

VidyaPrasarakMandal's MaharshiParshuram College of Engineering, Velneshwar Hedvi-Guhagar road, At: Velneshwar, Taluka: Guhagar, Dist: Ratnagiri (Maharashtra) 415 729 (AICTE & DTE approved and affiliated to University of Mumbai)

Tel No. 02359-205237 / 38 E-mail: mpcoe@vpmmpcoe.org URL:www.vpmmpcoe.org

## **Department of Instrumentation Engineering**

## **Report of Visit at Finolex Industry**

B.E. And T.E Instrumentation students of VPM's Maharshi Parshuram College of Engineering Velneshwar visited to **Finolex Industry ltd 4<sup>th</sup>** october **2019 from 10:30 am to 4:40 pm** as a part of curriculum related to Industrial Automation, Industrial Process Control and Control System Components subjects.

Visit starts at 10:30am. First T.E and B.E students visited the power generation plant. Then their Instrumentation Engineering (Mr.Shivalkar) show control room of power plant. In the control students saw the PLC, SCADA and DCS system. In SCADA every boiler and Turbine has a separate SCADA system also the electrical system has display on another SCADA. In that electrical SCADA system it consists of switch yard, circuit breaker, ESP. Each supply line has separate redundancy line. The power plant generally produces 43MW power. As they take power supply line from MSDCL and other supply line from its power generation plant and each line has one redundancy line. The circuit breaker is used in this system to avoid the fault in this system.

In the power plant both the systems such as PLC and DCS are used along with SCADA. Five Feedback Control System are includes in DCS and PLC. The system such as PLC and DCS operate at 24V and it use opto coupler circuit to run the system. In DCS and PLC it consists of two panels such as relay panel, control and synchronization panel. In PLC and DCS system one card is of 8 channels. The process system includes first input to the PLC and then to DCS due to this sequence it provides safety to the plant. Mr. Shivalkar practically show interfacing RTD with PLC through HART.

After visiting the control room then we visited to on field power plant. The system start, when the coal is passed through the conveyor towards the crusher, the crusher crushes the coal and pass towards the boiler. The boiler generates steam and the steam which is generated is used to rotate the fan of turbine. The output of Turbine is given to the gear box, the gear box converts the rotation of speed from 5000rpm to 3000rpm and it gives to the generator and hence the power is generated.

Then after TE And BE Students visited to control room of Resin and Pipe production plant. The plant comprises of two types SPVC and EPVC. This control system involves PLC and DCS control systems. Some of the PLCsworkson analog input and some of those PLCs works on both analog and digital inputs. Modicon communication is used in advanced PLC system and rest of the PLCs used RS485 communication. M580 processor is used in that PLC system. The DCS system over there was very advanced and the components were highly reliable. There was separate DCS plat to check quality of row material & chemicals. For communication in the plant the huge cabling section is there. The spare part and some faulty parts are stored at the room, as well as the outdated parts are also kept.



Also students visited to the coastal area of the jetty. The raw material such as coal and ethanol were supplied from jetty to the plant. The coal which is supplied by boat then it is pass through the conveyor towards the plant and as same the ethanolis also supplied through boat towards the Resin plant.



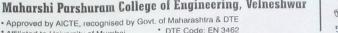


#### **Documentation:**

#### 1.Permission Letter



## Vidya Prasarak Mandal's Maharshi Parshuram College of Engineering, Velneshwar





Ref. No.: VPMMPCOE/ Instru/2019/ 532

\* Affiliated to University of Mumbai.

Date: 23 09 2019

To,

Mr. Yogesh S Teredesai

Asst. Manager (HRD),

Finolex Industries Ltd,

Pawas Road, Ratnagiri

Sub: Application for permission of industry visit

Respected Sir,

On behalf of VPM'S "Maharshi Parshuram College of Engineering", (Velneshwar, affiliated to University of Mumbai) we, would like to request you to kindly permit our students and faculties to visit "Finolex Industries Ltd", Ratnagiri on 04/10/2019 from 10.30 a.m. onwards.

This visit will help us to learn real insight of working procedures and plant technologies which are part of our curriculum including Industrial process control and Control system components.

For same kindly accord us permission to visit at you esteemed organization.

Thanking You.

Yours truly,

HOD I'C Head

Denominent of Instrumentation Engg VPM's MPCOE Velneshwar Guhagar (Ratnagiri) 41577



Dr. Amitkumar T. Mane

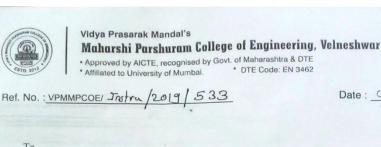
I/GPringinal VPM's Maharshi Parshuram College of Engineering, Velneshwar

Address:- At: Velneshwar, Hedvi - Guhagar Road, Taluka: Guhagar, District: Ratnagiri, Maharashtra - 415729, INDIA Tel. No.: 02359 - 205237/38, 243101/03/04, Mobile: 7057809801, Fax No.: 02359 - 243102

E-mail: mpcoe@vpmmpcoe.org, mpcoe@vpmthane.org, info@vpmmmpcoe.org URL: www.vpmmpcoe.org

01/10/2019 The Principal, MPIDE. Velnishwar, subs-Travelling renumeration from ISOI Respected dir, Department of instrumentation students (T. E. and B.E class) will be gvisiting to finolex company's plant on 4/10/19 as per acodemic curriculum. for the same, kindly allow to midning withdraw Rs. 4000/- from departmental ISOI student chapter fund as travelling renumerable Thorleing you, Your Sincary, forwarded to principal & acrount deparment. R.S. 4000 can be used from foot bank account for this study tour permitted on por of command of on of HaD Po1/10/19 CAP Pados)

#### 3. Vote of Thanks



Date: 04/10/2019

To,

Mr. Yogesh S Teredesai

Asst. Manager (HRD),

Finolex Industries Ltd,

Pawas Road, Ratnagiri

Sub: Vote of thanks

Respected Sir,

On behalf of VPM'S "Maharshi Parshuram College of Engineering",(At-Velneshwar, affiliated to University of Mumbai) we, would like to express our deep gratitude to you and your team of "Finolex Industries Ltd", Ratnagiri, for permitting our students and faculties for industry visit on dated 04/10/2019 at your place and spending your valuable time. We believe that the knowledge your team shared with us will help immensely to learn and understand insight of working procedures at Captive power plant and ECF Plant.

We look forward for your same cooperation in future.

Thanking You.

Yours truly

HOD HC N

Department of Instrumentation Engs, VPM's MPCOE Velneshwar Fal. - Guhagar (Ratnagiri) 4157711



I/GPringipal VPM's Maharshi Parshuram College of Engineering, Velneshwar

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## 3.Attendance



Vidya Prasarak Mandal's **Maharshi Parshuram College of Engineering, Velneshwar** At: Velneshwar, Hedvi-Guhagar road, , Taluka: Guhagar, Dist: Ratnagiri (Maharashtra) 415 729 (AICTE & DTE approved and affiliated to University of Mumbal)

Tel No. 02359-243102/3/4 Fax No. 02359-243102 E-mail: mpcoe@vpmmpcoe.org URL:www.vpmmpcoe.org

# Students Visit Attendance at "Finolex Industries Ltd", Ratnagiri"

Date:04/10/2019

## TE Instrumentation Engineering

Roll. No.	Student Name	Signature of student
I 501	Gamare Poonam	Amore
I 502	Jangali Subodh	Sprigali
I 503	Lad Omkar	Abres
1 504	Pagade Aniket	Meant
I 505	Rajput Aditya	Birt
I 506	Shirkar Aniket	3hielms
I 507	Udeg Rahul	Phy.

### **BE Instrumentation Engineering**

	Roll. No.	Student Name	Signature of student
~	I 701	Bhosale Sagar	Sarranch
	I 702	Bhosale Suraj	Aligale
)	I 703	Gurav Suraj	Sanox
)	I 704	Mandalekar Pratiksha	Latinace
8	I 705	Oak Nutan	S. HALOD.
/	I 706	Patait Ishtiyaq	Batail
-	I 707	Shinde Sairaj	sshind.

#### Faculty Name:

1. Mr. Umesh M. Satpute

2. Mr. Parshuram B. More