



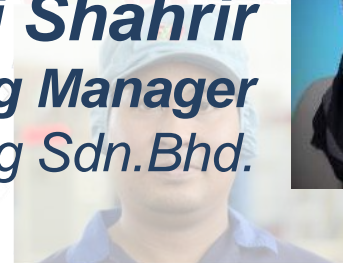
# Technical Competency Development Program

ICLAD2019

2nd & 3rd October 2019

Movenpick Hotel and Convention Centre KLIA, Sepang

**Nur Albi Shahrir**  
**Technical Training Manager**  
F&N Beverages Manufacturing Sdn.Bhd.







Taman Perindustrian Pulau Indah  
Pulau Indah, Selangor



Persiaran Kuala Selangor, Seksyen 26,  
40400 Shah Alam, Selangor







# F&N Manufacturing ABP / KRA Workshop

Manufacturing Full Year Briefing



TPM &  
Technical Training

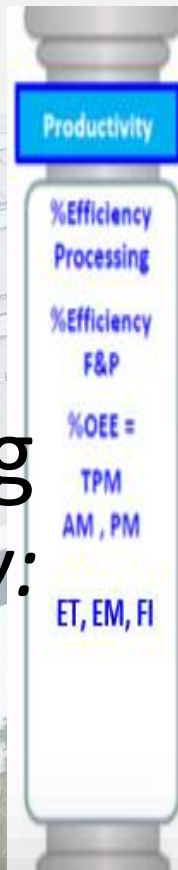




# F&N Manufacturing ABP / KRA Workshop

## Manufacturing Full Year Briefing

### TPM & Technical Training *E&T Pillar Strategy:*



#### Manufacturing Strategy :

1. Low cost producer at high quality standard,
2. Continuous Excellence,
3. Build people competency transform to innovation organization culture,
4. Sustainability

Program	Target Participants	Objective
In-house Technical Operator (TO) Development	Semi-Skill Operator Technician	To skill upgrade
Technical Expertise (TE) Development Program	Technical Operator (Polytechnics Batch 1)	To skill upgrade for job scope expansion   Machine Specialist  Training Required   <ul style="list-style-type: none"><li>• Electrical</li><li>• Automation</li><li>• Instrumentation</li></ul>
Technical Training New Product	Engineers Technician New Hire	Water & Aseptic
Train the Trainers	Engineers, Technicians	Continuous Improvement Program

# Down the memory lane...

**Launching of MDWT  
Module 1 – Mini Business  
Goal Alignment  
MDWT structure set up  
Training / Refresher course**

ICC Kick off  
2006/07

Aug, 2013

Jan, 2014

Apr, 2014

**Launching of Module 2  
– 5s Visual Workplace  
Training**

**Launch of Module 3–  
Problem Solving  
Training**

**Module 3 – Problem  
Solving Workshop**

**New MLM Super  
League**

**Autonomous  
Maintenance & 5S**

**Coaching Review re-  
alignment**

Nov'13  
TPM Kick-off

Monthly  
Coaching  
Review

Multi Level  
Meeting

June, 2014

5s Audit –  
Wave 1

Dec, 2014

Feb 2015

Apr 2015

July 2015

Aug - Sept  
2015

2016  
onwards...







TPM Kick-Off - 8<sup>th</sup> January  
2014





# The 4-Pillar Heads- leading the way





# TPM 4 Key Pillar Training



## TPM 4 Key Pillar Training

The 4 key pillar training provide participants with a good overview of the concepts and practical approached in implementing an effective TPM program. The training is designed to be interactive discussion to share thoughts, ideas and experiences





# F&N Dairies Mfg TPM Steering Committee

pure enjoyment . pure goodness 

## CHAIRMAN

Mr Ooi Peng Hock  
GM, Manufacturing



Ms Nur Albi,  
Technical Training  
Mgr  
(Promotion Office)



Ms Loh Lai Ching  
Mgr, Plant Operation,  
Processing  
(Promotion Office)



Ms. Keng Wei Wei  
Manager, Co-Mfg  
(Promotion Office)



Mr. Ng Weng Heng  
Industrial Engineer  
(Promotion Office)



Mr. Ng Weng  
Heng  
Industrial  
Engineer  
(FI Pillar)



Mr Chang Yit  
Wah  
Mgr, Plant  
Operation,  
Filling &  
Packing  
(AM Pillar)



Mr Soo Chee  
Weng  
Engineering  
Mgr, Eng  
Services  
(PM Pillar)



Ms Nur Albi,  
Technical  
Training Mgr  
(E&T Pillar)



Mr Michael  
Cheong  
Snr Mgr, R&D  
Dairy  
(EM Pillar)



Ms Woo Mei  
Leng  
Asst Mgr,  
Finance  
(OT Pillar)



Ms Christine  
Lee  
Head of  
Quality  
(QM Pillar)



Mr  
Rasanyagam  
E. Nadarajah  
Asst Mgr, SHE  
(SHE Pillar)



Mr Safaruddin  
Jemain, Mgr, Plan  
Operation,  
Can Making  
(AM Pillar)



Ravintharan  
AM Pillar Leader  
CMS



Gary Low  
E&T Pillar  
Leader CMS



Kusraju  
FI Pillar Leader,  
CMS



Mohd Fauzi PM  
Pillar Leader,  
CMS



Ms Emmy Mazlinah  
Mgr, Human  
Capital  
(OT Pillar)

Can Making  
Section



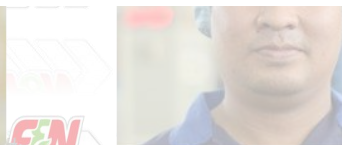
**People  
Resistance**

**Benefit**

**Challenges**

**2019  
Sugar Tax  
*reformulation***









# Evaluation & Assessment

Pre & Post







# TECHNICAL TRAINING SECTION

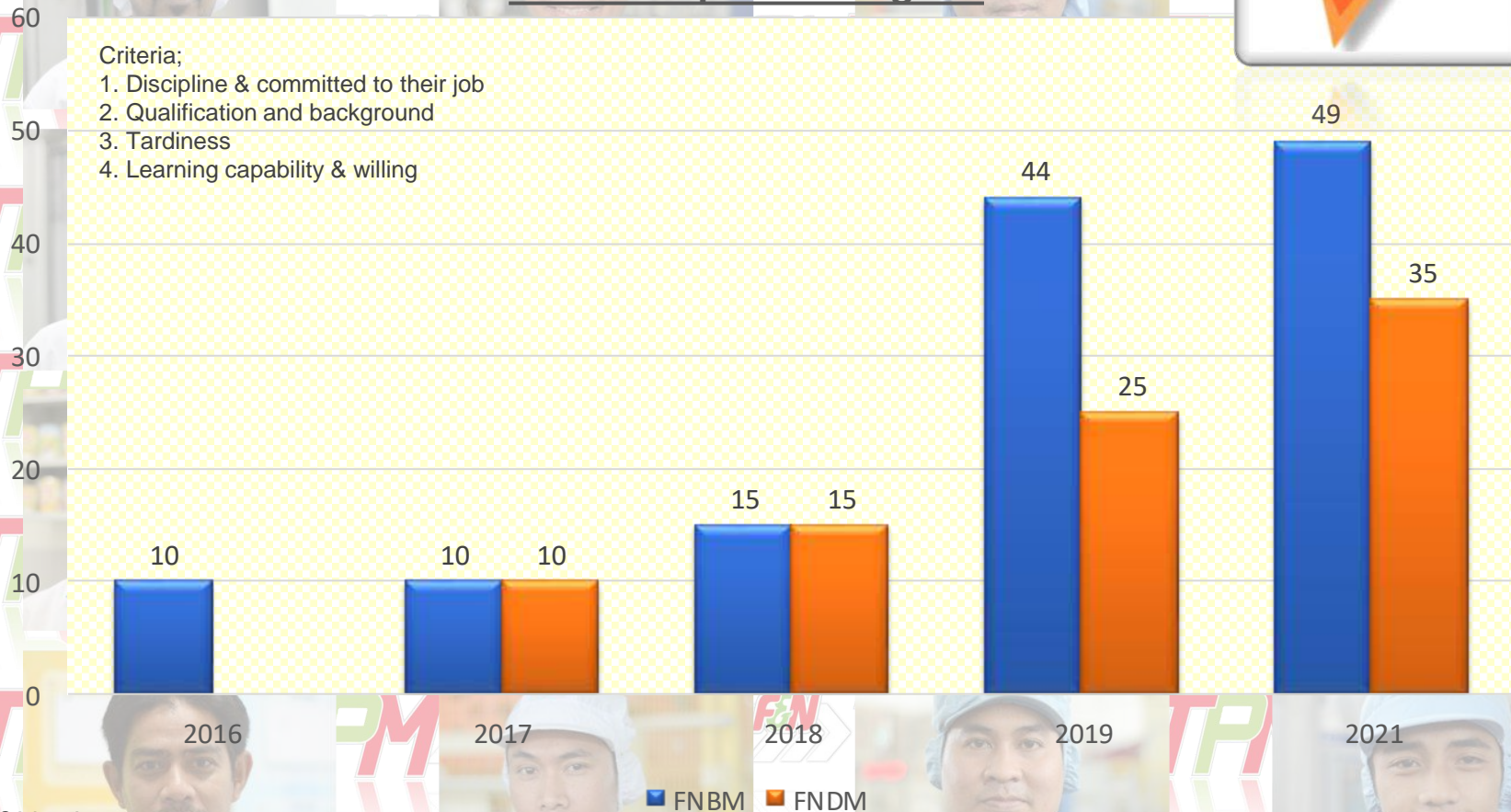
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## TO Development Program

Criteria;

1. Discipline & committed to their job
2. Qualification and background
3. Tardiness
4. Learning capability & willing



Objective:

1. To improve AM Implementation
2. Skill upgrade





# TECHNICAL TRAINING SECTION

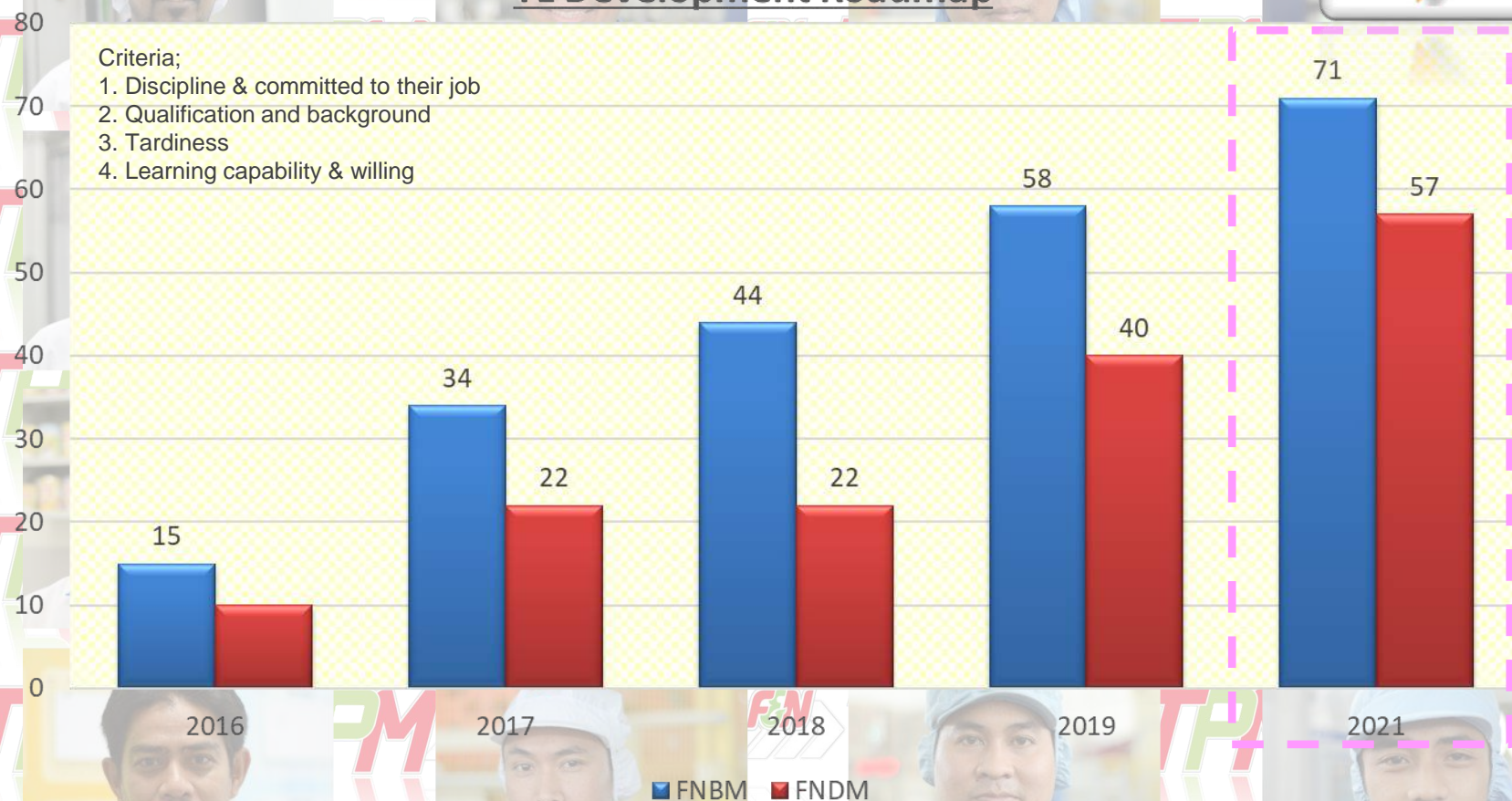
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## TL Development Roadmap

Criteria;

1. Discipline & committed to their job
2. Qualification and background
3. Tardiness
4. Learning capability & willing



Objective:

1. To improve AM Implementation
2. Skill upgrade





# TPM – Education & Training

## Manufacturing







# TECHNICAL TRAINING SECTION

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Training and Education Is the foundation for the other elements. Operators, maintenance and stakeholders receive the correct training for improving operator and maintenance skill levels.

Also by making material available for self development fosters equipment competent employees through TPM.



Education & Training

"A CONTINUOUS LEARNING PROCESS"

- ✓ Develop multi skills
- ✓ Enhance knowledge & skills level
- ✓ Upgrade employee skills
- ✓ Elevate competency of workforce



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## TECHNICAL TRAINING SECTION

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# TO Development Plan

**Enabler :**

## Semi Skilled

## ~~In-House TO Program~~

## Skilled

TO Development Program-10 Pax				Attended																			
TO Development Program-10 Pax		Mechanical								Automat			Electrical		Instrumentation			Electri					
Subject		Hydraulic System, Application & Pump Application, Operation & Pneumatic System, Bearing System, Application & Bolt & Nut measureme nt Training Basic Valve Principal Operation Bearing System, Application & Pump Inspection & Autonomous								Siemens PLC Introduction			Basic Electrical for Operator Electric motor and Starter &		Basic Flow measureme Basic Pressure Basic Temperature Basic Controller Kursus Asas Pendaivarian								
Trainer		Azmir	Prakash	Azmir	Prkash	Asyraf	Asyraf	Ashraf	Azmir	Najmi			Fauzi	Fauzi	Bala n	Najmi	Noriz am	Najmi	Fauzi				
Month		September'17		October'17		November'17		Decem	December	January'18		Februar		April'18		May'18		June'18		July'18		August'18	





# TECHNICAL TRAINING SECTION

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## Training & Practical







# TECHNICAL TRAINING SECTION

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## Training & Practical

Hands on training for technical students



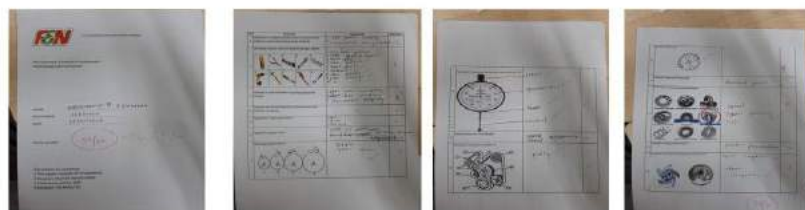
F&N Dairies Manufacturing Sdn Bhd  
Polytechnic assessment INTERNAL TRAINING SCHEDULE (OJT)

Year : 2016/17		Month	SCHEDULE											
No	Module	Item	Dec			Jan			Feb					
			W	T	F	W	T	F	W	T	F	W	T	F
1	Manufacturing Technology	Occupation Safety & Health												
		Technical Drawing												
		Hand Tools												
		Drilling												
2	Power Transmission & Maintenance	Belt Drive												
		Chain Drive												
		Gear Drive												
		Shaft & Bearing												
3	Production Operation	Machine equipment												
		Documentations knowledge												
		Conveyor function												
		Machine function												
4	Service Equipment & Machinery	Production & Capacity Planning												
		Quality & Productivity												
		Check abnormal equipment												
		Gear Drive and shaft Alignment												
5	Electronic Maintenance	Maintenance Plan Schedule & Check list												
		Modification for maintenance & service												
		Lubrication method and type												
		How to Test equipment												
6	Electrical Maintenance	Understanding Electronic components												
		How to Testing electronic components												
		Understanding Schematic Circuit Diagram												
		Troubleshooting Faulty on Electronic equipment												
7	Electro-Hydraulic	Principle of Electrical Circuit												
		Electrical Circuit Diagram												
		AC 240v, 415v and DC power supply												
		Protection Device												
8	Machine OJT When they carry schedule maintenance	Electrical motor starter												
		Electrical Equipment												
		Measuring & Testing												
		Understanding Hydraulics System												
9	Machine OJT When they carry schedule maintenance	Component's Hydraulic & Electro-Hydraulics												
		Switches & Sensors												
		Electro-Hydraulic Circuit Design												
		Electro-Hydraulic Maintenance & Troubleshooting												
10	Machine OJT When they carry schedule maintenance	Kiram Filler (Seamer)												
		Mat Nayan (Krones)												
		Shamsa (JBT Sterilizer)												
		Hanif (Krones & Gernex)												

## Various Section Plant



## EXAMPLE OF THEORETICAL QUESTIONS



The topics to be covered are:

- Manufacturing Technology
- Power Transmission & Maintenance
- Production Operation
- Symbols
- Service Equipment & Machinery
- Electronic Maintenance
- Electrical Maintenance
- Electro-Hydraulic





# TECHNICAL TRAINING SECTION

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## TO Evaluation

Evaluation by Managers & Supervisors



# Evaluation

## Competency Assessment | Shah Alam Plant

For position  
Untuk jawaban

Category:

Date: 7/20/18

**Syllabus:**  
Kursus

Skill			With tools on the job	
0				<div><div></div><div></div></div>
1	2	Can do the basics	<ul style="list-style-type: none"> <li>Has Received instruction from Level 4 instructor</li> <li>Has performed task correctly before a Level 4 instructor.</li> </ul>	<div><div></div><div></div></div>
2	3	Can do fully	<ul style="list-style-type: none"> <li>Qualified by Level 4 Instructor</li> </ul>	<div><div></div><div></div></div>
3	4	Can teach others how to do	<ul style="list-style-type: none"> <li>Has taught or audited another person's work within 90 days</li> </ul>	<div><div></div><div></div></div>
4				

No	Competency:  (list of items contributing to the same competency)	Description:  (explain how/what to do)	Rating: - standard - optional - bonus	Assessment: - Yes - No	0	1	2	3
1	Main Electrical Installation							
	MSB	Basic Operation and application.						
	MCCB	Basic Operation and application.						
		tion and application.						
		tion and application.						
		tion and application.						
		tion and application.						
		tion and application.						
		nd spare parts required						
		tion and application.						
		tion and application.						
		in and method.						
		tion.						
		nd parts required.						
		tion and application.						
		tion and application.						
		in and method.						
		tion and application.						
		Vaintenance required.						
		Vaintenance required.						
		tion and application.						
		erter						
		ind configuration.						
		tion and application.						
		est.						
		Insulation Test.						
		Resistance Test.						
		Load measurement.						





# TECHNICAL TRAINING SECTION

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## TE Development Plan

Enabler :

TL/TO/  
Technician (Eng)

1. In-House & OEM Machine Training Program
2. Automation Training

Technical  
Specialist

OR

Technical  
Expert

Basic Electrical & Wiring for Operator								Electric motor and starter & protection				Basic automation for Operator																Siemens PLC Introduction			Siemens S7 SIMATIC S7-300 Programming & Service				Basic Flow measurement															Basic Pressure Measurement			Basic Temperature Measurement			Basic Controller Function		
Fauzi								Paapalan																Norizom			Norizom				Balan															Najmi			Norizom			Najmi						
S1	S2	S3	S4	S5	S6	S7	S8	S1	S2	S1	S2					S1	S2	S3	S4	S2	S3										S1	S2	S3	S1	S2	S3	S1	S2	S3																			

In-house Trainer

Engineering Department



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# Politeknik Collaboration Partner





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## Training & Practical







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## Politeknik Training & Practical







# TECHNICAL TRAINING SECTION

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## Politeknik Training & Practical







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Politeknik  
Training & Practical







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## Graduation 2018







# TECHNICAL TRAINING SECTION

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## Graduation 2018







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## Skill Map – Departmental Competency Analysis



- Focus Group – Executive and above
  - Staff Listing Manufacturing FNBM (Prod Main, APET, UHT, QA, QC, Engineering)

EE/Department Description	EE/Position	EE/Position
J/Manufacturing - Engineering	CENTSA	ENGINEER, SHIFT UTILITIES
MANUFACTURING - PRODUCTION (TETRA PAK)	CENTSA	ASSISTANT MANAGER, SHIFT
MANUFACTURING - QUALITY ASSURANCE	CENTSA	EXECUTIVE, QUALITY ASSURAN
MANUFACTURING - Engineering	CENTSA	PRODUCTION ENGINEER
MANUFACTURING - MANUFACTURING SERVICES	CENTSA	SENIOR EXECUTIVE, TPM
J/Manufacturing - QUALITY ASSURANCE	CENTSA	EXECUTIVE, LAB
J/Manufacturing - Engineering	CENTSA	ENGINEER, SHIFT UTILITIES
MANUFACTURING - Engineering	CENTSA	ENGINEER, MAINTENANCE SYS
MANUFACTURING - Engineering	CENTSA	EXECUTIVE, QUALITY CONTROL

- ✓ Engineer
- ✓ Exec & Sr. Exec
- ✓ LOE
- ✓ AM
- ✓ Manager

Identify Skill Gap

## Continuous Evaluation & Assessment

- Job scope
- Multi-skill & Multi-task

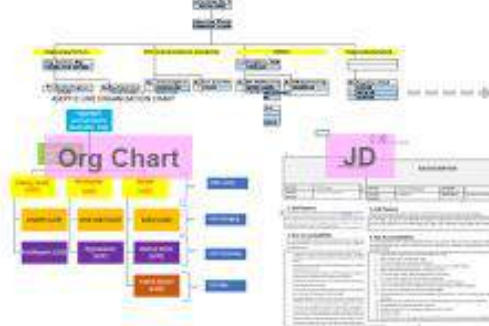
Competency

✓ Knowledge

✓ Skill

Ability

Skill Map



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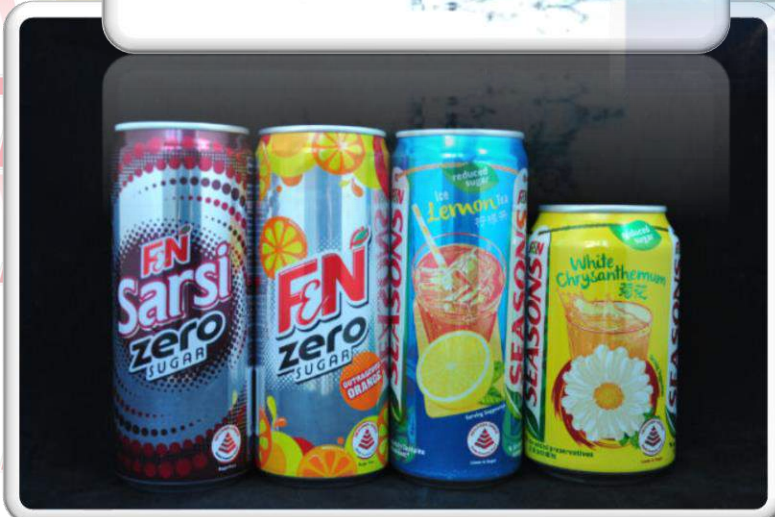






# TECHNICAL TRAINING SECTION

TPM Office MANUFACTURING SERVICES







# *Thank you*

*Make People before Make Product  
-Konosuke Matsushita*

