

**DEPARTMENT OF ELECTRONICS ENGINEERING**



**ELECTRONICS ENGINEERING PROGRAMME**

**(SANDWICH PATTERN)**

**CURRICULUM DOCUMENT (REVISION 2019)**

**(Sixth Semester)**

**GOVERNMENT POLYTECHNIC MUMBAI**

**(An Autonomous Institute, Government of Maharashtra)**

**GOVERNMENT POLYTECHNIC MUMBAI**  
 (Academically Autonomously Institute, Government of Maharashtra)  
**Teaching and Examination Scheme(P19)**  
**With effect from AY 2019-20**

**Programme: Diploma in Electronics Engineering (Sandwich Pattern)**

**Term / Semester - VI**

Course Code	Course Title	Teaching Hours/Contact Hours				Credits	Examination Scheme (Marks)						
		L	P	TU	Total		Theory			PR	OR	TW	Total
							TH	TS1	TS2				
EC19306	In plant Training	0	40	0	40	20	0	0	0	0	100 *	100	200
	<b>Total</b>	0	40	0	40	20	0	0	0	0	100	100	200

Abbreviations: L- Theory Lecture, P-Practical, TU-Tutorial, TH- Theory Paper TS1 & TS2- Term Tests, PR-Practical, OR-Oral, TW: Term Work (progressive assessment)

\* Indicates assessment by External Examiner else internal practical skill test, # indicates Self, on- line learning Mode, @ indicates on line examination

Note: Duration of Examination--TS1&TS2 -1 hour, TH- 2 hours, PR/OR – 3 hours per batch, SCA- Library - 1 hour, Sports- 2 hours, Creative Activity-2 hours  
 Self, on- line learning Mode through MOOCs /Spoken Tutorials / NPTEL / SWAYAM / FOSSEE etc.

Department Co-Ordinator  
 Curriculum Development,  
 Department of Electronics

Head of Department  
 Department of Electronics,

In-Charge  
 Curriculum Development Cell

Principal

Programme : <b>Diploma in Electronics Engineering (Sandwich Pattern)</b>										
Course Code: <b>EC19307</b>				Course Title: <b>In plant Training</b>						
Compulsory / Optional: <b>Compulsory</b>										
Teaching Scheme and Credits				Examination Scheme						
L	P	TU	Total	TH (2Hrs 30min)	TS1 (1Hr)	TS2 (1Hr)	PR	OR	TW	Total
-	<b>40</b>	-	<b>40</b>	-	-	-	-	<b>100*</b>	<b>100</b>	<b>200</b>

Abbreviations: L- Theory Lecture, P-Practical, TU-Tutorial, TH- Theory Paper TS1 & TS2- Term Tests, PR- Practical, OR-Oral, TW: Term Work (progressive assessment) , \* Indicates assessment by External Examiner else internal practical skill test , # indicates Self, on- line learning Mode, @ indicates on line examination

**Note:** For Minimum passing marks under various heads, refer, examination rule AR 26. Two practical skill test are to be conducted. First skill test at mid term and second skill test at the end of the term

### Rationale:

We are in the era of skill development. Indian industrial sector is passing through highly competitive phased due to globalization. Cut throat competition is pre dominant and quality is one of the decisive factors for sustainability. Quality has become decisive factor in attracting students and faculty to an institution. The institution which offers quality education will survive in present scenario. Quality education cannot be complete without implant training.

In plant training provides an exposure to industry work culture, under the guidance of experienced persons, within the organization. The exposure will be provided in the following aspects of business: Technical and operations, Management, Personnel Policy, Finance, Marketing, Purchase, Legal and Social, etc. The mechanism of implant training will also provide an opportunity for industries to contribute in students overall development.

**Course Outcomes:** After the in plant training student should be able to

CO1	Gain first-hand experience of working as an engineering professional, including the technical application of engineering methods.
CO2	Develop technical, inter personal and communication skill.
CO3	Observe the functioning and organization of business /company.
CO4	Gain exposure to management programs and systems, effective administration method and compilation of information.

**CO Vs PO and CO Vs PSO Mapping**

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	3	2	2	3	2	3	3	2	3	3
CO2	2	1	1	2	2	2	3	1	1	1
CO3	1	-	-	1	2	1	1	-	1	-
CO4	1	1	2	2	2	3	2	-	1	-

**Industry Consultation Committee:**

Sr. No	Name	Designation	Institute/Organisation
1	Mr. Amol Sakalkar	Director	Digisel Systems, Mumbai.
2	Prof. Anjum Mujawar	HOD, Electronics Engineering	Vidyalankar Polytechnic, Mumbai.
3	Prof. R. H. Gadyalji	HOD, Electronics Engineering	K. J. Somaiya Polytechnic, Mumbai.
4	Dr. H. M. Pardesi	Lecturer in Electronics Engineering	Govt. Polytechnic Mumbai

Coordinator,  
Curriculum Development,  
Department of \_\_\_\_\_

Head of Department  
Department of \_\_\_\_\_

I/C, Curriculum Development Cell

Principal

# INPLANT TRAINING MANUAL



## ELECTRONICS ENGINEERING DEPARTMENT

NAME OF STUDENT: \_\_\_\_\_

PROGRAMME: \_\_\_\_\_ ; SEMESTER/YEAR: \_\_\_\_\_

ENROLMENT No.: \_\_\_\_\_

CONTACT No.: \_\_\_\_\_

## GOVERNMENT POLYTECHNIC, MUMBAI

(An Autonomous Institute of Government of Maharashtra)

49, Ali Yavar Jung Marg, Kherwadi, Bandra (East), Mumbai – 400 051

Website: [www.gpmumbai.ac.in](http://www.gpmumbai.ac.in)

# GOVERNMENT POLYTECHNIC, MUMBAI

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## GOVERNMENT POLYTECHNIC, MUMBAI

### VISION:

Transform knowledge into work.

### MISSION:

We are committed for

1. Quality education for lifelong learning.
2. Need based educational programmes through different modes.
3. Outcome based curriculum implementation.
4. Development & up gradation of standard laboratory practices.
5. Promoting entrepreneurial programmes.

We believe in equality, safety, environment friendly practices & teaching learning innovations.

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## ELECTRONICS ENGINEERING DEPARTMENT

### **VISION:**

Develop competent technician & practicing engineers in the field of electronics engineering.

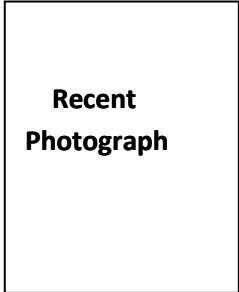
### **MISSION:**

To achieve our vision the department will update for continuous innovation, dedication to improve quality and provision of considerate facilities.

1. Deploying quality infrastructure & laboratory equipment.
2. Promote innovations in curriculum, teaching, learning & staff training.
3. Offering CEP & Community program.
4. Promoting Industry culture in work. Industry liasoning & enhancing employability.
5. Embracing changes & encouraging innovations in Electronics.

## STUDENTS PERSONAL INFORMATION

- Student's Full Name: \_\_\_\_\_
- Programme: \_\_\_\_\_
- Class/Div: \_\_\_\_\_ Enrollment No.: \_\_\_\_\_
- Blood Group: \_\_\_\_\_ Date of Birth: \_\_\_\_\_
- Contact No.: \_\_\_\_\_
- Emergency Contact No.: \_\_\_\_\_
- Residential Address : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Permanent Address : \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
- Parent Details:
  1. Father's Name: \_\_\_\_\_  
Occupation: \_\_\_\_\_ Contact No.: \_\_\_\_\_  
Email Id: \_\_\_\_\_  
Office Address with Contact No.: \_\_\_\_\_  
\_\_\_\_\_
  2. Mother's Name: \_\_\_\_\_  
Occupation: \_\_\_\_\_ Contact No.: \_\_\_\_\_  
Email Id: \_\_\_\_\_  
Office Address with Contact No.: \_\_\_\_\_  
\_\_\_\_\_



Name & Sign of the student

Name & Sign of Father / Mother of student



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## **OVERVIEW:**

Government Polytechnic Mumbai (GPM), established in 1960, is a leading institute in Mumbai region, and has been conferred with an academically autonomous status by the Government of Maharashtra. GPM has always remained at forefront to impart high quality technical education to the society, and continuously updated its curricula as per the technological changes with respect to time, to cater the needs of industries. To be the part of the mission 'Skill India', to achieve an academic excellence by exposing the students with latest technological developments occurring in various field and to enhance their professional skills, Government Polytechnic, Mumbai has uniquely introduced one complete semester's (Min. 20 weeks to 24 weeks) industrial training in curricula for the programme Electronics Engg. To implement the proposed inplant training successfully, training manual has been developed. The inplant training manual details the guidelines for students, faculty members, departments of the institute, industry persons at different levels, and other persons involved from academic organization as well as industries, for effective implementation of the inplant training during last semester of the various programmes. It provides practical advice about developing links with industry and setting up appropriate placement opportunities for students. Students will gain more from their placement, if properly prepared and advice is given about how they can be supported both before and during the placement. The manual highlights procedure/guidelines related to placement of the students to inplant training, selection of various training areas, documentation, guidelines for the students, daily and weekly diary formats, student and parent consent forms, monitoring and evaluation, report preparation and certification etc., essential for the successful completion of the inplant training.

## INTRODUCTION

Indian industrial sector is passing through highly competitive phase due to globalization. Cut throat competition is predominant and quality is one of the decisive factors for sustainability. Quality has become a decisive factor in attracting students and faculty to an institution. The institutions which offer quality education will survive in present scenario. Industrial training is one of the essential curriculum requirements of every technical institute. Fresh young diploma students from the finest polytechnics are like uncut diamonds and look useless like trifles, give them proper training and they will dazzle forth in all their glory. In this context Government Polytechnic (Academically Autonomous Institute of Govt. of Maharashtra) has taken initiative and included inplant training for the programme like Electronics Engg. The intention of including the inplant training is to provide the exposure of actual industrial environment, industrial practices etc. to the students, and enrich their theoretical concepts, as well as practical skills to make them more employable. Industrial Training helps in increasing the knowledge and skill of a person for doing a particular job. Training enables acquisition of latest skills, and thus increases the versatility of the person for boosting his/her career. Appropriate training teaches proper operation, proper handling of equipment's and develops working confidence with whatever students have learnt. After completion of training, the students will feel much more confident about the field in which they have specialized. If some concepts remain unclear to the students during theoretical learning then at the time of interview, exams or in professional life, students may have to face many problems. Professional people always expect specific and accurate solution to every problem. Hence, inplant training will be very much useful to the students to clear some concepts, acquire different skills, get new ideas, and mainly to get introduced to the latest technological developments in various fields. Ultimately inplant training will be useful to enhance the professional life of the students in terms of various skills achieved, intelligence, sharpness, and mainly confidence.

## **2. PURPOSE OF INDUSTRIAL TRAINING**

Industry training has been established to provide students with an overview of industries and to expose them to different aspects of a business, all under the guidance of skilled and experienced persons within the organization. This exposure should include all or most of the following aspects of business such as: management- and personnel policies, financial, marketing and purchasing functions, legal and social aspects, operations and technical activities. These goals can be achieved through the following forms of interaction:

- Introduction to the organizational policy and culture
- Organisation of the structure and hierarchy of ranks within the organization
- Liaison with employees at different levels.
- Liaison and cooperation with other engineering disciplines.
- Meaningful work programs or projects done from planning to completion and reporting.

## **3. OBJECTIVES OF INDUSTRIAL TRAINING**

An ultimate objective of an Industrial Training is to make students ready for the employment in the specific discipline at the conclusion of the diploma course in specific branch of engineering. The programme wise knowledge will be enhanced by this opportunity, to relate academic and professional aspects of engineering disciplines. Various objectives of industrial training can be listed as:

- To gain hands-on experience of working as an engineering professional, including the technical application of engineering principles and methods.
- To work with other engineering professionals.
- To experience the work discipline in a professional organization.
- To develop technical, interpersonal and communication skills, both oral and written.
- To observe interactions of engineers with other professional groups.
- To study the structure of an organization and observe its functioning.

- To get the exposure of management programmes and systems, effective administration methods.
- To understand the process, drawings, techniques, methods etc., and compile it in documentation form.

#### **4. PLANNING OF INPLANT TRAINING**

The successful implementation of inplant training involves precise planning. The steps to be followed for its effective implementation are discussed below.

##### **4.1 Planning for Inplant Training**

- This step includes the collection of data from various sources such as BOAT, Confederation of Indian industry (CII), websites, of the prospective industries/offices for student's placement etc. The data includes the name of industry, addresses, contact persons, phone nos. and mail id of contact persons, type of business and product etc.
- These prospective industries are to be visited by TPO, HoD, and departmental faculties, etc. to collect the necessary information. This is continuous activity and data is updated regularly.
- Submission of an introductory letter/mail to industrial undertakings.
- Obtaining placements for the students,
- Issue of letters and completion of procedures,
- Assigning industries to departmental faculties for monitoring the inplant trainees.
- Orientation programme for students two weeks before reporting for inplant training.
- Monitoring inplant training (at least once in two weeks for each industry).
- Implementation and evaluation of inplant training

##### **4.2 Placement Procedure**

- Training can be done in one or more areas, such as, production, processing, maintenance service, construction, engineering and development, etc. Relevant information about different firms participating in training scheme

can be obtained from the following sources:

- i. Library
  - ii. Respective Heads of Departments
  - iii. Training and Placement Officer and
  - iv. Websites, Apps etc.
- Eligible students can seek guidance from Head of Department, Faculty Members, and Training and Placement Officer for selection of firms.
  - Students should give choice of firms in order of preference, to the Training and Placement Officer through concerned Head of Department (keeping in view facilities available and individual's interests).
  - A student can also be placed in a new establishment, which has adequate training facilities if specific request for approval is made prior to the start of placement activities.
  - Some companies conduct interview and select the candidates. The interviews may be conducted in industry premises or in our institute. Students will be given chance to appear for interview if they satisfy the minimum requirements laid down by the particular establishment. Once selected, no student will be allowed to appear for subsequent interviews with other establishments.
  - Students will be placed at other available establishment depending upon the availability of seats, choice and merit. Students are required to be in touch with their department and finalize their placement.
  - Once placed into a particular establishment, students are not allowed to change that establishment on any account. Factors like closeness to residence, stipend paid, etc. will have to be taken into account only at the beginning of training in the larger interest of the polytechnic.
  - Approval/consent from the parent/ guardian, and student is required in prescribed form before the students are placed for Inplant Training. Students should collect all forms, letters for the company after submitting the approval.

- Report to the Personnel Manager/Officer or Training Manager/Officer or to the Officer who is in-charge of apprentices/training. In a small firm, this officer may be one of the Directors himself.

Students are required to:

- Fill in the Joining Report in duplicate and get it endorsed by the concerned Officials. Fill in the Joining Report, if any, of the organization also.
- Request the concerned officer to explain to you the rules, regulations and procedures of the organization and to take you around the plant so as to get an overview of the company's facilities, products, processes and organization.
- Get introduced to all the concerned persons of the organization. Request for a plan of "Training Program" for the students, if not prepared. The industry and Polytechnic Supervisors may jointly plan for training program.
- Submit all forms duly filled in to the Polytechnic Supervisor.

#### **4.3 Inplant Training Program:**

- Organizing a rigid and identical training program for each student in a discipline may not be practically possible. The training program has to be around facilities available in an individual unit and must fit in the philosophy and thinking of the training organization. Generally, medium and large scale industries have organized training departments. These industries are interested in absorbing the students later in their expansion programme, industries having one-off, batch and mass production activities, industries having a few processes and also industries which have sophistication.
- Some industries believe in 'on-the-job training', some take all six months to give the students understanding of products and processes in their complex, multi-plant organization, some give assignments, while others give meaningful projects and responsible tasks.
- Very important aspect is an understanding for meaningful training which fits in the framework of both our curriculum and organization's philosophy. Training programs have to be structured around the student, the curriculum,



facilities and the thinking about how to train. Every task provides an opportunity to learn through observations, doing, reading and discussion around the task/assignment/problem or project.

Students who are modest and inquisitive, who take initiative, keep their eyes, ears open and demonstrate better attitudes for learning gain most. One realizes what is right and what should be done. Exact repetition of tasks like copying or memorizing does not provide learning of skills or knowledge.

#### **4.4 Monitoring of Inplant training**

- Each department has organized and well-planned system for supervision of the students while they are in training. A faculty member is assigned to a group of students and firms.
- He / She visit each student once a fortnight on the average and maintains close liaison with his/her counterpart in the organization.
- In case of any problem or difficulty, students have to contact their Polytechnic supervisor and communicate the issue.
- All reports, records and project work are to be submitted through this polytechnic supervisor. Respective Heads of Department of concerned disciplines are in charge for satisfactory implementation of the scheme including placement, supervision, evaluation and related issues. Overall co-ordination of the programme is affected by Principal's Office and Training and Placement Officer.
- In case of strike/lockout or urgency, students should contact section in-charge of industry in which they are working, polytechnic supervisor, concerned Head of Department and Training and Placement Officer.

#### **4.5 Daily and Weekly Diaries**

Students are required to maintain the record of day-to-day work done in industry. Such records are called 'Daily Diaries'. The main purpose of writing daily and weekly diary is to nurture the habit of documenting and to encourage the students to search for details. It also cultivates the students' own thought process and

reasoning abilities. The students should record day to day account of the observations, processes, impressions and information gathered etc. in the daily training diary. It should contain the sketches, calculations, plannings, rough works, & drawings etc. related to the observations made by the students. The diaries are to be written regularly and records are to be maintained updated in diaries. The weekly diary has also to be maintained and it should contain the salient work performed in the particular week. All days for the week should be accounted for clearly giving attendance, absenteeism, leave, etc. The daily and weekly training diaries should be signed after every week from the supervisor/ incharge of the section in which the student has been working. The diary should also be produced to the polytechnic supervisor visiting the industry from time to time and get signed on the day of his visit.

#### **4.6 Attendance Certification**

Every week, students have to get their attendance certified by the training supervisor of the industry in the weekly diary. Regularity in attendance and submission/completion of reports will be duly considered while giving the term-work marks. The students may be allowed to take leaves as per rule of the industry/Government Polytechnic Mumbai. If, at any stage, the leaves are exceeded beyond the limit, the employer may take action such as stopping the payment of stipend or Principal may extend the training period in marginal cases. If the students remain absent for the considerable period, he/she may be detained for the semester as per the rules, ultimately training may be cancelled. In such cases, final decision taken by respective head of department and the Principal will be the final.

### **5. GUIDELINES FOR INDUSTRIAL TRAINING**

It is mandatory for all the students of Electronics Engg to complete inplant training at an approved organization, during final year (sixth semester). The duration of training will be of minimum 20 weeks but not to exceed 24 weeks. Important aspects of inplant training can be highlighted as:

## 5.1 Role of Department

- Department have to send training request letter to various industries well in advance before commencement of training.
- After getting sufficient number of seats from the industries, students will be placed in different industries for inplant training.
- Students will have to fill up training form.
- Department will issue an order letter to industry for the said training mentioning the name and registration number of students.
- All above activities have to be carried out in advance of previous semester as plan out of placement in consultation with students. The students would normally be placed as per their choices, in case of more demand for a particular industry/service centre students would be allocated place based on their relative merit (based on declared last semester result)
- During the training period, the departmental supervisor in consultation with head of dept. will maintain a schedule for monitoring of industrial training and according to it he/she will monitor training of students in various industries.
- Visit industry/ follow up the students at training place at least once in every two weeks for evaluating student's activity and their progress.
- The institutional guide during the visit to industry will check the progress of the student in the training, his/ her attendance, discipline, presentation if any, and inplant training report preparation etc.
- Evaluate the daily diary, weekly diary, training reports etc. as a part of the term work assessment.
- Evaluate the students through presentation, viva at the end of the term as a part of term end assessment.

## **5.2 Role of Industry:**

- Industry will give effective training to the students for improving their practical/professional skills.
- Industry is expected to assign group of the students under training to some middle management level person as on job industrial guide for supervision and guidance (industrial guide).
- Industrial supervisor has to assign the daily work to the students and monitor the students on daily basis. Industrial supervisor has also to sign the daily and weekly diaries also.
- Industry supervisor may allot some projects, assignments, tasks to an individuals or group of students under training. Those students who have been allotted such assignments, projects, etc. has to include a dedicated chapter about the task, problem solution methodology etc. in industrial training report.
- Industry supervisor should see that, the students are performing the given task under his/her supervision only.
- Industrial supervisor has to guide students for preparing the industrial training report. This report should not contain any confidential document /drawing/formula/specifications etc. of the industry. He should verify/certify training report from rules and regulation of industry related to confidentiality of the content.
- Industry is expected to maintain attendance of the students undergoing training and report any irregularity of the students to the concerned polytechnic supervisor, Head of Dept., or Training and placement officer.
- Industry is also expected to issue a certificate of attending training on their letter head with comments if any for student's record and motivation.

### **5.3 Guidelines for Students**

- Students would interact with the identified faculty of the department to suggest his/her choices for suitable industry/service center.
- Students have to fill the forms, duly sealed and signed by authorities along with training order letter and submit it to training officer in the industry on the first day of training.
- Students must carry his/her Identity card issued by institute during training period.
- He/she will have to get the entire necessary information from the training officer regarding schedule of the training, rules and regulations of the industry. Student is expected to follow these rules, regulations, procedures etc obediently.
- During the training period students has to keep record of all the useful information in note book (daily diary) and maintain the daily, and weekly diary
- Prepare an industrial training report finally about the whole training for submitting to the department at the time of final presentation and viva.

#### **5.3.1 Learning through placement**

Industrial training provides an opportunity for students to develop new skills and attributes, to apply theoretical concepts they have learnt within their programme and to contextualize what they have learnt. Work-based learning is very different to traditional class-based learning in a number of ways:

- First, work-based learning is centered around reflection on work practices; it is not merely a question of acquiring knowledge and a set of technical skills [although these are important], but a case of reviewing and learning from experience.
- Secondly, work-based learning views learning as arising from action and problem-solving within a working environment, and this is centered on live projects and challenges to individuals and organizations. Work-based

learning also sees the creation of knowledge as a shared and collective activity, one in which people discuss ideas and share problems and solutions.

- Finally, work-based learning requires not only the acquisition of new knowledge but the acquisition of meta-competence – learning to learn.

The student should also focus on additional areas during Inplant Training

- Location and Description of industrial facility
- Company Profile
- Complete set of Technical datasheets covering the full range of products and/or services Proper specifications and technical procedures for performing all contracted and/or commissioned work
- Types of raw materials used, including unit prices, storage & procurement procedures
- Role of various departments in industries.
- Procedures used in manufacturing products and related equipment's.
- Learn and employ any software packages and/or tools which are employed in industries.
- Grievance handling procedures.
- Identify proper procedures for requesting and performing all types of changes.
- Identify any discrepancies between design and analysis methods covered in theory and practical considerations and procedures that might be employed in practice.
- Learn & practice industrial detailing procedures.
- Review all necessary steps for approval of design documents and/or drawings
- Review and practice necessary procedures for approving completed works.
- Identify proper procedures for creating bill of quantities.

- Review industrial safety procedures and whether these are properly implemented
- Review quality assurance regulations and procedures which are implemented in the facility.
- Material handling systems
- Preventive and breakdown maintenance procedure

### **5.3.2 Discipline:**

Students are required to follow the rules and regulation of the organization. Their attitude and discipline should be exemplary. Students should remember that they are an ambassador of our institute when they are working as a trainee. Training of the students in future will depend upon the image created by the trainees. Hence, trainees must maintain good relations with the company authorities.

Students behavior may create positive or negative response and subsequent batches of students will be affected by the same. The following acts are highly undesirable by any of the students undergoing training and may result in severe punishment and cancellation of the term. Such instants have been observed and properly dealt with in the past. Students were punished for the same after proper investigation:

- Offending behavior with the supervisors, colleagues and workers.
- Refusal to work if a job / problem is given.
- Mixing with the workers and involving in labor union activities
- Threatening staff of the company and also instigating worker against staff and superiors.
- Not remaining on the job assigned.
- Grouping with other trainees and passing away time.
- Loitering outside, sitting in the canteen during working hours.
- Asking someone else to sign for him on the muster or punch his card.

### **5.3.3 Punctuality:**

Students should be regular and punctual during complete training period. Students

must avoid the following:

- Late going to or coming early from the organization without permission or proper reason
- Taking leave without prior sanction from concerned person/s
- Habitual absenteeism
- Taking leave in excess of what is allowed.

If it becomes essential to take leave for the considerable period, due to unavoidable circumstances, contact with reasons to industrial supervisor, training supervisor from institute and Head of Department, prior going to leave.

#### **5.3.4 Safety:**

If you are safe, then only the question of further training comes. Students should not operate any machine without permission. He/she must familiarize with the job requirements/method/sequence of operation and safe practices. Students may be injured or may cause injuries to others or damage to the property. The following are some of the cases where our students met with accidents in the past:

- Finger cut on press operation
- Grinding wheel gave away while working
- Simultaneous operation by operator and trainee on Boring machine resulting in jamming and damage to machine.
- A machine was under erection and its limit switch was not adjusted. The trainee pressed the button resulting in damage to machine.
- Falling from false roof/ceiling while doing maintenance work.
- Palm crushed on injection moulding machine.

These are mentioned here so that students should be careful and avoid any type of hazards.

#### **5.3.5 Access to Information**

Companies need to maintain secrecy regarding their design/ product/process. Student should co-operate with the company in maintaining this secrecy. Student should not present any information/sketches/calculations, etc., of company without



prior permission of the officials. Student should attach therefore 'No Objection Certificate' from the company in industrial training report. No company would like such information to go to their competitors or any others. Proper identity regarding student/guardian background should be revealed to the company before start of the training so that later on problems do not arise.

### **5.3.6 Changeover to Other Company**

Once placed in a company, no change is allowed during the training period. Students should not change the companies amongst themselves. Similarly, he/she should not join any company on his/her own. Students have to join the company where they are placed by the Polytechnic.

If students wish to take training in any company not on departmental list, he/she may apply to Training and placement officer / HoD and get a request letter. Specific approval of company has to be obtained well in advance. Training supervisor/ department head/TPO from the institute may then visit the company, or discuss with the company persons. If they are satisfied that adequate training facilities and staff are available, then only student will be placed in that factory.

Once the students are placed, change of the company will not be allowed on any account, and students are required to adopt to work situations. If students change the company by their own, training may not be approved and students may have to repeat the term.

### **5.3.7 Clarification of Training Semester**

Students will surely gain when they will try to correlate theoretical concepts with practice. Every student must ensure that he/she has acquired some skills, gained experience, observed practices, visualized work situation, and thus learnt something. Students may have some doubts or queries about product process etc.

- Every student will see that all progress or work diaries are written, countersigned, and submitted to the polytechnic supervisor time to time.
- Student shall also ensure that inplant training report is completed, duly cleared by the company and duly signed by concerned supervisors.

## **6. TRAINING AREAS**

The students may be the part of the project, small tasks, observe the procedures or collect the information pertaining to the following broad areas:

### **6.1 Electronics Engineering Areas**

Following are some of the important areas of inplant training and supervisory work for Electronics Engineering students:

- PCB making and testing
- Microcontroller and Embedded systems
- Communication
- Automation
- Power Electronics
- VLSI
- Inventory Management and quality control and HR
- Software Development
- Public sectors Industries related to Electronics
- All Electronic equipment manufacturing and maintenance
- Project Planning and Management
- R & D

## **7. CURRICULA OF INPLANT TRAINING**

Government Polytechnic Mumbai has been awarded an academic status by Govt. of Maharashtra vide government resolution, Higher and Technical Education, and Employment Dept. No. WBP-1093/(2640)(69)/VE-5, dated 30<sup>th</sup> May, 1994 to fulfill the demands of the industry as per the technological changes taking place in various fields of application. In this context, to monitor the overall functioning of the institute, various committees namely Governing Body, Board of Studies, Planning Committee, Evaluation Committee, Examination Committee, Appeal and Grievances Committee, and Purchase Committee were constituted under the autonomous institute by Govt. of Maharashtra vide government resolution, Higher and Technical Education, and Employment Dept. No. WBP-1093/(2640)(69)/VE-5, dated 31<sup>st</sup> May, 1994. As per the above referred resolution, Governing body is empowered to approve modifications in the present curriculum in order to meet the changed demands of the industry, society from time to time (Governing body- Function 7). In tune with the same, Board of Studies committee, is also empowered to prepare the syllabi of various courses, and develop curriculum, keeping in view the objectives of institute and the national requirement, provided syllabi shall be equivalent to the syllabi of Board of Technical Education (Board of Studies-function 1).

### **7.1 Electronics Engineering curriculum For Inplant Training**

Programme : <b>Diploma in Electronics Engineering (Sandwich Pattern)</b>										
Course Code: <b>EC19307</b>				Course Title: <b>In plant Training</b>						
Compulsory / Optional: <b>Compulsory</b>										
Teaching Scheme and Credits				Examination Scheme						
L	P	TU	Total	TH (2Hrs 30min)	TS1 (1Hr)	TS2 (1Hr)	PR	OR	TW	Total
-	<b>40</b>	-	<b>40</b>	-	-	-	-	<b>100*</b>	<b>100</b>	<b>200</b>

Abbreviations: L- Theory Lecture, P-Practical, TU-Tutorial, TH- Theory Paper TS1 & TS2- Term Tests, PR-Practical, OR-Oral, TW: Term Work (progressive assessment) , \* Indicates assessment by External Examiner else internal practical skill test , # indicates Self, on- line learning Mode, @ indicates on line examination

**Note:** For Minimum passing marks under various heads, refer, examination rule AR 26. Two practical skill test are to be conducted. First skill test at mid term and second skill test at the end of the term

### Rationale:

We are in the era of skill development. Indian industrial sector is passing through highly competitive phased due to globalization. Cut throat competition is pre dominant and quality is one of the decisive factors for sustainability. Quality has become decisive factor in attracting students and faculty to an institution. The institution which offers quality education will survive in present scenario. Quality education cannot be complete without implant training.

In plant training provides an exposure to industry work culture, under the guidance of experienced persons, within the organization. The exposure will be provided in the following aspects of business: Technical and operations, Management, Personnel Policy, Finance, Marketing, Purchase, Legal and Social, etc. The mechanism of implant training will also provide an opportunity for industries to contribute in students overall development.

**Course Outcomes:** After the in plant training student should be able to

CO1	Gain first-hand experience of working as an engineering professional, including the technical application of engineering methods.
CO2	Develop technical, inter personal and communication skill.
CO3	Observe the functioning and organization of business /company.
CO4	Gain exposure to management programs and systems, effective administration method and compilation of information.

### CO Vs PO and CO Vs PSO Mapping

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	3	2	2	3	2	3	3	2	3	3
CO2	2	1	1	2	2	2	3	1	1	1
CO3	1	-	-	1	2	1	1	-	1	-
CO4	1	1	2	2	2	3	2	-	1	-

### Industry Consultation Committee:

Sr. No	Name	Designation	Institute/Organisation
1	Mr. Amol Sakalkar	Director	Digisel Systems, Mumbai.
2	Prof. Anjum Mujawar	HOD, Electronics Engineering	Vidyalankar Polytechnic, Mumbai.
3	Prof. R. H. Gadyalji	HOD, Electronics Engineering	K. J. Somaiya Polytechnic, Mumbai.
4	Dr. H. M. Pardeshi	Lecturer in Electronics Engineering	Govt. Polytechnic Mumbai

Coordinator,  
Curriculum Development,  
Department of \_\_\_\_\_

Head of Department  
Department of \_\_\_\_\_

I/C, Curriculum Development Cell

Principal

## **7.2 Term Work Evaluation**

Regular monitoring of the students will be done by the polytechnic supervisors. Progress of the students will be monitored jointly by the supervisor from institute and industry. Polytechnic supervisors will take review of daily and weekly diary during every visit.

- Term work of the students will be evaluated jointly by the industry supervisor and polytechnic supervisors, based upon the performance of the students, work done by the student during the training.
- As a part of term work, industry supervisor will evaluate out of 50 marks, considering the following points
  - i) Punctuality , ii) Discipline, iii) Learning initiatives, iv) Daily and weekly diary maintenance, and v) knowledge gained /skills achieved.Polytechnic supervisor will evaluate the students out of 50 marks considering the following points i) Punctuality , ii) Daily and weekly diary maintenance, iii) Learning initiatives, iv) Inplant training report writing, and v) knowledge gained /skills achieved.
- Total marks given by industry supervisor and polytechnic supervisor will be the total term work marks obtained by students during inplant training (outof 50+50=100). Respective department shall maintain the record of the same.

## **7.3 End Semester External Oral Examination**

Evaluation of end semester external oral examination for 100 marks will be done jointly by the internal examiner from the respective department and external examiner, preferably from industries. Students should be evaluated based on presentation, knowledge gained and viva exam. The basic/core practical skills out of the total skills which students are supposed to have learnt during their industrial training should be examined. Various documents such as training report, daily and weekly diaries, special task work, projects, assignments etc. can be reviewed for the same.

Term work evaluation criteria for Inplant Training is as given below:

Term work evaluation for Inplant Training	
Name of Trainee	Mr/Ms..... .....
Enrolment No.	.....
Period of Training	From __/__/20 To __/__/20
Industry Name	..... .....

**Term work evaluation by Industry supervisor**

	Punctuality/ Discipline	Learning initiatives/ Attitude	Daily and weekly diary maintenance,	Inplant training report writing	Knowledge gained /skills achieved	Total marks
Max. Marks	5	5	5	5	5	25
Marks obtained						
Name and signature, and seal of Industry supervisor						

**Term work evaluation by Polytechnic Supervisor**

	Punctuality	Daily and weekly diary maintenance,	Learning initiatives taken,	Inplant training report writing	Knowledge gained and or skills achieved	Total marks
Max, Marks	5	5	5	5	5	25
Marks obtained						
Name, signature , and seal of Polytechnic supervisor						

- Viva (Oral exam.) evaluation criteria for Inplant Training is as given below:

Viva (Oral exam.) evaluation for Inplant Training	
Name of Trainee	Mr/Ms..... .....
Enrolment No.	.....
Period of Training	From ___/___/20 To ___/___/20
Industry Name	..... .....

**Viva (Oral exam.) evaluation by Industry supervisor**

	Ability to apply knowledge in practice	Leadership qualities	Interpersonal skills	Inculcation of safety attitude	Presentation & learning outcomes	Total marks
Max. Marks	5	5	5	5	5	25
Marks obtained						
Name and signature, and seal of Industry supervisor						

**Viva (Oral exam.) evaluation by Polytechnic Supervisor**

	Review of industrial assignments/work done	Team skills	Industrial safety awareness	Correlation of theory and industrial practices	Presentation & learning outcomes	Total marks
Max, Marks	5	5	5	5	5	25
Marks obtained						
Name, signature , and seal of Polytechnic supervisor						

## **7.4 Suggested Work Load**

Faculty members of the concerned department must visit periodically to the concerned industries to take follow up of the students during training for evaluating student's activity and their progress. The teaching load of 4 hrs per week may be considered for polytechnic supervisor for guiding and monitoring industrial trainees. Department has to prepare time table for the faculty members in such a way that the concerned teachers remain free for one complete day (may be different days for different teachers) in each week for industrial visits.

## **7.5 Inplant Training Report Format**

It is essential to document the knowledge gained, skills achieved, activities performed, processes observed, and assignments completed during training period, etc. alongwith the brief information of section, department, and industry etc. in the form of industrial training report at the end of the training. The report is an important document for the reader who may be a technical or non-technical person, an expert and a third person not concerned with the training. The report should consist of major headings, results, conclusions and comments. Brief information of an industry, process performed, details of equipment's used, procedure followed, observations, calculations etc. must be included in this report. Statistical & data tables necessary but not essential can be placed in the appendix. The report should be written in such a way that a student should be able to refer the same in future. The report must reflect everything new the student has come across in the industry thus enlarging his horizon. Students may visit websites as their learning tool during industrial training. Such sources of learning like videos, animations are required for preparation of PPT, as well as literature for project report during the training period.

### **7.5.1 Page Specifications**

The training report should be prepared with the following specification

Paper size	: A4
Left Margin	: 3.5 cm



Right Margin : 3.0 cm

Top Margin : 2.54 cm / 1 inch

Bottom Margin : 2.54 cm / 1 inch

Heading – Font Size: 14, Bold, Times New Roman.

Normally Body Text – Font Size: 12, Times New Roman, 1.5 Spacing, Paragraph

Section Heading and Subsection Heading – Font Size: 12, Bold, Times New Roman.

Page numbers – All text pages as well as program source code listings should be numbered using numerals at the bottom center of the pages.

### **7.5.2 Outline of Report**

- Training report must have a formal title page.
- Report should include various certificates namely training completion certificate, No objection certificate etc. signed by the concerned authorities.
- Report must have preface at the beginning, stating the purpose of the report, sources of the information and the authority under which the work is conducted.
- The acknowledgement page follows the preface. The trainee has to express their gratitude where they underwent training, sponsor of the programme, industrial persons, polytechnic supervisor, Head of department, TPO, Principal, and other concerned.
- Table of contents or index.
- List of tables and list of figures
- Abstract- an abstract should summarize the outcomes of an inplant training such as knowledge gained, skills achieved, special task performed if any, etc. during the complete training period, in one or two paragraphs.

Report should be divided into chapters or sections, major headings depending on the area and the size of operations. Each chapter may include organizational details of the particular industry, section wise report, learning experiences etc.

Chapter I	Introduction of the Industry, Location, Turn over, Man power, Technical, non-technical Skilled personnel, products and marketing strategies etc.
Chapter II	Organizational structure – hierarchy, administration chart, communication system and Categories of communication between personnel and department etc.
Chapter III	Department/Section wise report: Description of the department/ Section/Shop, the processes and procedures followed in it. Equipment's in the department, special attachment, indigenously adopted tools, learning experience, work culture, materials, safety, drawings, sketches, specification of equipment, should be given wherever essential. Incentives for production, quality control and problem solving strategies. Roll of the engineers, personnel & any other human resource features should be highlighted.
Chapter IV	Industry based learning materials collected : - photographs, charts, diagrams, pictures, Specifications, research papers, technical etc
Chapter V	Detail report on the specialised work, task, project, assignments, etc., undertaken during inplant training.
Chapter VI	Conclusions should include overall learning outcome in form of gain in the area of technical knowledge, behaviour changes, personal gains etc. from inplant training.
Chapter VII	Industrial authority based Suggestions for curriculum Modification: if perceived, changes in the curriculum could be Suggested which may include new technology, new techniques, obsolete techniques etc. With proper justification best on observation/ experience during training and in consultation with the higher authority from industries. The student should perceive the curriculum Modification with the higher authority from industries with the copy of institute curriculum.
Bibliography	Bibliography includes the references which are referred for completion of inplant training report. The references includes the books, magazines, websites, video, research papers published etc.

Appendix:	<p>This section could contain essential charts, diagram, tables, photographs, drawings, etc. necessary but not essential in the main frame of the report but must be referred to in the main report. Plant lay out and descriptions of the apparatus may be supported with well labelled diagrams rather than descriptions.</p> <p>Except for the suggestions &amp; recommendations report must be written in past tense and first person.</p>
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## **8. LETTERS, FORMATS AND CERTIFICATES**

This section includes various letters, formats, and certificates required to be filled, signed, and certified by the concerned authorities for the successful competition of the Inplant Training

# GOVERNMENT POLYTECHNIC, MUMBAI

(An Academically Autonomous Institute of Govt. of Maharashtra)

49, Kherwadi, Aliywar Jung Road, Bandra (E), Mumbai-400051

Phone: 9029001925, Website: [www.gpmumbai.ac.in](http://www.gpmumbai.ac.in)

Email: [gpmumbai@gpmumbai.ac.in](mailto:gpmumbai@gpmumbai.ac.in),

Principal Mail: [principal.gpmumbai@dtmaharashtra.gov.in](mailto:principal.gpmumbai@dtmaharashtra.gov.in)

[principal@gpmumbai.ac.in](mailto:principal@gpmumbai.ac.in),

Office Mail : [office.gpmumbai@dtmaharashtra.gov.in](mailto:office.gpmumbai@dtmaharashtra.gov.in)



Date:

To,

\_\_\_\_\_

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## SUB: INPLANT TRAINING

Sir/Madam,

As a part of prescribed curriculum of Electronics Engg., your son/daughter/ward  
....., Enrolment no.  
....., has to undergo 20 to 24 weeks of Inplant training in industry during  
even term of the final year. He/she is being placed at  
.....  
.....(name and address of company, for inplant training from date  
..... to .....

In this regard, I wish you to be acquainted with certain rules/regulations/aspects of inplant training as detailed in students/parents consent letter attached herewith.

You are requested to go through the parents consent letter carefully and return to me duly signed.

Thanking you

Head of Dept.  
Electronics Engg

Govt. Poly. Mumbai

## STUDENT'S CONSENT LETTER\*

Date:     /     /

To,  
The Principal,  
Government Polytechnic, Mumbai  
Kherwadi, Bandra (E),  
Mumbai - 400 051.

### **Sub. : Inplant Training Consent**

I undersigned Kumar/Ms..... Enrol. No....., presently studying in Third/ Second year Electronics Engg. I am aware that during this semester myself is being placed in .....(name of the company) for inplant training as part of the Diploma programme in Electronics Engg.

I am also aware that:

1. I will submit a joining report in the prescribed form, duly countersigned by the Officer of the Organization where I will be working as inplant trainee.
2. I will entirely under the disciplinary control of the organization where I will be placed, and will abide by the rules and regulations in force of the said organization.
3. I will make aware of the safety rules, and regulations of the concerned industry in a first week of the training itself. I will not start/operate any machine, process, operations, work, etc. which may cause injury to me, others, an accident, or property loss etc. without permission and under the observations of the concerned supervisors
4. I will always work under the supervision of the industry supervisor allotted to me. In case, I do not follow the safety rules and regulations of the organization where I am placed for inplant training, and some injury/accident takes place to me or others, myself will be responsible for it. In such cases, Government polytechnic Mumbai or concerned industry will not be responsible for it.
5. I am also aware that I will maintain the confidentiality of the industrial documents, formulas, processes, sequences, drawings, methods etc. If knowingly or unknowingly I am disclosing such documents, and industry suffers financial loss or any other kind of

loss/defame, I will be responsible for it. No other persons like polytechnic supervisor or industry supervisor will be responsible for it.

6. I am also aware that if any property loss, injury occurs to me or others, because of my negligence, concerned organization as well as Govt. Polytechnic, Mumbai will not be responsible for it.
7. During training period, I will be entitled to the leave as per the rules laid down by the Polytechnic as well as concerned organization in this behalf. In case I need leave in unavoidable circumstances, I will get the leave sanctioned by the organization and my training supervisors.
8. I will maintain the prescribed daily diary, weekly diary etc. regularly and also get it countersigned by the concerned officer of the organization as well as training supervisor of the Polytechnic.
9. Inplant Training will be granted only if myself attends industry on all working days, completes minimum 20 weeks, maintains good progress, and undergoes the training to the satisfaction of the authorities of the Polytechnic and the Industry,
10. During the tenure of inplant training period, myself may or may not get the stipend. Also the expenses such as travelling expenses, food charge etc. will be done by me.
11. Once myself joins the specific organization for inplant training, I will not change/interchange the organization in any circumstance by my/our own, without informing the concerned authorities
12. After start of the inplant training, I will follow the stipulated training programme. If I do not complete the inplant training of minimum period, academic term of inplant training i.e. last semester may not be considered. In such a case I will have to complete the minimum period or repeat the complete term as decided by the concerned head of the department.

Yours faithfully,

Date:

Place:

Name and Sign of student with Enrl. No

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**\* Note: This copy should be submitted to the concerned Department**

## STUDENT'S CONSENT LETTER\*

Date:     /     /

To,  
The Principal,  
Government Polytechnic, Mumbai  
Kherwadi, Bandra (E),  
Mumbai - 400 051.

### **Sub. : Inplant Training Consent**

I undersigned Kumar/Ms..... Enrol. No....., presently studying in Third/ Second year Electronics Engg. I am aware that during this semester myself is being placed in .....(name of the company) for inplant training as part of the Diploma programme in Mech. Engg./ Civil Engg./ Rubber Technology/ Leather Technology/ Leather Goods & Footwear Technology.

I am also aware that:

1. I will submit a joining report in the prescribed form, duly countersigned by the Officer of the Organization where I will be working as inplant trainee.
2. I will entirely under the disciplinary control of the organization where I will be placed, and will abide by the rules and regulations in force of the said organization.
3. I will make aware of the safety rules, and regulations of the concerned industry in a first week of the training itself. I will not start/operate any machine, process, operations, work, etc. which may cause injury to me, others, an accident, or property loss etc. without permission and under the observations of the concerned supervisors
4. I will always work under the supervision of the industry supervisor allotted to me. In case, I do not follow the safety rules and regulations of the organization where I am placed for inplant training, and some injury/accident takes place to me or others, myself will be responsible for it. In such cases, Government polytechnic Mumbai or concerned industry will not be responsible for it.
5. I am also aware that I will maintain the confidentiality of the industrial documents, formulas, processes, sequences, drawings, methods etc. If knowingly or unknowingly I am disclosing such documents, and industry suffers financial loss or any other kind of

loss/defame, I will be responsible for it. No other persons like polytechnic supervisor or industry supervisor will be responsible for it.

6. I am also aware that if any property loss, injury occurs to me or others, because of my negligence, concerned organization as well as Govt. Polytechnic, Mumbai will not be responsible for it.
7. During training period, I will be entitled to the leave as per the rules laid down by the Polytechnic as well as concerned organization in this behalf. In case I need leave in unavoidable circumstances, I will get the leave sanctioned by the organization and my training supervisors.
8. I will maintain the prescribed daily diary, weekly diary etc. regularly and also get it countersigned by the concerned officer of the organization as well as training supervisor of the Polytechnic.
9. Inplant Training will be granted only if myself attends industry on all working days, completes minimum 20 weeks, maintains good progress, and undergoes the training to the satisfaction of the authorities of the Polytechnic and the Industry,
10. During the tenure of inplant training period, myself may or may not get the stipend. Also the expenses such as travelling expenses, food charge etc. will be done by me.
11. Once myself joins the specific organization for inplant training, I will not change/interchange the organization in any circumstance by my/our own, without informing the concerned authorities
12. After start of the inplant training, I will follow the stipulated training programme. If I do not complete the inplant training of minimum period, academic term of inplant training i.e. last semester may not be considered. In such a case I will have to complete the minimum period or repeat the complete term as decided by the concerned head of the department.

Yours faithfully,

Date:

Place:

Name and Sign of student with Enrl. No

---

**\* Note: This copy should be retained in this report for information.**



## PARENT/GUARDIAN CONSENT LETTER\*

Date:     /     /

To,

The Principal,  
Government Polytechnic, Mumbai  
Kherwadi, Bandra (E),  
Mumbai - 400 051.

### **Sub. : Inplant Training Consent**

I undersigned Mr./Mrs..... aware that my son /daughter/ward Master/Ms. ...., Enrol. No..... is studying in Third/Second year (Sixth/Fourth Semester) Electronics Engg in your Polytechnic. During this semester he/she is being placed in ..... (name of the company) for inplant training as part of the Diploma programme in Electronics Engg.

I am also aware that:

1. My son/daughter/ward will submit a joining report in the prescribed form, duly countersigned by the Officer of the Organization where he/she will be working.
2. My son/daughter/ward will be entirely under the disciplinary control of the organization where he / she will be placed, and he/she will abide by the rules and regulations in force of the said organization.
3. My son/daughter/ward will make aware of the various safety rules and regulations of the industry in the first week of the training.
4. My son/daughter/ward will always work under the supervision of the industry supervisor allotted to him/her. I am also aware that he/she will maintain the confidentiality of the industrial documents, formulas, processes, sequences, drawings, methods etc. If knowingly or unknowingly he/she is disclosing such documents, and industry suffers financial loss or any other kind of loss he/she will be responsible for it. No other persons like polytechnic supervisor or industry supervisor will be responsible for it.
5. I am also aware that during entire training period, if my son/daughter/ward is not following the safety rules, and regulations laid by the concerned organization, and if any injury /accident occur to him/her, only he/she will be responsible. Organization as well as Govt. Polytechnic Mumbai will not be responsible for such causes.
6. I am also aware that if any property loss, injury to him/her or others, an accident etc. occurs during the training period because of the negligence of my son/daughter/ward,

concerned organization as well as Govt. Polytechnic, Mumbai will not be responsible for it.

7. During training period, my son/daughter/ward is entitled to the leave as per the rules laid down by the Polytechnic as well as concerned organization in this behalf. In case he/she needs leave in unavoidable circumstances, he/she should get the leave sanctioned by the organization and his/her Training Supervisor.
8. My son/daughter/ward will maintain the prescribed daily diary, weekly diary etc. regularly and also get it countersigned by the concerned officer of the organization as well as training supervisor of the Polytechnic.
9. Inplant Training will be granted to my son/daughter/ward only if he/she attends his/her organization on all working days, completes minimum 20 weeks, maintains good progress, and undergoes the training to the satisfaction of the authorities of the Polytechnic and the organization of his/her inplant training.
10. During the tenure of inplant training period, my son/daughter/ward may or may not get the stipend. Also the expenses such as travelling expenses, food charge etc. will be done by him/her.
11. Once my son/daughter/ward joins the specific organization for inplant training, he/she will not change/interchange the organization in any circumstance by his/her own, without informing the concerned authorities
12. Once my son/daughter/ward starts his/her inplant training, he/she will follow the stipulated training programme. If he/she do not complete the inplant training of minimum period, his /her academic term of inplant training i.e. last semester may not be considered. In such a case he/she has to complete the minimum period or repeat the complete term as decided by the concerned head of the department.
13. I have explained all above contents to my son/daughter/ward, who has promised to adhere strictly to the rules and regulations of the industry as well as Government polytechnic Mumbai.

Yours faithfully,

Date:

Place:

Name and Sign of father/mother/ guardian

---

**\* Note: This copy should be submitted to the concerned Department.**

## PARENT/GUARDIAN CONSENT LETTER\*

Date:     /     /

To,

The Principal,  
Government Polytechnic, Mumbai  
Kherwadi, Bandra (E),  
Mumbai - 400 051.

### **Sub. : Inplant Training Consent**

I undersigned Mr./Mrs..... aware that my son /daughter/ward Master/Ms. ...., Enrol. No..... is studying in Third/Second year (Sixth/Fourth Semester) Electronics Engg in your Polytechnic. During this semester he/she is being placed in ..... (name of the company) for inplant training as part of the Diploma programme in Electronics Engg

I am also aware that:

1. My son/daughter/ward will submit a joining report in the prescribed form, duly countersigned by the Officer of the Organization where he/she will be working.
2. My son/daughter/ward will be entirely under the disciplinary control of the organization where he / she will be placed, and he/she will abide by the rules and regulations in force of the said organization.
3. My son/daughter/ward will make aware of the various safety rules and regulations of the industry in the first week of the training.
4. My son/daughter/ward will always work under the supervision of the industry supervisor allotted to him/her. I am also aware that he/she will maintain the confidentiality of the industrial documents, formulas, processes, sequences, drawings, methods etc. If knowingly or unknowingly he/she is disclosing such documents, and industry suffers financial loss or any other kind of loss he/she will be responsible for it. No other persons like polytechnic supervisor or industry supervisor will be responsible for it.
5. I am also aware that during entire training period, if my son/daughter/ward is not following the safety rules, and regulations laid by the concerned organization, and if any injury /accident occur to him/her, only he/she will be responsible. Organization as well as Govt. Polytechnic Mumbai will not be responsible for such causes.
6. I am also aware that if any property loss, injury to him/her or others, an accident etc. occurs during the training period because of the negligence of my son/daughter/ward,

concerned organization as well as Govt. Polytechnic, Mumbai will not be responsible for it.

7. During training period, my son/daughter/ward is entitled to the leave as per the rules laid down by the Polytechnic as well as concerned organization in this behalf. In case he/she needs leave in unavoidable circumstances, he/she should get the leave sanctioned by the organization and his/her Training Supervisor.
8. My son/daughter/ward will maintain the prescribed daily diary, weekly diary etc. regularly and also get it countersigned by the concerned officer of the organization as well as training supervisor of the Polytechnic.
9. Inplant Training will be granted to my son/daughter/ward only if he/she attends his/her organization on all working days, completes minimum 20 weeks, maintains good progress, and undergoes the training to the satisfaction of the authorities of the Polytechnic and the organization of his/her inplant training.
10. During the tenure of inplant training period, my son/daughter/ward may or may not get the stipend. Also the expenses such as travelling expenses, food charge etc. will be done by him/her.
11. Once my son/daughter/ward joins the specific organization for inplant training, he/she will not change/interchange the organization in any circumstance by his/her own, without informing the concerned authorities
12. Once my son/daughter/ward starts his/her inplant training, he/she will follow the stipulated training programme. If he/she do not complete the inplant training of minimum period, his /her academic term of inplant training i.e. last semester may not be considered. In such a case he/she has to complete the minimum period or repeat the complete term as decided by the concerned head of the department.
13. I have explained all above contents to my son/daughter/ward, who has promised to adhere strictly to the rules and regulations of the industry as well as Government polytechnic Mumbai.

Yours faithfully,

Date:

Place:

Name and Sign of father/mother/ guardian

---

**\* Note: This copy should be retained in this report for information.**

**JOINING LETTER**

**Date:...** / ... /20....

To,

.....  
.....  
.....  
.....

**Subject:** Permission for joining the Inplant training at your organization

**Reference:** .....

Respected Sir,

With reference to above subject, myself Mr./Ms .....  
....., student of Govt. Polytechnic Mumbai,Final  
year EC Enrolment number....., reporting for joining the Inplant Training at  
your organization on ..... (date).

I assure that, during complete training period, I will follow the rules and regulation of  
your organization.

You are kindly requested to permit me to join the Inplant training.

Thanking you.

Yours obediently

**(Signature of Student)**

## JOINING REPORT\*

Date: ... / ... /20....

To,

**The Principal,**  
Government Polytechnic, Mumbai,  
Kherwadi, Bandra (E),  
Mumbai 400 051.

**Subject:** Joining report for the Inplant training

**Reference:** .....

Respected Madam / Sir,

With reference to above subject, myself Mr./Ms .....  
....., student of Govt. Polytechnic Mumbai, Third  
/second year EC, Enrolment number....., joined for the Inplant Training at  
..... (name of organization) on  
..... (date).

I assure that, during complete training period, I will follow the rules and regulation of  
the said organization.

Thanking you.

Yours obediently

**(Signature of Student)**

**Signature of the Officer (Industry)**  
**Seal of the Organization**

---

\* This copy should be retained in this report for information.

## JOINING REPORT\*

Date: ... / ... /20....

To,

**The Principal,**  
Government Polytechnic, Mumbai,  
Kherwadi, Bandra (E),  
Mumbai 400 051.

**Subject:** Joining report for the Inplant training

**Reference:** .....

Respected Madam / Sir,

With reference to above subject, myself Mr./Ms .....  
....., student of Govt. Polytechnic Mumbai, Third  
/second year EC Enrolment number....., joined for the Inplant Training at  
..... (name of organization) on  
..... (date).

I assure that, during complete training period, I will follow the rules and regulation of  
the said organization.

Thanking you.

Yours obediently

**(Signature of Student)**

**Signature of the Officer (Industry)**  
**Seal of the Organization**

-----  
\* This copy should be submitted to the concerned Head of Department  
-----

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
1				Present = Absent = Leave =
2				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor



# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
3				Present = Absent = Leave =
4				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
5				Present = Absent = Leave =
6				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
7				Present = Absent = Leave =
8				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
9				Present = Absent = Leave =
10				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
11				Present = Absent = Leave =
12				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
13				Present = Absent = Leave =
14				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
15				Present = Absent = Leave =
16				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
17				Present = Absent = Leave =
18				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor



# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
19				Present = Absent = Leave =
20				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
21				Present = Absent = Leave =
22				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
23				Present = Absent = Leave =
24				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

## Weekly Report of Inplant Training

Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Date		Brief weekly report of the work done/observation made	Attendance No. of days
	From	To		
				Present = Absent = Leave =
				Present = Absent = Leave =

Students Signature:

Dated Signature of Industry Supervisor

Dated Signature of Polytechnic Supervisor

# GOVERNMENT POLYTECHNIC, MUMBAI

49, Kherwadi, Ali Yawar Jung Marg, Bandra (E), Mumbai-51

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## Daily Report of Inplant Training \*

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Name of the Student \_\_\_\_\_ Enrollment No: \_\_\_\_\_

Programme: \_\_\_\_\_ Dept./Plant/Section: \_\_\_\_\_

Company name & address \_\_\_\_\_

Week No.	Day and Date	Brief report of the work done/observation made etc. in a day

Sign of the student

(\* This is the format of daily report maintained by the student during training period. Students shall make separate 200 pages notebook as a daily diary, and maintain the records/observations / work/report etc. done on a particular day as per the above format.

Student shall carry this diary with them regularly during training period, and maintain the records in it. Also get this diary signed by the industry supervisor as well as polytechnic supervisor periodically. The information from this diary may be useful while writing the weekly diary, and inplant training report, examinations etc.)

## INDUSTRIAL TRAINING COMPLETION CERTIFICATE

This is to certify that the below student has successfully completed the Inplant Training of  
..... weeks at our organization .....  
..... (name and address of organization).

Name of the student: .....

Programme and Year : Third/ Second Year Electronics Engg

Enrolment No. : .....

Training start date: .....

Training completion date: .....

During the complete training period, the his/her performance and conduct was good.

Name and Sign.  
Section/ Industry Supervisor

Date:

Name and Sign.  
Head of Section/ Plant/ Officer (Industry)  
Seal of the Organization

---

## INDUSTRIAL TRAINING COMPLETION CERTIFICATE

This is to certify that Mr./Ms.....,  
Enrolment No....., Third/Second year student of Electronics Engg, from  
Government Polytechnic, Mumbai has successfully completed the Inplant Training of  
.....weeks at our organization .....  
.....(name and address  
of organization).

Training start Date: .....

Training completion date: .....

The performance and conduct of the above student was good during the complete training period.

Name and Sign.  
Section/ Industry Supervisor

Date:

Name and Sign.  
Head of Section/ Plant/ Officer (Industry)  
Seal of the Organization

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**\*Note:** Two copies of this certificate are to be printed on the letterhead of the industry. One copy will be included in the industrial training report, and one copy will retained with the student.

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## NO OBJECTION CERTIFICATE

This is to certify that Mr./Ms....., Enrolment No....., Third/Second year student Electronics Engg from Government Polytechnic, Mumbai has successfully completed the Inplant Training of ..... weeks at our organization ..... (name and address of organization) from ..... (start date of training) to ..... (completion date of training).

This report does not contain any confidential document of the company such as design, drawing, formula, specifications, documents, procedures, etc., which may cause any type of loss to this company.

Name and Sign.  
Section/ Industry Supervisor

Date:

Name and Sign.  
Head of Section/ Plant/ Officer (Industry)  
Seal of the Organization

-----  
**\*Note:** Student should take the printout of this certificate on the letterhead of the industry, and include in the industrial training report.  
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**FEEDBACK FORM**

**A. Feedback about the student**

(Name of student.....)

Enrolment No.:.....)

During complete training period,

- i. Student performance and conduct was ... Good/Average/poor
- ii. Student was found to be good at .....
- iii. Improvement of the student is desired in .....
- iv. Students willingness to learn new things..... ... Good/Average/poor
- v. Any other points.....  
.....  
.....

**B. Overall Feedback**

- i. Subjects/topics which you fill to be included in the new curriculum  
.....  
.....  
.....
- ii. Areas that needs further improvement  
.....  
.....
- iii. Suggestion for the modification of existing curriculum  
.....  
.....
- iv. Any other points  
.....  
.....

Date:

Name and Sign.  
Industry Supervisor/ Section / Plant/ Officer (Industry)

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## OUTCOMES OF THE INPLANT TRAINING COURSE

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- To experience work discipline in professional organization.
- To work with engineering professionals.
- To develop technical, interpersonal and communication skills.
- To gain the experience of technical application of engineering methods.
- To observe the functioning of departments, organization.
- To get exposure to administrative methods.
- To acquire the skill of data collection, and report compilation.

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## WHEN YOU ARE IN INPLANT TRAINING

---

- T - To be in **T**ime
- R - Remain attentive all the time
- A - **A**ctively participate
- I - Interact for clarity
- N - Note the important points
- I - **I**mprove listening habits
- N - **N**ever neglect the safety
- G - **G**ain as much as you can

# GOVERNMENT POLYTECHNIC, MUMBAI

(An Academically Autonomous Institute of Govt. of Maharashtra)

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Principal Mail: [principal.gpmumbai@dtmaharashtra.gov.in](mailto:principal.gpmumbai@dtmaharashtra.gov.in)

[principal@gpmumbai.ac.in](mailto:principal@gpmumbai.ac.in),

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## PROGRAMMES

### CIVIL ENGINEERING

FIRST SHIFT - 60 (Intake)

SECOND SHIFT - 60 (Intake)

### MECHANICAL ENGINEERING

FIRST SHIFT - 60 (Intake)

SECOND SHIFT - 60 (Intake)

### ELECTRICAL ENGINEERING

FIRST SHIFT - 60 (Intake)

### COMPUTER ENGINEERING

FIRST SHIFT - 60 (Intake)

SECOND SHIFT - 60 (Intake)

### ELECTRONICS ENGINEERING

FIRST SHIFT - 60 (Intake)

SECOND SHIFT - 60 (Intake)

### INFORMATION TECHNOLOGY

FIRST SHIFT - 60 (Intake)

SECOND SHIFT - 60 (Intake)

### INSTRUMENTATION ENGINEERING

FIRST SHIFT - 60 (Intake)

### RUBBER TECHNOLOGY

FIRST SHIFT - 30 (Intake)

### LEATHER GOODS & FOOTWEAR TECHNOLOGY

FIRST SHIFT - 15 (Intake)

### LEATHER TECHNOLOGY

FIRST SHIFT - 15 (Intake)