302 291 288	303 292 289	304 293 290	305 294 291	306 295 292	307 296 293	308 297 294	309 298 295	310 299 296	311 300 297	312 301 298	313 302 299	314 303 300	315 304 301	316 305 302	317 306 303	318 307 304	319 308 305	320 309 306	321 310 307	322 311 308	323 312 309	324 313 310	325 314 311	326 315 312	327 316 313	328 317 314	329 318 315	330 319 316	331 320 317	332 321 318	333 322 319	334 323 320	335 324 321	336 325 322	337 326 323	338 327 324	339 328 325	340 329 326	341 330 327	342 331 328	343 332 329	344 333 330	345 334 331	346 335 332	347 336 333	348 337 334	349 338 335	350 339 336	351 340 337	352 341 338	353 342 339	354 343 340	355 344 341	356 345 342	357 346 343	358 347 344	359 348 345	360 349 346	361 350 347	362 351 348	363 352 349	364 353 350	365 354 351	366 355 352	367 356 353	368 357 354	369 358 355	370 359 356	371 360 357	372 361 358	373 362 359	374 363 360	375 364 361	376 365 362	377 366 363	378 367 364	379 368 365	380 369 366	381 370 367	382 371 368	383 372 369	384 373 370	385 374 371	386 375 372	387 376 373	388 377 374	389 378 375	390 379 376	391 380 377	392 381 378	393 382 379	394 383 380	395 384 381	396 385 382	397 386 383	398 387 384	399 388 385	400 389 386	401 390 387	402 391 388	403 392 389	404 393 390	405 394 391	406 395 392	407 396 393	408 397 394	409 398 395	410 399 396	411 400 397	412 401 398	413 402 399	414 403 400	415 404 401	416 405 402	417 406 403	418 407 404	419 408 405	420 409 406	421 410 407	422 411 408	423 412 409	424 413 410	425 414 411	426 415 412	427 416 413	428 417 414	429 418 415	430 419 416	431 420 417	432 421 418	433 422 419	434 423 420	435 424 421	436 425 422	437 426 423	438 427 424	439 428 425	440 429 426	441 430 427	442 431 428	443 432 429	444 433 430	445 434 431	446 435 432	447 436 433	448 437 434	449 438 435	450 439 436	451 440 437	452 441 438	453 442 439	454 443 440	455 444 441	456 445 442	457 446 443	458 447 444	459 448 445	460 449 446	461 450 447	462 451 448	463 452 449	464 453 450	465 454 451	466 455 452	467 456 453	468 457 454	469 458 455	470 459 456	471 460 457	472 461 458	473 462 459	474 463 460	475 464 461	476 465 462	477 466 463	478 467 464	479 468 465	480 469 466	481 470 467	482 471 468	483 472 469	484 473 470	485 474 471	486 475 472	487 476 473	488 477 474	489 478 475	490 479 476	491 480 477	492 481 478	493 482 479	494 483 480	495 484 481	496 485 482	497 486 483	498 487 484	499 488 485	500 489 486	501 490 487	502 491 488	503 492 489	504 493 490	505 494 491	506 495 492	507 496 493	508 497 494	509 498 495	510 499 496	511 500 497	512 501 498	513 502 499	514 503 500	515 504 501	516 505 502	517 506 503	518 507 504	519 508 505	520 509 506	521 510 507	522 511 508	523 512 509	524 513 510	525 514 511	526 515 512	527 516 513	528 517 514	529 518 515	530 519 516	531 520 517	532 521 518	533 522 519	534 523 520	535 524 521	536 525 522	537 526 523	538 527 524	539 528 525	540 529 526	541 530 527	542 531 528	543 532 529	544 533 530	545 534 531	546 535 532	547 536 533	548 537 534	549 538 535	550 539 536	551 540 537	552 541 538	553 542 539	554 543 540	555 544 541	556 545 542	557 546 543	558 547 544	559 548 545	560 549 546	561 550 547	562 551 548	563 552 549	564 553 550	565 554 551	566 555 552	567 556 553	568 557 554	569 558 555	570 559 556	571 560 557	572 561 558	573 562 559	574 563 560	575 564 561	576 565 562	577 566 563	578 567 564	579 568 565	580 569 566	581 570 567	582 571 568	583 572 569	584 573 570	585 574 571	586 575 572	587 576 573	588 577 574	589 578 575	590 579 576	591 580 577	592 581 578	593 582 579	594 583 580	595 584 581	596 585 582	597 586 583	598 587 584	599 588 585	600 589 586	601 590 587	602 591 588	603 592 589	604 593 590	605 594 591	606 595 592	607 596 593	608 597 594	609 598 595	610 599 596	611 600 597	612 601 598	613 602 599	614 603 600	615 604 601	616 605 602	617 606 603	618 607 604	619 608 605	620 609 606	621 610 607	622 611 608	623 612 609	624 613 610	625 614 611	626 615 612	627 616 613	628 617 614	629 618 615	630 619 616	631 620 617	632 621 618	633 622 619	634 623 620	635 624 621	636 625 622	637 626 623	638 627 624	639 628 625	640 629 626	641 630 627	642 631 628	643 632 629	644 633 630	645 634 631	646 635 632	647 636 633	648 637 634	649 638 635	650 639 636	651 640 637	652 641 638	653 642 639	654 643 640	655 644 641	656 645 642	657 646 643	658 647 644	659 648 645	660 649 646	661 650 647	662 651 648	663 652 649	664 653 650	665 654 651	666 655 652	667 656 653	668 657 654	669 658 655	670 659 656	671 660 657	672 661 658	673 662 659	674 663 660	675 664 661	676 665 662	677 666 663	678 667 664	679 668 665	680 669 666	681 670 667	682 671 668	683 672 669	684 673 670	685 674 671	686 675 672	687 676 673	688 677 674	689 678 675	690 679 676	691 680 677	692 681 678	693 682 679	694 683 680	695 684 681	696 685 682	697 686 683	698 687 684	699 688 685	700 689 686	701 690 687	702 691 688	703 692 689	704 693 690	705 694

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

TRAINING SCHEDULE (1986, 9 1987.7)

Dept.: FABRICATION
Section: METAL FABRICATION

MODULE	1		6.			1			8			7						
	Sep	9	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul						
SUB-MODULE	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53
(CAPACITY)	8	15	22	29	6	13	20	27	3	10	17	24	31	7	14	21	28	5
F2 METAL FABRICATION																		
F2.1 Basic Metal Fabrication																		
F2.2 Advanced Metal Fabrication																		
M, N, R																		
STE																		

REMARKS	M: Murni bin Moner N: Mohd. Noor bin Menhad R: Abdul Rahman bin Yusoff	STE: Short-Term Expert
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THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

TRAINING SCHEDULE (1986.9 1987.7)

Dept.: FABRICATION
Section: PRESS WORK

(B)

MODULE	1							6.							7							
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
<p>36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31</p> <p>(CAPACITY)</p>																						
F3 PRESS WORK																						
F3.1 Bending Work																						
F3.2 Shearing Work																						
F3.3 Drawing Work																						
F3.4 Inspection and Maintenance of Press Machine																						
<p>Bukhori</p> <p>Training in Japan</p>																						
<p>Bukhori</p> <p>Training in Press Work</p>																						
<p>Bukhori</p> <p>Attending DM1</p>																						
REMARKS	<p>G: Ghazlan bin Ghazali</p> <p>Bu: Mohd. Bukhori bin Ahmad</p> <p>A: "Diploma Mr. A" must be assigned at the latest by January 1987.</p>																					

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

TRAINING SCHEDULE (1986-9 1987.7)

(A)

Dept.: HEAVYSHOP

Section: PLASTIC MOULDING

MODULE	1		2		3		4		5		6		7		8		9		10		11		12		
	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	SEP	OCT	NOV
H6 SUB-MODULE (CAPACITY)	36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31
H6 PLASTIC MOULDING TECHNIQUE																									
H6-1 Plastic Injection Moulding Machine and Mould																									
H6-2 Plastic Materials and Injection Moulding Process																									
REMARKS	<p>1. Instructors are shown as follows: S: CHE SAUPI A: AZAHAR Z: ZAHAN</p> <p>2. The duration and date of training in Japan for the instructors are as follows: (a) Azahar 9 months, Jan. 86 - Sept. 86 (b) Saupi 9 months, Oct. 86 - June 86</p> <p>3. Syllabus contents and duration of the sub-module are as follows: (a) H6-1 = H6-1 (old) + H6-4 (old) : 3 weeks (b) H6-2 = H6-2 (old) + H6-3 (old) + H6-5 (old) : 3 weeks</p>																								

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

Dept.: ELECTRICAL & ELECTRONIC

TRAINING SCHEDULE (1986-9 1987.7)

Section: ELECTRICAL (A)

MODULE	1		2		3		4		5		6		7		8		9		10		11		12		
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
SUB-MODULE (CAPACITY)	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
EE1 RELAY MAINTENANCE AND REPAIR																									
EE1.1 Contact Circuit Relay Maintenance and Repair																									
EE1.2 Non-Arcing Circuit Relay Maintenance and Repair																									
EE1.3 Industrial Wiring & Distribution Panel Work																									
EE2 MOTOR TROUBLE ANALYSIS AND REPAIR																									
EE2.1 Motor Troubles Analysis and Repair																									
EE2.2 Transformer Trouble Analysis and Repair																									
EE3 MOTOR TESTING																									
EE3.1 Motor-Generator Control Testing																									
EE3.2 Motor Automatic Control																									

Instructors: AA: Encik Azmi Ali
 NR: Tuan Haji Mohd. Noor bin Rashid
 RL: Cik Roslinda Daud - scheduled to attend TM.1 in early March

Key: * Outstation course
 ** Regional course

THE CENTRE FOR INSTRUCTOR AND ADVANCED SKILL TRAINING

Dept.: INSTRUMENT & AUTOMATIC CONTROL

TRAINING SCHEDULE (1986.9 1987.7)

(C)

Section:

MODULE	1		9		8		6		1		8		7	
	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul			
SUB-MODULE (CAPACITY)	36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31			
I1 PROCESS MEASUREMENT														
I1.1 Temperature Measurement (2W)														
I1.2 Pressure and Level Measurement														
I1.3 Flow Measurement														
I2 INDUSTRIAL INSTRUMENTS														
I2.1 Pneumatic Instruments														
I2.2 Electronic Instruments														
I3 ELECTRICAL (HYDRAULIC) CONTROL														
I3.1 Feedback Control														
I3.2 Hydraulic Control														

Instructors' names are shown as follows:

- Z: ZASIDIN ABD. SAMAD
- AZ: AZHAR MAT NOOR
- I: ISRAHIM BIN ALI (B)
- M: MOHAMAD B. OSMAN
- * Change of date
- o Additional courses

REMARKS

AGENDA: 3

REQUEST FOR EXTENSION
OF TECHNICAL COOPERATION

REQUEST FOR EXTENSION OF TECHNICAL COOPERATION

The Technical Cooperation period will be completed by August 1987.

All modules reflected in the 'Record of Discussion' signed on 20th. August 1982 are scheduled to be completed by then. The request for extension covers areas that need to be broadened in order to keep phase with the demand of the industries and to cope with the rapid changes in technology.

The Centre has identified the areas covered for further Technical Cooperation as indicated in Annex 6. The request includes:-

- (i) Redevelopment of 10 existing modules.
- (ii) Despatch of at least 8 long term and 3 short term experts.
- (iii) Training for 20 additional counterparts.
- (iv) Provision of related equipment.

ANNEX '6'

MODULE REDEVELOPMENT

MODULE REDEVELOPMENT PLAN OF 8 SECTIONS

IN PHASE II CIAST PROJECT

(OCTOBER 22, 1986)

SECTION	MODULES COVERED IN PHASE II (A)	BASIS FOR REDEVELOPMENT (B)	REMAINED MODULES (A - B)	RESULT OF REDEVELOPMENT							TOTAL MODULES AFTER REDEVELOPMENT (A-B+C+D)	
				(C)	NEW MODULES				ORIGINAL MODULES (D)			
					Type of sub-modules							
		H	W	R	O							
AUTOMOTIVE	5 - 11	2 - 5	3 - 6	4 - 11	2	5	1	3				7 - 17
DIE MAKING	3 - 3	1 - 1	2 - 2	2 - 4	4				1 - 2			5 - 8
MACHINE OPERATION	4 - 9	1 - 3	3 - 6	2 - 5		1	4		1 - 3			6 - 14
WELDING & METAL FABRICATION	2 - 5	1 - 3	1 - 2	1 - 3		3			1 - 3			3 - 8
FOUNDRY & CASTING	3 - 7	1 - 3	2 - 4	1 - 5	2	1		2				3 - 9
ELECTRICAL CONTROL	4 - 10	3 - 8	1 - 2	3 - 7		4	1	2	2 - 5			6 - 14
INSTRUMENT & AUTOMATIC CONTROL	3 - 7	1 - 2	2 - 5	1 - 4		2	2		1 - 2			4 - 11
TRAINING SOFTWARE	2 - 2		2 - 2									2 - 2
TOTAL	26 - 54	10 - 25	16 - 29	14 - 39	8	16	8	7	6 - 15			36 - 83

Existing Modules		Modules to be redeveloped			
Module Number and Title Sub-Module Number and Title	Duration of Training	To be redeveloped or remain	Module Number and Title Sub-Module Number and Title	Duration of Training	Type of Redevelopment
<u>TM 4 - WRITTEN INSTRUCTIONAL MATERIAL</u>	2 weeks	REM.			
<u>TM 5 - AUDIO VISUAL AIDS</u>	2 weeks	REM.			

MODULE DEVELOPMENT & TRAINING SCHEDULE

Department : PEDAGOGY
 Section : Software Development

Job Description	1987				1988				1989				1990											
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
Conduct special Audio Visual Aids course including operating skill of equipment for CIAST STAFF.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Assist all Departments in the production of AVA for all Modules and for Asian Regional Training.																								
Assist all Departments in the translation or reproduction of some existing colour slides, video tapes and 16mm films.																								
ASEAN Regional Training																								
TM 5 - AUDIO VISUAL AIDS																								

	1987												1988												1989												1990											
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3												
<u>COUNTERPART</u>																																																
H.O.D. ()																																																
SUAMI B. AED. MAJID																																																
<u>SOFTWARE:</u>																																																
1. V.P. NAUFAN																																																
2. NORDIN KAMALUDDIN																																																
3. ZULKIFLI MOED. SIDI																																																
MR. XI																																																
To be added :																																																
Diploma Elect/Electro(X)																																																
Experience (Y)																																																
<u>EXPERT</u>																																																
Longterm																																																
Shortterm A()																																																
B()																																																

REDEVELOPMENT OF MODULES

Department : AUTOMOTIVES
Section :

Existing Modules		Modules to be redeveloped			
Module Number and Title Sub-Module Number and Title	Duration of Training	To be redeveloped or retained	Module Number and Title Sub-Module Number and Title	Duration of Training	Type of Redevelopment
<u>A1</u> <u>PETROL/DIESEL ENGINE SERVICES</u>		RED	<u>A1A(87) PETROL ENGINE SERVICES</u>		
A1.1 SPECIALIZED ENGINE SERVICES	3 weeks		A1A(87).1 SPECIALIZED PETROL ENGINE SERVICES	3 weeks	(A1.1)
A1.2 FUEL INJECTION SYSTEM SERVICES	3 weeks		A1A(87).2 ELECTRONIC INJECTION ENGINE SERVICES.	3 weeks	H
A1.3 ENGINE ELECTRICAL/ELECTRONIC EQUIPMENTS SERVICES	3 weeks		A1A(87).3 EMISSION CONTROL SYSTEM	3 weeks	W
			<u>A1B(87) DIESEL ENGINE SERVICES</u>		
			A1B(87).1 SPECIALIZED DIESEL ENG. SERVICES.	3 weeks	H
			A1B(87).2 FUEL INJECTION SYSTEM SERVICES.	3 weeks	(A1.2)
<u>A2</u> <u>TROUBLE ANALYSIS</u>		HEM	<u>A1C(87) AUTO-ELECTRICAL/ELECTRONIC EQUIPMENTS SERVICES.</u>		
A2.1 ENGINE TROUBLE ANALYSIS	3 weeks		A1C(87).1 FUNDAMENTAL AUTO ELECTRONICS	3 weeks	W
A2.2 CHASSIS TROUBLE ANALYSIS	3 weeks		A1C(87).2 ENG. ELECTRICAL/ELECTRONIC EQUIPMENTS SERVICES	3 weeks	(A1.3)
			A1C(87).3 CHASSIS ELECTRICAL/ELECTRO-NIC EQUIPMENTS SERVICES	3 weeks	B (A4)

REPRESENTATION : W = WIDENED
H = HIGHLIGHTED
R = RECORDED.

RED. = REDEVELOP
RET. = RETAINED

Existing Modules		Modules to be redeveloped			
Module Number and Title Sub-Module Number and Title	Duration of Training	To be redeveloped or retained	Module Number and Title Sub-Module Number and Title	Duration of Training	Type of Redevelopment
<u>A3</u> PERFORMANCE TESTS		RET.			
A3.1 ENGINE PERFORMANCE TEST	3 weeks				
A3.2 CHASSIS PERFORMANCE TEST	2 weeks				
<u>A4</u> VEHICLE CHASSIS REPAIR		RED.	<u>A4(87)</u> VEHICLE CHASSIS REPAIR		
A4.1 SPECIALIZED CHASSIS REPAIR	3 weeks		A4(87).1 STEERING SYSTEM AND WHEEL ALIGNMENT	3 weeks	Y
A4.2 BODY ELECTRICAL EQUIPMENT SERVICE	2 weeks		A4(87).2 AUTOMATIC TRANSMISSION SERVICES	3 weeks	Y
<u>A6</u> VEHICLE INSPECTION		RET.	A4(87).3 BRAKE SYSTEM SERVICES	2 weeks	Y
A6.1 VEHICLE REGULAR CHECKING	2 weeks				
A6.2 VEHICLE INSPECTION	3 weeks				

REPRESENTATION : Y = WITHHELD W = WITHHELD R = RECOMMENDED RED. = REDEVELOP
H = REFINISHED REM. = REMAINED

Section :

Module Sub-Module (capacity)	1987				1988				1989				1990														
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3			
A1(C(87).3 CHASSIS ELECT/ELECT- RONIC EXPTS. SERVICES. (10)																											
AA(87) VEHICLE CHASSIS REPAIR																											
AA(87).1 STEERING SYSTEM AND WHEEL ALIGN- MENT. (10)																											
AA(87).2 AUTOMATIC TRANS MISSION SERV- CES. (10)																											
AA(87).3 BRAKE SYSTEM SERVICES. (10)																											
ASEAN Regional Training																											

Department : AUTOMOTIVE

Section :

S T A F F

From C

	1987												1988												1989												1990											
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3												
<u>COUNTERPART</u>																																																
H.O.D. ()																																																
SYED MOHAMAD NOOR HIN																																																
SYED MAF ALI																																																
RAZI HIN HJ. JOHARI																																																
MOKHTAR HIN OSMAN																																																
HUSIN HIN ABWAT																																																
KARIM B. DATO' HAJI																																																
KAMARUDDIN																																																
KAMARULZAMAN HIN CHU																																																
'BANT																																																
AZZARI HIN IBRAHIM																																																
To be added :																																																
Diploma (Mr. XI) (X)																																																
Experience (Y)																																																
<u>EXPERT</u>																																																
Longterm																																																
Shortterm A(A1.A(87).2)																																																
B()																																																

Existing Modules		Modules to be redeveloped			
Module Number and Title Sub-Module Number and Title	Duration of Training	To be redeveloped or Remained	Module Number and Title Sub-Module Number and Title	Duration of Training	Type of Redevelopment
<u>MD1A SHEARING DIE MAKING</u>	6 weeks	REM.			
<u>MD1B DRAWING DIE MAKING</u>	5 weeks	REM.			
<u>MD1C PLASTIC MOULD MAKING</u>	8 weeks	RED.	<u>MD1C(87) PLASTIC MOULD MAKING</u> MD1C(87).1 PLASTIC MOULD MAKING I MD1C(87).2 PLASTIC MOULD MAKING II	3 weeks 4 weeks	(MD1C.1) (MD1C.2)
			<u>MD1D(87) PROGRESSIVE DIE MAKING</u> MD1D(87).1 PROGRESSIVE DIE MAKING I MD1D(87).2 PROGRESSIVE DIE MAKING II	3 weeks 4 weeks	H H
			<u>MD1E(87) SLIDE CORE TYPE PLASTIC MOULD MAKING</u> MD1E(87).1 SLIDE CORE TYPE PLASTIC MOULD MAKING I MD1E(87).2 SLIDE CORE TYPE PLASTIC MOULD MAKING II	3 weeks 4 weeks	H H

REPRESENTATION:W : Widened
H : HeightenedR : Recombined
REM: Remained

RED: Redevelop

REDEVELOPMENT OF MODULES

Department : MACHINE OPERATION AND DIE MAKING
Section :

Existing Modules		Modules to be redeveloped			
Module Number and Title Sub-Module Number and Title	Duration of Training	To be redeveloped or remained	Module Number and Title Sub-Module Number and Title	Duration of Training	Type of Redevelopment
<u>MD2 TOOL AND JIG MAKING AND REPAIR</u>	6 weeks	REM			
<u>MD3 FINISHING/FITTING</u>					
MD3.1 SURFACE, CYLINDRICAL & CENTRELESS GRINDING	2 weeks	REM			
MD3.2 FORM & OPTICAL PROJECTION PROFILE GRINDING	2 weeks				
MD3.3 TOOL AND CUTTER GRINDING	2 weeks				
<u>MD4A NC MACHINING</u>		REM			
MD4A.1 NC TURNING	3 weeks				
MD4A.2 NC MILLING	3 weeks				
<u>MD4B NC ELECTRICAL DISCHARGE MACHINING AND COPY MILLING</u>		RED	<u>MD4B ELECTRICAL DISCHARGE MACHINING AND COPY MILLING</u>		
MD4B.1 NC WIRECUTTING	2 weeks		MD4B.1 NC WIRECUTTING	2 weeks	(MD4B.1)
MD4B.2 NC ELECTRICAL DISCHARGE MACHINING	2 weeks		MD4B.2 NC ELECTRICAL DISCHARGE MACHINING	2 weeks	(MD4B.2)
MD4B.3 AUTOMATIC COPY MILLING	2 weeks		MD4B.3 AUTOMATIC COPY MILLING	2 weeks	(MD4B.3)
			<u>MD4C(87) MACHINE MAINTENANCE</u>		
			MD4C(87).1 MECHANICAL MAINTENANCE	3 weeks	W
			MD4C(87).2 HYDRAULIC MAINTENANCE	2 weeks	R (13)

REPRESENTATION:

W : Widened R : Recombined RED: Redeveloped
E : Reinstated REM: Remained

REDEVELOPMENT OF MODULES

Department : MACHINE OPERATION & DIE MAKING
Section :

Existing Modules		Modules to be redeveloped			
Module Number and Title Sub-Module Number and Title	Duration of Training	To be redeveloped or remain	Module Number and Title Sub-Module Number and Title	Duration of Training	Type of Redevelopment
			<u>MD4D(87)</u> ELECTRICAL CIRCUIT MAINTENANCE		
			MD4D(87).1 ELECTRICAL RELAY AND DRIVING	3 weeks	R (EE2)
			MD4D(87).2 ELECTRICAL RELAY MAINTENANCE		R (EE1)
			MD4D(87).1 CONTROLLER MAINTENANCE		R (EE1.7)

REPRESENTATION:

W : Widened R : Recombined RED: Redeveloped
E : Heightened REM: Remained

S T A F F

From C

	1987												1988												1989												1990											
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3												
COUNTERPART																																																
K.O.D. ()																																																
MOHAMAD BIN YAACOB																																																
AEMAD BIN JANTAN																																																
MAT SETIA BIN MOED. RAJI																																																
ANWAR BIN IBERAHEM																																																
ISKANDAR BIN MINGIN																																																
SALPUDDIN BUSRA																																																
AED. RANI BIN KASSIM																																																
(G)																																																
To be added :																																																
Diploma (X1)																																																
Experience (X2)																																																
(X3)																																																
EXPERT																																																
Die Making																																																
Longterm Machine Operation																																																
Shortterm A (MOD) ('87) 3,																																																
B()																																																
K. Neda																																																
M.D.T. Expert																																																

Existing Modules		Modules to be redeveloped			
Module Number and Title Sub-Module Number and Title	Duration of Training	To be Redeveloped or Remained	Module Number and Title Sub-Module Number and Title	Duration of Training	Type of Redevelopment
<u>F1 WELDING</u>		RED	<u>F1A WELDING</u>		
F1.1 CO ₂ ARC WELDING	3 weeks		F1A.1 CO ₂ AND MIG ARC WELDING	3 weeks	R(F1.1&F1.3)
F1.2 MANUAL ARC WELDING	3 weeks		F1A.2 MANUAL ARC WELDING	2 weeks	(F1.2)
F1.3 TIG AND MIG WELDING	2 weeks		F1A.3 TIG AND ARC WELDING	2 weeks	R(F1.2&F1.3)
<u>F2 METAL FABRICATION</u>		REV.	<u>F1B (87) NON-DESTRUCTIVE TESTING</u>		
F2.1 BASIC METAL FABRICATION	2 weeks		F1B.1(87) X-RAY TESTING	2 weeks	W
F2.2 ADVANCED METAL FABRICATION	3 weeks		F1B.2(87) ULTRASONIC TESTING	2 weeks	W
			F1B.3(87) MAGNETIC AND PENETRANT TESTING	1 weeks	W

REPRESENTATION:

W : Widened R : Recombined RED: Redevelop
 H : Heightened REM: Remained

Module	1987												1988												1989												1990		
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3			
F1A	<u>WELDING</u>																																						
F1A.1	CO ₂ AND MIG ARC WELDING (10)																																						
F1A.2	MANUAL ARC WELDING (10)																																						
F1A.3	TIG ARC WELDING (10)																																						
F1B	<u>NON-DESTRUCTIVE TESTING</u>																																						
F1B.1	X-RAY TESTING (6)																																						
F1B.2	ULTRASONIC TESTING (10)																																						
F1B.3	MAGNETIC AND PENETRANT TESTING (10)																																						
ASEAN Regional Training																																							
F1A.3	TIG ARC WELDING (10)																																						

REDEVELOPMENT OF MODULES

Department : HEAVYSHOP
 Section : FOUNDRY

Existing Modules		Modules to be redeveloped			
Module Number and Title Sub-Module Number and Title	Duration of Training	To be redeveloped or remained	Module Number and Title Sub-Module Number and Title	Duration of Training	Type of Redevelopment
H2 FOUNDRY			H2 (87) FOUNDRY		
H2.1 GATING AND RISER SYSTEM	3 weeks	RED.	H2 (87) 1 GATING AND RISER SYSTEM	3 weeks	(H2.1)
H2.2 CAST IRON CASTING	3 weeks		H2 (87) 2 CAD : GATING AND RISERING	1 weeks	H
H2.3 STEEL, COPPER ALLOY AND ALUMINIUM ALLOY CASTING	3 weeks		H2 (87) 3 CASTINGS	3 weeks	(H2.2)
H3 DIE CASTING		REM.	H2 (87) 4 CUPOLA MELTING	1 weeks	W
H3.1 DIE CASTING TECHNIQUE	3 weeks		H2 (87) 5 ANALYSIS OF CASTING DEFECTS	1 weeks	H
H3.2 ADVANCED DIE CASTING TECHNIQUE	2 weeks				
H4 INVESTMENT CASTING		REM.			
H4.1 INVESTMENT CASTING TECHNIQUE	3 weeks				
H4.2 ADVANCED INVESTMENT CASTING TECHNIQUE	3 weeks				

REPRESENTATION : W = WIDENED
 H = HEIGHTENED
 R = RECOMBINED
 RED. = REDEVELOP
 REM. = REMAINED

S T A P E

Form C

	1987												1988												1989												1990											
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3												
<u>COUNTERPART</u>																																																
H.O.D. ()																																																
ZAKARIA M. YUSSOF (E2)																																																
HADI OBE WAIL (E2, H4)																																																
SUMALI HASSAN (E3, H4)																																																
HASHIM SALIEH (E3, H4)																																																
AZAHAR HASSAN																																																
To be added : NEW HOD (E2, E3, H4) (W) Diploma (E2) (X)																																																
Experience (X)																																																
<u>EXPERT</u>																																																
Longterm (E2, E3, H4)																																																
Shortterm A ()																																																
B ()																																																

REDEVELOPMENT OF MODULES

Department : ELECTRICAL AND ELECTRONIC
 Section : ELECTRICAL CONTROL

Existing Modules		Modules to be redeveloped			
Module Number and Title Sub-Module Number and Title	Duration of Training	To be Redeveloped or Retained	Module Number and Title Sub-Module Number and Title	Duration of Training	Type of Redevelopment
<u>EE1</u> RELAY MAINTENANCE AND REPAIR		RED.	<u>EE1A(87)</u> RELAY MAINTENANCE AND REPAIR		
EE1.1 CONTACT CIRCUIT RELAY MAINTENANCE & REPAIR	3 weeks		EE1A(87).1 CONTACT CIRCUIT RELAY MAINTENANCE & REPAIR	3 weeks	(EE1.1)
EE1.2 NON-ARCING CIRCUIT RELAY MAINTENANCE	2 weeks		EE1A(87).2 NON-ARCING RELAY MAINTENANCE & REPAIR	2 weeks	(EE1.2)
EE1.3 INDUSTRIAL WIRING AND DISTRIBUTION	2 weeks		<u>EE1B(87)</u> INDUSTRIAL WIRING AND DISTRIBUTION PANEL WORKS.		
<u>EE2</u> MOTOR TROUBLE ANALYSIS AND REPAIR		REM.	EE1B(87).1 INDUSTRIAL WIRING	3 weeks	W
EE2.1 MOTOR TROUBLE ANALYSIS AND REPAIR	3 weeks		EE1B(87).2 DISTRIBUTION PANEL WORKS	2 weeks	W
EE2.2 TRANSFORMER TROUBLE ANALYSIS & REPAIR	2 weeks				
<u>EE3</u> MOTOR TESTING		RED.	<u>EE3(87)</u> MOTOR TEST AND CONTROL		
EE3.1 MOTOR-GENERATOR CONTROL TESTING	3 weeks		EE3.1 MOTOR GENERATOR CONTROL TESTING	3 weeks	(EE3.1)
EE3.2 MOTOR AUTOMATIC CONTROL	2 weeks		EE3.2 MOTOR AUTOMATIC CONTROL	2 weeks	(EE3.1)
<u>EE7</u> ELECTRICAL/ELECTRONIC OFFICE EQUIPMENT		RED.	EE3(87).3 MICRO-COMPUTER SYSTEM AND LANGUAGE	2 weeks	R(EE7)
EE7.1 DISK OPERATING SYSTEM	2 weeks		<u>EE7A</u> COMPUTER SOFTWARE		
EE7.2 ASSEMBLY LANGUAGE (8080/8085)	3 weeks		EE7A.1 DISK OPERATING SYSTEM	2 weeks	(EE7.1)
EE7.3 FORTRAN	3 weeks		EE7A.2 ASSEMBLY LANGUAGE (8080/8085)	3 weeks	(EE7.2)
			EE7A.3 FORTRAN	3 weeks	(EE7.3)
			<u>EE7B(87)</u> COMPUTER HARDWARE		
			EE7B(87).1 ELECTRICAL/ELECTRONIC DEVICES TESTING	3 weeks	W
			EE7B(87).2 MICRO-COMPUTER SYSTEM ANALYSIS	3 weeks	W

REPRESENTATION : W = WIDENED
 H = HEIGHTENED
 P = RECOMBINED

RED. = REDEVELOP
 REM. = REMAINED

	1987												1988												1989												1990																			
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
<u>COUNTERPART</u>																																																								
H.O.D. ()																																																								
NIDZAN B. KAMARUZAMAN																																																								
AZMI BIN ALI																																																								
KU. MOHD. NOOR B. RASHID																																																								
RAMLI BIN SALLEH																																																								
AED. CHANI BIN AEWAD																																																								
AZMI BIN HASSIM																																																								
ROSILINDA BT. DAUD																																																								
SAMSUDA BT. ZAINAL ABIDIN																																																								
To be added :																																																								
Diploma (X)																																																								
Experience (Y)																																																								
<u>EXPERT</u>																																																								
Longterm (Electrical Control)																																																								
Shortterm A (Electrical)																																																								
B (Electrical)																																																								

REDEVELOPMENT OF MODULES

Department : INSTRUMENT & AUTOMATIC CONTROL
Section :

Existing Modules		Modules to be redeveloped			
Module Number and Title Sub-Module Number and Title	Duration of training	To be redeveloped or	Module Number and Title Sub-Module Number and Title	Duration of Training	Type of Redevelopment
<u>I1</u> <u>PROCESS MEASUREMENT</u>		REM			
I1.1 TEMPERATURE MEASUREMENT	2 weeks				
I1.2 PRESSURE AND LEVEL MEASUREMENT	2 weeks				
I1.3 FLOW MEASUREMENT	2 weeks				
<u>I2</u> <u>INDUSTRIAL INSTRUMENTS</u>		REM			
I2.1 PNEUMATIC INSTRUMENTS	3 weeks				
I2.2 ELECTRONIC INSTRUMENTS	3 weeks				
<u>I3</u> <u>ELECT. (HYDRAULIC) CONTROL</u>		RED	<u>I3A</u> <u>AUTOMATIC CONTROL</u>		
I3.1 FEEDBACK CONTROL	4 weeks		I3A.1 FEEDBACK CONTROL	4 weeks	R(I3.1)
I3.2 HYDRAULIC CONTROL	2 weeks		I3A.2 HYDRAULIC CONTROL	2 weeks	R(I3.2)
			<u>I3B(87) DIGITAL CONTROL</u>		
			EE7B(87).2 MICRO-COMPUTER SYSTEM ANALYSIS	3 weeks	R(EE7)
			EE7A(87).2 ASSEMBLY LANGUAGE PROGRAMMING	3 weeks	R(EE7)
			I3B (87).3 BASIC DIGITAL CONTROLLERS	2 weeks	R
			I3B (87).4 DIGITAL CONTROL APPLICATIONS	2 weeks	W

REPRESENTATION : W = WITHDRAWN
H = RELEGATED
R = RECONSTRUCTEDRED. = REDEVELOPED
REM. = REMAINED

Module Sub-Module (capacity)	1987					1988					1989					1990							
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
I3B DIGITAL CONTROL																							
EE7B.2 M-COMPUTER SYSTEM ANALYSIS (10)																							
EE7A.2 ASSEMBLY LANGUAGE (6)																							
I3B.3 BASIC DIGITAL CONTROLLER (8)																							
I3B.4 DIGITAL CONTROL APPLICATIONS (8)																							
ASEAN Regional Training																							

C

B

A(M)

M(A)

G

B

A(M)

M(A)

A(2)M
I3A.7

Revision of
I3A.7

PLAN OF C.P. TRAINING IN JAPAN (OCT. 16, 1986)

SECTION	1987			1988			1989			1990																	
	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3			
TRAINING SOFTWARE																											
AUTOMOTIVE																											
MACHINE OPERATION																											
DIE MAKING																											
WELDING & METAL FABRICATION																											
FOUNDRY & CASTING																											
ELECTRICAL CONTROL																											
INSTRUMENT & AUTOMATIC CONTROL																											

AGENDA: 4

ASEAN PARTICIPANTS

ASEAN PARTICIPANTS

Two courses will be introduced to the Asean participant in July 1987 namely CONTACT CIRCUIT RELAY MAINTENANCE AND REPAIR (E.E. 1.1) and FUEL INJECTION SYSTEM SERVICES (A.1.2), with a capacity of 12 places respectively. All the Asean participants are expected to be sponsored by the Japanese Government. The Centre has planned to offer more courses in future, if response to the courses is encouraging.

AGENDA: 5

OTHER MATTERS

5. OTHER MATTERS

i) Utilization and maintenance of major equipment

The arrival and installation of the machines and equipment in the Centre can be divided into 2 phases, i.e. Phase I and Phase II.

Phase I started in March 1984 till April 1984, while Phase II begins in January, 1985 till March 1985. Up to now, most of the machines and equipment are being utilized for trainings, except for a few, that are yet to be used in the coming courses. (Please see Annex 7)

ii) Proposal of related equipment for module redevelopment

In order to redevelop the module, new related equipment are needed by the Centre. The Centre has thus identified the related equipment as per Annex: 8.

iii) Proposal of training administration to be covered under the second phase of the Technical Cooperation.

In response to the rapid growth of the Centre, the training administration being the focal point, needs to be improved to meet the Industrial relation, course redevelopment, staff redevelopment, participant evaluation and certification requirement.

The proposal includes the following:-

- (a) to despatch an Adviser to assist Counterparts in the management of Training Administration.
- (b) to train its administration personnels in the field of Training Administration
- (c) to provide micro computer and its system for the recruitment of participants and related control system.

ANNEX '7'

LIST OF MACHINERIES AND EQUIPMENT
(UTILIZATION FREQUENCY AND CONDITION)

Department	Quantity	Utilisation Frequency			Condition		
		A	B	C	A	B	C
1) Instructor and Supervisory	173	55	56	62	130	42	1
2) Automotive	23	21	1	1	23	0	0
3) Machine Operation And Die-Making	94	63	31		91	2	1
4) Fabrication	76	61	15		76	0	0
5) Heavyshop	88	82	3	3	85	3	
6) Electrical And Electronic	148	55	48	45	146	2	0
7) Instrument And Automatic Control	125	122	3		124		1
TOTAL :	727	459	157	111	675	49	3

LIST OF MACHINERIES & EQUIPMENT

PSYCHOLOGICAL & EXPERIMENT
& WORK STUDY.

DEPT: INSTRUCTOR AND SUPERVISORY TRAINING

SECTION: _____

MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
1. MIRROR DRAWING INSTRUMENT	1		✓		✓			3/84	4/84
2. PURSUIT TESTER	1		✓		✓			3/84	4/84
3. COORDINATION TESTER	1		✓		✓			3/84	4/84
4. MICRO COMPUTER	1		✓		✓			3/84	4/84
5. OCCUPATION APTITUDE TEST SET	2	✓			✓			3/84	4/84
6. ROTARY SHUTTER CAMERA	1		✓		✓			3/84	4/84
7. (MONITOR TV) MOTION ANALYZER	1		✓		✓			3/84	4/84
8. VTR (NTSC BETAMAX)	1	✓			✓			3/84	4/84
9. VIDEO DIGITAL TIMER	1	✓			✓			3/84	4/84
10. CHRONOCYCLEGRAPH	1		✓		✓			3/84	4/84
11. FLICKER TESTER	1	✓			✓			3/84	4/84
12. DIGITAL STOPWATCH	1		✓		✓			3/84	4/84

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

A = OFTEN
B = SELDOM
C = NIL

CONDITION

A = GOOD
B = FAIR
C = POOR

LIST OF MACHINERIES & EQUIPMENT

DEPT: INSTRUCTOR & SUPERVISORY TRAINING

SECTION: AUDIO VISUAL AID

MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
1. REMOTE CONTROL BOX	1	✓			✓			3/84	4/84
2. CONTROL DESK UNIT	1	✓			✓			3/84	4/84
3. 16 mm PROJECTOR	1	✓			✓			3/84	4/84
4. SLIDE PROJECTOR	1	✓			✓			3/84	4/84
5. AUDIO RACK UNIT	1	✓			✓			3/84	4/84
6. VIDEO PROJECTOR	2	✓			✓			3/84	3/84
7. DATA VIEWER	1		✓		✓			3/84	4/84

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY
A = OFTEN
B = SELDOM
C = NIL

CONDITION
A = GOOD
B = FAIR
C = POOR

LIST OF MACHINERIE & EQUIPMENT

DEPT: INSTRUCTOR AND SUPERVISORY TRAINING

SECTION: AUDIO VISUAL AID

MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
1. COLOUR CAMERA	2	✓				✓		3/84	4/84
2. TRIPOL	2	✓			✓			3/84	4/84
3. AV CONTROL CONSOLE UNIT	1	✓			✓			3/84	4/84
4. SLIDE CONSOLE UNIT	1	✓			✓			3/84	4/84
5. TELOP SYSTEM	1	✓			✓			3/84	4/84
6. EDITING VTR	1	✓			✓			3/84	4/84
7. EDITING CONTROLLER	1	✓			✓			3/84	4/84
8. EDITING CONSOLE	1	✓			✓			3/84	4/84
9. STUDIO MONITOR TV	1	✓			✓			3/84	4/84
10. PORTABLE VTR.	1	✓			✓			3/84	4/84
11. VTR DUBBING SYSTEM	1	✓			✓			3/84	4/84

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

- A = OFTEN
- B = SELDOM
- C = NIL

CONDITION

- A = GOOD
- B = FAIR
- C = POOR

LIST OF MACHINERIES & EQUIPMENT

DEPT: INSTRUCTOR AND SUPERVISORY TRAINING

SECTION: AUDIO VISUAL AID

	MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
			A	B	C	A	B	C	ARRIVAL	INSTALLATION
1.	OVERHEAD PROJECTOR	9	✓				✓		3/84	4/84
2.	T/P PRODUCE MACHINE	2	✓				✓		3/84	4/84
3.	SLIDE PROJECTOR (CABIN)	1	✓			✓			3/84	4/84
4.	SLIDE PROJECTOR (ELMO)	1	✓			✓			3/84	4/84
5.	SLIDE CASSETTER (Missing)	1	✓						3/84	4/84
6.	8 mm CAMERA	1		✓		✓			3/84	4/84
7.	8 mm PROJECTOR	1		✓		✓			3/84	4/84
8.	½" VHS VTR (PORTABLE)	2	✓			✓			3/84	4/84
9.	COLOUR VIDEO CAMERA (VHS)	2	✓				✓		3/84	4/84
10.	½" VHS VTR (PORTABLE)	2	✓				✓		3/84	4/84
11.	14" COLOUR TV	4	✓			✓			3/84	4/84
12.	CASSETTE RECORDER	2	✓			✓			3/84	4/84
13.	35 mm CAMERA	1	✓			✓			3/84	4/84
14.	ELECTRONIC STROBO	1	✓			✓			3/84	4/84
15.	ENLARGER	1	✓			✓			3/84	4/84
16.	DRYER	1	✓			✓			3/84	4/84

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

A = OFTEN
B = SELDOM
C = NIL

CONDITION

A = GOOD
B = FAIR
C = POOR

LIST OF MACHINERIES & EQUIPMENT

DEPT: INSTRUCTOR AND SUPERVISORY TRAINING

SECTION: LANGUAGE LAB.

	MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
			A	B	C	A	B	C	ARRIVAL	INSTALLATION
1.	MASTER CONSOLE UNIT	1			✓	✓			3/84	4/84 (no courses yet)
2.	MASTER TAPE-RECORDER	2			✓	✓			3/84	4/84 (no courses yet)
3.	VEDIO TAPE RECORDER (VHS)	1			✓	✓			3/84	4/84 (no courses yet)
4.	VTR/TV CONSOLE BOX	1			✓	✓			3/84	4/84 (no courses yet)
5.	MONITOR TV	2			✓	✓			3/84	4/84 (no courses yet)
6.	TV STAND	2			✓	✓			3/84	4/84 (no courses yet)
7.	BOOTH CONSOLE	10			✓	✓			3/84	4/84 (no courses yet)
8.	BOOTH TAPE-RECORDER	20			✓	✓			3/84	4/84 (no courses yet)
9.	HEAD SET	21			✓	✓			3/84	4/84 (no courses yet)
10.	ROOM SPEAKER	1			✓	✓			3/84	4/84 (no courses yet)

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

- A = OFTEN
- B = SELDOM
- C = NIL

CONDITION

- A = GOOD
- B = FAIR
- C = POOR

LIST OF MACHINERIES & EQUIPMENT

DEPT: INSTRUCTOR AND SUPERVISORY TRAINING

SECTION: PEDAGOGY WORKSHOP

MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
1. ELECTRIC CIRCULAR SAW	1		✓		✓			3/84	4/84
2. ELECTRIC JIG SAW	1		✓		✓			3/84	4/84
3. ELECTRIC DRILL	1		✓		✓			3/84	4/84
4. ELECTRIC HAND PLANNER	1		✓		✓			3/84	4/84
5. ELECTRIC FRET SAW	1		✓		✓			3/84	4/84
6. ELECTRIC GRINDER	1		✓		✓			3/84	4/84
7. BENCH DRILLING MACHINE	1		✓		✓			3/84	4/84
8. BENDING HEATER FOR POLYACRYL	2		✓		✓			3/84	4/84
9. NF CUTTER	5		✓		✓			3/84	4/84
10. OLFA CUTTER	5		✓		✓			3/84	4/84
11. HEAT CUTTER	1		✓		✓			3/84	4/84

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY
 A = OFTEN
 B = SELDON
 C = NIL

CONDITION
 A = GOOD
 B = FAIR
 C = POOR

LIST OF MACHINERIES & EQUIPMENT

(BY GRAND AID)

DEPT: Automotive

SECTION: _____

MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
1. BRAKE TESTER	1	✓			✓			3/84	4/84
2. CHASSIS DYNAMOMETER	1	✓			✓			3/84	4/84
3. SIDE SLIP TESTER	1	✓			✓			3/84	4/84
4. EXHAUST GAS ANALYZER	2	✓			✓			3/84	4/84
5. INJECTION PUMP TEST BENCH	1	✓			✓			3/84	4/84
6. CYLINDER BORING MACHINE	1	✓			✓			3/84	4/84
7. CYLINDER HONING MACHINE	1	✓			✓			3/84	4/84
8. SURFACE GRINDER	1	✓			✓			3/84	4/84
9. ENGINE DYNAMOMETER	1	✓			✓			3/84	4/84
10. GENERATOR STARTER TEST TEST BENCH	1	✓			✓			3/84	4/84
11. DISTRIBUTOR TEST BENCH	1	✓			✓			3/84	4/84
12. WHEEL ALIGNMENT INDICATOR	1	✓			✓			3/84	4/84
13. AUTO LIFT	3	✓			✓			3/84	4/84
14. STATION WAGON	1	✓			✓			3/84	4/84
15. MICRO BUS	1	✓			✓			3/84	4/84
16. BODY & FRAME REPAIR SYSTEM	1	✓			✓			3/84	4/84
17. SHEARING MACHINE	1	✓			✓			3/84	4/84
18. HAND UNIVERSAL BENDER	1	✓			✓			3/84	4/84

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

A = OFTEN
B = SELDON
C = NIL

CONDITION

A = GOOD
B = FAIR
C = POOR

LIST OF MACHINERIES & EQUIPMENT

DEPT: MACHINE OPERATION AND DIE MAKING

MACHINE OPERATION AND
DIE MAKING

MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
1. WASINO PRECISION LATHE	10	✓			✓			1/85	3/85
2. MILLING MACHINE	6	✓			✓			1/85	3/85
3. JIG BORING MACHINE	1	✓			✓			1/85	3/85
4. BENCH DRILLING PRESS	1	✓			✓			1/85	3/85
5. UPRIGHT DRILLING MACHINE	1	✓			✓			1/85	3/85
6. SHAPING MACHINE	1	✓			✓			1/85	3/85
7. SLOTTING MACHINE	1		✓		✓			1/85	3/85
8. AUTOMATIC COPY MILLING	1	✓			✓			1/85	3/85
9. CNC LATHE	1	✓			✓			1/85	3/85
10. CNC MILLING	1	✓			✓			1/85	3/85
11. CNC EDM	1	✓					✓	1/85	3/85
12. CNC WIRECUT	1	✓			✓			1/85	3/85
13. ENGRAVING MACHINE	1		✓		✓			1/85	3/85
14. BAND SAWING MACHINE	1	✓			✓			1/85	3/85
15. HACK SAWING MACHINE	1	✓			✓			1/85	3/85
16. CYLINDRICAL GRINDING M/C	1	✓			✓			1/85	3/85
17. SURFACE GRINDING M/C	1	✓			✓			1/85	3/85
18. FORM GRINDING M/C	1		✓		✓			1/85	3/85

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

A = OFTEN
B = SELDOM
C = NIL

CONDITION

A = GOOD
B = FAIR
C = POOR

LIST OF MACHINERIES & EQUIPMENT

DEPT: MACHINE OPERATION AND DIE MAKING

SECTION: HEAT TREATMENT

MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
1. AIR HAMMER	2	/			/			1/85	3/85
2. HEAVY OIL FURNACE	1	/			/			1/85	3/85
3. TANK FOR HEAT-TREATMENT	1	/			/			1/85	3/85
4. BAND SAW	1				/			1/85	3/85
5. BENCH DRILLING MACHINE	1	/			/			1/85	3/85
6. BENCH GRINDER	1	/			/			1/85	3/85
7. CLEANER TANK	1	/			/			1/85	3/85
8. UNICASE ATMOSPHERIC FURNACE	1	/			/			1/85	3/85
9. TEMPERING FURNACE	1	/			/			1/85	3/85
10. OPTICAL PYROMETER	2	/			/			1/85	3/85
11. METALURGICAL MICROSCOPE	2	/			/			1/85	3/85
12. ELECTRIC FURNACE	1	/			/			1/85	3/85
13. SALT BATH FURNACE	1	/			/			1/85	3/85
14. AIR COMPRESSOR	1	/			/			1/85	3/85
15. NUMBER PUNCHER DRILLER	1	/			/			1/85	3/85
16. SPECIMAN DRYER	1	/			/			1/85	3/85
17. METALLOGRAPHIC POLISHER	1	/			/			1/85	3/85
18. HAND PRESS	1	/			/			1/85	3/85

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

A = OFTEN
B = SRELDOM
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CONDITION

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LIST OF MACHINERIES & EQUIPMENT

DEPT: MACHINE OPERATION AND DIE MAKING

SECTION: TEST CENTRE

NACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
1. FALLING BALL IMPACT TESTER	1		✓		✓			3/84	4/84
2. ROCKWELL HARDNESS TESTER	2		✓		✓			3/84	4/84
3. RUBBER HARDNESS TESTER	1	✓			✓			3/84	4/84
4. PROFILE PROJECTOR	1		✓		✓			3/84	4/84
5. SURFACE ROUGHNESS TESTER	1		✓		✓			3/84	4/84
6. TOOL MAKERS MICROSCOPE	1	✓			✓			3/84	4/84
7. DOUBLE FLANK GEAR ROLLING TESTER	1		✓			✓		3/84	4/84
8. ROUNDNESS MEASURING MACHINE	1		✓		✓			3/84	4/84
9. TENSILE STRENGTH TESTER	1		✓		✓			3/84	4/84
10. UNIVERSAL SAND STRENGTH MACHINE	1		✓		✓			3/84	4/84
11. TORSEE'S UNIVERSAL TESTING MACHINE	1		✓		✓			3/84	4/84
12. CHARPY'S IMPACT TESTING MACHINE	1		✓			✓		3/84	4/84
13. SAND WASHER	1		✓		✓			3/84	4/84
14. ROTAP SIEVE SHANKER	1		✓		✓			3/84	4/84
15. SAND RAMMER FOR SAND SPECIMEN	1		✓		✓			3/84	4/84
16. PERMEABILITY TESTER	1		✓		✓			3/84	4/84
17. MONITORING SYSTEM	1		✓		✓			3/84	4/84
18. YOKE TYPE MAGNETIC FLAW DETECTOR	1		✓		✓			3/84	4/84

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

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CONDITION

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LIST OF MACHINERIES & EQUIPMENT

DEPT: MACHINE OPERATION AND DIE MAKING

SECTION: TEST CENTRE

	MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
			A	B	C	A	B	C	ARRIVAL	INSTALLATION
19	VICKERS HARDNESS TESTER	1		✓		✓			3/84	4/84
20	BRINELL HARDNESS TESTER	1		✓		✓			3/84	4/84
21	MICRO VICKERS HARDNESS TESTER	1		✓		✓			3/84	4/84
22	ULTRASONIC FLAW DETECTOR	1	✓			✓			3/84	4/84
23	MAGNETIC FLAW DETECTOR	1		✓		✓			3/84	4/84
24	STANDARD MICRO STRUCTURE	1		✓		✓			3/84	4/84
25	METALLURGICAL MICROSCOPE	1		✓		✓			3/84	4/84
26	INDUSTRIAL X-RAY INSPECTION UNIT	1		✓		✓			3/84	4/84
27	SCHOPPER TYPE THICKNESS GAUGE	1		✓		✓			3/84	4/84
28	SPECIMEN PUNCHING MACHINE (CUTTER PRESS)	1	✓			✓			3/84	4/84
29	YOUNG TYPE GRAVITOMETER	1		✓		✓			3/84	4/84

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

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LIST OF MACHINERIES & EQUIPMENT

DEPT: FABRICATION

SECTION: WELDING/METAL FAB.

	MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
			A	B	C	A	B	C	ARRIVAL	INSTALLATION
1.	AC ARC WELDER	15	/			/			1/85	3/85
2.	TIG ARC WELDER	4	/			/			1/85	3/85
3.	PULSED-ARC MIG WELDER	2	/			/			1/85	3/85
4.	CO ₂ AUTOMATIC WELDER	5	/			/			1/85	3/85
5.	SUBMERGED ARC WELDER	1		/		/			1/85	3/85
6.	ENGINE WELDER	1		/		/			1/85	3/85
7.	PLASMA CUTTING MACHINE	1	/			/			1/85	3/85
8.	PORTABLE FLAME CUTTING MACHINE	2	/			/			1/85	3/85
9.	WELDING POSITIONER	1		/		/			1/85	3/85
10.	WELDING DRYER OVEN	1	/			/			1/85	3/85
11.	GAP SHEAR MACHINE (SHS 13 x 205)	1	/			/			1/85	3/85
12.	BENCH DRILLING PRESS	3		/		/			1/85	3/85
13.	BENCH GRINDER	3	/			/			1/85	3/85
14.	HIGH-SPEED CUT-OFF MACHINE	1	/			/			1/85	3/85
15.	AIR COMPRESSOR (GN-5)	1		/		/			1/85	3/85
16.	O ₂ CYLINDER MANIFOLD	10	/			/			1/85	3/85
17.	C ₂ H ₂ CYLINDER MANIFOLD	8	/			/			1/85	3/85
18.	TRIPLE ROLLER MACHINE	1		/		/			1/85	3/85

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

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CONDITION

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LIST OF MACHINERIES & EQUIPMENT

DEPT: FABRICATION

SECTION: WELDING/METAL FAB.

	MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
			A	B	C	A	B	C	ARRIVAL	INSTALLATION
19	HYDRAULIC PIPE BENDER	1		✓		✓			1/85	3/85
20	SHARP CUTTER	1		✓		✓			1/85	3/85
21	PIPE THREADING MACHINE	1		✓		✓			1/85	3/85
22	VIBRO-SHEAR	1		✓		✓			1/85	3/85
23	AUTOMATIC FLAME CUTTING MACHINE	1		✓		✓			1/85	3/85
24	HAND LEVER SHEAR	1		✓		✓			1/85	3/85

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY
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CONDITION
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LIST OF MACHINERIES & EQUIPMENT

DEPT: FABRICATION

SECTION: PRESS WORK

	MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
			A	B	C	A	B	C	ARRIVAL	INSTALLATION
1.	AIR COMPRESSOR (GH - 3)	1	✓			✓			1/85	3/85
2.	PORTABLE SPOT WELDER	1	✓			✓			1/85	3/85
3.	CONDENSER TYPE SPOT WELDER	1	✓			✓			1/85	3/85
4.	POWER PRESS (NCPP - 1075)	1	✓			✓			1/85	3/85
5.	HYDRAULIC PRESS	1	✓			✓			1/85	3/85
6.	PRESS BRAKE	1	✓			✓			1/85	3/85
7.	GAP SHEAR MACHINE (SHS - 6 x 205)	1	✓			✓			1/85	3/85
8.	FOOT SHEAR	1		✓		✓			1/85	3/85
9.	POWER PRESS (NCPP - 1055)	1	✓			✓			1/85	3/85

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

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CONDITION

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LIST OF MACHINERIES & EQUIPMENT

DEPT: HEAVYSHOP

SECTION: FOUNDRY

	MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
			A	B	C	A	B	C	ARRIVAL	INSTALLATION
1.	HIGH FREQUENCY INDUCTION FURNACE	1	✓			✓			1/85	3/85
2.	CRUCIBLE FURNACE	1	✓			✓			1/85	3/85
3.	MIX MULLER	1	✓			✓			1/85	3/85
4.	SAND BLENDER	1	✓			✓			1/85	3/85
5.	JOLT SQUEEZE MOULDING MACHINE	2	✓			✓			1/85	3/85
6.	SHOT BLAST	1	✓			✓			1/85	3/85
7.	SAND BLAST	1	✓			✓			1/85	3/85
8.	MOULD HARDNESS TESTER GHT	2	✓			✓			1/85	3/85
9.	MOULD HARDNESS TESTER DHT	2	✓			✓			1/85	3/85
10.	MOISTURE TESTER	1	✓			✓			1/85	3/85
11.	ELECTRIC DRYING OVEN	1	✓			✓			1/85	3/85
12.	AUTOMATIC BALANCE	2	✓			✓			3/85	3/85
13.	BENCH DRILLING PRESS	2	✓			✓			1/85	3/85
14.	BENCH GRINDER	2	✓			✓			1/85	3/85
15.	SHELL MOULD MACHINE	1	✓			✓			1/85	3/85
16.	VACUUM PUMP	1	✓			✓			1/85	3/85
17.	RAY THERMOMETER	1	✓			✓			1/85	5/85
18.	THERMOMETER	1	✓			✓			1/85	3/85

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

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CONDITION

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LIST OF MACHINERIES & EQUIPMENT

DEPT: HEAVYSHOP

SECTION: FOUNDRY

MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
19. THERMOCOUPLE PYROMETER	1	/			/			1/85	3/85
20. DIGITAL THERMOMETER	1	/			/			1/85	3/85
21. AIR COMPRESSOR	1	/			/			1/85	3/85

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY
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LIST OF MACHINERIES & EQUIPMENT

DEPT: HEAVYSHOP

SECTION: DIE CASTING

MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
1. DIE CASTING MACHINE KDK P-20	1	/			/			1/85	3/85
2. DIE CASTING MACHINE KIK 100 HT	1	/			/			1/85	3/85
3. BELT SANDER	1	/			/			1/85	3/85
4. FORKLIFT	1	/			/			1/85	3/85

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY
A = OFTEN
B = SELDON
C = NIL

CONDITION
A = GOOD
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C = POOR

LIST OF MACHINERIES & EQUIPMENT

DEPT: HEAVYSHOP

SECTION: INVESTMENT CASTING

	MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
			A	B	C	A	B	C	ARRIVAL	INSTALLATION
1.	WAX INJECTION MACHINE	1	✓				✓		1/85	3/85
2.	WAX MELTING TANK	1	✓			✓			1/85	3/85
3.	WAX TEMPERING TANK	1	✓			✓			1/85	3/85
4.	HOT PLATE	1	✓			✓			1/85	3/85
5.	MELTING POT	1	✓			✓			1/85	3/85
6.	DIP SEAL TANK	1	✓			✓			1/85	3/85
7.	ROTATING SLURRY MIXING TANK	3	✓			✓			1/85	3/85
8.	FLUIDIZER BED	2	✓			✓			1/85	3/85
9.	AUTO-CLAVE FOR DE-WAXING	1	✓			✓			1/85	3/85
10.	BAKE-OUT FURNACE	1	✓			✓			1/85	3/85
11.	LADLE FURNACE	1	✓			✓			1/85	3/85
12.	CUTTING MACHINE	1	✓			✓			1/85	3/85
13.	BELT SANDER	1	✓			✓			1/85	3/85

KEYNOTE: TICK IN THE RELEVANT COLUMN

UTILISATION FREQUENCY

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CONDITION

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LIST OF MACHINERIES & EQUIPMENT

DEPT: HEAVYSHOP

SECTION: RUBBER

MACHINERIES & EQUIPMENT	QUANTITY	UTILISATION FREQUENCY			CONDITION			DATE OF	
		A	B	C	A	B	C	ARRIVAL	INSTALLATION
1. HORIZONTAL RUBBER INJECTION MOULDING M/C	1	✓			✓			1/85	3/85
2. VERTICLE RUBBER INJECTION MOULDING M/C	1	✓			✓			1/85	3/85
3. BALE CUTTER	1			✓	✓			1/85	3/85
4. RUBBER MIXING MILL	1	✓			✓			1/85	3/85
5. YOUNG TYPE GRAVITOMETER	1	✓				✓		1/85	3/85
6. CUTTER PRESS	1		✓			✓		1/85	3/85
7. THICKNESS GAUGE 5mm φ	1	✓			✓			1/85	3/85
8. COMPRESSION SET TESTER	1			✓	✓			1/85	3/85
9. THICKNESS GAUGE 9.5 mm φ	1			✓	✓			1/85	3/85

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