# BUSINESS PROCESS AUTOMATION

bpa.viewiss.com





#### **Business Process Automation**



#### **TAILOR MADE**

Exclusively developed for SMEs/Batch Process Industry. Unlike other ERPs available in the market, our software automates many actions without involving human.

#### **BUSINESS LOGIC MODULE**

**Business Logic Module** - the brain of our software, stores all your business logics, rules and procedures and guides/controls the entire Software!

#### CLOUD

The entire ERP is web-based and hosted in cloud server. It can also work in local LAN connected machine!

#### Benefits of Our Cloud Server

No investment for you on server, its repair, maintenance and replacement.



No need to employ a person to maintain the server and also the AMC cost gets saved!



You can access the data from your Computer/Mobile 24x7 from anywhere which wont be possible if the software is installed on local machine.







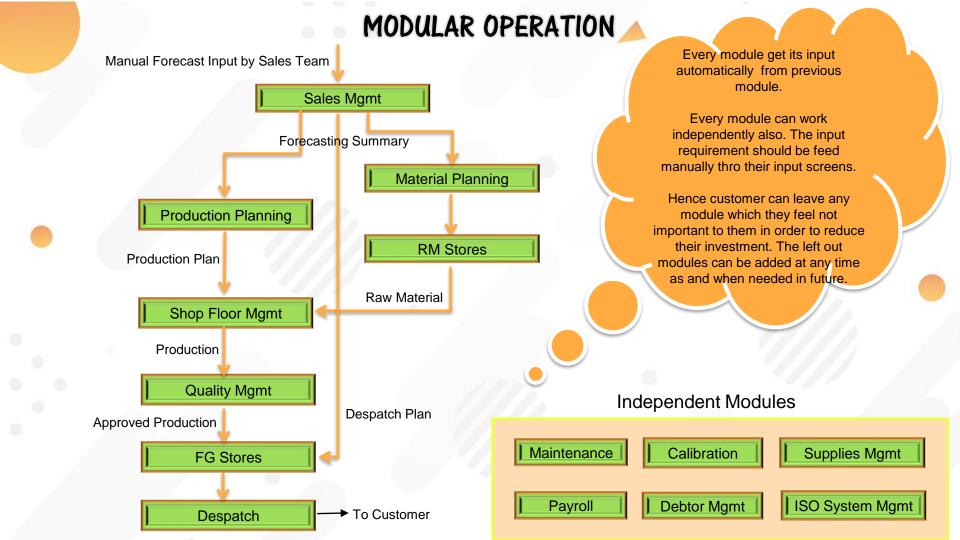
No need to invest for software for every site and can use the same software for all sites



No need to worry about taking backup of your data regularly since it will be taken care of us!



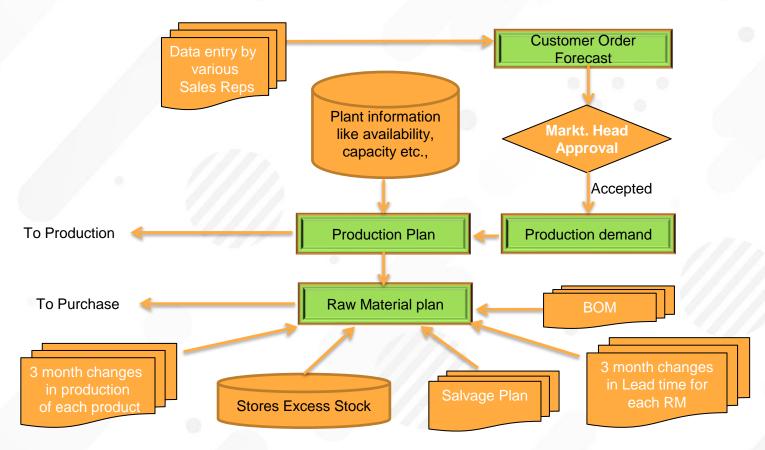
Offices at multiple locations will be greatly benefited if the software is hosted in cloud server as accessing the data becomes very easier.



#### BUSINESS LOGIC MODULE

- ✓ This a special module in our system which is not available in many other ERPs.
- ✓ It stores all business logics and rules (provided by us with our experience and provided by you) to control the operation of the software.
- ✓ It tracks all Plant operation connected activities and
  - Automatically Sends SMS/Voice call to maintenance after B/D. Intimation is entered by production dept.
  - Automatically Sends material request to purchase every week on list of Materials to be ordered.
  - Generates Production planning automatically with RM Plan and updates regularly for any change.
  - Reviews Productivity trend month-on-month.
  - Tracks production trend & RM lead time trend and changes min. stock accordingly and send message to top management on inefficiency if any.
  - Tracks RM Inventory and controls ordering to eliminate NON-Moving stocks
- ✓ It analyses the whole month data and automatically prepares exception report to the management on the following topics once a month for review.
  - Poor order conversion rate by region / sales person, not meeting sales budget by region / sales person.
  - Failure rate of delivery month-on-month.
  - Summarize Excess RM consumption batch-wise.
  - Decrease in Production efficiency, increased quality rejections, increase in downtime if any.

## Sales Forecasting - Production Planning - Material Planning



#### Marketing Forecasting

- ✓ Every sales representative across the country is given their individual login.
- ✓ They can enter customer order/forecast data in their computer/mobile from wherever they are.
- ✓ They can also update the date of requirement/quantity (or) cancel the order altogether at anytime across the month as long as production is not started for that particular order.
- ✓ These information gets summarized by our system as forecast for the month.
- ✓ The forecast can be seen by HODs for approval.
- ✓ Only after approval, this forecast will be made available to concern people for further action.
- ✓ Sales people can see their order status anytime from mobile like Approval Status, Production planning date, production completion date, etc., till it gets dispatched from the plant!

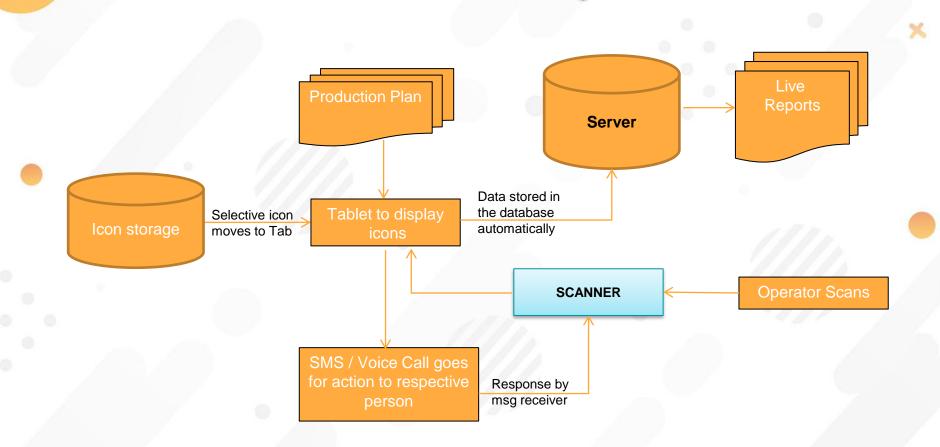
## **Production Systems**

There are 2 system of machine arrangements in the shop floor,

- □ Line system Machines meant for different process are grouped and arranged in process sequence to produce certain Products. Most of the shop floor which are producing fixed set of products have this system.
- □ Process system Machines meant for a particular process are grouped together in single place. Any product that needs this Process comes to this pace to complete the Process. Most of the shop floor which are producing vide range of products with varying demands have this system.

Each system has its own advantages and disadvantages. Process based system is more complex in the context of planning & management. Therefore the entire presentation is based on process system.

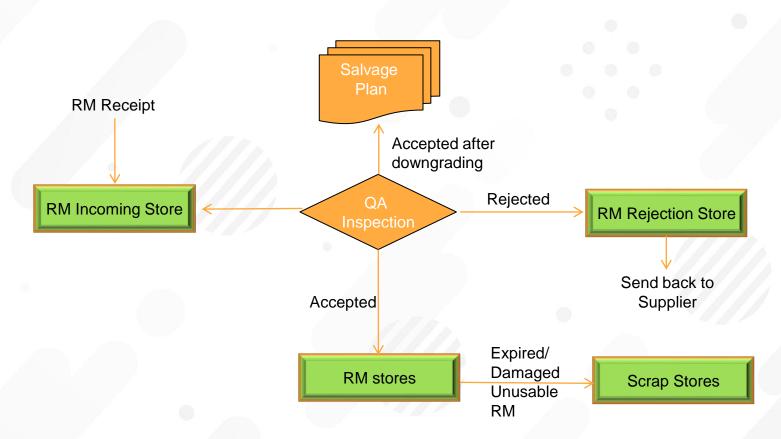
## **Production Planning**



#### **Production Planning**

- Our software automatically generates **production plan** which will be available instantly for everyone who are authorized to see it. Production plan will be updated automatically whenever forecasting undergo changes.
- ✓ In case many line/plants available to execute an order, our logic module gives you option to select the line/plant and it will schedule the production. For this purpose, it will show you the start date and end date of production in each case based on their availability after previous production.
- ✓ You can also give one time instruction to our logic module so that it automatically decides production line and planning will be done in best possible way without your intervention!
- The current production and next production will automatically appear in shop floor tab screens. No need to circulate production plan whenever it is updated across plant. Big human work is eliminated.
- ✓ This production plan is also automatically updated if there is any delay in completion of production as per plan.
- ✓ Saves a lot of time of executives who can concentrate in other area of his job.

#### **RM** Stores

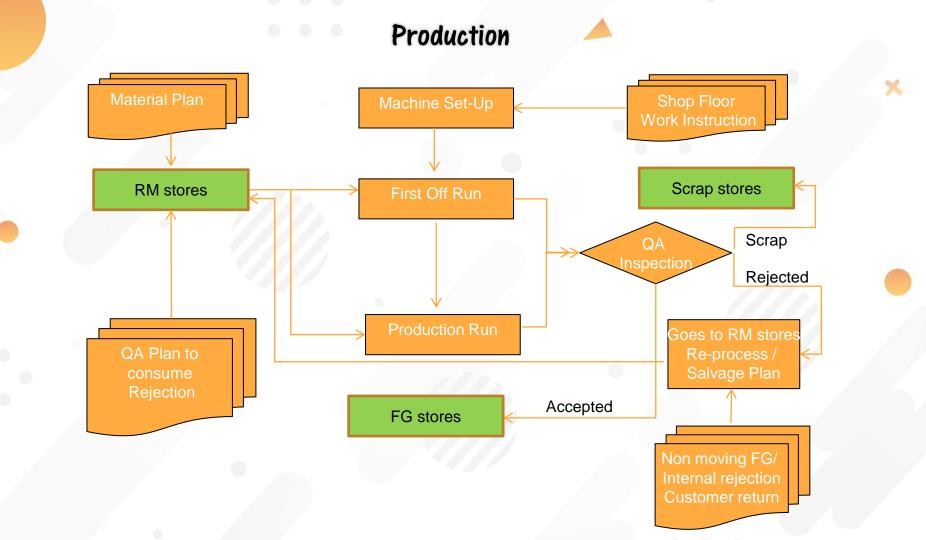


## Material Planning

- ✓ Based on the production plan, Material Planning is automatically generated by our software and it also automatically selects low cost BOM at current RM price among BOMs available for a product!
- ✓ In the month end, if the sales has not happened as per the plan, then there will be excess RM in stock. Our Logic Module automatically tracks this excess RM & forces Material planning module to reduce RM quantity to the extent of excess stock!
- ✓ Purchase person can order only this quantity which is the latest updated qty as on that date. Hence no chance of excess ordering by mistake.
- ✓ It is a practice in almost all organizations to look at **non-moving stock at regular interval and** take necessary action to reduce it. But our software **eliminates the generation of such an excess stock altogether** and your working capital is slimmed down!
- ✓ Our software calculates lead time stock, safety Buffer to know the minimum stock level and fixes maximum stock level by adding economic order qty for each order. These calculations are done once in three months automatically. Therefore the minimum stock gets corrected automatically as per changes in production and changes in lead time of Material supply.

#### RM Stores & Material Issue

- ✓ Production Person selects the batch no. in the computer, the complete material list as per BOM, Qty for each RM as per Production Plan, Qty already drawn & Balance Qty yet to draw appears in the screen. He just needs to edit "Balance qty yet to draw" column, if required and press "Send to store" button. Not possible for wrong material selection & wrong calculation of quantity!
- ✓ Stores person can see the request in the screen and issue RM to the production person after scanning the ID card as acknowledgment of receipt. And software automatically adjusts stock.
- ✓ No need to prepare any physical issue slip by Production. No need to make detailed data entry by stores person.
- ✓ When Production returns any excess material back to store, Stores person can select the Batch no. to get the list of material issued for that Batch. He can then enter the quantity being returned.
- ✓ Any excess consumption will appear in exception report to management batchwise, anytime.



## Scanning System in Production Shop floor for Data Capturing

Data storage without typing anything in shop floor is our goal here!

There will be sets of scanners & tabs installed on the wall in shop floor at different places.

Employees will have barcode included in their ID card. Shop floor Employee will scan his ID card and can touch any one icon (like mech B/D, electrical B/D, No order, No RM) displayed on the tab screen.

Icons will change dynamically based on the person scanning and production status of line.

Software captures and stores information like employee name, current time, reason for scanning etc., in the database.

And automatically sends SMS / Voice call to respective department intimating the information for further action.

The details of information scanned are shown in the following slides...

#### Tablet Screen in Shop Floor

Running Customer Order: L2323 Product: AN3432 Quantity: 70000 Start Time:19/02/19 18:35













Electrical B/D

Mechanical B/D

**Production Start** 

**Production End** 

Power Failure

**Quality Failure** 







Scrap



No Order

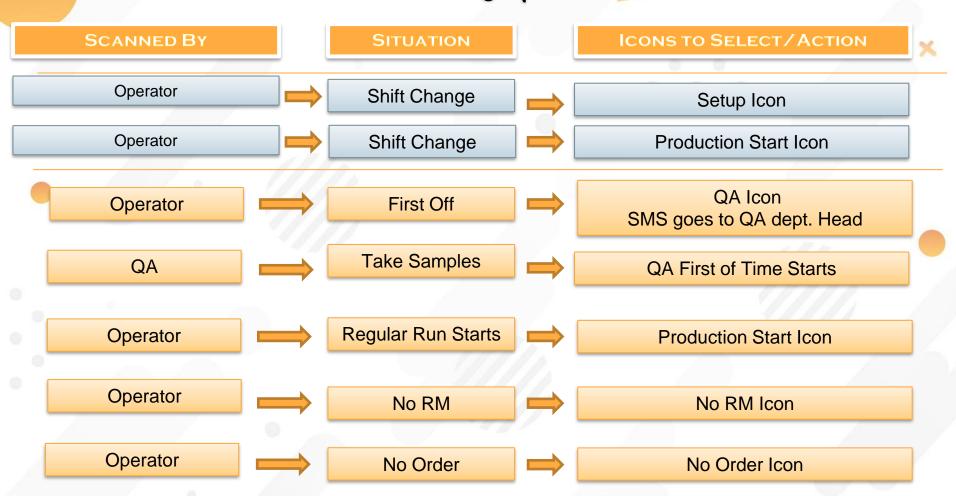


No RM

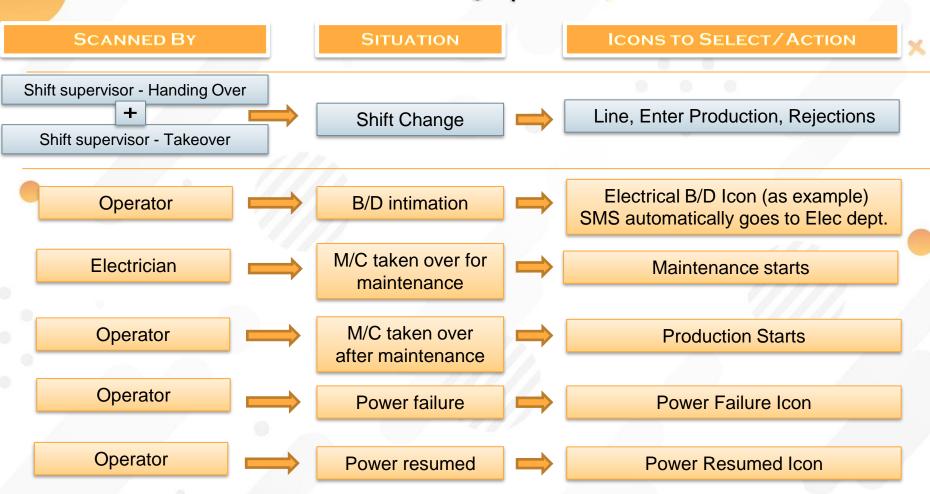
Scanned Employee: Ram Scan Time: 20/02/19 17:20 Scan Remarks: Under Mechanical Breakdown

Next Customer Order: K2313 Product: SN2319 Quantity: 80000 Expected Start: 20/02/19 07:40

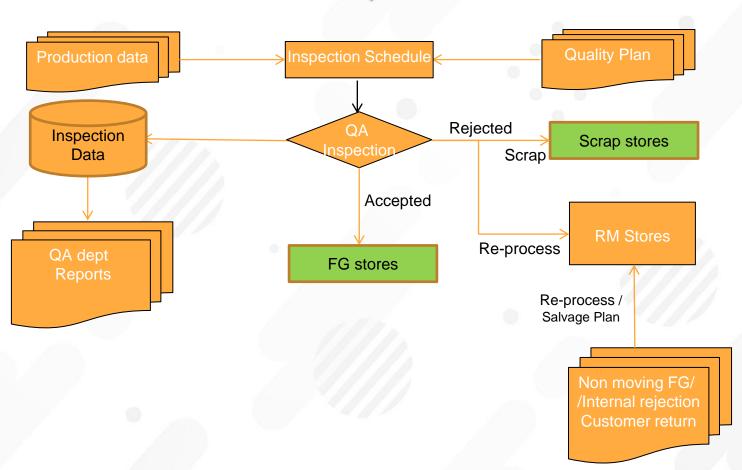
## Scanning System



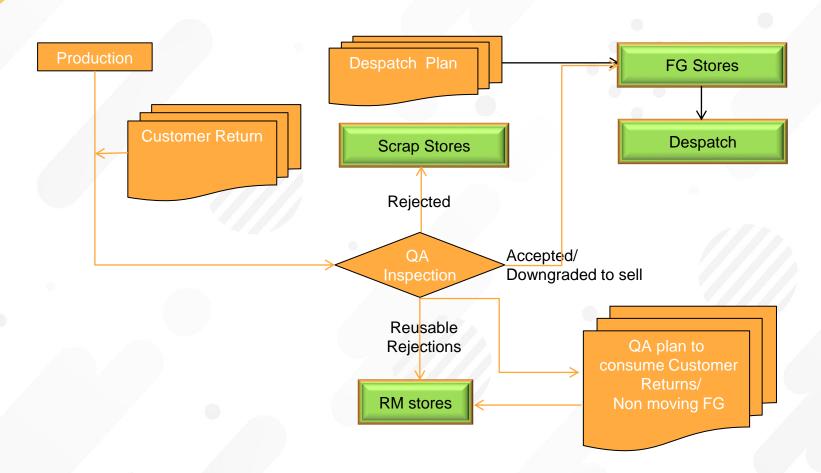
#### Scanning System



## Quality



**FG** Stores



#### QA & FG Stores

#### **QA APPROVAL**

- ✓ QA screen automatically displays QA inspection plan for current production as per the Quality Plan. The inspection data screen will automatically appears showing inspection parameters, limiting values, space to enter actual values and approval status.
- ✓ Concern person needs to fill the on-screen inspection report.
- ✓ Also salvage plan for rejected items can be filled, if possible. Our system will make sure to include these rejections in BOM as per the recommendation in next opportunity. No one needs to remember them and follow up which is impossible.

#### **FG STORES**

- ✓ Stores person can see the list of approved Products with Quantity by QA. After physical verification, he can just click ok button and they will appear in stock and he can issue them for despatch.
- ✓ No paper work by anyone!

#### Reports

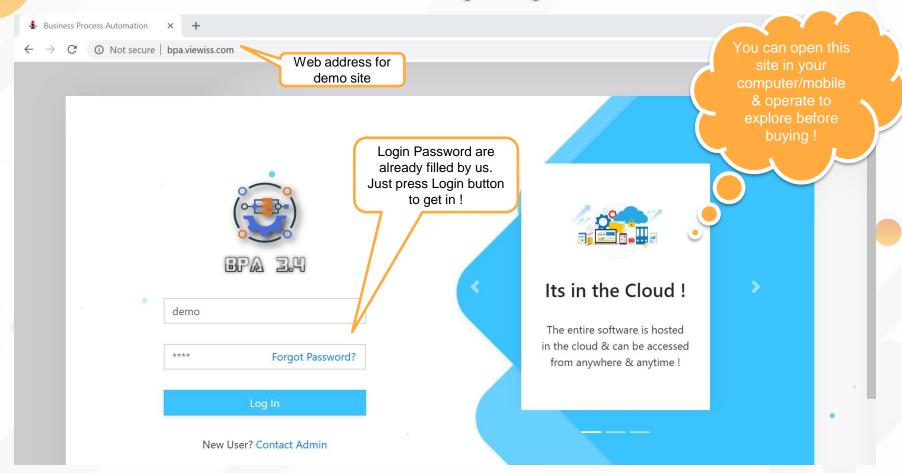
#### **Daily Reports**

- ✓ Marketing Forecast.
- ✓ Production Summary.
- ✓ Productivity.
- ✓ Downtime.
- ✓ Current Status report.

#### ■ Analytical Reports

- ✓ Operator Performance analysis.
- ✓ Machine Under capacity analysis.
- ✓ Productivity Trend.
- ✓ Downtime Trend.
- ✓ Power Failure Trend.

#### Demo Site - Login Page



#### Landing Page

Business Process Automation

MIS Reports menu is selected. It displays all its sub menu.

PPC\* Production Quality\* Stores\* MIS Reports Masters\*

#### Daily Reports

**Current Status** 

Forecast

Production Schedule \*

Productivity

**Prodn Summary** 

#### Trend Charts

**Production Trend** 

**Downtime Trend Chart** 

**Productivity Trend** 

**Power Failure Trend** 

Sales Trend Chart \*

On-Time Despatch Trend \*

#### Analytical Reports

Planning Efficiency

Schedule Adherence \*

On-Time Despatch

Despatch Performance

**Operator Performance Analysis** 

**Under Capacity Analysis** 

\* Marked Items are not available to access in demo.

Marketing Forecast



Bold letter show the screen you have entered



BPA 3.4

**CURRENT STATUS** 

FORECAST

PRODN SCHEDULE



Forecast

	Torecast									
Customer	Product	<b>Qty Needed</b>	Needed On	<b>Entered By</b>	Entered On					
Cus4	Pd2	40000	09/04/2019	Ram	24/04/2019					
Cus1	Pd1	25000	13/04/2019	Suki	25/04/2019					
Cus1	Pd2	25000	15/04/2019	Suki	25/04/2019					
Cus4	Pd2	20000	17/04/2019	Ram	24/04/2019					
Cus2	Pd1	15000	18/04/2019	Suki	25/04/2019					
Cus3	Pd3	30000	19/04/2019	sandanam	24/04/2019					
Cus2	Pd2	20000	22/04/2019	Suki	12/05/2019					
Cus3	Pd3	40000	25/04/2019	sandanam	07/05/2019					
Cus4	Pd2	30000	29/04/2019	Ram	28/04/2019					
Cus4	Pd2	40000	07/05/2019	Ram	24/04/2019					
Cus1	Pd1	25000	10/05/2019	Suki	25/04/2019					
Cus2	Pd1	15000	12/05/2019	Suki	25/04/2019					
Cus1	Pd2	25000	15/05/2019	Suki	25/04/2019					
Cus4	Pd2	20000	17/05/2019	Ram	24/04/2019					
Cus3	Pd3	30000	18/05/2019	sandanam	24/04/2019					
Cus2	Pd2	20000	22/05/2019	Suki	12/05/2019					
Cus3	Pd3	40000	25/05/2019	sandanam	07/05/2019					
Cus4	Pd2	30000	28/05/2019	Ram	28/04/2019					

Clicking this icon will download the report to your computer as excel file.







CURRENT STATUS

FORECAST

PRODN SCHEDULE

PRODUCTIVITY

PRODN SUMMARY

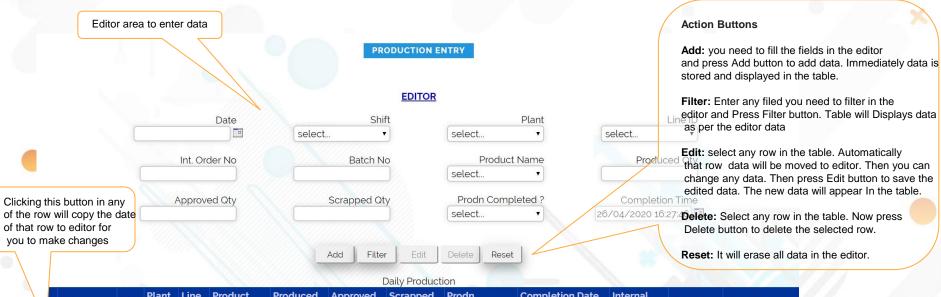
Forecast

Bold letter always shows the current screen

Torocast									
Customer	Product	<b>Qty Needed</b>	Needed On	<b>Entered By</b>	Entered On				
Cus4	Pd2	40000	09/04/2019	Ram	24/04/2019				
Cus1	Pd1	25000	13/04/2019	Suki	25/04/2019				
Cus1	Pd2	25000	15/04/2019	Suki	25/04/2019				
Cus4	Pd2	20000	17/04/2019	Ram	24/04/2019				
Cus2	Pd1	15000	18/04/2019	Suki	25/04/2019				
Cus3	Pd3	30000	19/04/2019	sandanam	24/04/2019				
Cus2	Pd2	20000	22/04/2019	Suki	12/05/2019				
Cus3	Pd3	40000	25/04/2019	sandanam	07/05/2019				
Cus4	Pd2	30000	29/04/2019	Ram	28/04/2019				
Cus4	Pd2	40000	07/05/2019	Ram	24/04/2019				
Cus1	Pd1	25000	10/05/2019	Suki	25/04/2019				
Cus2	Pd1	15000	12/05/2019	Suki	25/04/2019				
Cus1	Pd2	25000	15/05/2019	Suki	25/04/2019				
Cus4	Pd2	20000	17/05/2019	Ram	24/04/2019				
Cus3	Pd3	30000	18/05/2019	sandanam	24/04/2019				
Cus2	Pd2	20000	22/05/2019	Suki	12/05/2019				
Cus3	Pd3	40000	25/05/2019	sandanam	07/05/2019				
Cus4	Pd2	30000	28/05/2019	Ram	28/04/2019				



## Sample Data Entry Screen (Production Entry)



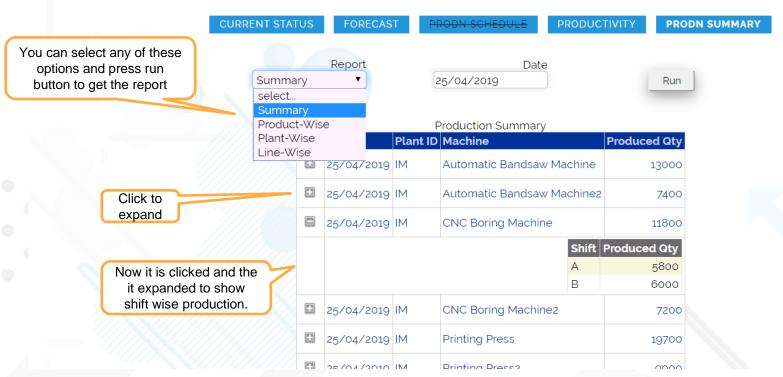
	Date	Shift	Plant ID	Line ID	Product Name	Produced Qty	Approved Qty	Scrapped Qty	Prodn Completed	Completion Date Time	Internal Order	UserName	TimeStamp
S	12/04/2020	Α	IM	IM1	Pd1	4000	4000	0	Y	12/04/2020 20:19:44	4332	demo	04/04/2020
S	08/10/2019	В	IM	IM1	Pd1	3434	3434	34	N	02/10/2019 18:51:55	43434	demo	04/04/2020 00:00:00

Displays data when filter button is pressed (after filtering as per the editor data if any)

Every time data is added /Updated, the Login ID & Time of entry is automatically recorded by the software. That can't be edited by anyone.

#### Production Summary Report





#### **Current Status**

[idle timeout in 1496 secs]

MAIN MENU

If this much of time if the system was left Idle then server will automatically disconnect



**CURRENT STATUS** 

PRODN SCHEDULE

PRODN SUMMARY

Current Status

Plant ID	Machine	Running	Stopped From	Stoppage Reason
IM	Automatic Bandsaw Machine	Υ		
IM	Automatic Bandsaw Machine2	Υ		
IM	CNC Boring Machine	Υ		
IM	CNC Boring Machine2	N	30/04/2019 10:20:00	Mech B/D
IM	Printing Press	Υ		
IM	Printing Press2	Υ		
IM	Shaper	N	30/04/2019 07:12:00	No Order
IM	Shaper2	Υ		

By clicking this excel icon wherever you see, you can download the shown report to your computer as excel file





**←** LOG OUT

## Machine Utilization Summary

From\_Date 30/04/2019 To Date 30/04/2019 Run

Select any Period for the report



Each machine
utilisation for 24 hrs is
given in the chart
including all type of
downtimes.

No down time except 1.2 hrs of power failure. Machine ran 22.8 hrs for production. Highest machine utilisation!

Bold letter always Daily Production Report shows the current screen **PRODUCTION (T)** Plant Shift Line ID Product Report IM All All All Day-Wise From Date To Date 01/04/2019 22/04/2019 Run Production Trend Plant: IM Product: All Line: All Shift: All 320-300 294 280 -All our Graph automatically 249 € 240 change the scale 220 for easy reading 204 202 200 200 201 200 180 11 13 15 21 22 Date Production Trend (01/04/2019 -22/04/2019) - Plant: IM Date1 Produced Qty Scrapped Qty 02/04/2019 20200 03/04/2019 20000 800 04/04/2019 20400 05/04/2019 19800 400

## Productivity Report

[idle timeout in 1493 secs]

MAIN MENU



**CURRENT STATUS** 

PRODUCTIVITY

PRODN SUMMARY

**←** LOG OUT

Date 25/04/2019

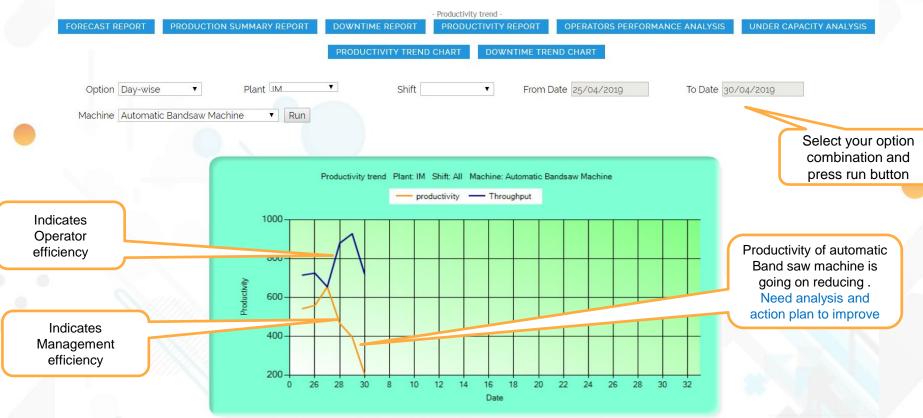
Run

Productivity

Date	Plant ID	Machine	Throughput	Productivity
25/04/2019	IM	Automatic Bandsaw Machine	714.3	541.7
25/04/2019	IM	Automatic Bandsaw Machine2	370.0	308.
25/04/2019	IM	CNC Boring Machine	502.1	491.7
	/04/2019 IM Automatic Bandsaw Machine2 370.0	Productivity		
		Guna	250	250
		Ram	247	242
25/04/2019	IM	CNC Boring Machine2	533.3	300.0
25/04/2019	IM	Printing Press	839.0	820.8
25/04/2019	IM	Printing Press2	733.3	412.5
25/04/2019	IM	Shaper	548.7	445.8

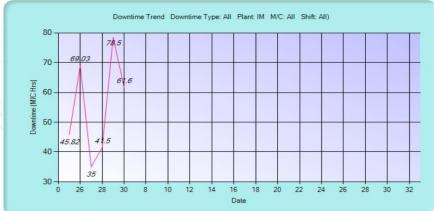
## Productivity Report

#### **Business Process Automation**



## Downtime Report





#### Downtime Trend

Date	Downtime (M/C Hrs)
25/04/2019	45.82
26/04/2019	69.03
27/04/2019	35.00
28/04/2019	41.50
20 /0 / /2010	70 -0

## Month-wise Power Failure Report



	ower	Failure Trend
Month	Year	Power Failure (Hrs)
12	2018	24.00
1	2019	24.00
2	2019	32.80
3	2019	28.00
	Total	109.00

## Planning Efficiency



[idle timeout in 1477 secs]

& MAIN MENU

**♦** LOG OUT





PLANNING (R)

SCHEDULE (A)

DESPATCH (R)

DESPATCH (P)

OPERATOR (P)

UNDER CAPACITY

From Date

10/03/2019

To Date 10/04/2019

Run

Planning Efficienty

Customer	Product Name	Customer Order No	Qty Needed	Qty Planned	Planned On	Needed On	Expected End On	Delay (Days)
Loreal India Pvt Ltd (Baddi)	ALU TUBE CASTING CREME (BPA FREE) (PINK BASE) 47:5GM 3605054648726	3450	4000	4000	05/04/2019	08/03/2019	06/04/2019	29
Loreal India Pvt Ltd (Baddi)	ALU TUBE CASTING CREME (BPA FREE) (PINK BASE) 16GM 3605054648771		5000	50000	12/03/2019	13/03/2019	14/03/2019	1
Loreal India Pvt Ltd (Baddi)	ALU TUBE CASTING CREME (BPA FREE) (PINK BASE) 16GM 3605054648771	9089	45000	45000	14/03/2019	23/03/2019	16/03/2019	-7
Loreal India Pvt Ltd (Baddi)	ALU TUBE CASTING CREME (BPA FREE) (PINK BASE) 16GM 3605054648771	565656	10000	10000	16/03/2019	25/03/2019	17/03/2019	-8



# On-Time Despatch Report

[idle timeout in 1492 secs]

♦ MAIN MENU

• LOG OUT

Control of the Contro

PLANNING (R)

DESPATCH (R)

DESPATCH (P

OPERATOR (P)

UNDER CAPACITY

Month
Apr '19 ▼

Run

### On-Time Despatch

Customer	On-Time Despach %
Cus1	50
Cus2	50
Cus3	50
Cus4	33



# Despatch Performance

[idle timeout in 1475 secs]



PLANNING (R) SCHEDULE (A) DESPATCH (R) DESPATCH (P) OPERATOR (P) UNDER CAPACITY

Month
Apr '19 ▼

Run

Despatch performance (All Customers)

Customer	Product	<b>Qty Needed</b>	Needed On	<b>Entered By</b>	Entered On	<b>Delivery Date</b>	Delay (Days)
Cus4	Pd2	40000	09/04/2019	Ram	24/04/2019	11/04/2019	2
Cus1	Pd1	25000	13/04/2019	Suki	25/04/2019	12/04/2019	-1
Cus1	Pd2	25000	15/04/2019	Suki	25/04/2019	16/04/2019	1
Cus4	Pd2	20000	17/04/2019	Ram	24/04/2019	19/04/2019	2
Cus2	Pd1	15000	18/04/2019	Suki	25/04/2019	18/04/2019	0
Cus3	Pd3	30000	19/04/2019	sandanam	24/04/2019	22/04/2019	3
Cus2	Pd2	20000	22/04/2019	Suki	12/05/2019	23/04/2019	1
Cus3	Pd3	40000	25/04/2019	sandanam	07/05/2019	25/04/2019	0
Cus4	Pd2	30000	29/04/2019	Ram	28/04/2019	29/04/2019	0

# Operator Performance



BPA Z

PLANNING (R) SCHEDULE (A) DESPATCH (R) DESPATCH (P) OPERATOR (P) UNDER CAPACITY

Plant ▼

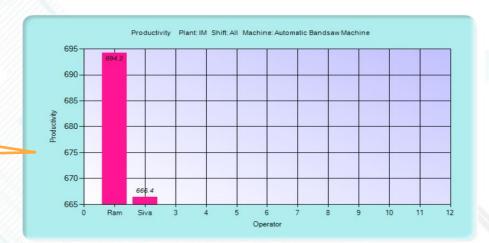
From Date 01/12/2018

To Date 31/03/2019

Machine Automatic Bands; ▼

Run

Productivity of two operators operating a particular machine/line



# **Under Capacity Analysis**

**♦** LOG OUT

[idle timeout in 1481 secs] BPA 3.4 UNDER CAPACITY Plant From Date To Date Machine IM 01/12/2018 31/03/2019 Automatic Bands; ▼ Under Capacity Analysis Plant: IM Shift: All Machine: Automatic Bandsaw Machine Month-wise Line/Machine Idle time for want of order

12-18 1-19

2-19 3-19

# Price & Payment

SrI No	Description	Annual Lease (advance payment)	One Time Purchase (to be paid after the activity)		
1	Hosting charges for one year (along with order)	-NA-	30,000		
2	After issuing login password as needed by you (max. 30) You can enter master data at this stage (includes 1 years free hosting, backup and maintenance)	NIL	50,000		
3	Sales Management	12,000			
4	Production Planning	-NA-	50,000		
5	Material Planning	10,000			
6	Purchase	10,000			
7	Shop Floor (Production) Management Implementation	-NA-	4,50,000		
8	Quality Management Implementation	10,000			
9	Inventory Management (Stores) Implementation	10,000			
10	Payroll Implementation	-NA-	40,000		
11	Maintenance Management Implementation	20,000			
12	Calibration Management	15,000			
13	Finance (to be quoted after discussing what exactly customer needs as many uses tally like software already)				
	*Conveyance by Air/Taxi Stay Food Expenses are extra in case of site visit in whatever	r ontion you go for			

<sup>\*</sup>Conveyance by Air/Taxi, Stay, Food Expenses are extra in case of site visit in whatever option you go for.

All hardware like scanners , tab, computers, ID cards with barcode are organized by you at your cost.

### Price is Fixed & Non-Negotiable

## Price & Payment

7					
S.No	Price (₹)				
14	Discount for additional license for the <u>same customer</u> for different sites/different server (for one time purchase case alone)	60%			
15	Annual charges for each additional Login	500			
16	One time purchase of lease module is 5 times the annual lease amount for installing in customer local machine.				
AMC Option 1	AMC charges (including hosting) for continuing with our cloud server	30,000			
AMC Option 2	AMC charges per year per installation (max 3 visit) (if you are going to install in your server)	20,000			
Non-AMC	Service charges per day (time starts from leaving Pondicherry and back) (if you are going to install in your server)	10,000			
*Conveyance by Air/Taxi, Stay, Food Expenses are extra in case of site visit in whatever option you go for.  All hardware like scanners , tab, computers, ID cards with barcode are organized by you at your cost.					
Any specific customization required will also be done at extra cost					
	Price is Fixed & Non-Negotiable				

For more information please get in touch with us,



❖ Mobile : 900-3930-729 (J.Shanmugam)

Email : <a href="mailto:issconnect@gmail.com">issconnect@gmail.com</a>

Website : <a href="www.viewiss.com">www.viewiss.com</a>

## My Short profile

Name: J Shanmugam, Electrical Engr with MBA in Operations Mgmt.

PG Diploma in Finance Mgmt.

**Industries Exposed:** 30 Years Experience - Worked in Steel, Cement, Engineering, Textile,

Heavy Chemicals and Plastics. Retired as Sr. Vice President (Operations) from

500cr turnover company, managed 3 sites across the country along with

corporate sourcing.

**Areas Handled:** Operations Mgmt., Budget Control, Projects Mgmt., Sourcing mgmt.,

Human Resource mgmt.

**Current Activities:** Consultancy, Software Development

**Consultancies Done:** TPM consultancy to JK Pharma, Cuddalore

TPM consultancy to Thirumalai Chemicals, Ranipet.

Power factor improvement in AT&S, Mysore.

Project Mgmt. in Kingfa Science & Tech., Pune.

### **Papers Published/ Presented**

- Computerized Maintenance Management System.
- Energy Conservation by optimizing cables.
- > 5S Implementation.
- Power Factor improvement design.

### Training/Guest Lecturers

- Advanced Maintenance Management 1 week residential program in Neyveli Lignite Corporation (NLC) for their executives.
- Change Management For senior managers in NLC.
- Change Management, TPM in JK Pharma.
- Visual Control of TPM Asian Paints
- Power Factor Improvement AT&S, Mysore.
- Business Management for Engineering colleges.

## Paper Presentation — Computer's Role in MMS



### ARTICLE

### **Role of Computer in Maintenance** Management

J Shanmugam, Tanfac Industries Ltd, Cuddalore

### 1. Introduction

Business today has entered into an entirely new era of competition from multi-nationals due to the country's new policies of opening the economy to the rest of the world, liberalisation of business policies, removal of protection to Indian companies on one hand and international activities like WTO forcing countries towards global business regulations on the other hand.

Countries in the world become more dependent on each other immaterial of whether they are developed or developing one, although the developed countries have better leverage. This means, today, any

country has left with little flexibility to deviate from international business in terms of policies and

The information technology has grown to the extent that without computer, no business organisation can survive today

Thanks to Science and Technology which has contributed to the enormous growth in the area of Communications and Transport which in turn fueled the above activities. The information technology has grown to the extent that without computer, no business organisation can survive today. Therefore, it is wise to effectively use computers even in the areas where they are not

conventionally used. One such a area is "MAINTENANCE MANAGEMENT" in industries. This article aims to expose the crucial role that a computer can play in Maintenance Management.

### 2. Implication to Developing Countries

This business environment of today generates few implications to developing countries with positive as well as negative impacts.

#### 3. Positive Impacts

- · Opportunities for an organisation with high competence due to the liberalisation by government, (eg. even small organisations have shown high growth).
- · Opportunity for quantum jump into latest technology which means reduced cost and improved quality.
- · Opportunity to go for world size plant to reduce the cost through more and more automation with high technology to compete easily in the international market (eg. Reliance Petrochemicals)
- · Opportunity to utilise cheaper human resource (eg. Software

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ca: Mr. thaning SHRI M. H. UPADHYAYAJI FROM K. G. ASWANI JT. PRESIDENT EXECUTIVE PRESIDENT TANFAC, CUDDALORE CTC - VADODARA FAX if 04142 - 39007/ 39008 FAX 0091 - 0265 - 313 427 PAGE3 1 INCLUDING THIS PAGE DATE OCTOBER 29, 1998

A TECHNICAL PAPER AND AN ARTICLE PRESENTED BY MR. J. SHANMUGAM

REF : LETTER 2461 DATED 5TH OCTOBER

WE ARE IN RECEIPT OF A TECHNICAL PAPER AND AN ARTICLE PUBLISHED BY MR. J. SHANMUGAM AND THANK YOU FOR THE SAME, BOTH THE PAPERS ARE THOUGHT PROVOKING AND HIGHLY RELEVANT IN TODAY'S CONTEXT. WE WILL CIRCULATE CONTENTS OF THESE PAPERS TO CONCERNED GROUP UNITS.

MANY OF OUR GROUP UNITS ARE IN PROCESS OF COMPUTERISING THEIR MAINTENANCE FUNCTION AND WE WOULD LIKE TO KNOW IF MR. J. SHANMUGAM'S EXPERTISE CAN BE MADE AVAILABLE TO THEM UPON REQUEST.

REGARDS.

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Phone ignore our merrage allo Error is regretted.

## Paper Presentation — Power Factor Improvement



AT&S INDIA LIMITED 12/A. Industrial Area Nanjangud-571301.

Mysore Dist. Kamataka, India. Tel: +91/8221/26375 Fax: +91/8221/26641-42 http://www.atspcb.com

6th August 1999

Mr. J. Shanmugam Sr. Manager (Operations) Hydro S&S Industries Limited Padukkottai Tamilnadu - 622002.

Dear Mr. Shanmugam,

Your publication with electrical engineering update ISSN 0971-5479 May-June 1999 Vol-7 No.3 Page 52-57.

POWER FACTOR IMPROVEMENT - NEEDS, STRATEGIES AND

Your total database detailed project information could give us a strength to pick up the dropped project during 1996.

You could throw total light into this subject in presenting the case to top management and execution with precaution.

Subject seems to be dry, common but generally people try to neglect. Your total information could give us such a courage to us that we would like to execute the project with your novel, detailed, deep study and steps.

As generally, said, education is for actions but not for knowledge. Kindly help us to execute the same project in our plant in case of requirement. We would like to contact you. Hoping to receive the support from your end.

With all above informations I invite you to our plant to present the subject to Nanjangud Industrial Area people.

Hope to receive a favourable reply from your end.

We await for your reply.

Mr.J. Shanmugam Manager (E&I) Tanfac Industries Ltd., 14 SIPCOT Indl. Complex Cuddalore - 607 005 Tamil Nadu

High-Tech Publishing Private Limited

128, Esplanade Mansion, Firs' Floor, 144, M.G. Road, Mumbai - 40:) 001 (INDIA) Phones: 2825024 - 2821576 Fax : (91-22) 2852975.

> Ref: HT/9/REM/98 Date: 1/12/98

Dear Mr. Shanmugam,

It was nice of you to have sent us a paper on

"Cost optimisation through ... sizing"

to Engineering Advances . This was carried in Oct. '98 Issue, a copy of which has been sent you separately.

In appreciation of your contribution, we take pleasure in enclosing a nominal honorarium\*.

Please do continue to send such contributions. They are sure to errich this

Best wishes,

Yours sincerely For ENGINEERING ADVANCES

P.K.Balasubramanian Managing Director & Chief Editor

: \* Cheque No. 252 216 dated 1- / c<sup>2</sup>, <sup>9</sup> for Rs.1,000/- drawn on The Lakshmi Vilas Bank Ltd.

engineering Electrical Engineering

Engineering

### Paper Presentation — 5S



#### ARTICLE



### 58 - The Effective Tool to Improve the Work Place

Hydro S & S Industries Ltd. Tamil Nadu

### Introduction

The concept of SS traces its home to Japan where it revolutionised the industries, before the world came to know about it. To introduce in general, it is a micro management concept of work place to transform concept concept concept to the place of the pla

Today, organizations whether they are in developed countries or in developing countries start understanding the need for 5S and its longterm impact on bottom lines of organizations.

tom lines of organizations.

The aim of this article is not to explain what is 5S in detail as many of the readers know about it, but to impress some of the critical aspects of it and to share few practical implementation aspects.

#### Definition

To define the 5S in simple words, it is organizing the work place, keeping it near and clean, standardizing for easy maintenance of work place and developing self discipline among the people to sustaining these activities by themselves.

Let us now look in to the Goals, approaches and Benefits

### The 1st S - SEIRI (Organising) The Meaning and Goal

SEIRI is a Japanese word which means Organising. This is the first step of 5S implementation. Its essential goals are to

Discard all unwanted/unnecessary items and .
 Deal with sources/generation of the unwanted items with the

- aim to eliminate them at the point of generation/source itself.

  The Benefits
- Easy identification of required material.

▶ Extra space

- Facilitates for better arrangement and organised look.
- Saves time, cost and space in maintaining unwanted items.
   Forces us to focus and
- Forces us to focus and act on generation of unwanted items.

### Typical Activities

As explained earlier, the aim of 1st 'S' is in two folds. While the primary aim is to remove unnecessary items, the secondary aim is to control their generation. Therefore, the activities in '1S' should meet these aims. The typical activities are:

- Removing things that you do not need.
- Carrying out House cleaning.

- Organising the Workplace.
   Studying the source of each
- and every Unwanted to reduce their generation.

Potential Locations for 1st S

Over a period of implementation experiences of 5S, there are potential areas to look for unnocessaries which we normally never look at. To help the implementers to train eyes in these areas, few typical locations are given herounder:

- Shelves and lockers.
- Work bench area and machine surroundings.
- ► Besides pillars, under stairs.
- Partitions, pits and floors.
   Store houses and sheds.
- Walls, roof corners, roofs.
   Notice boards.
- ▶ Notice boards. How to Sortify

Unwanted item passes various stages based on their aging before becoming unwanted. Hence we need to adopt an effective strategy in sortification of unwanted so that it will be easy to handle them in future and to use them in between if needed. A sample strategy is given below:

Group	Frequency of use	Sortifying strategy
1.	More than 2 years	Discard
2.	6 Months to 2 years	Store at remote place
3.	3 months to 6 months	Store in a central place near worksite
4.	Less than 3 months	Close to the work place for easy access and handling

This approach facilitates for easy shifting of items from group 4 to 3, 3 to 2 and 2 to 1 without further analysis after the passage

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#### **ENERGY MANAGEMENT CELL**



#### Confederation of Indian Industry

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K VASUDEVAN Chairman

Energy & Power Sub-Committee, CII (SR)

18th December, 2000

Dear Mr. Shanmugam,

### NATIONAL SEMINAR ON "MOTORS"

I am writing to thank you for your participation at the National Seminar on Motors held at Chennai on  $30^{th}$ .November and  $1^{st}$  December, 2000.

Your presentation on "Computerised Maintenance Management System" was excellent and very much appreciated by the delegates. Kindly accept my compliments on the excellent presentation.

Judging by the feedback from participants, the seminar was an extremely well received event.

Thank you once again for being a part of the National Seminar. Your contribution has helped to make this Seminar a grand success.

With kind regards,

Yours sincerely

Khomh

### K VASUDEVAN

### Mr J Shanmugam

DGM – Maint. . Hydro S & S Industries Limited Plot No. 15C

Sipcot Industrial Complex Pudukkottai – 622 002

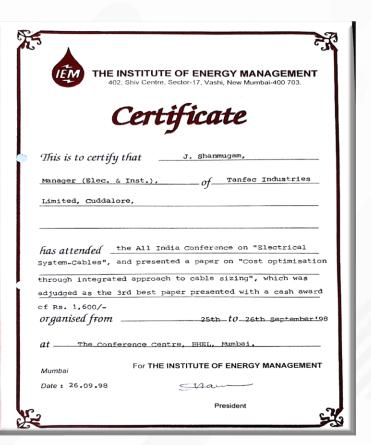
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many more accolates

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## Paper Presentation — Cost Optimization



ELECTRICAL SYSTEM -CABLES

( September 25 & 26, 1998 )



#### The Institute of Energy Management 402, Shiv Centre, Sector 17, Vashi, New Mumbai - 400 703.

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No: 5826

Dts 23.10.98

Shri J. Shanmugam, Manager (Elec. & Instt.), Tanfac Industries Ltd., 14, Sipcot Indl. Complex, Cuddslore - 607 005, T.N.

Dear Shri Shanmugam,

This has reference to the All India Conference on "Electrical System - Cables", conducted on September 25 & 26, 1998, at the Conference Centre, Bharat Neavy Electricals Ltd., Mumbai.

I am enclosing herewith a few copies of the photographs taken during the conference for your record.

I take this opportunity to sincerely thank you for actively participating the conference and for sharing your experience in the field with the conference delegates by presenting a paper.

Your contribution to the conference is of high order and X hope that your kind co-operation will be available to the activities of the centre in the future also.

With best regards,

Yours sincerely,

Soon --

( S NARISETTI )

Encl: as above.