

## Criteria 4.1.1

4.1.1 The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc

### Index

Sr No	List of Documents
1	List of Classrooms
2	List of Labs
3	Texas Instrument MoU
4	.Phi-Robotics MoU
5	Anet Technology MoU
6	MODROB Sanction Letter



  
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Terna Engineering College  
Nerul, Navi Mumbai - 400 706.

Classrooms in Terna Engineering College

SR NO	Floor No	DEPT	Class Room	Area (sqm)
1	Ground	MECH	12	83.42
2	Ground	MECH	15	61.48
3	Ground	MECH	20	75.66
4	Ground	IT	35	55.68
5	Ground	IT	36	55.68
6	Ground	MECH	37	61.48
7	1st	EXTC	107	55.68
8	1st	EXTC	108	61.48
9	1st	EXTC	109	55.68
10	1st	EXTC	110	55.68
11	1st	GE	125	75.66
12	1st	ELX	127	83.42
13	1st	ELX	133	83.42
14	2nd	CIVIL	203	69.3
15	2nd	CIVIL	211	83.42
16	2nd	EXTC	214	58.94
17	3rd	GE	305	83.42
18	3rd	GE	311	83.42
19	3rd	GE	313	81.9
20	3rd	COMP	328	83.42
21	3rd	COMP	334	83.42
22	4th	GE	403	68.64
23	4th	GE	405	83.42
24	4th	GE	411	83.42
25	4th	GE	413	81.9
26	4th	GE	414	58.94
27	4th	COMP	423	84.7
28	4th	COMP	426	81.9
29	4th	COMP	428	83.42
30	5th	MTRX	507	64.43
31	5th	MTRX	510	83.42
	Total		31	

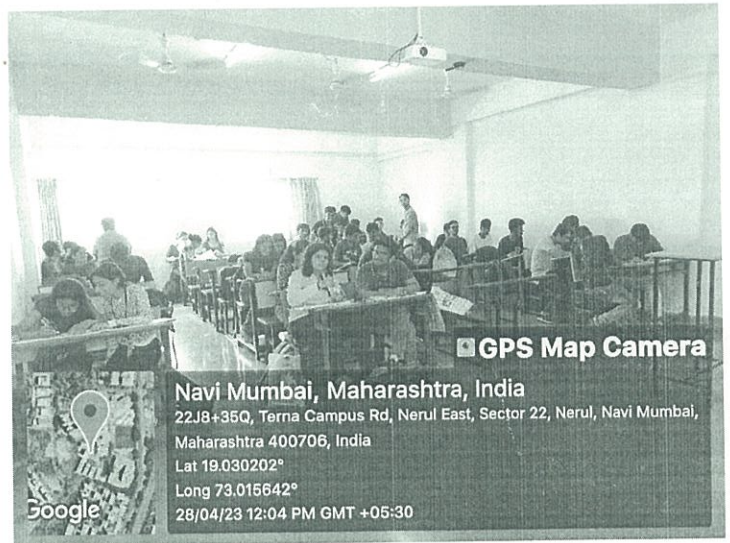


Figure 1: Classroom with LCD Projector

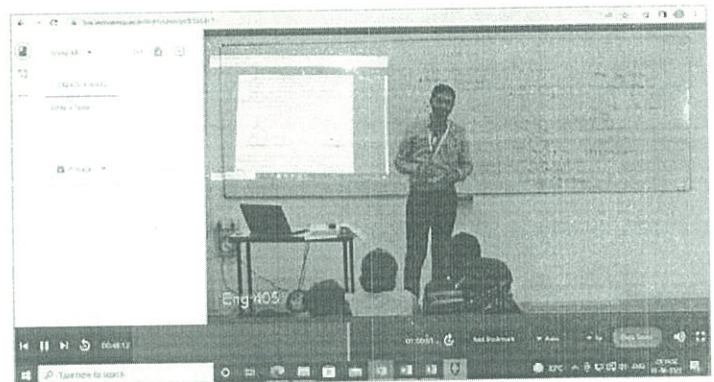
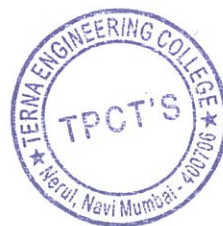


Figure 2: Classroom with Audio Video Recording facilities

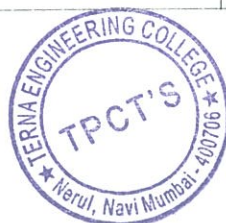


  
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Laboratories and Workshops at Terna Engineering College

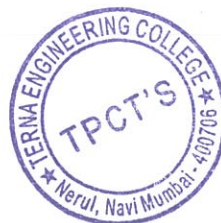
SR.NO.	ROOM NO.	LAB NAME	DEPT.	SQM
1	2	MACHINE SHOP	MECHANICAL DEPT.	112.7
2	6	MATERIAL TESTING LAB	MECHANICAL DEPT.	49.88
3	8	THERMAL ENGINEERING LAB	MECHANICAL DEPT.	83.6
4	11	TURBO MECHINERY LAB	MECHANICAL DEPT.	82.45
5	13	MEASUREMENT & AUTOMATION LAB	MECHANICAL DEPT.	55.68
6	14	HVAC LAB	MECHANICAL DEPT.	55.68
7	17	KINEMATCS OF MACHINERY LAB & DYNAMICS OF MACHINERY LAB	MECHANICAL DEPT.	55.68
8	23	CAD LAB	MECHANICAL DEPT.	84.7
9	103	SIMULATION LAB	ELECTRONICS & TELE. DEPT	64.02
10	105	OFC & MICROWAVE LAB	ELECTRONICS & TELE. DEPT	83.42
11	106	DSP LAB	ELECTRONICS & TELE. DEPT	55.68
12	111	COMMUNICATION ENGG. LAB	ELECTRONICS & TELE. DEPT	83.42
13	113	BASIC ELECTRONICS LAB	ELECTRONICS & TELE. DEPT	75.66
14	208	MICROPROCESSOR LAB	ELECTRONICS & TELE. DEPT	61.77
15	216	ADVANCE SIMULATION LAB	ELECTRONICS & TELE. DEPT	84.7
16	1	WORKSHOP	GE DEPT	132.6
17	5	FITTING SHOP	GE DEPT	49.88
18	306	CHEMISTRY LAB	GE DEPT	60.32
19	310	MECHANICS LAB	GE DEPT	60.32
20	303	LANGAUGE LAB	GE DEPT	64.02
21	406	PHYSICS LAB	GE DEPT	60.32
22	410	ELECTRICAL LAB	GE DEPT	60.32
23	7	CNC LAB	MECHATRONICS DEPT.	75.68
24	425	NI LABVIEW LAB	MECHATRONICS DEPT.	58.94
25	429	CAX LAB	MECHATRONICS DEPT.	60.61
26	508	INSTRUMENTATION & CONTROL LAB	MECHATRONICS DEPT.	61.67
27	509	PNEUMATICS & HYDRAULICS LAB	MECHATRONICS DEPT.	61.67
28	31	EMERGING TECHNOLOGY LAB	IT DEPT.	58.94
29	32	NETWORK & SECURITY LAB	IT DEPT.	75.66
30	34	INFOTECH LAB	IT DEPT.	83.42
31	39	OPEN SOURCE LAB	IT DEPT.	55.68



  
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32	40	DATA SCIENCE LAB	IT DEPT.	83.42
33	42	APPLE LAB	IT DEPT.	64.02
34	213	COMPUTER PROGRAMMING LAB	COMPUTER DEPT.	81.9
35	228	COMPUTER CENTER	COMPUTER DEPT.	301
36	232	R & D CENTER	COMPUTER DEPT.	189.52
37	325	GRAPHICS & MULTIMEDIA LAB	COMPUTER DEPT.	58.94
38	326	SOFTWARE DEVELOPMENT LAB	COMPUTER DEPT.	81.9
39	329	COMPUTER NETWORK LAB	COMPUTER DEPT.	60.61
40	330	LINUX LAB	COMPUTER DEPT.	60.61
41	331	ADVANCE COMPUTING LAB	COMPUTER DEPT.	61.77
42	332	SYSTEM LAB	COMPUTER DEPT.	60.61
43	333	COMPUTER SIMULATION LAB	COMPUTER DEPT.	60.61
44	336	DATABASE LAB	COMPUTER DEPT.	69.3
45	124	ELECTRONICS DESIGN & AUTOMATION LAB	ELECTRONICS DEPT.	58.94
46	128	ELECTRONIC DEVICES & CIRCUITS LAB	ELECTRONICS DEPT.	55.68
47	129	DIGITAL INTEGRATED CIRCUIT LAB	ELECTRONICS DEPT.	55.68
48	130	INDUSTRIAL AUTOMATION LAB	ELECTRONICS DEPT.	61.48
49	131	POWER ELECTRONICS LAB	ELECTRONICS DEPT.	55.68
50	132	MICROPROCESSOR LAB	ELECTRONICS DEPT.	55.68
51	135	PCB LAB	ELECTRONICS DEPT.	64.02
52	4	APPLIED HYDRAULICS LAB	CIVIL DEPT.	49.88
53	16	CONCRETE TECHNOLOGY LAB	CIVIL DEPT.	55.68
54	206	CIVIL ENGINEERING SOFTWARE LAB	CIVIL DEPT.	60.32
55	207	TRANSPORTATION ENGINEERING LAB	CIVIL DEPT.	55.97
56	209	SURVEYING LAB	CIVIL DEPT.	60.32
57	210	GEOTECHNICAL ENGINEERING LAB	CIVIL DEPT.	60.32
58	308	ENVIRONMENTAL ENGINEERING LAB	CIVIL DEPT.	61.77

4214.72



  
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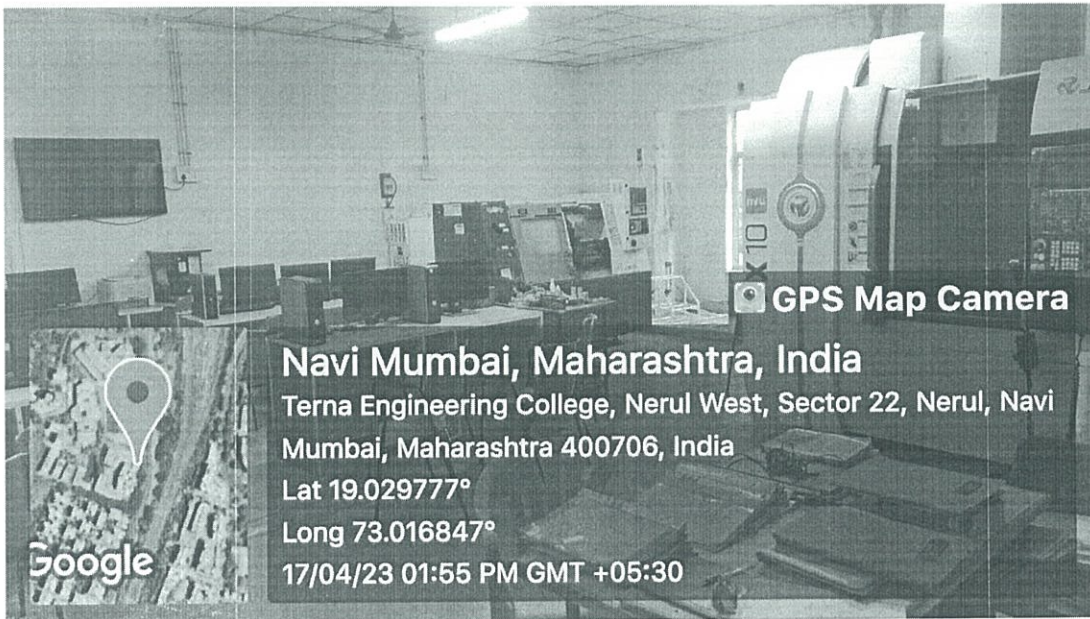


Figure 3: CNC Laboratory Room 007

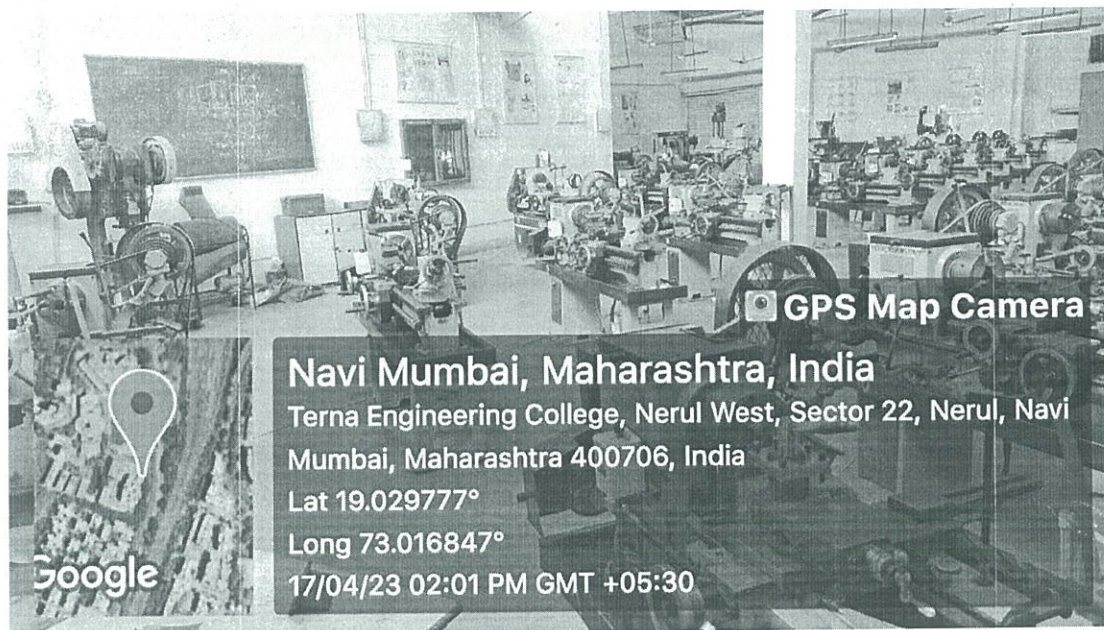


Figure 4: Workshop



  
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Seminar Hall and Auditorium

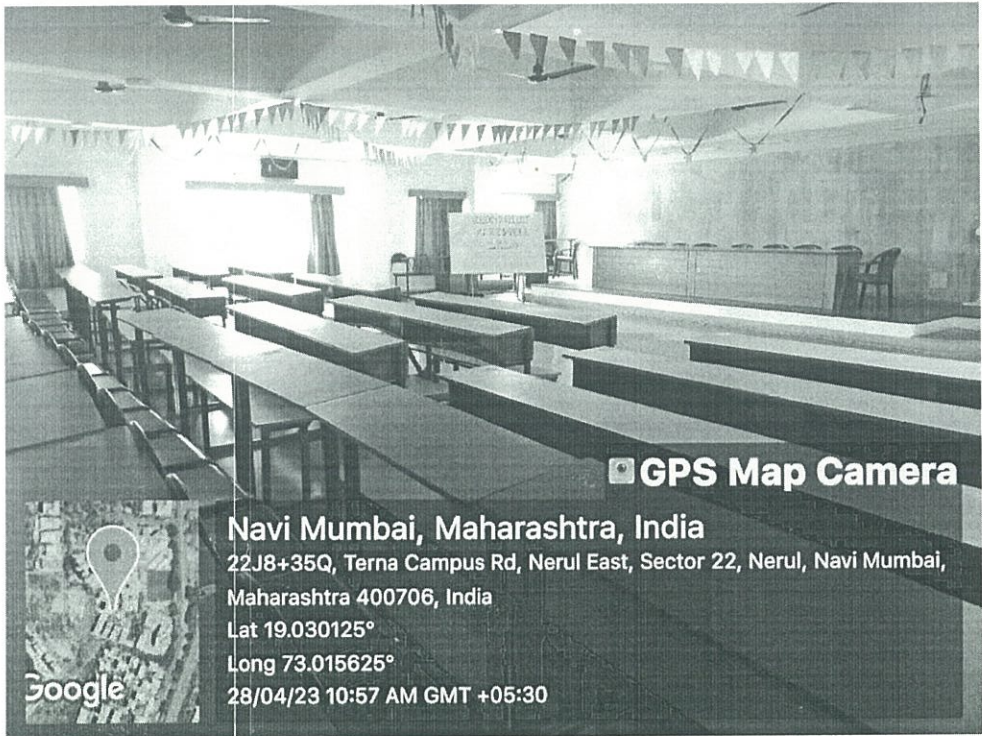


Figure 5: Seminar Hall in Engineering Building

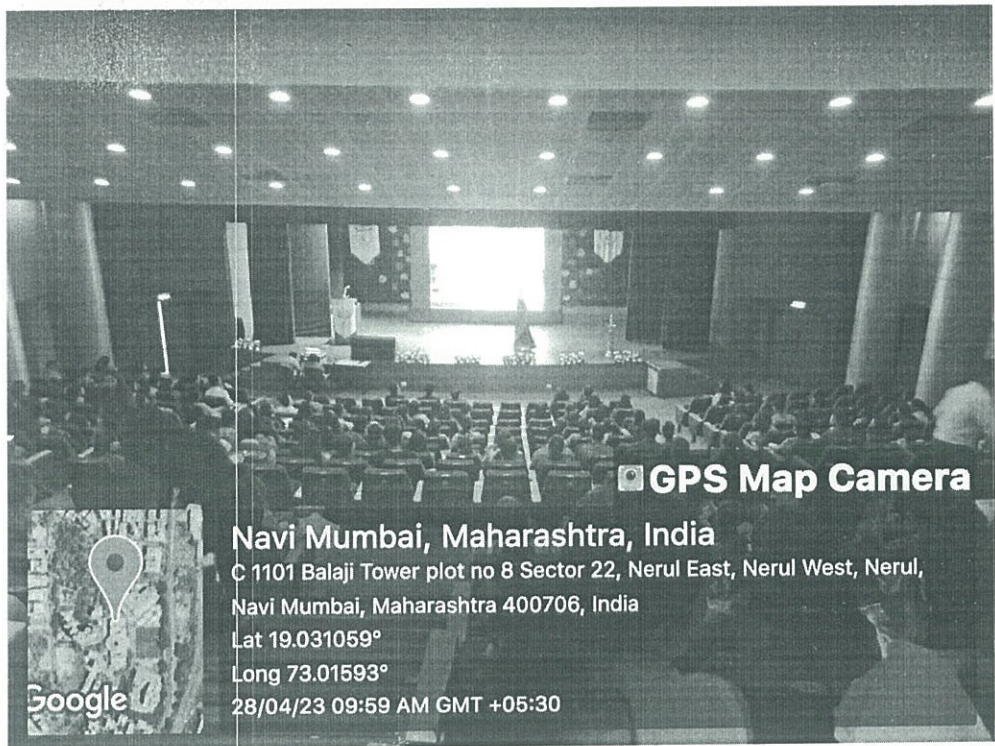


Figure 6: State of the Art Auditorium within the campus



  
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TI Innovation Lab

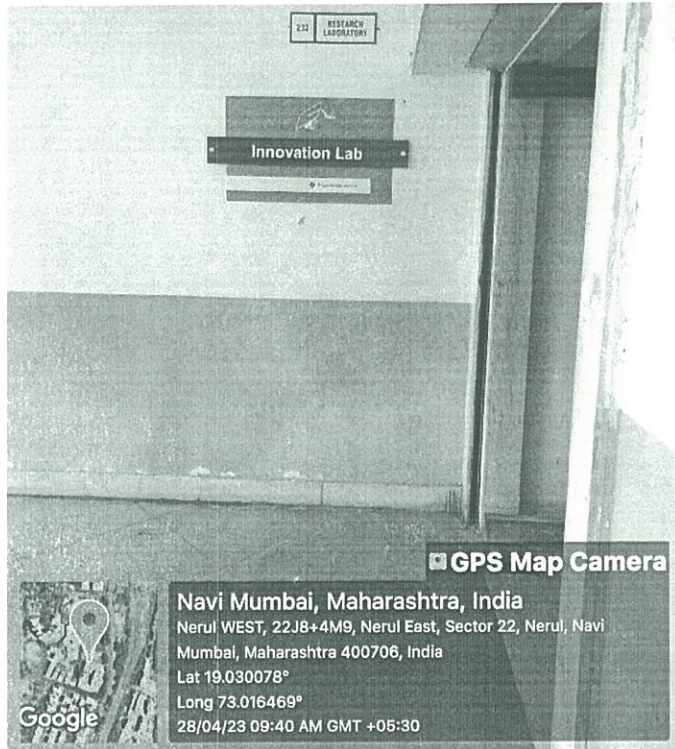


Figure 7: Texas Instruments Innovation lab

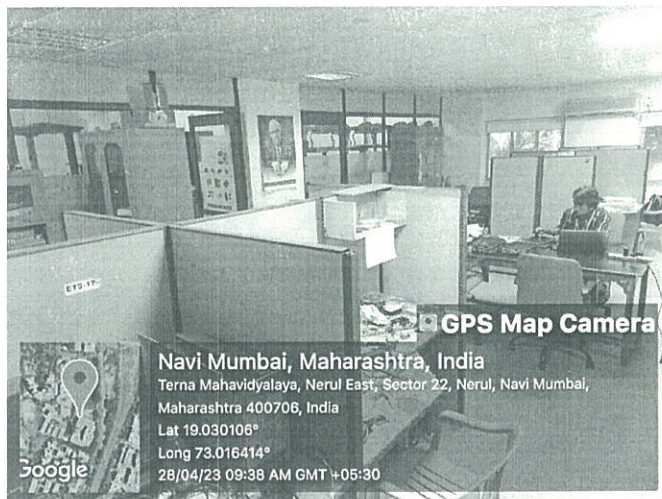
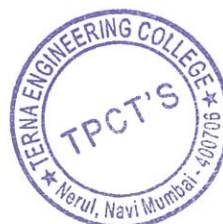
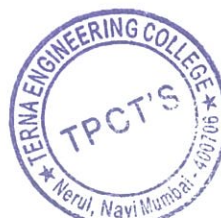
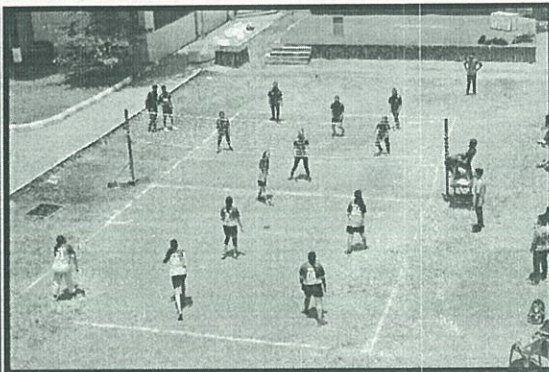
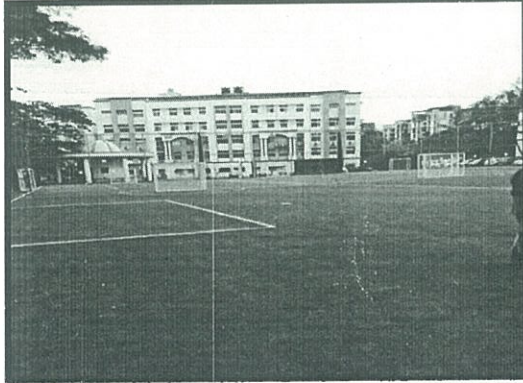


Figure 8: Inside TI Innovation lab



  
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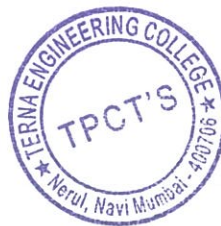
Sports Activities at TEC



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Cultural Activities at TEC



  
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# MoU with Texas Instrument

## Memorandum of Understanding

Date: 18th Sep 2017

Texas Instruments Innovation Center (A partner of Texas Instruments India University Program)

### 1. Introduction

India has become a promising investment destination for foreign companies looking to do business here. Our Honorable Prime Minister of India Shri Narendra Modi has launched the 'Make in India' initiative with the aim to give the Indian economy global recognition. This initiative is expected to spur development, economical growth and thereby improving the living standard of Indian Citizen.

Engineering education has to play very important role in providing huge pool of skilled and knowledgeable, and industry ready engineers. The future success of Indian industry depends on the growth of quality engineering education in India, especially since Indian industry is competing globally in areas such as software and hardware electronics, automobiles, pharmaceutical, chemicals, engineering equipment etc. In India, the brightest students opt for engineering after the 12th standard. This has resulted in a spurt of engineering colleges. However, the reality is that only a very small percentage of these students are readily employable (@25% or less as per the survey by Nasscom) and most lack industry specific skills. In order to bridge this gap between the academia and the industry and to ensure ready deployment in regular work streams, structured, industry specific training is necessary.

### 2. Brief Introduction about EdGate Technologies Private limited

EdGate Technologies Private Limited are Texas Instruments India University Program Partners. EdGate has an extensive presence all over the country and well established connectivity within the Academic and corporate communities. Our aim is to reach out to the Corporate, educators and the engineering student community to help them achieve more in their research and their learning initiatives.

Services offered to Universities under Texas Instruments India University Program

- Presales Guidelines
- Sales and Continuous Post Sales support
- Installation and Training
- Train the Trainer Program (Customized)
- Seminar/Workshop (Customized)
- Faculty Development programs (Customized).

EdGate has setup Texas Instruments Labs in various Engineering colleges across India. EdGate has signed 100 + MOU's and 10 TIIC's with Engineering colleges under Texas Instruments University Program

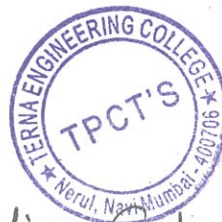
EdGate Technologies provide a whole range of services by leveraging its business expertise by strategic alliances with leading technology providers & are Sole authorized distributors of following Partners

(This is a rel. copy of the MoU, original is with the Inst)

19/2/17

Vijayal Yelam

(In-Charge, TI Innovation Center)  
T.E.P.



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- Mango Communication, USA : Mango has its roots in the Rice University Wireless Open-Access Research Platform (WARP) project, originally an NSF-funded research project that has grown into a self-sustaining open-source wireless research platform.
- SoftDB, Canada ( Texas Instruments – Third party developer)
- Technosoftmotion, Switzerland ( Texas Instruments – Third party developer)
- Next Dimension Technology, Korea ( Texas Instruments – Third party developer)
- Rowley Associates, United Kingdom
- Embest Technology Co Ltd, China ( Texas Instruments – Third party developer)
- Zeeis , China ( Texas Instruments – Third party developer)
- Link Research, USA ( Texas Instruments – Third party developer)

### Texas Instruments University Program

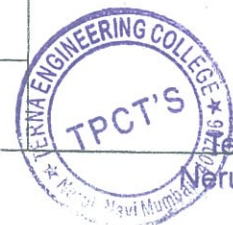
The TI University Program is the intersection between TI technology, educators and the engineers of tomorrow. Our advanced analog and embedded processing technologies fuel the passions of students and educators in university labs worldwide. Established in 1982, the TI University Program is a global program dedicated to supporting educators, researchers and students in facilitating the inclusion of TI analog and embedded processing in engineering classrooms, teaching and research labs, textbooks, design projects and course curriculum. By building relationships with educators, TI works to bridge the gap between the business and academic world. Incorporating TI technology into curriculum provides educators with the ability to teach real world concepts and complement this with a unique hands-on learning experience utilizing TI tools, making it more exciting, relevant and valuable to the student.

Working with TI increases the knowledge base of future engineers so they interact with industry-standard technology before they graduate. TI helps develop the skills needed to tackle tomorrow's most challenging problems. By providing students access to the largest and most advanced analog and embedded processing portfolio, the TI University Program provides the tools necessary to inspire innovation and take engineering concepts from the book to the breadboard.

#### 1. Contribution and Expectation of EdGate Technologies under Texas Instruments India University Program

EdGate Technologies has confirmed their support for setting up the **Texas Instruments Innovation Center** by donation of below tools. This will enable young students to learn, program and innovate on Analog System Design and Internet of Things (IoT).

Sr. No.	Item	Quantity
1	MSP430F5529 USB LaunchPad Evaluation Kit	4
2	SimpleLink Wi-Fi CC3200 LaunchPad	4
3	MSP 430 F5969 Launch Pad	4
4	MSP430 G2 Launch pad	5



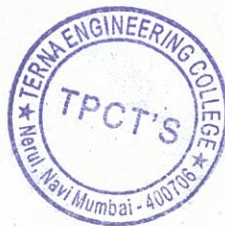
  
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5	Sensors: Sound Sensor 3-Axis Accelerometer Moisture Sensor Ultrasonic Sensor Electret Microphone Water Sensor Temperature Sensor Light Sensor	1 Each
5	Training to staff and students : Registration Material to all participants (CD's, Pens, Pads, Folders)- Internet facility is must for workshop	50-students/ 20 – faculty (3 Days for students)
6	TI Lab Poster and TI Lab Signage	

As on-ground deliverables, EdGate Technologies will provide the following:

- Hardware & Curriculum:** EdGate will provide the Curriculum for Texas Instruments Labs (details in Annexure). Terna Engineering College should find ways to incorporate curriculum in there syllabus.
- Lab Setup:** The College will set up a lab which will be entitled "Texas Instruments Innovation Lab" at its premises.
- Faculty Development Program:** Terna Engineering College will organize at least one faculty development program in its premise for its faculty members and faculty members of other Indian engineering institutions to teach TI Platform. The College will provide the infrastructure facility for conducting the faculty development program. EdGate Technologies Pvt Limited will help the college in conducting this program.
- Workshops/Events:** If the College wishes to organize a national event in the area of TI Platform, EdGate Technologies Pvt limited will provide speakers.
- Training Programs:** EdGate Technologies Pvt Limited will assist the college in organizing training programs/tutorials on topics related to TI Platform. Faculty members from the college who have undergone train-the-trainer program and who are certified by EdGate Technologies Pvt.Limited as trainers may run certified training programs. Terna Engineering College will provide certificates for the participants of such programs.
- TI Lab Engagement Program:** EdGate Technologies Pvt. Limited will help the Terna Engineering College to get engaged into the TI Innovation Center Lab under this program over a period of 3 months at three different levels i.e., Basic, Intermediate and Advanced.



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2 a) Contribution from Terna Engineering College

Faculty Mentor: Qualified Faculty of Electronics & Communication Engineering, Instrumentation & Control Engineering, Biomedical Instrumentation, Computer Engineering, and Information Technology (preferably with programming knowledge on C; C++) will be made point of contacts and will mentor interested students.

b) Terna Engineering College should set up lab based on Below:

Sr. No.	Item	Quantity	Approximate Cost
	Cost of Texas Instruments Innovation Center: Below items will be delivered	Below Package	3.50 LAKHS
1.	Analog Lab: A dedicated Lab focus on Teaching Analog signals		
A	ASLK PRO Kit	4	
2	Sensor Hub Booster Pack	2	
3.	Analog Attach MCU Labs (ARM): A secondary Element that attached to Micro controller Lab		
A	CC110L Booster pack	4	
B	TIVA Launchpad	10	
4.	Connectivity Attach Lab (Ultra Low Power Lab/Internet of Things Lab (IOT)) : A secondary Element that attached to Micro controller Lab Or stand alone solution focusing on connectivity		
A	Ez430RF-2500 MSP430 Wireless Development Tools	2	
B	MSP 430 G2 Launchpad	10	
C	SimpleLink Wi-Fi CC3100 BoosterPack	4	
D	SimpleLink™ CC2650 Wireless MCU LaunchPad Kit	2	
5.	Training for Faculty	2 Days	
<b>Terms and Conditions :</b>			
1. Payment: 100% Payment after delivery of products .			
2. Warranty: 1 Year			
3. Validity: TIIC Agreement is Perpetual, Training is valid for one year only.			
4. Taxes: GST@18%			

a) Center: Institute will identify and maintain Texas Instruments Innovation Center with at least 10 desktops / laptops on latest home/ office configuration.

b) Peripheral components: Institute will make arrangement for other equipment required for setting up the lab and for the maintenance of the lab.



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*[Handwritten signature]*



- c) Financial: Institute will operate the center with the help of existing staff.

**Terna Engineering College – Texas Instruments Innovation Center (TIIC)**

EdGate Technologies aimed at establishing a collaborative bridge between companies and colleges with the objective of making students in the Engineering Colleges and Schools have a greater hands on experience in technologies related to :-

- a. Embedded systems
- b. Ultra Low Power Applications
- c. Analog System Design
- d. Internet of Things (IOT)

These programs would go a long way to get the students hands on project experience in state of the art Micro-controller boards which are being developed by Texas Instruments. The experience will include hands on software and hardware skills which are highly desired by industry. These projects will provide an experiential appreciation of the latest technologies giving the students significant edge across multiple dimensions like, knowledge, enhanced employability, project experience, etc.

Terna Engineering College – TIIC will bring in the following core values:-

**Colleges:**

- Analog System Design Lab using ASLK PRO
- Ultra Low power Microcontroller Lab
- Internet of Things technology is based on the traditional Internet technology, development and extension, due to its extremely wide range of applications, involving almost all walks of life, and therefore in order to meet the needs of industry professionals, a growing number of colleges and universities applied for Internet of Things engineering professional, in teaching programs arranged in Internet of Things technology courses.
- Strong Branding and ability to attract better quality students
- Better ranking amongst the competition

**Students:**

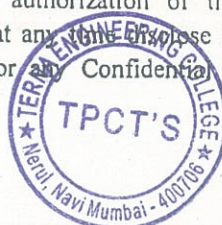
- Exposure to state of the art technologies through hands on learning experience
- Better employability opportunities
- Showcase talent and innovation
- Participating in Texas Instruments Innovation Challenge.( If Texas Instruments conducts any contest centre will be connected with the same)

**Vision forward**

Texas Instruments hopes that once these Innovation centres are in place and running, If Texas Instruments conducts any contest centre will be connected with the same.

**Restrictions and Obligations Governing the Use of Confidential Information and Materials**

- a) Recipient shall not disclose any Confidential Information/Confidential Material, to third parties without the prior written authorization of the Company. Notwithstanding the foregoing, the Recipient shall not at any time disclose to any third party any Confidential Information/Confidential Material or Confidential Information of any other party to



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whom the Company owes an obligation. However, the Recipient may disclose Confidential Information in accordance with judicial or other governmental orders, provided the Recipient shall give the Company reasonable notice, prior to such disclosure and shall comply with any applicable protective order or equivalent.

- b) The Recipient shall not use any Confidential Information or Confidential Materials of the Company for any purposes except those expressly contemplated hereby or as authorized by the Company.
- c) The Recipient shall take reasonable security precautions, which shall in any event be as great as the precautions it takes to protect its own confidential information, to keep secure the Confidential Information.
- d) Recipient agrees to segregate all such Confidential Materials from the confidential materials of others to prevent co-mingling.

#### Rights and Remedies

- a) Recipient shall notify the Company immediately upon discovery of any unauthorized use or disclosure of Confidential Information or Confidential Materials, or any other breach of this Agreement by Recipient, and will cooperate with the Company in every reasonable way to help the Company regain possession of the Confidential Information and/or Confidential Materials and prevent further unauthorized use or disclosure.

For Terna Engineering College

Principal.



  
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For EdGate Technologies Pvt Limited

Director.





# TERNA ENGINEERING COLLEGE

Sector 22, Phase II, Opp Nerul Railway Station, Nerul (W)

Navi Mumbai- 400706, 022 61115444 (30 lines)

Direct - 61115418, Fax 61115400, email - store@terna.org

The following number must appear on all invoices, bills of lading, and acknowledgements relating to this PO:

PURCHASE ORDER NO:	TPCT/TEC/ 2017
TO:	
EDGATE TECHNOLOGY PVT.LTD.	
68,1ST BLOCK,15 CROSS ROAD,RT NAGAR,	
BANGALURU-KARNATAKA-560032	

P.O. DATE	19.09.2017
F.O.B.	
SHIP VIA	
Name	MR.GURUPREET SINGH
E-mail	
Phone	080 23531166
FAX #	

Dear Sir /Madam,

We are pleased to place our firm order to supply following goods,subjected to terms and conditions mentioned below.Please,acknowledge.

QTY	UNIT	DESCRIPTION	UNIT PRICE	AMOUNT
04	UNIT	Texas Instruments Innovation Center: Below Items will be delivered Below Package		
02		1. Analog Lab: A dedicated Lab focus on Teaching Analog signals		
		A. ASLK PRO Kit 4		
		2. Sensor Hub Booster Pack 2		
04		3. Analog Attach MCU Labs (ARM): A secondary Element that attached to Micro controiler Lab		
10		A CC110L Booster pack 4		
		B TIV/ Launchpad 10		
		4. Connectivity Attach Lab (Ultra Low Power Lab/Internet of Things Lab (IOT)) :A secondary Element that attached to Micro controller Lab Or stand alone solution focusing on connectivity	350000.00	350000.00
02		A Ez430RF-2500 MSP430 Wireless Development Tools 2		
10		B MSP 430 G2 Launchpad-10		
04	C SimpleLink Wi-Fi CC3100 BoosterPack 4			
02	D SimpleLinkTMCC265U Wireless MCU LaunchPad Kit 2			
02	5. Training for Faculty 2 Days			
			subtotal - 1.	350,000.00
			Transpot -NA	0.00
			subtotal - 2.	350,000.00
			SERVICE TAX NA.	0.00
			GST TAX ADD-28 % :-	0.00
			GST TAX ADD-18 % :-	63,000.00
			OCTROI /CESS NA	0.00
			Transportation Charges	0.00
			subtotal - 3.	413,000.00
SHIP & BILL TO:		TERNA ENGINEERING COLLEGE	IN Words Rs	Four Lac Thirteen Thousand Only
Taxes /Duties		As above GST Tax,Inclusive of all taxes		0
Payment Terms		100 % Against Delivery 30 days	Testing	0
Delivery Period		1/2 days	Warranty	One Year
Delivery Charges		Free Delivery	Service	One Year

Prepared by - Storekeeper

Recommended by - Head of Dept

*(Vijaypal Patil)*

Approved by - Terna Public Charitable Trust



Reviewed by: *(Signature)*  
Principal  
2/19

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Nerul, Navi Mumbai - 400 706.

Ventured by

*(Signature)*



# TERNA ENGINEERING COLLEGE

A Graded An ISO 9001 Institution

(Approved by AICTE & Affiliated to University of Mumbai)

Plot No. 47, Sector 22, Opposite Railway Station, Nerul (W), Navi Mumbai - 400706, Ph. +91 22 61115444, Fax: +91 22 61115466  
Web: www.terna.org, e-mail: principal@terna.org

Ref. No. / Tec/office/2017-18/622

Date: 01.11.17

Acknowledgement letter for Setup of TI Innovation Lab

To  
M/S EdGate Technologies Pvt. Limited  
68/35 cross 1st block  
R. T. Nagar, Bangalore - 560032

Sub: TI Innovation Lab setup

Dear Sir,

On Behalf of Terna Engineering College, Nerul, Vijaypal Yadav acknowledge that COMPANY has helped in setting up TI Innovation lab on Connectivity attached, Analog Attached, IOT. We have purchased kits as per the description given in following table.

S.NO.	Name or Description of the kit	Quantity
1	MSP430F5529	5
2	Analog PRO	4
3	MSP 430F5969	4
4	MSP430G2 Launch pad	15
5	CC101 Booster pack	4
6	TIVA Launchpad	10
7	TE430RF-2500	2
8	Launch CC2640R2	3
9	CC3100 Booster Pad	4
10	BOOSTXLSENSHOP	5
11	LAUNCH-XI-CC1350-EU	2

Thank you

Yours faithfully,  
Prof. Electronics & Tele. Department  
Terna Engineering College, Nerul



*[Handwritten signature]*  
13/12/17



Terna Engineering College  
Nerul, Navi Mumbai - 400706



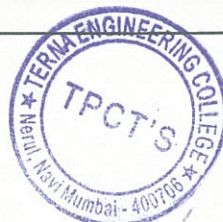


TEXAS INSTRUMENTS INNOVATION CENTER LAB ENGAGEMENT PROGRAM		
DURATION: 3 MONTHS		
FROM: AUGUST 2017		TO: OCTOBER 2017
LEVELS		
BASIC	INTERMEDIATE	ADVANCED
→ Tools overview	→ Peripheral programming	→ Understand communication interfaces
→ Ability to work with software & hardware	→ Familiarity with interfacing sensors, displays, motor	→ Insights on Mini Project Design
→ Familiarity with Resources	→ Getting introduced to efficient programming method	→ Ability to interconnect modules
1 month	1 month	1 month

TI Technologies
1. Analog Design ASLK PRO
2. MSP430G2553 LaunchPad + CC110L BoosterPack
3. MSP430F5529 LaunchPad
4. MSP430FR5969 LaunchPad
5. Tiva-c LaunchPad+SensHub BoosterPack
6. Internet of Things: Tiva LaunchPad+CC3100 BoosterPack, CC3200 LaunchPad

**Guidelines:**

1. This program is for colleges who have set up TIIC Lab at their campuses.
2. The motive of this program is to engage students and teaching communities in colleges to achieve maximum benefits from TIIC Labs.
3. The college shall appoint one Faculty coordinator & one student coordinator for effective implementation of the program.
4. This program shall contain a series of assignments for the students to work on. The problems along with resource materials shall be shared during the first week of every month. The participants are expected to finish the assignments and submit the report to the faculty coordinator by the end of the month. Solutions to assignments shall be shared with the faculty coordinator. The assignments shall involve both theoretical concepts and lab sessions.
5. The faculty coordinator shall make sure that the students are completing the tasks & assignments as per the deadline.
6. EdGate Technologies shall make sure that the tasks and assignments are designed in a simple yet effective manner so as not to burden the participating students with the work load.
7. The students are free to choose to work on any of the TI Technologies mentioned in the table above as per his/her interest.
8. The program shall be divided into 3 categories: Basic, Intermediate and Advanced focusing on a specific goal as per the table. Each of these requires 1 month to be accomplished.
9. EdGate Technologies shall provide mentorship support to the students and not be engaged in full time support for project design or likewise.
10. The participating students are expected to work on the assignments as per the instructions and guidelines provided by EdGate Technologies.



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*[Handwritten signature]*





# Memorandum

Of

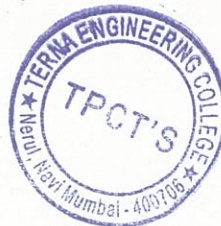
Understanding

Between

Phi Education Solutions Pvt. Ltd.

&

Terna Public Charitable Trust's  
Terna Engineering College, Navi  
Mumbai



  
PRINCIPAL  
Terna Engineering College  
Nerul, Navi Mumbai - 409 706.





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1 Executive Summary

**Memorandum of Understanding**  
**Between Phi Education Solutions Pvt. Ltd.**

And

**Terna Public Charitable Trust's Terna Engineering College, Navi Mumbai**

1.1 Context

This Memorandum of Understanding (MoU) is hereby entered into between **Phi Education Solutions Private Limited**, a company registered under Company Act 2013, India, Registered Office: A-66 Shreerang Society, Off LBS Marg, Thane (West) – 400601, Mumbai, Maharashtra India, hereinafter referred to as **Phi Education & Terna Public Charitable Trust's Terna Engineering College, Navi Mumbai Plot-12, Sector-22, Nerul, Navi Mumbai**, hereinafter referred to as **Terna Engineering College, Nerul**. Collectively all signatories of this MoU will be known as cooperators.

1.2 Purpose

The Purpose of this MoU is to formalize a relationship between the **Terna Engineering College, Nerul** and **Phi Education** for the purpose of, assisting TEC to develop an ecosystem for developing academic projects that fulfills the following criteria:

1. Create culture of project based learning
2. BE projects developed are industry relevant
3. Projects built by students enhances the skills of students and makes them more employable
4. Eliminates plagiarism
5. Develops a culture of innovation

1.3 Definitions, Problem and Objective

1.3.1 Definition:

**Project:** A work undertaken by a group of students (2 to 4) that has a defined goal that the students have to achieve.

**Mini Project:** A work undertaken by a student individually that has a defined goal which the student has to achieve.

**Academic Project Support:** Enhance the Quality and the Industry Skills required to complete the Academic Project.

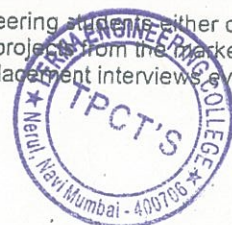
**Platform:** The Learning Management System and online store of Phi Education is collectively referred as Platform.

**Mentors:** Industry Professionals from Phi Education, who will guide students in completing their mini project and project

**Project Center/EPIC center:** A laboratory/center with state of the art infrastructure and equipment which students can use to build/implement the projects

1.3.2 Objective:

Currently, majority of the final year engineering students either copy their BE project from previous years or purchase ready-made projects from the market. Hence, students cannot defend the work they have done during placement interviews, eventually tarnishing the brand of the **Terna Engineering College, Nerul**



**PRINCIPAL**  
**Terna Engineering College**  
**Nerul, Navi Mumbai - 400 706.**  
Page 2 of 5





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Terna Engineering College, Nerul is desirous of utilizing the expertise and experience of Phi Education for providing a holistic solution which will:

1. Ensure BE projects are built/implemented by students
2. Help students gain industry relevant skills
3. Eliminates plagiarism and use of ready-made projects
4. Develops a culture for innovation
5. Enhances the brand of the Terna Engineering College, Nerul
6. Improves scope of research work within Terna Engineering College, Nerul
7. Setup a state of the art Laboratory for innovative project work

1.4 Phi Education and Terna Engineering College, Nerul agree that:

1. Terna Engineering College, Nerul will use the existing Infrastructure to do projects which will be a Self-Learning Facility. This Facility will be called EPIC (Engineering Products/Projects Innovation Center)
2. Phi Education will facilitate for Industry relevant projects that students can work on. Head of departments from Terna Engineering College, Nerul shall approve the list of projects.
3. All 6th Semester students in a batch will be assigned their BE Project by mid of the 6th semester.
4. Terna Engineering College, Nerul will add in the academic calendar schedule of every
  - a. 6th semester student a compulsory 8 hours per week lab class.
  - b. 7th and 8th semester student a compulsory 16 hours per week lab class
 During this lab class students will work on their Academic project
5. Terna Engineering College, Nerul will appoint a Faculty Coordinator for each project
6. Phi Education will hold an initiation seminar for students of every batch.
7. Phi Education will ensure students do mini projects to gain skills required to do their designated BE project.
8. Terna Engineering College, Nerul may procure, the requisite project kits, if the project so require, from Phi Education.
9. Phi Education shall provide access to its Platform, Mentoring support, Evaluation and Certification support to students and to staff members authorized by Terna Engineering College, Nerul
10. Phi Education will keep Faculty Coordinators updated about progress of students
11. Phi Education will provide evaluation and certification to students on completion of projects

2 2.1 Contact Details :

**Terna Engineering College, Nerul:**

**Phi Education:**

Amol Chavan  
Director - Operations  
Plot No. 12, Sector-22, Opp. Nerul  
Railway Station, Phase-II, Nerul (W), Navi  
Mumbai, Maharashtra 400706  
Phone: +91 9892519215

Zainul Abedin Abbasi  
Managing Director  
Phi Education Solutions Pvt. Ltd.  
A-66 Shreerang Society, Off LBS Marg  
Thane (Wes') - 400601  
Phone: +91 9022626744

3 3.1 Commencement /Expiration/Termination

This MoU takes effect upon the signature of Phi Education and Terna Engineering College, Nerul.

This MOU will expire in Two Project Cycles subject to review/ evaluation and acceptance of Performance of Phi Education for the First Project Cycle. The Two Project Cycles are as follows:  
Project Cycle 1: Beginning of Jan 2018 to End of March 2019  
Project Cycle 2: Beginning of Jan 2019 to End of March 2020



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For any specific reason, the MOU can be terminated with a 60 (Sixty) days written notice of Termination by either party.

**3.2 Methodology**

**Feedback:** The Phi Education may take feedback of the students as and when they feel necessary. Terna Engineering College, Nerul will take feedback from students on regular basis and will inform Phi Education about the outcome of the feedback. The suggestions evolved out of this feedback will be acted upon by Phi Education, with mutual agreement.

**3.3 Certificates and Awards.**

Certificates will be provided by Phi Education and Terna Engineering College, Nerul to all participants. Successful candidates will receive a "Project Completion Certificate" signed by Phi Education. The Certificates will be issued by the Phi Education.

**4 4.1 Terna Engineering College Students Personal Data and their Performance Data**

The Terna Engineering College Students Personal Data and their Performance Data is very Confidential and should only be shared based on a mutual consent of Terna Public Charitable Trust (TPCT).

**5 5.1 Fees**

The fees charged by Phi Education for providing continuous mentoring, evaluation and access to the platform will be Rs. 30,00,000/- (Rupees Thirty Lakhs Only) per year.

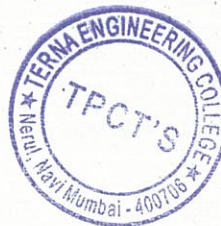
This fee is exclusive of all taxes and any taxes as applicable by law will be charged extra

**6 6.1 Payment Disbursement**

Terna Engineering College, Nerul will pay the fees of Rs. 30,00,000/- (Rupees Thirty Lakhs only) in Twelve equal monthly installments of Rs. 2,50,000/- (Two Lakhs Fifty Thousand only) per month starting Invoicing from the month of Feb 2018 onwards.

The Payment of each Monthly Installment will be done based on the Deliverables associated as per the Annexure 1 attached herewith the MOU.

The Payment of the Current Month's installment will be done upon end/close of the current month and in the First week of the next month. (Payment by first week of the next month for the Previous month).



  
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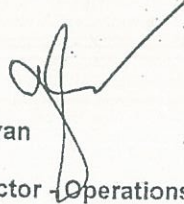





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Signatures:

<p>Authorized Signatory for Terna Engineering College, Nerul</p>  <p>Name: Amol Chavan Designation: Director - Operations Date:</p>	<p>Authorized signatory for Phi Education</p>   <p>Name: Zainul Abedin Abbasi Designation: Managing Director Date:</p>
<p>Witnesses</p>	
<p>Name: Lakshmappa Ragha Principal, Terna Engineering College, Nerul</p>  <p>Sign</p>	<p>Name: Rushabh Nisar Designation: VP - Sales &amp; Operations</p> <p>For <u>Yk dwe</u></p> <p>Sign</p>



  
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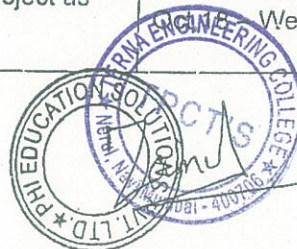




## Annexure 1 to MOU

### List of Deliverables and Timelines

Sr. No.	Particulars	Timelines
1.	Introduction to EPIC – Lecture	FEB'18 – Week 1
2.	Project List to Student	FEB'18. – Week 2
3.	Project Selection & Group Formations	FEB'18 – Week 3
4.	Access to Phi LMS	FEB'18 – Week 3
5.	Intro. Lectures to LMS & Learning Courses	FEB'18 – Week 4
6.	Commencement of Lab Session by Phi trainers	March'18 – Week 1 Onwards(14 Weeks )
7.	Completion of Module 1 -	Completed by June – Week 2
8.	Procurement List for Lab Equipment for Selected Projects	April' 18 – Week 4
9.	Project Break Down Structure to Groups (Project Planning & Initiation of BE Project)	June'18 – Week 2
10.	Access to project wise learning Modules	June'18 – Week 3
11.	Completion of Learning Module 2 (Varies project by project)	Aug,18 – Week 2
12.	Completion of Learning Module 3 or 4 (Varies project to project)	Oct,18 – Week 2
13.	Submission of partially completed project as per university guidelines (SEM 7)	Week 3



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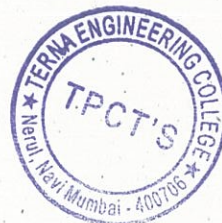
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14.	Execution of remaining BE Project	Jan'19 – Week 1
15.	Completion of Final BE Project	April'19 – Week 1

- This is a Macro level Plan for the progress of project based learning modules and final BE Project for students.
- Phi shall update the progress status on weekly basis to the EPIC Coordinators and implement necessary changes mutually agreed upon.
- There shall be one Meeting per month with the Management of Phi and Management of TEC for reviewing status and progress of the projects.

*Note: Here Week x means the time when the batch of students attend their respective lab class as per schedule.*



  
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**TERNA ENGINEERING COLLEGE****A Graded An ISO 9001 Institution****(Approved by AICTE & Affiliated to University of Mumbai)**Plot No. 12, Sector 22, Opposite Railway Station, Nerul (W), Navi Mumbai- 400706. Ph. +91 22 61115444, Fax No.+91 22 61115400  
Web : [www.terna.org](http://www.terna.org). e- mail : [principal@terna.org](mailto:principal@terna.org)

Date: 22 March 2022

Ref/TEC/MOD/offr/2021-22/1675

To,

The Advisor (IDC)  
Ministry of Human Resource  
Development, Govt. of India All India  
Council for Technical Education,  
Nelson Mandela Marg,  
Vasant Kunj,  
New Delhi 110070**Subject: Final report submission Sanction letter Sr No: F.No.9-202/IDC/MODROB/Policy-1/2019-20**

Respected Sir,

I thank you very much for sanctioning a grant of Rs.4,41,176 being the Grant-in-Aid under the scheme Modernization and Removal of Obsolescence (MODROB) for the year 2019-20 payable during the financial year 2020-21 for the project "Modernization of Terna Center of Excellence for Electro Magnetics"

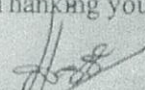
The Institute has received the amount of Rs.3,52,941/- (80% of the sanctioned amount) on 04-12-2020 and Sanction letter was received on 20/10/2020 at 2.55pm. The fund The project is completed, and we are hereby submitting the completion report. The amount of Rs. /- 4,41,176.22 been utilized for the project.

We herewith attach the following with this letter

1. Annual Progress Report
2. Utilization Certificates
3. Project Completion Report
4. Audited Utilization Certificate
5. General Financial Rules
6. Receipt and Payment Statement
7. Statement of Expenditure
8. Copy of Stock entry register
9. PEC Committee and details and minutes of meeting


Kindly acknowledge the receipt of the above document and the remaining grant of **Rs: 88,235.22**

Thanking you,

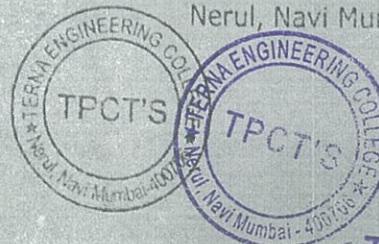
  
Dr. Jyothi Digge

Project Coordinator

Through Principal

  
Dr.L.K. Ragha  
PRINCIPAL
TERNA ENGINEERING COLLEGE  
Nerul, Navi Mumbai - 400 706.

1. Enclosures: Sanction letter
2. Attested Copies of the Invoices
3. Photographs of the Plaque and Instruments



1

  
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## Administrative Information

Project Category: Modernization and Removal of Obsolescence Scheme (MODROB)

Project Title: Modernization of “ Terna Centre of Excellence for electromagnetics”

Funding Agency: All India Council for Technical Education (AICTE)

Sanction Letter No. and Date: F.No.9-202/IDC/MODROB/Policy-1/2019-20

Date of sanction : 20/7/2020

Date of Receipt of Fund: 04-12-2020

Date of Receipt of Sanction Letter: 20/10/2020 at 2.55pm

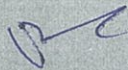
Subject Area: Electromagnetics

Project Coordinator: Dr.Jyothi Digge

Terna Engineering College

Nerul, Navi Mumbai 400706



  
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Nerul, Navi Mumbai - 400 70



## Executive Summary

All India Council for Technical Education (AICTE) has sanctioned a Modernization and Removal of Obsolescence Scheme (MODROB) project entitled "Modernization of Terna Centre of excellence for Electromagnetics" to Terna Engineering College, Nerul Navi Mumbai, Maharashtra 400706. The sanctioned letter No: F.No.9-202/IDC/MODROB/Policy-1/2019-20

Date of sanction : 20/7/2020

Date of Receipt of Fund: 04-12-2020

Date of Receipt of Sanction Letter: 20/10/2020 at 2.55pm

Subject Area: Electromagnetics

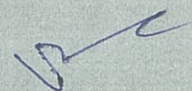
The Non-Recurring grant of Rs 3,74,999 was sanctioned for procuring the following approved items: 1) FOL-Dual 2) FOL-PASSIVE 3) FOL-FIBER 4) FOL-CD. On receipt of the fund, The Project Evaluation Committee took the comprehensive review of the requirements and the sanctioned amount and recommended that coordinator should purchase above items and the difference amount has been borne by the institute.

The recurring grant (Rs 66,176) has been used for purchasing Fiber-Optic-Accessories, namely, Optical MMF patch chords, Optical Power meter, ST adapter, SC adapter etc.

The project has been completed successfully. This centre of excellence can cater to any cutting edge research in microwave and Optical communication engineering apart from regular Mumbai University curriculum for UG and PG programs.

Using this setup, we are also planning to conduct skill development programs (Workshops/Seminars/FDP/SDP etc.) for students and faculty members. The facility is available to use for the research scholars and faculty members of colleges/organizations.



  
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Nerul, Navi Mumbai - 400 706



## Annual Progress Report for AICTE funded project under Modernization and Removal of Obsolescence (MODROB) for FY 2021-22

Date of Receipt of Fund: 04-12-2020

Date of Receipt of Sanction Letter: 20/10/2020 at 2.55pm

Subject Area: Electromagnetics

1. Project Coordinator: Dr.Jyothi Digge

(Name and address): Terna Engineering,

Nerul, Navi Mumbai

2. Project Title: Terna Centre of Excellence for Electromagnetics

3. Date of Commencement of the Project: 04-12-2020

4. Duration of the Project: 2 Years

5. Amount Sanctioned by AICTE: Rs.4,41,176

6. Amount Released by AICTE: Rs .3,52,941

7. Details of Expenditure:

### A. Non-Recurring

Sr.No	List of Equipments Procured	Amount (Rs)
1	FOL Dual	1,13,340.00
2	FOL Passive	68,004.00
3	FOL Fiber	68,004.00
4	FOL-CD	90679.00
5	Total GST	67,298.22
	<b>Total</b>	<b>4,07,325.22</b>

### B. Recurring

Sr.No	Fiber Optic Accessories	
1	MMF Optical Patch Chords, Optical Power Meter, ST Adapter, SC Adapter	33,851.00
	<b>GROSS TOTAL (A +B)</b>	<b>4,41,176.22</b>



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8. Whether there is any deviation from the purpose for which the grant was release:

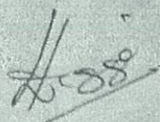
Not Applicable

9. Has this program augmented the facilities of your Institute/Department (If so please describe in 100 words) :

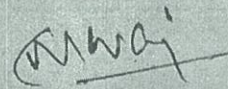
Yes. The Existing lab is equipped with state-of-the-art instruments catering to Optical fiber communication. TEC had the software related to optical communication. Availability of these new Optical Communication Lab resources have enabled our students and faculty to verify their theoretical and simulated results.

10. Academic application of the equipment procured if any

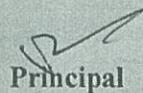
- Regular Course Experiments
- Batchelors Project
- Masters Project
- Research Work

  
Dr. Jagdish Dage  
Project Coordinator

(Name and Signature with date)

  
Registrar

Signature and Seal With Date

  
Principal

Signature and Seal with Date

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## UTILIZATION CERTIFICATE FOR THE FINANCIAL YEAR (2021-22)

Sanction letter Sr No: F.No.9-202/IDC/MODROB/Policy-1/2019-20

### A. Non-Recurring

Sr.No	List of Equipments Procured	Amount Sanctioned	Amount Utilized Item wise	Unspent Money
1	FOL Dual	Rs: 3,74999	1,13,340.00	Nil
2	FOL Passive		68,004.00	Nil
3	FOL Fiber		68,004.00	Nil
4	FOL-CD		90679.00	Nil
5	Total GST		67,298.22	Nil
<b>Total</b>			<b>4,07,325.22</b>	

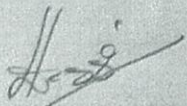
**NB: An amount of Rs.41,1176 was sanctioned and Rs 3,52,941 was released by AICTE as First instalment. All the above-mentioned equipment's were procured. Kindly refer attached invoice 1 and Invoice 2**

### B. Recurring

Sr.No	Name of the equipment Procured	Amount Sanctioned	Amount Utilised	Unspent Money
1	Fiber Optic Accessories MMF Optical Patch Chords, Optical Power Meter, ST Adapter, SC Adapter	Rs.66176	33,851.00	<b>Nil.</b> The difference amount was considered for the non-recurring equipment's

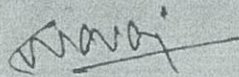
*Refer attached Invoice 1.*

Certified that the grant has that grant has been utilized for the purpose for which it was sanctioned in accordance with the terms and conditions attached to the grant. If as a result of check of check or audit objection, any irregularities noticed at a later stage, action will be taken to refund adjust or regularize the amount objected to

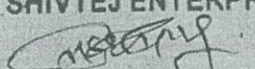


Dr. Jyothi Digge

Project Coordinator



Registrar  
For SHIVTEJ ENTERPRISES

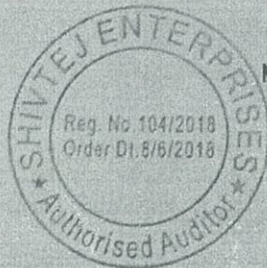
  
(Mr. Bapusaheb T. Mahadik)

Authorised Auditor

B-003, Junagar, Rly Stn. Complex  
Junagar, Navi Mumbai 400705

Mob No. 9820700439 / 8425971515

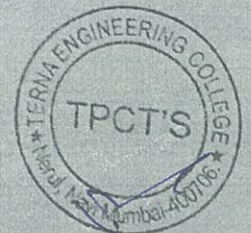
Chartered Accountant

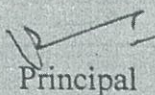


Name:

Membership Number

Full address with seal



  
Principal

(Signature and Seal with date)

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TERNA ENGINEERING COLLEGE  
Neral, Navi Mumbai - 400 706.



## Project Completion Report for MODROB Programme

File Number	F.No.9 -202/IDC/MODROB/POLICY/2019-20
Date of sanction	20-07-2020
Date of receipt of fund	04-12-2020
Date of receipt of sanction letter	20-10-2020
Subject Area	Electromagnetics (Optical, Antenna & Microwave Engineering)
Project Coordinator	Dr. Jyothi Digge
Project Title	Terna Centre of Excellence for Electro magnetics
Date of commencement of the Project	04-01-2021
Duration of the Project	02 years
Date of completion	31-03-2022
Amount Sanctioned by AICTE	Rs.4,41,176
Objective of the project	To expertise our students and faculty to expertise our students in Electromagnetics so that they can indulge in product development consultancy and training

### Details of Expenditure

#### A. Non-Recurring

Sr.No	List of Equipments Procured	Amount Sanctioned	Amount Utilized Item wise	Unspent Money
1	FOL Dual	Rs: 3,74,999	1,13,340.00	Nil
2	FOL Passive		68,004.00	Nil
3	FOL Fiber		68,004.00	Nil
4	FOL-CD		90679.00	Nil
5	Total GST		67,298.22	Nil
<b>Total</b>			<b>4,07,325.22</b>	

#### B. Recurring

Sr.No	Name of the equipment Procured	Amount Sanctioned	Amount Utilised	Unspent Money
1	Fiber Optic Accessories MMF Optical Patch Chords, Optical Power Meter, ST Adapter, SC Adapter	Rs.66176	33,851.00	Nil. The difference amount was considered for the non-recurring equipment's

**GROSS TOTAL (A +B)**

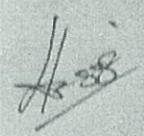
= **4,41,176.22**



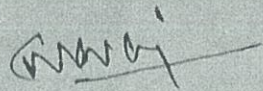
**PRINCIPAL**  
Terna Engineering College  
Nerul, Navi Mumbai - 400 706.



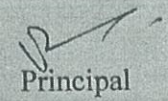
Future plan for using the equipment's /Facilities created	For research (Funded Projects)consultancy,Conductiong FDP and Workshops for students and faculty
Whether there is any deviation from the purpose for which the grant was released. If so details	No



Dr. Jyothi Digge  
Project Coordinator

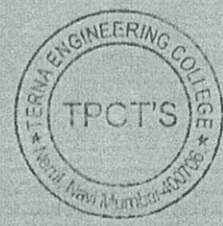
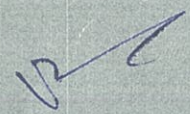


Registrar



Principal

(Signature and Seal with date)  
PRINCIPAL  
TERNA ENGINEERING COLLEGE  
Nerul, Navi Mumbai - 400 706.

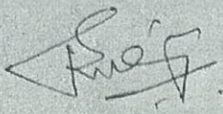
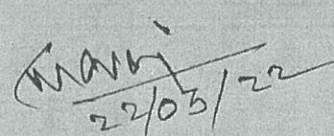
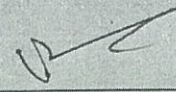
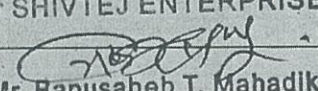

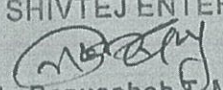
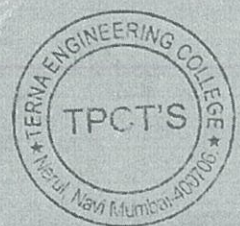
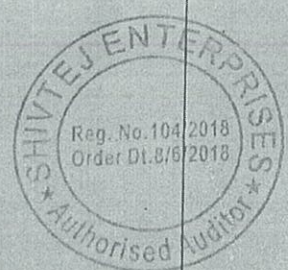



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## AUDITED UTILISATION CERTIFICATE

Certified that out of Rs. - Rs.4,41,176 (Rupees Four lakhs, forty one thousand, one hundred seventy six only) of Grant in aid sanctioned during the year 2019-20 payable during the financial year 2019-20 with Sanction Letter No.F.No. **F.No.9-202/IDC/MODROB/Policy-1/2019-20.Rs** (Rs 3,52,941(Rupees Three Lakhs, fifty two thousand,Nine hundred and forty one only) was received. This amount was utilized for the modernization of “ Terna Centre of Excellence for Electro magnetics” for which it was sanctioned. Certified that the grant has been utilized as per laid down terms and conditions for which it was sanctioned.

	 22/03/22	
*Finance Officer	Registrar	Principal
(Signature with date)	( Signature with date)	(Signature with date)
	For SHIVTEJ ENTERPRISES	TERNA ENGINEERING COLLEGE Nerul, Navi Mumbai - 400 706.
Chartered Accountant	 (Mr. Bapusaheb T. Mahadik) Authorised Auditor	
Name:	B-003, Junnagar, Rly Stn. Complex Junnagar, Navi Mumbai 400705 Mob No. 9820700439 / 8425971515	
Membership Number		 Reg. No.104/2018 Order Dt.8/6/2018 Authorised Auditor
Address		
Signature with date and seal	For SHIVTEJ ENTERPRISES  (Mr. Bapusaheb T. Mahadik) Authorised Auditor B-003, Junnagar, Rly Stn. Complex Junnagar, Navi Mumbai 400705 Mob No. 9820700439 / 8425971515	 TPCT'S Nerul, Navi Mumbai-400706
 Reg. No.104/2018 Order Dt.8/6/2018 Authorised Auditor		



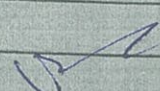
  
**PRINCIPAL**  
Terna Engineering College  
Nerul, Navi Mumbai - 400 706.



**FORMAT FOR GENERAL FINANCIAL RULES (FORM GFR- 19)**  
**Assets acquired wholly or substantially out of Government grants**  
**All India Council of Technical Education**

Serial No. :	F.No.9 -202/IDC/MODROB/POLICY/2019-20
Name of grantee Institution	Terna Engineering College Nerul West,
No. and date of sanction:	F.No.9 -202/IDC/MODROB/POLICY/2019-20 20-07-2020
Amount of the sanctioned grant	Rs. - Rs.4,41,176
Brief purpose of the grant:	To expertise our students and faculty to expertise our students in Electromagnetics so that they can indulge in product development consultancy and training.
Whether any condition regarding the right of ownership of Government in the property or other assets acquired out of the grant was incorporated in the grant —in-aid sanction:	Assets are not be disposed or utilized for the purpose other than those for which the grant was given without permission from AICTE.
Particulars Of assets actually credited or acquired	FOL Dual FOL Passive FOL -Passive FOL-Fiber FOL-CD Chromatic Dispersion Module Fiber Optic accessories
Value of the assets as on 31-March 2022	Rs 4,41,176.22
Purpose for which utilized at present:	Experimental projects for B.E, M.E students and educational research.
Encumbered or not	No
Reasons if encumbered:	Not applicable
Disposed of or not	Not Applicable
Reasons and authority, if any, for disposal:	Not applicable

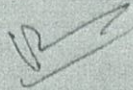


  
**PRINCIPAL**  
**Terna Engineering College**  
**Nerul, Navi Mumbai - 400708**

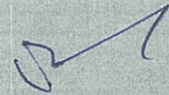
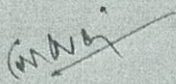


Remarks: Equipment and software will be used by the students and Faculty members for experiments and academic research purposes.

Principal's Signature with Seal



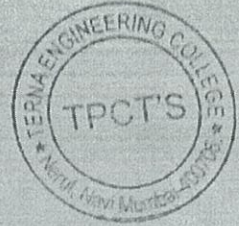
PRINCIPAL  
TERNA ENGINEERING COLLEGE  
Nerul, Navi Mumbai - 400 706.



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Terna Engineering College  
Nerul, Navi Mumbai - 400 706.



## STATEMENT OF EXPENDITURE AS ON 31-March-2022

Sr.No	Items/Particular	Vendor's name	Bill date	Invoice Number	Amount (INR)	GST I(NR)	Total Amount Paid (INR)	Cheque/Digital
1	FOL-DUAL	AKEDEMICA	8-03-2021	ALS/20-21/0055	2,83.199	50,975.82	3,34,175.00	
2	FOL PASSIVE							
3	FOL FIBER							
4	FIBER OPTIC ACCESSORIES							
5	FOL-CD	AKEDEMICA	4-10-2021	ALS/21-22/0031	90,679.00	16,322.22	1,07,001.22	
Charted Accountant								
Name						Principal		
Membership Number						Name		
Full Address						Signature		
Seal						College Stamp with Date		
<p>For SHIVTEJ ENTERPRISES</p> <p>(Mr. Bapusaheb T. Mahadik) Authorised Auditor</p> <p>B-003, Julnagar, Rly Stn. Complex Julnagar, Navi Mumbai 400705 Mob No. 9820700439 / 8425971515</p>						<p>PRINCIPAL</p> <p>TERNA ENGINEERING COLLEGE Nerul, Navi Mumbai - 400 706</p>		
<p>For SHIVTEJ ENTERPRISES</p> <p>(Mr. Bapusaheb T. Mahadik) Authorised Auditor</p> <p>B-003, Julnagar, Rly Stn. Complex Julnagar, Navi Mumbai 400705 Mob No. 9820700439 / 8425971515</p>								

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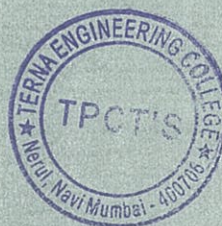
PRINCIPAL  
Terna Engineering College  
Nerul, Navi Mumbai - 400 706.



## RECEIPTS & PAYMENTS ACCOUNT FOR THE PERIOD ENDED ON 31-March-2022

Sr.No	Receipt	Amount
1	By Grant Received by AICTE(1 <sup>st</sup> Instalment)	Rs:3,52,941
2	Total Amount spent for recurring and Non recurring	Rs 4,41,176.22
3	Total Deficit receivable	Rs: 88,235.22
Chartered Accountant		Principal
Name	For SHIVTEJ ENTERPRISES  (Mr. Bapusaheb T. Mahadik) Authorised Auditor B-003, Julnagar, Piy. Stn. Complex Julnagar, Navi Mumbai 400705 Mob No. 9820700438 / 8425971515	PRINCIPAL TERNA ENGINEERING COLLEGE Nerul, Navi Mumbai - 400 706.
Membership Number		
Seal		

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 Terna Engineering College  
 Nerul, Navi Mumbai - 400 706



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 Terna Engineering College  
 Nerul, Navi Mumbai - 400 706



# DEAD STOCK ENTRY

TERNA PUBLIC CHARITABLE  
**TERNA ENGINEERING COLLEGE**  
Register of Dead Stock

**NERUL, NAVI MUMBAI**  
for the year

15/16

Sl. No.	Brand Name	Description of Item (Make of the Equipment, Model No. Equipment, S. No.)	Qty.	Amount	
				Cost Per Item	Total Cost
22	TPCT/TEC	ACTE - 2 FOL-DUAL MODROB/ EXCEL Fiber optic laser	01	1,12,500.00	1,12,500.00
		Academical source & Defector 18X6T FOL-DUAL MARKS - HSN 90237 401/2021			
		22 FOL passive fiber optic passive component module consisting of coupler - 1 No. 18X6T adaptor - 2 Nos WDM - 2 Nos [HSN - 90237]	01	65,004.00	65,004.00
		3] FOL-FIBER Single mode fiber optic cable module consisting Aluminium casing of 100 mtrs & 100mtrs SMF - cable Ina study Aluminium casing [HSN - 90237]	01	68,004.00	68,004.00

Academica solution  
Academica Solution

TERNA PUBLIC CHARITABLE  
**TERNA ENGINEERING COLLEGE**  
Register of Dead Stock

**NERUL, NAVI MUMBAI**  
for the year

15/16

Sl. No.	Brand Name	Description of Item (Make of the Equipment, Model No. Equipment, S. No.)	Qty.	Amount	
				Cost Per Item	Total Cost
27		Fiber optic accessories	01	33,851.00	33,851.00
		Like MMF optical patch chords, optical power meter ST Adaptor, SC Adaptor etc. [HSN - 90297]	18X6ST		
				Total cost 2,33,911	
				O/P cost 25,437	
				O/P cost 25,437	
				Round off 01	
				<b>Total cost 3,34,151</b>	

Academica Lab Solution  
DL-813/2021  
ST No 158 15181, Unit-9, KYUH Industrial Estate  
OPP. Sangam Press ET/modrob/ Kothrud, Pune  
411038, Maharashtra, India.  
GSTIN/UIN :- 27AAXFA9965F  
IZN

[Three Lakh, thirty four Thousand & one Hundred seventy five INR only]

Total Lab cost 2980550.50

TPCT/TEC	FOL-CD				
ACTE/	Chromatic Dispersion	01	90,679.00	90,679.00	
MODROB/	module				
EXTC/	HSN/SAC-9023	18X6ST		861.11	
ACADEMICA		SOFT		8161.11	
FOL-CD/					
493/20-21					

Total: 1,07,001.22  
[One Lakh, Seven Thousand, one INR & Twenty Two Paise only]

Academica Lab Solution  
ST No 15/81, Unit-9  
Kruhi Industrial Estate, OPP Sangam Press  
Kothrud, Pune 411038, Maharashtra, India.  
GSTIN/UIN :- 27AAXFA9965F  
IZN

MOD Jyoti Dige

Lab incharge

DASHNIPA KHARKE

Total Lab cost 351.72



**PRINCIPAL**  
Terna Engineering College  
Nerul, Navi Mumbai - 400 708.



# Program Evaluation Committee

TERNA ENGINEERING COLLEGE, NERUL

DEPARTMENT OF ELECTRONICS AND  
TELECOMMUNICATION ENGINEERING

Year 2020-21

Program Evaluation Committee (PEC)

MODROB

Chairman: Dr. L.K. Ragha

Co-Ordinator: Dr. Jyothi Digge

HoD Electronics Dr. Seema Bidey

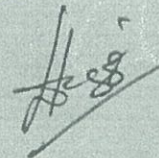
Dean Academics Dr. Shilpa Kharche

Korale Manoj R.

04/01/2021



  
PRINCIPAL  
Terna Engineering College  
Nerul, Navi Mumbai - 400 706.





## MOM of Program Evaluation Meeting

Due to pandemic only one meeting was conducted in the off line mode on 04-01-2021.

The agenda for the meeting:

Disbursement of MODROB fund (Ist installment)

Correspondance by Principal/ Registrar to AICTE regarding commencement of the project

Procurement of the quotation from three vendors

Display of plaque " Terna Center of Excellence for Electro magnetics" funded by AICTE under MODROB

Any other matter with the approval of the chairman

The meeting was attended by:

Chairman: Dr.L.K.Ragha

Project Cordinator: Dr.Jyothi Digge

HOD Electronics: Dr.Seema Biday

Dean Academics: Dr.Shilpa Kharche

Management Coordinato: Mr.Manoj Kokate

Meeting began with formal salutation by the chairperson

Sanctioned letter was circulated to all

Contents were explained to all by Dr.Jyothi Digge

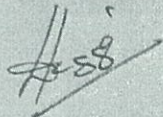
Chairperson instructed to call quotation from three vendors

A new plaque was ordered for mounting on the wall at the designated place in EXTC Departments

Chairman instructed to procure all the sanctioned instruments without any delay

Management Coordinator agree to born the remaing amount that shall be reimbursed later by AICTE

Meeting conclude with vote of thanks by Dr.Jyothi Digge



Dr.Jyothi Digge

Project Coordinator



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Terna Engineering College  
Nerul, Navi Mumbai - 400708



PLAQUE of Terna Centre of Excellence

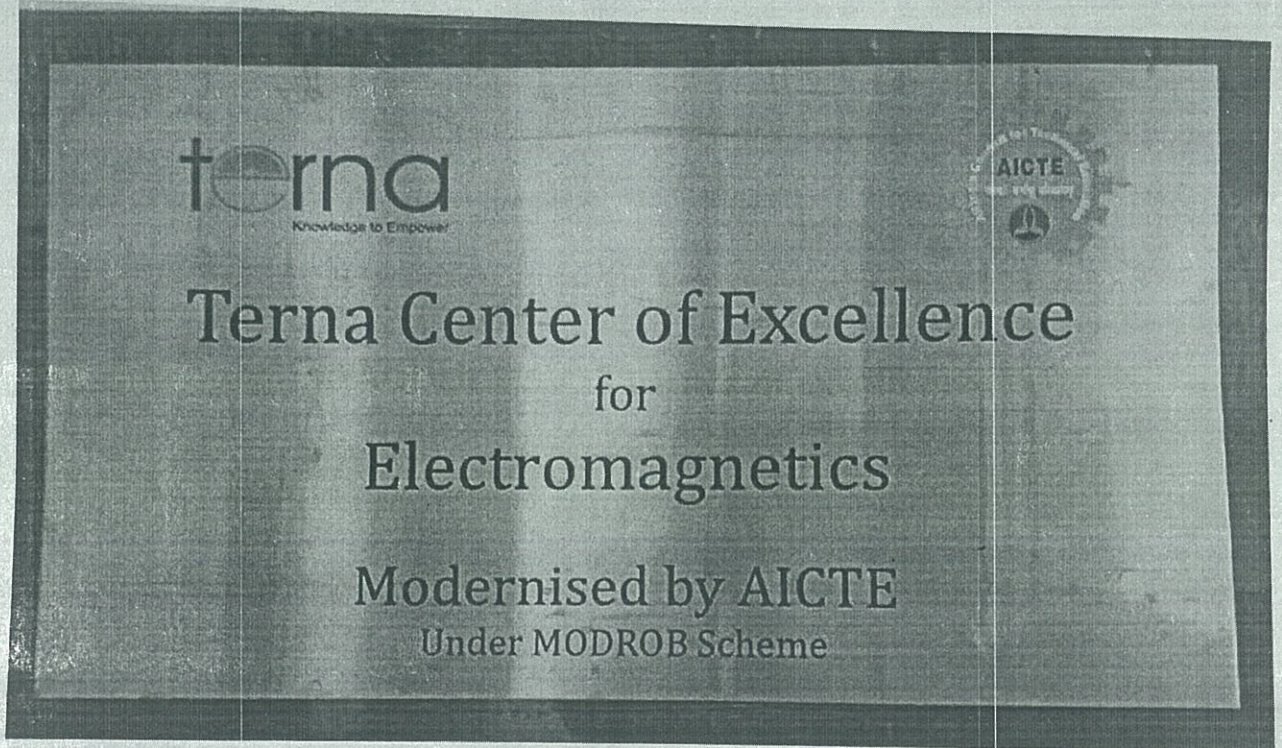
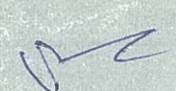
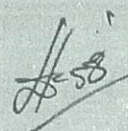


Fig.1 Plaque of Terna EXTC Department for the modernized Lab



  
PRINCIPAL  
Terna Engineering College  
Nerul, Navi Mumbai - 400 706





## PICTURES OF INSTRUMENTS PROCURED

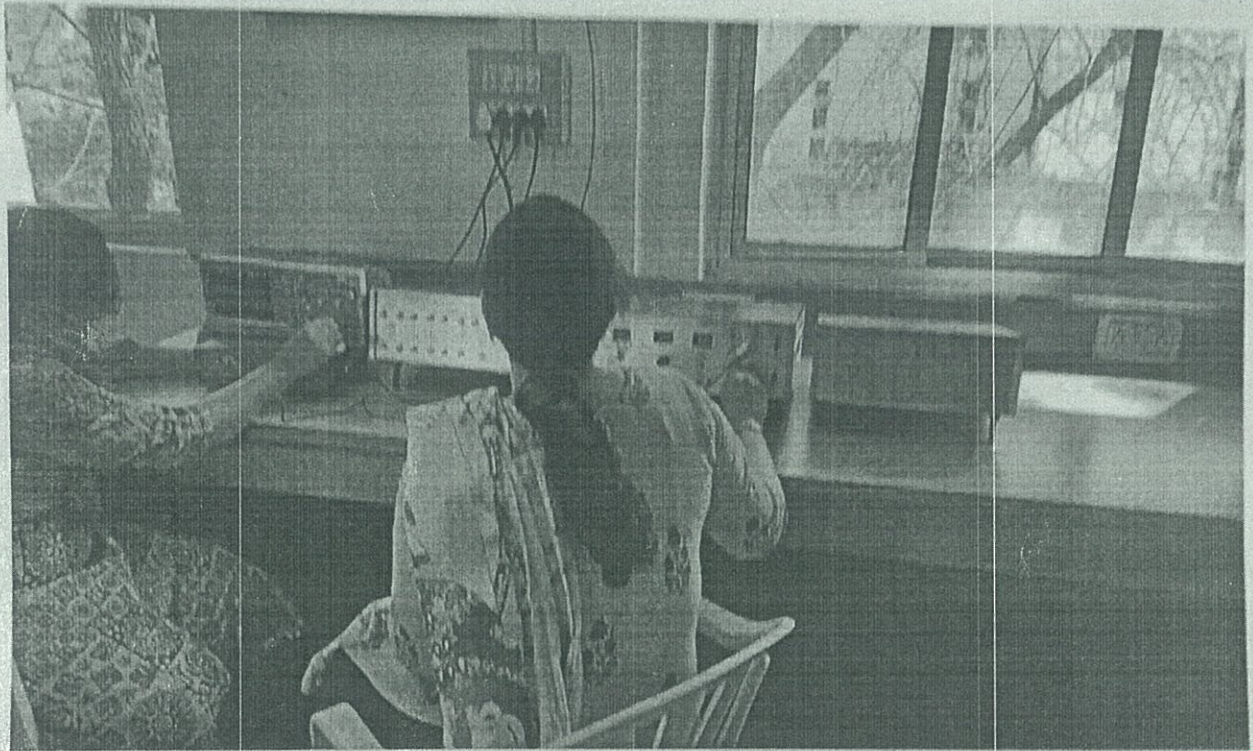


Fig.1. PG Students performing OCN practical

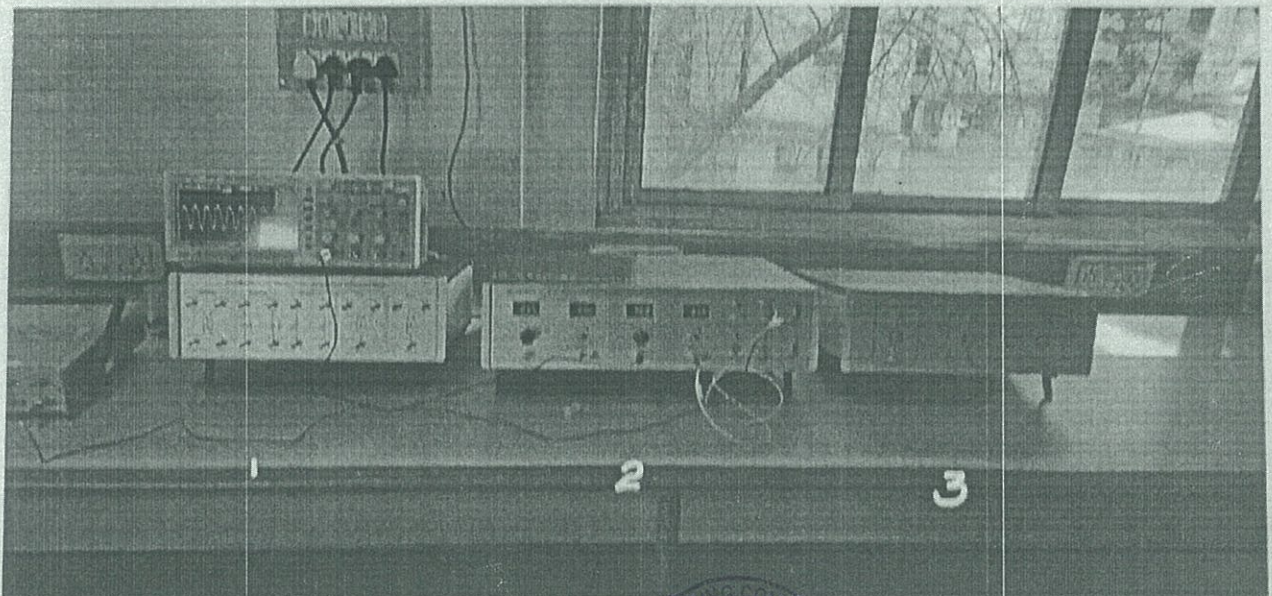


Fig.2. a) FOL Passive b) FOL Diode c) FOL Fiber



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Nerul, Navi Mumbai - 400 706



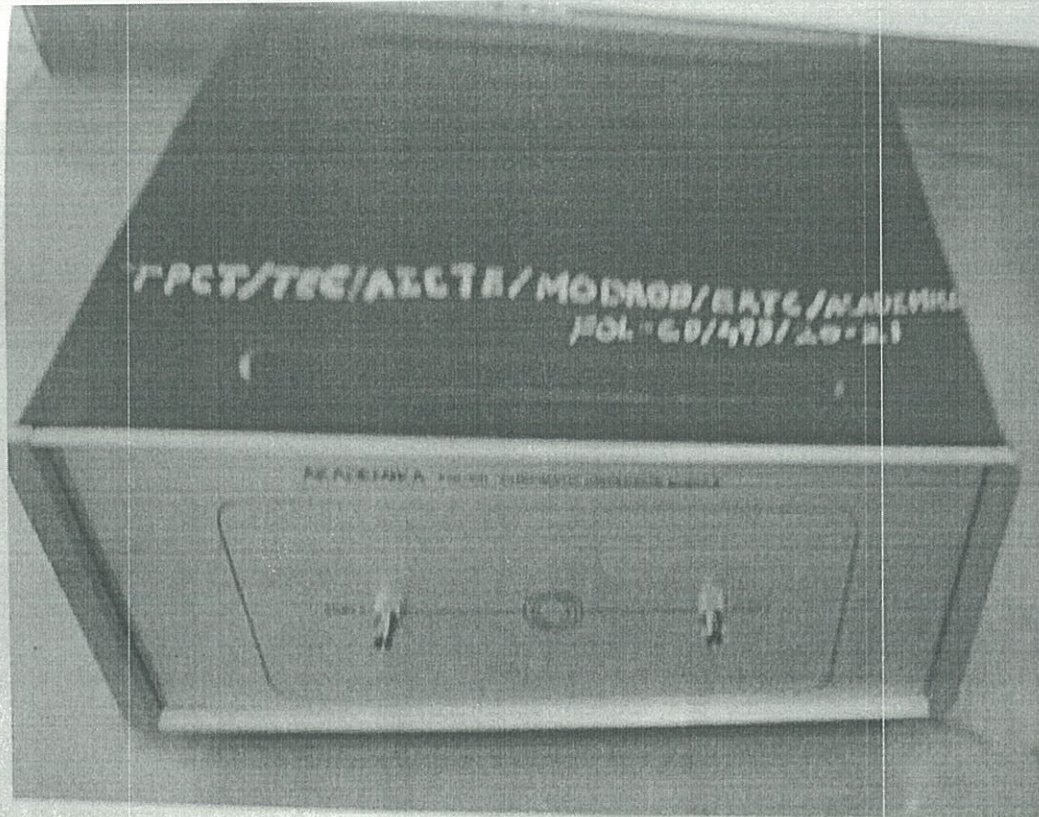
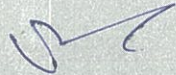


Fig.3) FOL-CD



FOL- Accessories



  
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Nerul, Navi Mumbai - 400 706.



Tax Invoice

(TRIPLICATE FOR SUPPLIER)

**AKADEMIKA**  
**Akademika Lab Solutions**  
 Sr.No. 15/8/1, Unit 9, Kruti Industrial Estate  
 Opp. Sangam Press, Kothrud, Pune  
 411038 Maharashtra, India  
 GSTIN/UIN: 27AAXFA9965F1ZN  
 State Name: Maharashtra, Code: 27  
 E-Mail: lab@akademika.in

Buyer  
**Terna Engineering College**  
 Plot No.12, Sector-22, Opp.Nerul Railway  
 Station, Phase II,Nerul West, Navi Mumbai, 400706  
 GSTIN/UIN : 27AAATT2628P1ZZ  
 State Name : Maharashtra, Code : 27

Invoice No  
**ALS/21-22/0031**

Dated  
**4-Oct-2021**

Supplier's Ref.  
 TPCT/TEC/E/T/ndrob/AICTE/2021

Buyer's Order No  
 TPCT/TEC/E/T/ndrob/AICTE/2021

Mode/Terms of Payment  
**Against Delivery**

Other Reference(s)

Dated  
**19-Aug-2021**

Terms of Delivery

Sl No.	Description of Goods	HSN/SAC	GST Rate	Quantity	Rate	per	Amount
1	FOL-CD Chromatic Dispersion Module	9023	18 %	1.0 NOS	90,679.00	NOS	90,679.00
							8,161.11
							8,161.11
							Output CGST
							Output SGST
Total				1.0 NOS			1,07,001.22 ₹

Amount Chargeable (in words)  
**One Lakh Seven Thousand One INR and Twenty Two paise Only** E & O E

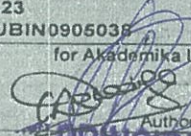
HSN/SAC	Taxable Value	Central Tax		State Tax		Total Tax Amount
		Rate	Amount	Rate	Amount	
9023	90,679.00	9%	8,161.11	9%	8,161.11	16,322.22
<b>Total</b>	<b>90,679.00</b>		<b>8,161.11</b>		<b>8,161.11</b>	<b>16,322.22</b>

Tax Amount (in words) : **Sixteen Thousand Three Hundred Twenty Two INR and Twenty Two paise Only**

Company's PAN : **AAXFA9965F**

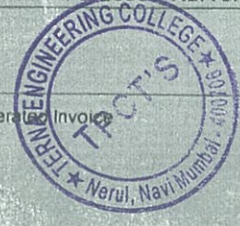
**Declaration**  
 I/We certify that our registration certificate under the GST Act, 2017 is in force on the date on which the supply of goods specified in this Tax Invoice made by me/us. The transaction of supply covered by this Tax Invoice has been effected by me/us and it shall be accounted for in the turnover of supplies while filing of return & the due tax if any payable on the supplies has been paid or shall be paid. Further certified that the particulars given above are true and correct & the amount indicated represents the prices actual charged and that there is no flow of additional consideration directly or indirectly from the buyer.

Company's Bank Details  
 Bank Name : **Union Bank - Karvenagar Branch**  
 A/c No. : **510101003741523**  
 Branch & IFS Code : **Karvenagar & UBIN0905038**

for Akademika Lab Solutions  
  
 Authorised Signatory

**PRINCIPAL**  
**Terna Engineering College**  
 Nerul, Navi Mumbai - 400 706


REGISTERED  
 2021



**PRINCIPAL**  
**Terna Engineering College**  
 Nerul, Navi Mumbai - 400 706

This is a Computer Generated Invoice





All India Council for Technical Education  
(A Statutory body under Ministry of HRD, Govt. of India)  
Nelson Mandela Marg, Vasant Kunj, New Delhi-110070 Website: [www.aicte-india.org](http://www.aicte-india.org)

**MODROB - Sanction Letter**

F.No 9-202/DC/MODROB/Policy-1/2019-20

Date: 20.07.2020

To

The Drawing and Disbursing Officer,  
All India Council for Technical  
Education, Nelson Mandela Marg,  
Vasant Kunj, New Delhi - 110070

**Sub:** Release of a sum of Rs.352941/- (Rupees Three Lakh FiftyTwo Thousand Nine Hundred FourtyOne Only) being the 1<sup>st</sup> installment Grant-in-Aid under the scheme Modernization and Removal of Obsolescence (MODROB) for the year 2019-20 payable during the current financial year 2020-21- reg.

Sir,

With reference to the proposal submitted by the institute, this is to convey that the sanction of the Council for payment of Rs.441176/- (Rupees Four Lakh FourtyOne Thousand One Hundred SeventySix Only) as sanctioned Grant-in-Aid under the Modernization and Removal of Obsolescence (MODROB) scheme, as per details given below:

1.	Name and address of the Beneficiary Institution:	Director/ Principal/ Registrar, TERNA PUBLIC CHARITABLE TRUST'S TERNA ENGINEERING COLLEGE, PLOT NO 12, SECTOR 22, PHASE II, OPPOSITE NERUL RAILWAY STATION, NERUL (WEST)		
2.	Title of Project:	Terna Center of Excellence for Electromagnetics		
3.	Name of Coordinator:	Dr. JYOTHI DIGGE		
4.	Duration of the project:	2 years		
4.	Total Grant-in-aid Sanctioned:	<b>Total:</b> Rs.441176/-	Non-Recurring (85%): Rs.374999/-	Recurring (15%): Rs.66176/-
5.	Amount to be released during the year 2020-21:	<b>1<sup>st</sup> Installment</b> Rs.352941/-	Non-Recurring (85%): Rs.299999/-	Recurring (15%): Rs.52941/-
6.	Sanctioned grant-in-aid is debatable to:	Major Head 601.18(a) Gen. (Plan Head)		


- The amount of the Grant shall be drawn by the Drawing and Disbursing Officer, All India Council for Technical Education on the Grant-in-Aid bill and shall be disbursed to and credited to the account of Director/Principal/Registrar of the Institute through RTGS/PFMS.
- This Grant-in-Aid is being released in conformity with the terms & conditions as well as norms of the scheme already communicated, and also being communicated in this letter.

**The instructions/guidelines to be followed by University/Institution**

**1. Release of funds**

- The Principal/ Director of the institute and the Coordinator of the project are hereby requested to verify the correctness of the undermentioned bank account details submitted by them along with the Proposal, in which the grant is being released:



  
**PRINCIPAL**  
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Terna Engineering College  
Nerul, Navi Mumbai - 400 706.



Institute PAN No.	Bank Name	Bank Branch Name	Bank Branch Address	Account Holder Name	Account Type	Account Number
AAAT12628P	UNION BANK OF INDIA	nerul	nerul railway station, nerul(W)	principal,terna engineering college	Current Account	564301010000360

In case of any omission the same should be reported to AICTE immediately.

- The sanction is issued in exercise of the powers delegated to the council and other terms & conditions laid down in the guidelines of the scheme.
- 100% grant of the sanctioned amount is being released to Government/Govt. Aided institutions. Utilization Certificate (UC) and other requisite documents are to be submitted within one month of the completion of the project.
- To self-financed/Pvt. Institutions 80% of the sanctioned amount is being released as first installment followed by 20% as reimbursement after receipt of UC and other requisite documents as specified in terms & Conditions of MODROB Scheme.

#### II. Maintenance of accounts

- The Institute shall strictly follow the provisions laid down in the scheme document and sanction order N.F.No.9-202/IDC/MODROB/Policy-1/2019-20 dated 20.07.2020 issued by this office. All correspondences relating to the project must contain this number along with year of sanction of the project; failing which correspondence will not be entertained.
- Funds covered by this grant shall be kept separately and would not be mixed up with other funds, so as to know the amount of interest accrued on the grant AICTE.
- The University/College/Institute shall maintain proper accounts of the expenditure out of the grants, which shall be utilized only on approved items of expenditure (list enclosed).
- The Council or its nominee shall have the right to check /verify the account to satisfy that the fund has been utilized for the purpose for it was sanctioned.
- The date of release of the grant by AICTE shall be taken as the date of commencement of the project. The Principal / Director / Registrar shall intimate about the receipt of the grant to AICTE. Any expenditure incurred prior to the issuance of the approval letter will not be allowed to be adjusted in the grant and if the Institution/University do not take the project work within one month of the receipt of the grant, the approval shall ipso facto lapse.
- After receipt of the grant from AICTE, the Institute shall send a confirmation to AICTE within 2 months of receipt of grant that the sanctioned project has been started/is in progress.

#### III. Refund of grant by way of a demand draft in favour of Member Secretary, AICTE, New Delhi

- If the college/institute does not have the Letter of Approval (LOA) or Extension of Approval issued by AICTE for the academic year 2020-21, the fund released should be immediately refunded to AICTE with interest accrued thereon.
- If project is not started within six months of the issuance of this Offer Letter, the released amount, along with interest accrued thereon, has to be necessarily returned to AICTE.
- In any case, if the institute is required to refund the grant or interest accrued thereon or balance amount, the amount will be refunded to AICTE.
- It may be ensured that the project is completed within the stipulated time. If the project is not completed within the stipulated time, no further extension will be granted in any case and institute has to refund the entire amount to AICTE.
- As AICTE needs adequate time for depositing the Demand Draft in the bank, the same to be immediately dispatched to avoid any lapse of the validity period.



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#### IV. Submission of documents by college/institution after completion of Project/Subsequent years.

The following mandatory relevant documents are required to be submitted by the college/institution within a month of the completion of the project: -

- a. Feedback form in the prescribed proforma.
- b. The Annual Progress Report (APR) in the prescribed format along with the original Statement of actual Expenditure in the prescribed proforma duly signed by the Head of the institution and shall be submitted to AICTE not later than one month after completion.
- c. The Utilization Certificate (UC) supported by Audited Statement of Expenditure to the effect that the grant has been utilized for the purpose for which it has been sanctioned shall be furnished to the AICTE immediately after completion of the project. It should contain the head-wise break up of expenditure made from the grant-in-aid provided by the Council. Audited Statement of Expenditure indicating expenditure incurred in the total duration of the project in the prescribed format and GFR-19 shall be submitted to the Council.
- d. In case of self-financing/private institutions, Statement of actual Expenditure & Utilization Certificate required to be audited & signed by a Chartered Accountant (with membership no., full address & stamp). Photocopies of formats are enclosed.
- e. Program Evaluation Committee (PEC) is required to be constituted at Institutional level. The constitution of the PEC shall be as under:
  - (i) Principal/Director/Registrar of the Institution(Chairperson)
  - (ii) Coordinator of the project (Member Secretary),
  - (iii) Two HODs and one subject expert(Members).

The members of the said PEC shall not be below the rank of Associate Professor. The minutes of the meetings are to be submitted to the Council at end of the project along with other mandatory documents.

- f. Project completion report project indicating the activities undertaken, number of students benefited, laboratory works photographs of students, together with their views is to be submitted.
- g. Attested photocopies of supporting vouchers/bills of expenditure incurred for the completion of Project.
- h. Photographs of equipment's purchased.
- i. The balance amount of the grant will be reimbursed to the university/institution only on submission of above documents. On receipt of these documents, the total amount of balance of financial assistance, admissible as per the norms, shall be worked out and grant-in-aid shall be released, as second installment, in favour of beneficiary institution.

#### V. General instructions

- a. The amount of interest accrued on the grant should be treated as part of the grant to be utilized for the particular project. However, the interest amount accrued along with grant disbursed should not exceed the total grant sanctioned for the project. The Institute receiving the grant should reflect the same in the audit statement of accounts/ utilization certificate and may either refund the interest amount to AICTE or AICTE shall adjust the same in the next installment of grant before its released.
- b. Any unavoidable circumstantial change in the project with respect to name of Project Coordinator for MODROB project would mandatorily require prior approval of the Council. All such requests should be addressed to AICTE, in advance, recording the specific reasons for proposed changes, failing which the order for the grant already issued would be treated as automatically withdrawn and the financial assistance released in favour of the beneficiary institution shall be refunded immediately to the Council. Kindly mention the File No.9-1/RIFD/MOD/Policy-1/2019-20 in your future correspondence.
- c. The grantee shall maintain an audited record of assets acquired wholly or substantially out of the Grant-in-aid and a register of assets shall be maintained by the Institute in the prescribed form i.e. GFR-19.
- d. The College / Institute receiving grant under MODROB is expected to put up a plaque at the main entrance of the Lab/Department, which has been made using the grant. All the equipment procured through the grant shall be marked with the name of the institution.



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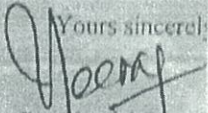


project should be super scribed with AICTE project file number.

- e. The assets acquired wholly or substantially out of grant shall not be disposed or encumbered or utilized for the purpose other than those for which the Grant was given without proper sanction of the AICTE and should at any time the institution cease to function, such assets shall revert to the AICTE.
- f. The grantee Institution shall observe all financial norms and guidelines as prescribed by the AICTE/ Government of India from time to time. GOI GFR rules (@<https://doe.gov.in/order-circular/general-financial-rules2017-0>) should be followed during utilization of grant.

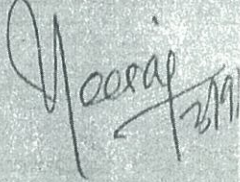
**List of Equipment's approved:**

Name of Equipments
Fiber Optic Lab Set Up FOL Dual Source FOL Passive components FOL - Fiber FOL-PM FOL-CD

Yours sincerely,  
  
Dr. Neeraj Saxena  
Advisor - II (IDC)


Copy forwarded for information and necessary action to:

1. Name and Address of the Coordinator,  
Dr. JYOTHI DIGGE  
TERNA PUBLIC CHARITABLE TRUST'S TERNA  
ENGINEERING COLLEGE, PLOT NO 12, SECTOR 22,  
PHASE II, OPPOSITE NERUL RAILWAY STATION,  
NERUL (WEST) 400706
2. The Registrar / Director / Principal,  
Dr. JYOTHI DIGGE  
TERNA PUBLIC CHARITABLE TRUST'S TERNA  
ENGINEERING COLLEGE, PLOT NO 12, SECTOR 22,  
PHASE II, OPPOSITE NERUL RAILWAY STATION,  
NERUL (WEST) 400706
3. Guard File



Dr. Neeraj Saxena  
Advisor - II (IDC)



  
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Nerul, Navi Mumbai - 400 706



# MoU with Anet Technology for 3D printing lab.

Agreement Number: 20191221

协议编号: 20191221

## Industrial University Research Cooperation Agreement 产学研合作协议

Party A: TPCT's Terna Engineering College

甲方: \_\_\_\_\_大学

Address: Nerul (W), Navi Mumbai, India 400706

地址:

Party B: Shenzhen Anet Technology Co.,Ltd.(Company)

乙方: 深圳市爱能特科技有限公司

Legal Representative: Liu Heping

法定代表人: 刘和平

Address: Xiangli Ind Zone, No. 341 ,Huaqing Road, Qinghu Community, Longhua District, Shenzhen, Guangdong, 518109 China

地址: 深圳市龙华区龙华街道清湖路北侧祥利路 1 号祥利工业园第四厂房 1-2 楼及 3 楼 B 区

Party C: 3idea Technologies LLP

丙方: 3Idea 技术有限公司

Legal Representative:

法定代表人: \_\_\_\_\_

Address: 701, A Wing, Kamala Mills, Lower Parel, Mumbai,

India 400013

地址: \_\_\_\_\_

Based on serving enterprises, meeting the needs of the industry, improving the quality of teaching and scientific research, integrating various resources, and enhancing the ability to innovate, the three parties agreed to establish a comprehensive industry-university research on the basis of mutual benefit and common development, Cooperative relationship to achieve



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complementary advantages and win-win cooperation. After friendly consultations between the three parties, they agreed to reach the following agreement:

三方本着服务企业，满足产业需求，提高教学质量和科研水平，集成各类资源，提升创新能力为目标，经甲乙丙三方共同协商，一致同意在互惠互利、共同发展的基础上建立全面的产学研合作关系，实现优势互补、合作双赢。经甲乙丙双方友好协商，一致同意达成以下协议：

## I. Cooperation principle

### 一、合作原则

Implement the Indian strategy of rejuvenating the country through science and education, promote scientific and technological innovation, accelerate the economic development and social progress of enterprises, make full use of the technical and human resources of institutions of higher learning and advanced and mature technological achievements, use the production conditions of enterprises, improve teaching and scientific research capabilities, The results will be transformed into productive forces as soon as possible. The three sides will develop their respective advantages, carry out comprehensive cooperation through various forms, and jointly promote comprehensive technical cooperation between enterprises and institution to form a model of mutual promotion and common development of professions and industries.

落实印度科教兴国战略，促进科技创新，加快企业经济发展和社会进步，充分利用高等院校的技术、人力等资源以及先进成熟的技术成果，利用企业的生产条件，提高教学的科研能力，将科研成果尽快地转化为生产力，三方发展各自优势，通过多种形式开展全面合作，共同推进企业与学校的全面技术合作，形成专业、产业相互促进、共同发展的模式。

## II. Duties and obligations of all three parties

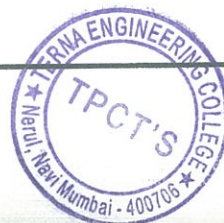
### 二、三方的责任和义务

#### (I). Party A's responsibilities and obligations

##### (一) 甲方的责任与义务

1. Provide free space, maintenance staff, electricity and other basic amenities to establish 3D Printing lab.

1、为乙方免费提供 3D 打印实验室，配备维护人员，提供电力和其他基本设施。



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2.The laboratory only displays Party B products, roll-ups and other items that promote Party B's brand

2、实验室仅展示及陈列乙方产品，易拉宝等其他宣传乙方品牌的物品。

3. Organize students to give favorable reviews to Party B's products online and offline. During the effective period of the contract, students are not allowed to intentionally or maliciously post bad comments about Party B on Youtube or Facebook or any other platform.

3、组织全校学生线上及线下对乙方产品给予好评，合同生效期间不允许学生故意或恶意在 Youtube, Facebook,论坛等任何社交平台发布关于乙方的不良评论。

4. Arrange students' innovative design, and provide Party B with at least 10 new ideas, projects or any other form of innovation in 3D printerdesign before 20th of each month.

4、安排学生创新设计，每月 20 前提供乙方至少 10 个关于 3D 打印机设计新理念，项目或者其他任何形式的创新。

5. Recommend students to purchase Party B products in any reasonable form.

5、以任何合理形式推荐学生购买乙方产品。

6. According to the needs of high-tech projects and technical difficulties of enterprises proposed by Party B, actively organize forces to carry out research and development, achievement transformation and technological research, and support technological innovation of enterprises.

6、根据乙方提出的高新技术项目需求和企业技术难题，积极组织力量进行研究开发、成果转化和技术攻关，支持企业技术创新。

7. Help Party B and Party C carry out the promotion and application of new product development, new technology, new technology and new equipment, and help Party B carry out quality research

7、帮助乙方及丙方进行新产品开发、新技术、新工艺、新设备的推广应用，帮助乙方进行质量攻关。



  
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8. Priority be given to provide excellent graduates for Party B, recommending companies in urgent need of talents, and cooperating with Party B and party C to train students.

8、优先为乙方提供优秀的毕业生，推荐企业急需人才，配合乙方及丙方定向培养学生。

9. Provide any unconditional support for any matters raised by Party B and Party C that require Party A's assistance concerning this agreement.

9、对于乙方及丙方提出的任何需要甲方协助的关于本协议的事项，甲方需无条件支持。

10. After the signing of this agreement, Party A shall establish a social media communication group consisting of Party A, Party B and Party C, such as Whatsapp, Wechat etc.

10、本合同签订后，甲方需建立由甲方，乙方及丙方组成的社交媒体交流群，如WhatsappWechat等。

11. Help Party B and Party C in creating Anet brand awareness through newspaper add and television broadcasting.

11、以报纸及电视形式帮助乙方及丙方宣传爱能特，提高其品牌知名度。

(II) Party B's responsibilities and obligations

(二) 乙方的责任和义务

1. Donate one free Anet A8, E16, N4 , ET4 3D printers to Party A

1、无偿捐赠 Anet A8, E16, N4, ET4 四种型号的 3D 打印机各一台给甲方

2. Issue an international certificate in association with party C on 3D printing to Party A students.

2、与丙方商定一同为甲方学生颁发关于 3D 打印的国际证书。



  
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3. Accept Party A teachers to the company to carry out production practices and provide relevant training, to provide Party A with good production test conditions for scientific research.

3、接受甲方教师到企业进行生产实践及给予相关培训，为甲方进行科学研究提供良好的生产试验条件。

4. Admit 5 interns per year from Party A to practice and give training in Party B factory.

4、接纳甲方 5 名实习生在乙方工厂实践及给予培训。

5. Regarding Article (I) and Paragraph 4 of this agreement, Party B can pay a certain amount of remuneration, the amount of which is mutually agreed. If the design concept is adopted by Party B and officially put into production, Party B will give a 500-1000 US dollar reward.

5、关于本协议第（一）条，第 4 款，乙方可支付一定金额的酬劳，金额由双方共同协定，如设计理念被乙方采纳且正式投入生产，乙方将给予 500-1000 美金奖励。

6. Provide Party A's outstanding graduates with the same employment opportunities as Party B domestically.

6、为甲方优秀毕业生提供与乙方国内同等就业机会。

7. Provide 1-2 student exchange places to exchange with students from other partner schools of Party B.

7、提供 1-2 个学生交换名额，与乙方其他已合作学校的学生进行交换。

8. Put forward constructive suggestions for Party A's professional setting, talent training goals, students' knowledge and ability structure, and improving the quality of talent training.

8、为甲方的专业设置、人才培养目标、学生的知识和能力结构、提高人才培养质量提出建设性意见。

(III) Party C's responsibilities and obligations



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(三)、丙方的责任和义务

1. Ensure a smooth and stable correlation between party A and party B  
1、确保甲方及乙方沟通顺畅，合作稳定进行。
2. Overlook all the activities as discussed with party B from time to time  
2、对于与乙方讨论的所有事项，丙方享有监督权。
3. Provide post lab setup support and maintenance.  
3、为建立实验室提供支持及维护
4. Provide periodic training on 3D printing technology and designing to student and teachers  
4、为学生及老师提供 3D 打印技术及设计提供培训。
5. Support in local branding and marketing activities  
5、支持本地品牌和营销活动

III. Term Cooperation

三、合作期限

The cooperation period is from 16<sup>th</sup> January, 2020 to 15<sup>th</sup> January 2025  
In the course of cooperation, if it is necessary to add terms or terminate cooperation due to unforeseen factors such as policies, you can agree to sign a new cooperation agreement or terminate the agreement according to the willingness and actual situation of the cooperation between the three parties.

合作时间自\_\_\_\_\_年\_\_\_\_\_月\_\_\_\_\_日起到\_\_\_\_\_年\_\_\_\_\_月\_\_\_\_\_

日止。

合作过程中若因政策等不可预料因素需增加条款项目或终止合作，可根据三方的合作意愿和实际情况，商定签署新的合作协议或终止协议。

IV. Confidentiality agreement

四、保密约定

1. During the cooperation, all parties will jointly keep the cooperation projects and



A handwritten signature in blue ink, appearing to be "S. S. S.", written over the printed name "PRINCIPAL".

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the technical and commercial secrets of the enterprise.

1、合作期间双方共同保守合作项目及企业的技术和商业秘密。

2. In case of breach of the agreement, the non-compliant party shall have the right to confiscate the relevant revenue of the non-defaulting party and pursue the legal liability of the non-compliant party.

2、违反约定的，守约方有权没收违约方相关收益，并追究违约方的法律责任。

## V. Other

### 五、其他

1. According to the specific circumstances of the parties, a more specific single cooperation agreement can be negotiated and signed between the three parties.

1、根据双方的具体情况，可协商签订更加具体的单项合作协议。

2. Any disputes between the two parties in the course of cooperation shall be resolved through consultations between the three parties.

2、双方合作过程中若发生争议，应双方协商解决。

3. Other outstanding matters shall be renegotiated according to the three parties.

3、其他未尽事宜根据双方再行协商。

4. This agreement is executed in two original copies. In case of any discrepancy between the English and Chinese version, the Chinese version shall prevail. Any term or update which is not stipulated in the contract shall be subject to its supplement.


本协议以中英文书一式二份，均为正本。如中英文文本有任何差异，以中文文本为准。对于本合同未约定或更新的内容，以补充合同为准。

5. Warranty of the machines supplied will be given as Anet normal product and can be negotiated by three parties when it is necessary.

5、对于乙方提供的机器，质保与乙方普通产品一样，如需要，三方可另行协议机器质保问题。

6. It is expected that the Machines supplied to party A will be used judicially and



  
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in a conducive environment as per the SOP attached with this Agreement. Party B and Party C won't be liable for any consequences arising out of the accident in the Lab.

6、根据本协议随附的 SOP，提供给甲方的机器需在合法及适合机器本身特性的环境中使用。乙方和丙方对实验室中因事故造成的任何后果不承担责任。

7. This agreement is in \_\_\_\_\_ copies, and all parties shall keep \_\_\_\_\_  
\_ copies.

7、本协议一式\_\_\_\_\_份，双方各保存\_\_\_\_\_份。

Representative of Party A (Signature):

2020/01/16\_\_\_\_\_year month day

Representative of Party B (Signature):

2020/01/16\_\_\_\_\_year month day

Representative of Party C (Signature):

2020/01/16\_\_\_\_\_year month day

甲方代表（签名）：

\_\_\_\_\_年\_\_\_\_\_月\_\_\_\_\_日

乙方代表（签名）：

\_\_\_\_\_年\_\_\_\_\_月\_\_\_\_\_日

丙方代表（签名）：

\_\_\_\_\_年\_\_\_\_\_月\_\_\_\_\_日

*W. Jayashankar*  
16/01/2020

*David*  
*S. S. S.*  
2020.1.16.

*Bilahu*  
16/01/2020



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Terna Engineering College  
Nerul, Navi Mumbai - 400 706.

*[Signature]*  
21/01/2020



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