

# NOTICE

Date: 25<sup>th</sup> August 2018

As per the curriculum of Savitribai Phule Pune University, it is necessary for students to visit the industries / research institute to get the practical knowledge. Department of Electronic Science has planned to Visit "Centre for Material for Electronic Technology" (C-MET) research institute on 30<sup>th</sup> August 2018 at 10.00am which will be helpful for inculcate the research culture.


It is hereby informed to all the students from S.Y.B.Sc(Plain) that to enroll your name and submit undertaking form on or before 29<sup>th</sup> August 2018 in Department of Electronic Science.


**Class: S.Y.B.Sc(Plain)**


**Name of the Research Institute: Centre For Material For Electronic Technology(C-MET),  
Pune - 411008**

**Date of visit: 30<sup>th</sup> August 2018**

**Time : 10.00 am**

  
**Mr.S.M.Dhavale**  
Incharge

  
**Prof. S.P.Mahajan**  
HOD, Department of Electronic

  
**Prof. (Dr.) B. B. Waphare**  
Principal

## Department of Electronic Science Industrial Visit Feedback (2018-2019)

Class: S.Y.B.Sc(Regular, Div:M)

Date: 30<sup>th</sup> August 2018

Roll No	Name of Student	Change in practical behaviour due to industrial visit		Give overall rating to industrial visit			Did the industrial visit was as per your expectations?		Was visit technically helpful to you?		Sign
		Yes	No	Excellent	Very Good	Good	Yes	NO	Yes	No	
1	AMBEKAR ANUJ DATTATRAY	✓			✓		✓		✓		Ambekar Anuj
2	ARGADE RUTUJA SHIVAJI	✓			✓		✓		✓		Argade Rutuja
3	BARDE VARSHA DEVIDAS	✓			✓		✓		✓		Barde Varsha
4	BAVALE MANSI SURESH	✓			✓		✓		✓		Bavale Mansi
6	BHOITE RUSHIKESH DATTATRAY	✓		✓			✓		✓		Bhoite Rushikesh
7	BURDE KIRTI SUNIL	✓			✓		✓		✓		Burde Kirti
8	DOIJODE SHRADDHA SUNIL	✓			✓		✓		✓		Doijode Shraddha
9	GAIKWAD KAJAL POPAT	✓			✓		✓		✓		Gaikwad Kajal
10	GAIKWAD RAKESH RAJENDRA	✓			✓		✓		✓		Gaikwad Rakesh
11	GAVHANE RUTUJA SHRIDHAR	✓			✓		✓		✓		Gavhane Rutuja
12	GHENAND PRATIKSHA BHIMAJI	✓			✓		✓		✓		Ghenand Pratiksha
13	GHORPADE RAJAT RAJKUMAR	✓			✓		✓	✓	✓		Ghorpade Rajat
14	GOPNAR NAMDEV BABARAO	✓			✓		✓		✓		Gopnar Namdev
15	ITKHEDE AKSHAY TULSHIDAS	✓			✓		✓		✓		Itkhede Akshay
16	JADHAV KAJAL JALINDAR	✓			✓		✓		✓		Jadhav Kajal
17	JADHAV SWAPNIL NANA	✓			✓		✓		✓		Jadhav Swapnil
19	KADAM NIKITA JITENDRA	✓			✓		✓		✓		Kadam Nikita
20	KALE PUNAM BIRUDEV	✓			✓		✓		✓		Kale Punam
21	KASHID SAURABH SHIVAJI	✓				✓	✓		✓		Kashid Saurabh
22	KATHALE SHREYA AVINASH	✓			✓		✓		✓		Kathale Shreya
23	KAUTKAR SARGAM DNYANESHWAR	✓			✓		✓		✓		Kautkar Sargam

**Department of Electronic Science  
Industrial Visit Feedback (2018-2019)**

Class: S.Y.B.Sc(Regular, Div:M)

Date: 30<sup>th</sup> August 2018

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		Yes	No	Excellent	Very Good	Good	Yes	NO	Yes	No
24	KHEDEKAR PRATIKSHA GAJANAN	✓			✓		✓		✓	
25	KHURPE DHEERAJ KUNDLIK	✓				✓		✓		✓
26	KOTHE RAJESHWAR ANNASAHEB									
27	KURHADE SNEHA VIJAY	✓			✓		✓		✓	
28	LABADE SONAL RAVINDRA	✓			✓		✓		✓	
29	MATHARU SUKHDEEPSINGH H.	✓				✓		✓		✓
30	MEMANE SNEHAL SHANKAR	✓			✓		✓		✓	
31	MIDAGE POOJA BHARAT	✓			✓		✓		✓	
33	NITISH KUSHWAHA .	✓			✓		✓		✓	
34	NITISH SHARMA .	✓				✓		✓	✓	
35	PANKAJ YADAV .									
36	PATIL BHAVESH JAGDISH	✓				✓		✓	✓	
37	RASKAR PRAJAKTA SUNIL	✓				✓		✓		✓
38	S P SURENTER .	✓			✓		✓		✓	
39	SAGAT BHAGYASHRI RAJU	✓		✓			✓		✓	
40	SHINGOTE APEKSHA SHASHIKANT	✓			✓		✓		✓	
41	SURYAWANSHI DHANANJAY B.	✓			✓		✓		✓	
42	TAPKIR ANKITA SHAHAJI	✓		✓			✓		✓	
43	TAPKIR VAISHNAVI NITIN	✓		✓			✓		✓	
44	THIGLE SAYALI SUNIL	✓			✓		✓		✓	
45	BIRAJDAR RAVIRAJ SATISH	✓			✓		✓		✓	

sign  
Dhedekar  
Khurpe  
Sneha  
Labade  
Matharu  
Memane  
P. B. Midage  
Nitish  
Patil  
Raskar  
S.P. Surenter  
Raju  
Shingote  
Suryawanshi  
Tapkir  
Thigle  
Birajdar



**Department of Electronic Science  
Industrial Visit Feedback (2018-2019)**


Class: S.Y.B.Sc(Regular, Div:M)

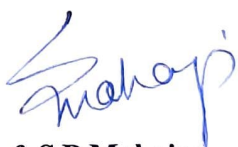
Date: 30<sup>th</sup> August 2018

Roll No	Name of Student	Change in practical behaviour due to industrial visit		Give overall rating to industrial visit			Did the industrial visit was as per your expectations?		Was visit technically helpful to you?	
		Yes	No	Excellent	Very Good	Good	Yes	NO	Yes	No
46	JADHAV CHETAN CHANDRASING	✓			✓		✓		✓	✓
47	MATE ANKITA BALASAHEB	✓			✓		✓		✓	✓
48	ASHWIN MURALI NAIR	✓			✓		✓		✓	✓
49	KALE AMRUTA ANKUSH	✓			✓		✓		✓	✓
52	PATHARE RUTUJA ANIL	✓			✓		✓		✓	✓
53	UMARANI ASHWINI SANGAPPA	✓				✓	✓		✓	✓
54	SHRADDHA BARBHAI .	✓			✓		✓		✓	✓
55	BINAY KUMAR SHARMA									
56	RAHUL SINGH .									

Sign

*Handwritten signatures and notes on the right side of the table, including names like 'Jadhav', 'Mate', 'Ashwin', 'Kale', 'Pathare', 'Umarani', 'Shraddha', 'Binay', 'Rahul'.*

  
Mr.S.M.Dhavale  
Incharge

  
Prof. S.P.Mahajan  
HOD, Department of Electronic Science

## INDUSTRIAL VISIT REPORT

### Centre For Material for Electronic Technology (C-MET)

#### INTRODUCTION

As per the curriculum of Savitribai Phule Pune University, it was necessary for students to visit the industries / research institute to get the practical knowledge about best practices followed them, so that the Department of Electronic Science planned, and organized research institute visit which helped for student to increase interest in research culture.

The Industrial Visit was organized with prior permission and Guidance of **Prof. (Dr.) B.B. Waphare, Principal (MIT ACSC, Alandi)** and **Prof. S.P.Mahajan, HOD, Dept of Electronic Science.**

**Mr.Sandip Dhavale** was the coordinator for this whole industrial visit at Centre For Material for Electronic Technology (C-MET), Pashan Road, Pune.

The S.Y.B.Sc students of MIT Arts, Commerce& Science College, Alandi(D), Pune-412105 participated in this industrial visit. The 49 students and three staff members' coordinators visited C-MET at Pashan Road, Pune on 30<sup>th</sup> August 2018. This unit was mainly focused on to develop different materials for Electronic Technology.

#### PLACE AND DATE

Department of Electronic Science organized a One Days Industrial Visit at **Centre For Material For Electronic Technology (C-MET), Pashan Road, Pune – 411008** on 30<sup>th</sup> August 2018.

#### OBJECTIVES

1. To increase interest and develop Research Culture
2. To understand role Electronics in day to day life
3. To enhance quality and skills of the student practically
4. To understand design procedures for different electronic circuit in industry

#### ABOUT C-MET

Dedicated to the furtherance of competent research and development in the firm Materials, the Centre for Materials for Electronics Technology (C-MET) functions as an autonomous scientific society under Ministry of Electronics & Information Technology (MeitY), Govt. of India.

CMET's R&D activities at present include development of thick film materials, polymers for electronics, specialty chemicals and glasses, ultra-high purity and refractory metals, semiconductors, electronic ceramics and fine powder processing. C-MET undertakes R&D projects, sponsored research, technology transfer consultancy and technical services.

## **Research and Development**

C-MET carries research and development on electronic materials and their processing keeping in view the development in the electronic and IT industry all over the world. Many of these programmed are for advanced electronic materials and processes with partial funding coming from various national and international funding agencies.

C-MET provides sophisticated material characterization and testing services like XRD, SEM-EDAX, GD-OES, AAS, CHONS, HPLC, GPC, Ion Chromatography, Particle Size Measurement, LCR Measurement, etc. for the industry. It can also provide other technical services like synthesis and supply of special materials and components, leasing of equipment, training to industry staff and supply of scientific and technical information.

Out of these activities direct customer services extended by C-MET is the technical services through characterization and testing.

## **DETAIL ABOUT INDUSTRIAL VISIT**

Dr. Sudhir Arbuji Scientist of C-MET addressed the students and introduced about C-MET. He explained about the functioning Unit of this Institute.

The following are the different research Laboratory of CMET's visited by students:

1. Electronic Ceramics and Fine Powder Processing
2. Semiconductors Devices and Battery
3. Development of Thick Film Materials
4. Polymers for Electronics
5. Specialty Chemicals and Glasses
6. Ultra-High Purity and Refractory Metals

Later Students distributed in four groups. Each group lead by One PhD Scholar, One Assistant and One faculty member of MIT ACSC Alandi. Every Group visited each research laboratory. PhD scholar explained the different machines and their research work and appeal student to join a research in future. Most of the materials used for Electronics & Information Technology (MeitY), Govt. of India. They also explained the students how to get admission for PhD in C-MET.



## 1. Electronic Ceramics and Fine Powder Processing

During this session, students interacted with the researcher and Staff very effectively. Particularly about the electronic battery and semiconductor devices, Electronic Ceramics and Fine Powder Processing.



## 2. Semiconductors Devices and Battery

After this session students were taken to industrial trip of two batches to Semiconductors Devices and Battery. Both the batches were taken production unit and simulation unit of battery.



*Industrial Visit :Department of Electronic Science, MIT ACSC Alandi*



During the explanation students gained practical knowledge about the handling the battery. Specification and properties. Many of the points explained theoretically in the first session were shown developed batteries practically. In Quality control unit, students were exposed to Gas Chromatography. They were explained how to find out battery quality of Mobile Phone. Students and Faculty actively participated in discussion of Mobile battery. Some of student tested own mobile battery using C-MET instruments.

### 3. Development of Thick Film Materials and Polymers for Electronics



Piezoresistive sensors based on thick-film technology deposited on ceramic substrates have found success due to their low production cost. Polymer electronics is an emerging technology that focuses on the development of electronic devices incorporating electrically conductive and semi conductive organic materials, especially organic polymers.

### 4. Specialty Chemicals and Glasses and Ultra-High Purity and Refractory Metals

Later, student visited Chemical Laboratory and understands different XRD machine working. Students also Visited Ultra High Purity lab and tested metal using machine.



After Completion of C-MET visit Dr. B.B.Kale felicitated by Coordinator on behalf of MIT Arts  
Commerce & Science College, Alandi(D)



*Dr. Bharat Kale Director (Scientist G) C-MET were honored*

After this session all the students were took lunch. All the students expressed their thanks to the officials for the opportunity given by C-MET Director.

This trip was highly useful for the students in terms of practical knowledge of Electronics. This trip will also be helpful for them to do career in research or to find placement opportunities in such industries.



## FEEDBACK

Feedback of this workshop is taken by providing feedback forms to the students; students get very much satisfied according to feedback.

### Benefits for the Students

1. Authenticating curriculum work, as students can see first-hand the relevance and application of the science learnt in the classroom, in the real world.
2. Industry visited showcases a variety of careers in Electronic science and allowed students to make an informed decision about which subjects to study at graduation Level.
3. The students got opportunity to meet Scientist within the organization, which may change their perception of scientists and the work that they carry out.
4. Students gained an appreciation of the requirements and demands of working in an industrial environment.


### Benefits for the MIT Arts, Commerce & Science College, Alandi(D)


1. Teachers become more aware of careers available from the subject that they teach so can highlight the importance of the subject to their students.
2. The College creates valuable links with local industries.
3. The visit helps to fulfill the requirements of providing careers advice to their students.


### Benefits for C-MET

1. Hosting a research visit provides the opportunity to demonstrate the scope of research available within C-MET.
2. The visit may help to fulfill corporate/social responsibility to attract student in research.
3. This visit helps to build stronger links between C-MET and MIT Arts, Commerce & Science College, Alandi(D).

The industrial visit was co-ordinated by **Prof. Sandip Dhavale** & Conducted under the guidance of HOD of Electronic Department **Prof. Sunil Mahajan**.

  
**Mr. S.M. Dhavale**  
Incharge

  
**Prof. S.P. Mahajan**  
HOD, Electronics

  
**Prof. (Dr.) B.B. Waphare,**  
Principal

*Industrial Visit : Department of Electronic Science, MIT ACSC Alandi*