

**MANDATORY DISCLOSURE**  
**As per AICTE Guideline**  
**JIS School of Polytechnic**  
**DIPLOMA COURSES**

**18.1 Name of the Institute**

JIS School of Polytechnic  
Block – A, Phase – III,  
Kalyani, Nadia,  
West Bengal – 741235

Tel No : 9133-71481387  
E-mail : [info.jissp@jisgroup.org](mailto:info.jissp@jisgroup.org)  
Website : <https://www.jissp.ac.in>

**18.2 Name and address of the Trust / Society / Company**

JISF FOUNDATION  
7, Sarat Bose Road,  
Dwarka Building, 1<sup>st</sup> Floor,  
Kolkata – 700 020

Tel No : +91 332289 3944 / 2289 5323  
Website : <https://www.jisgroup.org>

**18.3 Name and Address of the Principal**

JAYANTA MUKHOPADHYAY  
C/O : JIS School of Polytechnic  
Block – A, Phase – III,  
Kalyani, Nadia,  
West Bengal – 741235

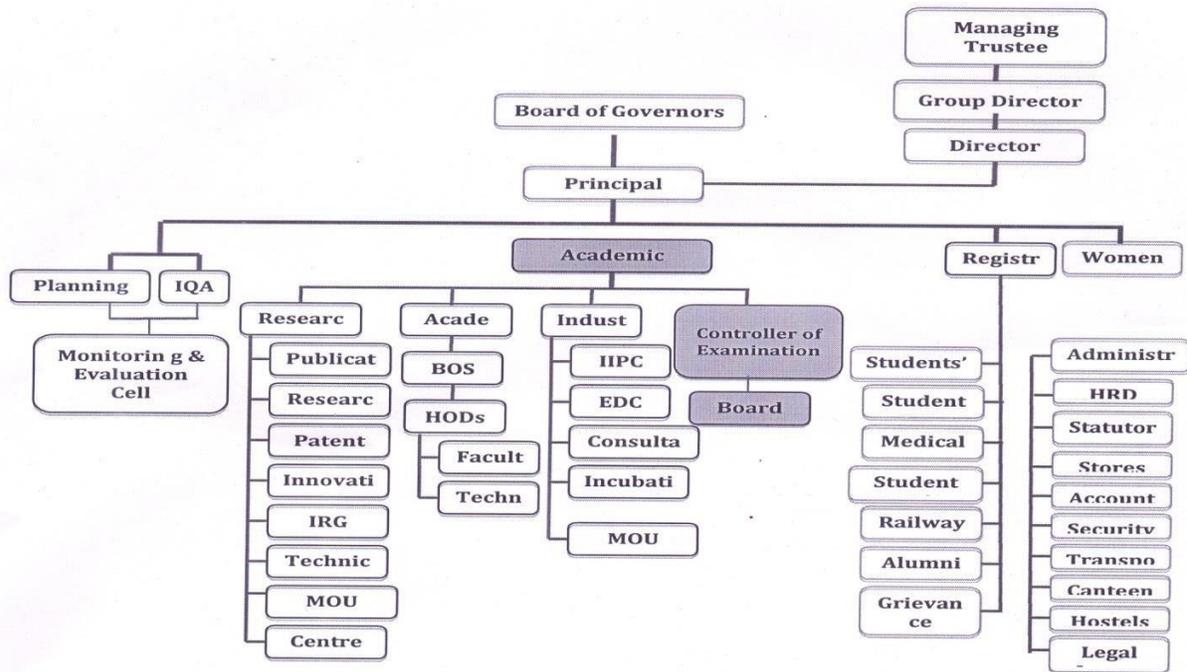
Tel No : 9133-71481387  
E-mail : [principal\\_jissp@jisgroup.org](mailto:principal_jissp@jisgroup.org)

**18.4 Name of the affiliating University**

West Bengal State Council of Technical & Vocational Education  
And Skill Development

## 18.5: Governance:

### i. Organizational Chart:



### ii. Grievance Redressal Mechanism for Faculty/Staff & Student:

#### a. Structure of the Redressal Committees

Institutions typically maintain three distinct cells to handle different types of grievances:

Internal Complaints Committee (ICC): Specifically for cases related to sexual harassment (as per POSH Act guidelines).

Anti-Ragging Committee: Dedicated to student safety and campus discipline.

General Grievance Redressal Cell (GGRC): For all other matters (results, infrastructure, payroll, workplace environment).

#### b. The Step-by-Step Mechanism

The process generally follows a "Three-Tier" escalation ladder to ensure issues are resolved at the lowest possible level before reaching the Principal.

##### Step 1: Submission (Digital/Physical)

Students/Staff submit their grievance via the institutional portal, an anonymous suggestion box, or a formal letter to the Head of Department (HOD).

Unique Tracking ID: A digital system generates a ticket so the aggrieved party can track the status.

### Step 2: Verification and Inquiry

The Committee Convener reviews the complaint to see if it falls within their jurisdiction.

Fact-Finding: The committee meets within a set timeframe (usually 3–7 days) to interview the parties involved and gather evidence.

### Step 3: Resolution and Action

The committee submits its recommendation to the Head of the Institution (Principal).

Decision: A formal "Action Taken Report" (ATR) is generated. This could range from a simple policy change to disciplinary action against an individual.

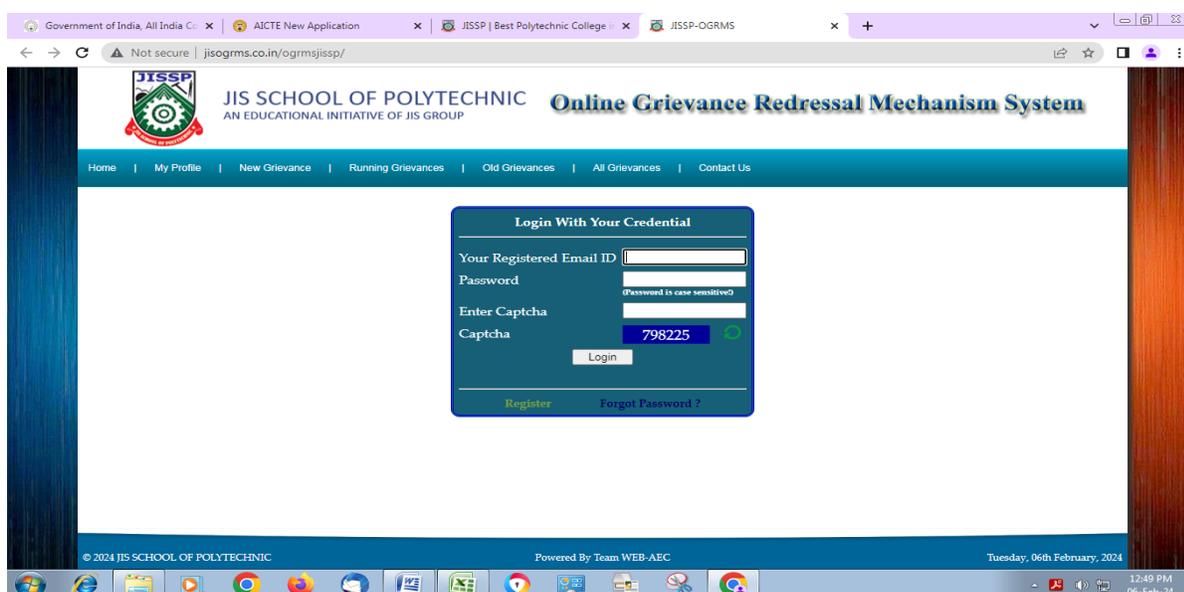
### iii. Establishment of Anti-ragging Committee:

Sl. No.	Position	Name and Designation	Position	Contact detail
1	Institutional Administration	Jayanta Mukhopadhyay - Principal	Chairman	+919330906159 <a href="mailto:principal_jissp@jisgroup.org">principal_jissp@jisgroup.org</a>
		Jyotirmoy Pandit - HOD, Dept. of BSCH	Convener	+918777736570 <a href="mailto:jyotirmoy.pandit@jisgroup.org">jyotirmoy.pandit@jisgroup.org</a>
		Sudipta Mukherjee - Manager, Admin	Member	+919330062984 <a href="mailto:admin@jissp.ac.in">admin@jissp.ac.in</a>
		Rajorshi Roy - Academic Counselor	Member	+919330906160 <a href="mailto:raajorshi.roy@jissp.ac.in">raajorshi.roy@jissp.ac.in</a>
2	Faculty Member	Satyaki Kr. Biswas - Centre In-Charge	Member	+919836111378 <a href="mailto:cic@jissp.ac.in">cic@jissp.ac.in</a>
		Debojyoti Sarkar - HOD, Dept. of ME	Member	+919832895963 <a href="mailto:hod.me@jissp.ac.in">hod.me@jissp.ac.in</a>
		Arijit Mukherjee HOD, Dept. of EE - Member	Member	+918902269562 <a href="mailto:hod.ee@jissp.ac.in">hod.ee@jissp.ac.in</a>
		Santu Dey -HOD, Dept. of CE	Member	+918481054074 <a href="mailto:hod.ce@jissp.ac.in">hod.ce@jissp.ac.in</a>
		Amal Kr. Ghorai -Faculty, Dept. of BSCH	Member	+916290339457 <a href="mailto:amal.ghorai@jissp.ac.in">amal.ghorai@jissp.ac.in</a>
3	Police Administration	Mr. Snehasish Das, -Sub Inspector Kalyani Police Station	Member	+919836700610 <a href="mailto:mail2sne@gmail.com">mail2sne@gmail.com</a>
4	Local Media	Mr. Bitan Bhattacharya Anandabazar Patrika,	Member	+919830565757 <a href="mailto:bitanabp@gmail.com">bitanabp@gmail.com</a>

		Kalyani Circle		
5	Legal Adviser	Mr. Manas Mukherjee Advocate, Kalyani Court	Member	+919477369038 <a href="mailto:manasmukherjeekalyani@gmail.com">manasmukherjeekalyani@gmail.com</a>
6	Non-Teaching Staff	Soumitra Ghosh Administrative Staff	Member	+919564462426 <a href="mailto:soumitra.ghosh@jissp.ac.in">soumitra.ghosh@jissp.ac.in</a>
7	Students Representatives	Ankan Bhattacharya	Member	+918653188985 <a href="mailto:ankanboss427@gmail.com">ankanboss427@gmail.com</a>
		Kajal Das	Member	+917551055383 <a href="mailto:kajaldas16122005@gmail.com">kajaldas16122005@gmail.com</a>
		Premansu Mondal	Member	+919330629682 <a href="mailto:ranjitmondal2233@gmail.com">ranjitmondal2233@gmail.com</a>
		Akash Biswas	Member	+916291218226 <a href="mailto:ab4204798@gmail.com">ab4204798@gmail.com</a>
		Pradipta Dutta	Member	+918910900253 <a href="mailto:pradiptadutta745@gmail.com">pradiptadutta745@gmail.com</a>
		Aniruddha Roy	Member	+9198754544724 <a href="mailto:aniruddharoy363@gmail.com">aniruddharoy363@gmail.com</a>
		Srijita Das	Member	+918420088855 <a href="mailto:srijitadassiya08@gmail.com">srijitadassiya08@gmail.com</a>
		Ridam Sen	Member	+918276987430 <a href="mailto:senridam247@gmail.com">senridam247@gmail.com</a>
		Bidisha Mitra	Member	+919749101793 <a href="mailto:mitrabidisha756@gmail.com">mitrabidisha756@gmail.com</a>
		Raja Roy	Member	+91628981241 <a href="mailto:rajaroy200608@gmail.com">rajaroy200608@gmail.com</a>
		Risav Kumar Prasad	Member	+917890818925 <a href="mailto:risavkumar676@gmail.com">risavkumar676@gmail.com</a>
		Paromita Basak	Member	+919851926296 <a href="mailto:paromitabasak80@gmail.com">paromitabasak80@gmail.com</a>
		Lucky	Member	+919123751079 <a href="mailto:misslucky0631@gmail.com">misslucky0631@gmail.com</a>
		Pritam Biswas	Member	+916296831720 <a href="mailto:pb1963357@gmail.com">pb1963357@gmail.com</a>
		Suman Majumder	Member	+917501463311 <a href="mailto:engineersumsn1430@gmail.com">engineersumsn1430@gmail.com</a>
Mimi Mitra	Member	+918918170010 <a href="mailto:mitramimi296@gmail.com">mitramimi296@gmail.com</a>		
8	Parents Representatives	Jaya Das	Member	+91829127025 <a href="mailto:jd6464702@gmail.com">jd6464702@gmail.com</a>
		Sujit Das	Member	+919804568456 <a href="mailto:74sujitdas@gmail.com">74sujitdas@gmail.com</a>

		Arun Roy	Member	+919804526208 <a href="mailto:arun.roy22@gmail.com">arun.roy22@gmail.com</a>
		Shib Shekhar Gon	Member	+919474677230 <a href="mailto:gonakash776@gmail.com">gonakash776@gmail.com</a>
		Manik Lal Sen	Member	+916294704947 <a href="mailto:senridam247@gmail.com">senridam247@gmail.com</a>
		Gayatri Ray	Member	+918100685002 <a href="mailto:uniqueatul01@gmail.com">uniqueatul01@gmail.com</a>
		Mrs Debosree Sen	Member	+919830466696 <a href="mailto:indranilsen@gmail.com">indranilsen@gmail.com</a>

#### iv. Establishment of Online Grievance Redressal Mechanism:



#### v. Grievance Redressal Committee:

SL No	Constitution	Name with Designation	Phone no	Mail Id	Position
1.	Presiding Officer	Gargee Sarkar (TIC, ETCE)	9088433518	<a href="mailto:tic.etce@jissp.ac.in">tic.etce@jissp.ac.in</a>	Convener
2.	Faculty Representative	Smritikana Biswas (Dean, JISSP)	9432879191	<a href="mailto:dean1@jissp.ac.in">dean1@jissp.ac.in</a>	Members
3.		Satyaki Kumar Biswas (HOD, ETCE)	7980522364	<a href="mailto:hod.etce@jissp.ac.in">hod.etce@jissp.ac.in</a>	Members
4.		Sonali Mandal (TA, CE)	9749145237	<a href="mailto:sonali.mandal@jissp.ac.in">sonali.mandal@jissp.ac.in</a>	Members

5.		Arijit Mukherjee (HOD, EE)	8902269562	hod.ee@jissp.ac.in	Members
6.		Sankar Jyoti Chatterjee(TA, ME)	9681496878	sankarjyoti.chatterjee@jissp.ac.in	Members
7.		Suvomoy Gupta (Faculty , CST)	8017323294	suvamay.gupta@jissp.ac.in	Members
8.	Non-Teaching Member	Mr. Sudipta Mukherjee (Manager, JISSP)	9330062984	admin@jissp.ac.in	Members
9.		Mr. Soumitra Ghosh(Admin)	9564462426	reception.jissp@jisgroup.org	Members
10.	Student Representative	Pritam Biswas (CST,3 <sup>rd</sup> Year)	6296831720	Pb1963357@gmail.com	Members
11.		Madhumita Halder(ETCE, 3rd Year)	9832507693	Madhumita2006halder@gmail.com	Members
12.		Sandeep Biswas (ME, 3rd Year)	9635641103	sandeepsd390@gmail.com	Members
13.	One member from the outside of the college	Mr. Manas Mukherjee, Advocate, Kalyani Court	9477369038	manashmukherjeekalyani@gmail.com	Members

**vi. Establishment of Internal Committee:**

<b>Committee type</b>	<b>Name of the Committee Members</b>	<b>Profession</b>	<b>Associated with</b>
Complaint Committee	Mr. Satyaki Kumar Biswas	Chair Person	ETCE
Complaint Committee	Mrs. Sonali Mandal	Member	CE
Complaint Committee	Mr. Atanu Das	Member	ME
Complaint Committee	Mrs. Smirtikana Biseas	Member	BSCH
Internal Committee	Mrs. Gargi Sarkar	Member	ETCE
Internal Committee	Ms. Ria Bandopadhyay	Member	CST
Internal Committee	Mr. Pritam Biswas	Student	CST
Internal Committee	Ms. Madhumita Halder	Student	ETCE
Internal Committee	Mr. Sandeep Biswas	Student	ME

**Vii. Establishment of SC/ST committee:**

Name of the Committee Member	Designation	Associated with	Mobile No.	e-mail address	Cast	Gender
Mrs. Gargee Sarkar	Member	ETCE	9088433518	gargee.sarkar@jissp.ac.in	Gen	Female
Mr. Debojyoti Sarkar	Member	ME	9832895963	debojyoti.sarkar@jissp.ac.in	SC	Male
Ms. Trisha Shee	Member	ETCE	6289135007	trisha.shee@jissp.ac.in	ST	Female
Mr. Suvamay Gupta	Member	CST	8017323294	suvamay.gupta@jissp.ac.in	SC	Male
Mr. Sudipta Mukherjee	Member	Admin	9330062984	admin@jissp.ac.in	Gen	Male

**viii. Internal Quality assurance cell:**

SL No.	Constitution	Name with Designation	Phone No.	Mail id	Position
1	HOI	Jayanta Mukhopadhyay (Principal, JISSP)	9330906159	principal_jissp@jisgroup.org	Chairperson
2	Teacher represent	Mr.Santu Dey (HOD, CE)	7001101414	hod.ce@jissp.ac.in	Convener
3		Mrs. Smitikana Biswas (Dean, JISSP)	6291781269	dean1@jissp.ac.in	Coordinator
4		Mr.Arijit Mukherjee (HOD, EE)	8902269562	hod.ee@jissp.ac.in	Member
5		Ms. Ria Bandopadhyay (HOD,CST)	8122236257	hod.cst@jissp.ac.in	Member
6		Mr. Satyaki Kumar Biswas (HOD, ETCE)	7980522364	hod.etce@jissp.ac.in	Member

7		Mr. Avijit Chowdhury (Faculty, ME)	7003428513	avijit.chowdhury@jisssp.ac.in	Member
8		Dr. Debayan Mandal (Faculty, BSCH)	9088229920	debayan.mandal@jisssp.ac.in	Member
9	Administrative represent	Mr. Sudipta Mukharjee (Manager, JISSP)	9330062984	admin@jisssp.ac.in	Member
10		Mr. Laltu Halder (Accountant, JISSP)	7003378893	accounts.jisssp@jisgroup.org	Member
11	Student represent	Pritam Biswas (CST,3 <sup>rd</sup> Year)	6296831720	Pb1963357@gmail.com	Member
12	Alumni represent	Mr. Ansar Alam (Sales Engineer, Ramco Cement)	9681998595	alamansar721@gmail.com	Member
13	Employers represent	Mr. Aditya Bhattacharya ( Manager, KMC)	7364844927	bhattacharyyaaditya@gmail.com	Member
14	Industry represent	Mr. Ranjan Saha (Manager GDCL)	9830911451	ranjan.saha@gdcl.in	Member
15	Stakeholder represent	Mr. Kishor Mondal Site Engineer- L&T ltd.	7003576197	kishornmondal@gmail.com	Member

### ix. Equal Opportunity Facilities Cell:

SL No.	Name of the Member	Designation	Role in Cell	Contact No.
1	Jayanta Mukhopadhyay	Principal	Chairman	9330906159
2	Sudipta Mukherjee	Manager Admin	Convener	9330062984
3	Sonali Mandal	TA	Member (Women Rep)	9749145237
4	Rajorshi Roy	Marketing Executive	Member (SC/ST Rep)	8240766831
5	Soumitra Ghosh	Office Staff	Member (Non-Teaching)	9564462426

### 18.6 PROGRAMMES

- i) Name of the Programmes approved by the AICTE-

Diploma in Engineering (Trades are Civil, Mechanical, Electrical, Electronics and Telecommunication & Computer Science)

- ii) **Name of the program Accredited by AICTE-** Civil Engineering, Mechanical Engineering, Electrical Engineering, Electronics and Telecommunication Engineering & Computer Science technology.
- iii) Name of the program Accredited by NBA- Not applicable
- iv) Status of Accreditation of Courses- Not applicable
- v) Total number of course-5

<b>3 years(6Semesters) Diploma Course : (2025)</b>			
Sl No.	Name	No. of seats	Duration
01	CIVIL	60	3yrs.
02	MECANICAL	90	3yrs.
03	ELETRICAL	90	3yrs.
04	ETE	30	3yrs.
05	CST	90	3yrs.

*Duration-3 years (6sem)*

- ❖ Cut off marks/rank of admission during last 3 year

- ❖ 10<sup>th</sup> Standard student qualified with minimum 35% marks in aggregate along with valid score of JEXPO in current year.
- ❖ Without JEXPO student can apply for Direct admission.

***For 2 years Voclet course***

- ❖ 10+2 standard student (From Vocational or ITI background) qualified with valid marks along with valid score of VOCLET in current year.
- ❖ Without VOCLET can apply with 60% marks in 12<sup>th</sup> Standard (From Vocational or ITI background).

**vi. Fees details(For 3 Year diploma)**

**For Counseling allotted student**

At the time of admission(Includes 1st sem fee, Caution deposit, admission charge)	33600
Rest 5 sems 16000 for each sem(16000x5)	80000
Alumni fees	500
<b>Total</b>	<b>1,14,100</b>

**For Direct(CE,EE,ME,ETC)**

At the time of admission(Includes 1st sem fee, Caution deposit, admission charge)	33600
Rest 5 sems 18000 for each sem(18000x5)	90000
Alumni fees	500
<b>Total</b>	<b>1,24,100</b>

**For CST**

At the time of admission(Includes 1st sem fee, Caution deposit, admission charge)	39600
Rest 5 sems 22000 for each sem(22000x5)	110000
Alumni fees	500
<b>Total</b>	<b>1,50,100</b>

**For Voclet students**

At the time of admission (Includes 1st sem fee, Caution deposit, admission charge)	33600
Rest 3 sem as 16000 for each sem (16000x3)	48000
Alumni fees	500
<b>Total</b>	<b>82100</b>

**vii)** Name & Duration of programme having Twinning & Collaboration with Foreign University(s) and being run in the same Campus along with status of their AICTE approval. If there is Foreign Collaboration, give the following details- N/A

**viii)** Nature of Collaboration - N/A

**ix)** Complete details of payment a student has to make to get the full benefit of Collaboration - N/A

**x)** For each Programme Collaborated provide the following:

**xi)** Programme Focus - N/A

**xii)** Number of seats - N/A

**xiii)** Admission Procedure - N/A

**xiv)** Fee (as approved by the state government) - N/A

**xv)** Whether the collaboration Programme is approved by AICTE? If no whether the Domestic/Foreign university has applied to AICTE for approval - N/A

**18.7. Faculty:**

**I & ii. List of Faculty as per AICTE (2026)**

SL NO	Department	Faculty Unique ID	Middle Name	First Name	Last Name	Permanent / Adjunct
1	CIVIL ENGINEERING	1-3605764390		ARNABI	BANERJEE	Permanent
2	CIVIL ENGINEERING	1-3606633785		SUBHODEE P	PAUL	Permanent
3	CIVIL ENGINEERING	1-3606942283		ARGHYA	SAHA	Permanent
4	CIVIL ENGINEERING	1-3607264142		MUNNA	YADAV	Permanent

5	CIVIL ENGINEERING	1-7451119740		MAMPI	MALLICK	Permanent
6	CIVIL ENGINEERING	1-7451246746		SUBHAM	TAPADAR	Permanent
7	CIVIL ENGINEERING	1-9312467681		SANTU	DEY	Permanent
8	CIVIL ENGINEERING	1-44380837071		SUBHAMAY	GHOSH	Permanent
9	CIVIL ENGINEERING	1-44685541711		MOUSUMI	PAUL	Permanent
1	COMPUTER SCIENCE & TECHNOLOGY	1-11300965928		AVIK	SARKAR	Permanent
2	COMPUTER SCIENCE & TECHNOLOGY	1-30966039361		SUVAMAY	GUPTA	Permanent
3	COMPUTER SCIENCE & TECHNOLOGY	1-43370420680		RIA	BANDYOPADHYAY	Permanent
4	COMPUTER SCIENCE & TECHNOLOGY	1-44367394561		SONIA	ADHIKARI	Permanent
5	COMPUTER SCIENCE & TECHNOLOGY	1-44367395153		PURNENDU	PANDIT	Permanent
6	COMPUTER SCIENCE & TECHNOLOGY	1-44492346124		SHAMIK	PARBAT	Permanent
7	COMPUTER SCIENCE & TECHNOLOGY	1-44686577371		ARKARUP	MITRA	Permanent
1	MECHANICAL ENGINEERING	1-3606823161		DIPSANKAR	CHATTERJEE	Permanent
2	MECHANICAL ENGINEERING	1-3607294802		ARIJIT	KAR	Permanent
3	MECHANICAL ENGINEERING	1-4725762445		DEBOJYOTI	SARKAR	Permanent
4	MECHANICAL ENGINEERING	1-7451013135		ARUNAVA	CHOUDHURY	Permanent

5	MECHANICAL ENGINEERING	1-7729657258		ALOKE	SARKAR	Permanent
6	MECHANICAL ENGINEERING	1-11300965935		AVIJIT	CHOWDHURY	Permanent
7	MECHANICAL ENGINEERING	1-44406957601		RITWIK	BISWAS	Permanent
8	DIPLOMA IN MECHANICAL ENGINEERING	1-44407507001		SUMON	BHATTACHARJEE	Permanent
9	MECHANICAL ENGINEERING	1-44685596782	KRISHNA	NABIN	SINHA	Permanent
10	MECHANICAL ENGINEERING	1-47132567056		DEEPARGHYA	BISWAS	Permanent
11	MECHANICAL ENGINEERING	1-47134991303	NATH	RAJENDRA	BISWAS	Permanent
1	ELECTRICAL ENGINEERING	1-4793340790		ARIJIT	MUKHERJEE	Permanent
2	ELECTRICAL ENGINEERING	1-43370735427		ESHA	MALLICK	Permanent
3	ELECTRICAL ENGINEERING	1-43381956195	KUMAR	PRATIP	DAS PAL	Permanent
4	ELECTRICAL ENGINEERING	1-44459055270		PRODYUMNA	BANERJEE	Permanent
5	ELECTRICAL ENGINEERING	1-44460316401	SEKHAR	MRIGANKA	PAL	Permanent
6	ELECTRICAL ENGINEERING	1-44489247859		KAMINI	HALDER	Permanent
7	ELECTRICAL ENGINEERING	1-44489357752		SHREYA	CHAKRABORTY	Permanent
8	ELECTRICAL ENGINEERING	1-44491742911		SUJOY	BHOWMIK	Permanent
9	ELECTRICAL ENGINEERING	1-44683570158		PROTYUSHA	GHOSH	Permanent
10	ELECTRICAL ENGINEERING	1-44685596535		SOUJANYA	PAL	Permanent
11	ELECTRICAL ENGINEERING	1-47062131813		ANURAG	KAR	Permanent
12	ELECTRICAL ENGINEERING	1-47063510143		TUHIN	SADHUKHAN	Permanent
13	ELECTRICAL ENGINEERING	1-2078786279		DEBASHIS	CHAKRABORTY	Permanent

1	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	1-4724911885		GARGEE	SARKAR	Permanent
2	ELECTRONICS & TELE-COMMUNICATION ENGINEERING	1-7451246238		RANJAN	DEBNATH	Permanent
3	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	1-11424680742		SUBHAM	CHOWDHURY	Permanent
4	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	1-452243575	KUMAR	SATYAKI	BISWAS	Permanent
5	ELECTRONICS & TELE-COMMUNICATION ENGINEERING	1-43370735575		DIPARNA	BANERJEE	Permanent
6	ELECTRONICS AND TELECOMMUNICATIONS ENGINEERING	1-44489358294		ABHISHEK	ROY	Permanent
7	ELECTRONICS & TELE-COMMUNICATION ENGINEERING	1-44685236651		SOURAV	BACHHAR	Permanent
8	ELECTRONICS & TELE-COMMUNICATION ENGINEERING	1-47062545463		SABORNI	PAL	Permanent

1	FIRST YEAR/OTHER	1-2961612331		SREEKUMAR	BHATTACHARJEE	Permanent
2	FIRST YEAR/OTHER	1-3606634431		PAYELI	CHOWDHURY	Permanent
3	FIRST YEAR/OTHER	1-3607509601	KUMAR	AMAL	GHORAI	Permanent
4	FIRST YEAR/OTHER	1-4832423297		JYOTIRMOY	PANDIT	Permanent
5	FIRST YEAR/OTHER	1-4833587780		SMRITIKANA	BISWAS	Permanent
6	FIRST YEAR/OTHER	1-9525970217		RAJORSHI	ROY	Permanent
7	FIRST YEAR/OTHER	1-11305610375		DEBAYAN	MANDAL	Permanent
8	FIRST YEAR/OTHER	1-11308217130		BISWANATH	CHOWDHURY	Permanent
9	FIRST YEAR/OTHER	1-43370735653		BABITA	PAUL	Permanent
10	FIRST YEAR/OTHER	1-43370905429		WRITUPARNA	DAS	Permanent
11	FIRST YEAR/OTHER	1-44344902541		LALTU	HALDER	Permanent
12	FIRST YEAR/OTHER	1-44350968811	DAS	MOUSUMI	GHATAK	Permanent
13	FIRST YEAR/OTHER	1-44366462411	BASU	PRODOSH	ROY	Permanent
14	FIRST YEAR/OTHER	1-44415622651		SUDIPTA	MUKHERJEE	Permanent
15	FIRST YEAR/OTHER	1-44683569441		DEYA	BHATTACHARYYA	Permanent
16	FIRST YEAR/OTHER	1-1508949973		JAYANTA	MUKHOPADHYAY	Permanent

iii. Adjunct Faculty : Dr. Birat Kumar Bairagya

iv. Permanent Faculty Student Ratio: 1 : 25

**18.8: Profile of Director / Principal :**

i. Name : Dr. Jayanta Mukhopadhyay

ii. Date of Birth : 06/07/1965

iii. Unique ID : 1-1508949973

iv. Educational Qualification : M. Tech – Ph.D.

v. Work Experience : 25 yrs

vi. Teaching/Research/Industry/Others : Industry / Teaching

vii. Area of Specification : Engineering

viii. Course taught at Diploma : Electronics

ix. Research guidance :

x. No of Paper Published :

xi. Master (Completed/Ongoing) :

xii. Ph.D (Completed/Ongoing) :

xiii. Projects carried out :

xiv. Patents (Field & Granted) :

xv. Technology Transfer :

xvi. Research Publication :

xvii. No of book Published with details :

### 18.10 Admission

.i) Number of seats sanctioned with the year of approval

1 <sup>st</sup> Year of approval by AICTE(for the Academic Year 2024-25)			Sanctioned intake	Actual admissions
Courses	Diploma	CE	60	60
	Diploma	ME	90	90
	Diploma	EE	90	90
	Diploma	CST	90	90
	Diploma	ETE	30	30

i) Number of Students admitted under various categories each year in the last three years

DEPT.	SEAT SANCTION	ADMISSION 2023	ADMISSION 2024	ADMISSION 2025
CE	60	24	34	30
ME	90	54	66	73
EE	90	62	88	89
ETCE	30	25	30	23

CST	90	76	75	54
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- ii) Number of applications received during last year for admission under Management Quota and number admitted  
For apply in JIS School of polytechnic visit-

<https://www.jisgroup.net/Enquiry/Forms/frmRegistration.aspx>

### 18.11 Admission Procedure

- i) Mention the admission test being followed, name and address of the Test Agency/State Admission Authorities and its URL (website)  
Candidate needs to have cleared class 10<sup>th</sup>, can qualify in JEXPO Exam. Candidate selected through counseling organized by State council of Technical Education, Govt. of West Bengal (WBSCT & VE & SD).  
Mention the admission test being followed, name and address of the Test Agency and its URL (website). <https://webscte.co.in/>
- ii) Number of seats allotted to different Test Qualified candidate separately (AIEEE//JEE/ CET (State conducted test/ University tests/ CMAT)/ Association conducted test etc.)  
The ratio of the intake will be 75% from Counseling Admitted and 25% from Management quota
- iii) Calendar for admission against Management quota seats:  
After counseling if any seats vacant then the the admission procedure began. For all required information student need to visit – [www.jissp.ac.in](http://www.jissp.ac.in) & <https://webscte.co.in/>
- iv) Last date of request for applications  
As guided by West Bengal State council of Technical Education
- v) Last date of submission of applications  
As guided by West Bengal State council of Technical Education  
Dates for announcing final results  
As guided by West Bengal State council of Technical Education
- .vii) Release of admission list (main list and waiting list shall be announced on the same day) As guided by West Bengal State council of Technical Education
- viii) Date for acceptance by the candidate (time given shall innocase be less than 15 days) As guided by West Bengal State council of Technical Education
- ix) Last date for closing of admission & Starting of the Academic session  
As guided by West Bengal State council of Technical Education
- x) The waiting list shall be activated only on the expiry of date of main list

As guided by West Bengal State council of Technical Education and Govt. of West Bengal.

xi) The policy of refund of the Fee, in case of withdrawal, shall be clearly notified

As guided by the Govt. of West Bengal Dept. of Technical Education.

### 18.12 Criteria and Weightages for Admission

- i) Describe each criterion with its respective weightages  
i.e. Admission Test, marks in qualifying examination etc.  
Qualified through JEXPO and allotted by State council. For more details visit <https://webscte.co.in/>
- ii) Mention the minimum level of acceptance, if any  
As per norm of State council of West Bengal, form or details visit - <https://webscte.co.in/>
- iii) Mention the cut-off levels of percentage and percentile score of the candidates in the admission Test for the last three years  
As per norm of State council of West Bengal, form or details visit - <https://webscte.co.in/>
- iv) Display marks scored in Test etc. and in aggregate for all candidates who were admitted Visit- <https://webscte.co.in/>

### 18.13 List of Applicants

List of candidate whose applications have been received along with percentile/percentages core for each of the qualifying examination in separate categories for open seats, List of candidate who have applied along with percentage- Not applicable

**18.14 Results of Admission Under Management seats/Vacant seats** –All admission taken based on Merit as per State Council, 75% of intake comes directly through counseling/ Spot Counselling, rests 25% can be taken admission directly.

- i) Composition of selection team for admission under Management Quota- N/A
- ii) List of candidate who have been offered admission- N/A
- iii) Waiting list of the candidate in order of merit to be operative from the last date of joining of the first- N/A

### 18.15 Information of Infrastructure & Other Recourse Available:

#### i. No of Classroom:

Branch Code	No. of Rooms	Total Seating Capacity	Size
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CE	3	60	11m × 5.5 m
ME	4	60	11m × 5.5 m
EE	4	60	11m × 5.5m
ETCE	3	30	5.5m × 5.5m
CST	4	60	11 m × 5.5m

ii. No of tutorial room : 3 Nos & 11 m × 5.5m

iii. No of Laboratories :

Branch Code	No. of Rooms	Size
CE	3	11m × 5.5 m
ME	4	11m × 5.5 m
EE	4	11m × 5.5m
ETCE	2	5.5m × 5.5m
CST	4	11 m × 5.5m

- Drawing Halls with capacity

Infrastructure	No. of Rooms	Size
Drawing Halls	2	11m × 5.5m

- Workshop with capacity

Infrastructure	No. of Rooms	Size
Workshop	1	200 m <sup>2</sup>

iv. No of Computer Centre:

Infrastructure	No. of Rooms	Total Seating Capacity(ea ch room)
Computer Centers	4	30

v. Central Examination Facility, Number of rooms and capacity of each

Infrastructure	No. of Rooms	Total Seating Capacity (each room)
Central Examination Facility	12	40

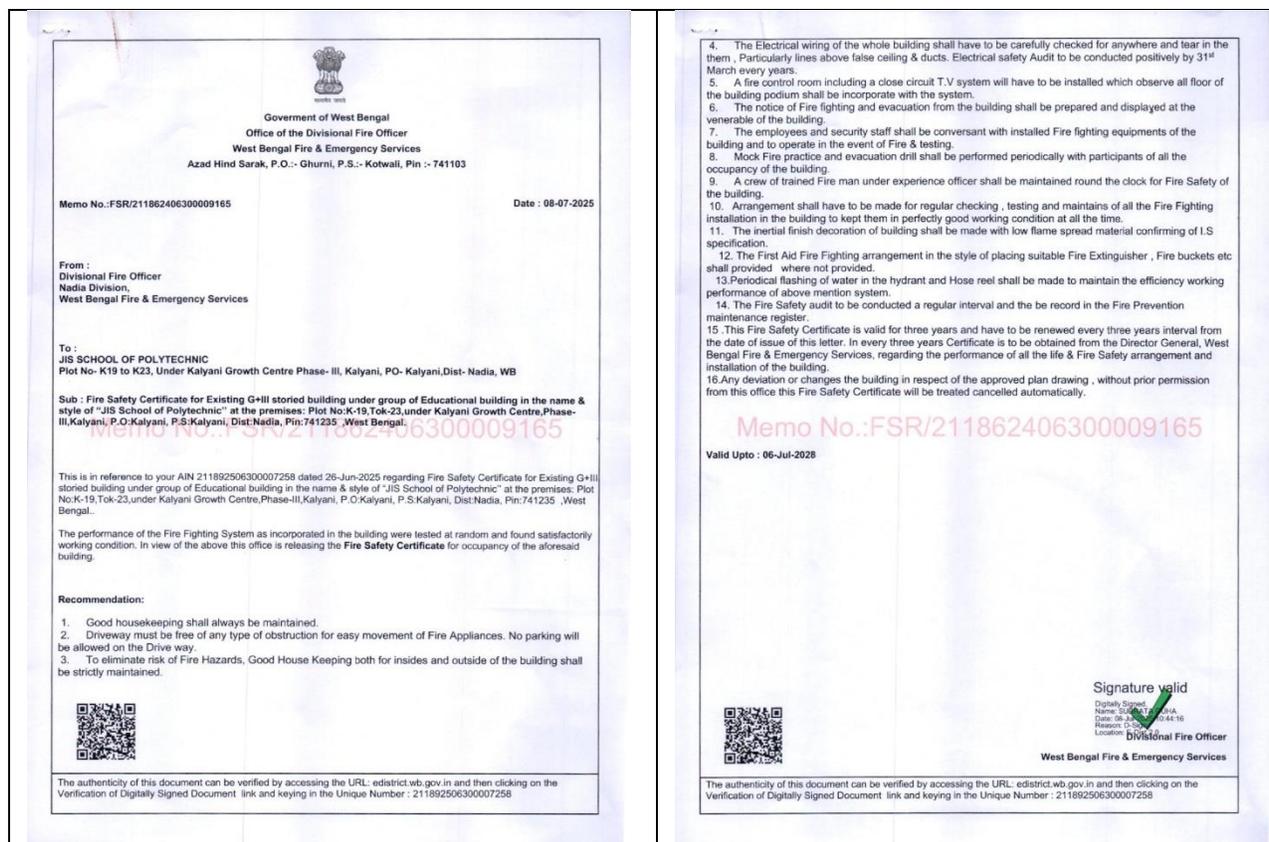
vi. About the online Examination Facility of an Educational Institution

Online Examination Facility is not applicable here as presently all the examination are conducted through offline mode.

vii. Barrier free Environment:



viii. Fire & safety Certificates:



**(ix) Hostel Facilities**

We have hostel facilities with fooding & lodging. Separate hostel for boys & girls. Hostel charge 6500 per month (including all). We have our own hostel building just opposite of our college campus. The facility available in the hostels is – fooding, lodging, electricity, indoor game, warden to look after the hostel operations, medical facility etc.

x. Number of library books / e.books / titles / journal

xi . List of online national / international journals subscribed

xii. National digital library (NDL) details :

xiii. List of Major equipments in Laboratories/Workshop:

SL No	Name of the lab	Name of the equipments	Nos
1	Mechanics of Material Lab	Universal Testing Machine (UTM)	1

2	Mechanics of Material Lab	Compression Testing Machine.	1
3	Mechanics of Material Lab	Shear force and Bending Moment diagrams apparatus	1
4	Transportation Engineering Lab	Flakiness and Elongation Index apparatus	2
5	Transportation Engineering Lab	Impact value testing Machine	1
6	Transportation Engineering Lab	Los Angeles apparatus	1
7	Transportation Engineering Lab	Crushing mould	2 set
8	Transportation Engineering Lab	Ring ball aeratus	2 set
9	Transportation Engineering Lab	Penetrometer	1
10	Transportation Engineering Lab	Pensky Martine apparatus	2
11	Transportation Engineering Lab	Ductility apparatus	1
12	Construction Material Lab	Mortar mould	4
13	Concrete Technology	90 micron IS Sieve	1
14	Concrete Technology	Vicat apparatus	2
15	Concrete Technology	Measuring Cylinder	1 set
16	Concrete Technology	Measuring Beaker	1 set
17	Concrete Technology	Measuring Drum	1 set
18	Concrete Technology	Water absorption apparatus	1
19	Concrete Technology	IS Sieve Set for fine and coarse aggregate	1 set each
20	Concrete Technology	Slump cone	5
21	Concrete Technology	Compaction factor apparatus	1
22	Basic Surveying Field Practices	Chain & Compass	3 set
23	Basic Surveying Field Practices	Dumpy Level	6
24	Basic Surveying Field Practices	Auto level	4
25	Basic Surveying Field Practices	Plane table	4 set
26	Hydraulics Lab	Piezometer	1
27	Hydraulics Lab	Bourdon's Gauge to measure apparatus	1

28	Hydraulics Lab	U tube differential manometer	1
29	Hydraulics Lab	Bernoulli's apparatus	1
30	Hydraulics Lab	Friction factor Apparatus	1
31	Hydraulics Lab	Calibrate Venturimeter	1
32	Hydraulics Lab	Orifice meter	1
33	Hydraulics Lab	Triangular notch	1
34	Hydraulics Lab	Rectangular notch	1
35	Geotechnical Engineering Lab	Pycnometer	1
36	Geotechnical Engineering Lab	Core Cutter	1
37	Geotechnical Engineering Lab	Sand replacement apparatus	1
38	Geotechnical Engineering Lab	Cassagrande apparatus	2
39	Geotechnical Engineering Lab	Constant head & Falling head apparatus	1
40	Geotechnical Engineering Lab	Direct shear test apparatus	1
41	Geotechnical Engineering Lab	Proctor test apparatus	1
42	Geotechnical Engineering Lab	CBR machine	1
43	Public Health Engineering Lab	Turbidity meter	2
44	Public Health Engineering Lab	Pipette & Burette	4 set
45	Public Health Engineering Lab	B.O.D bottle	2 set
46	Advanced Surveying Practices	vernier Theodolite	3
47	Advanced Surveying Practices	Digital Theodolite	1
48	Advanced Surveying Practices	Total Station	1
49	Advanced Surveying Practices	GPS machine	1

### Electrical Engineering Department

#### List of equipments

SL No	Name of the lab	Name of the equipments	Nos
1	INTRODUCTION TO ELECTRIC GENERATION SYSTEMS LABORATORY (3RD SEM)	Identify the routine maintenance parts of the coal fired thermal power plant after watching a video programme	1
2	INTRODUCTION TO ELECTRIC GENERATION SYSTEMS LABORATORY (3RD SEM)	Identify the routine maintenance parts of the gas fired thermal power plant after watching a video programme	1

3	INTRODUCTION TO ELECTRIC GENERATION SYSTEMS LABORATORY (3RD SEM)	Identify the routine maintenance parts of the diesel generator power plant after watching a video programme	1
4	INTRODUCTION TO ELECTRIC GENERATION SYSTEMS LABORATORY (3RD SEM)	Identify the routine maintenance parts of the nuclear fired thermal power plant after watching a video programme	1
5	INTRODUCTION TO ELECTRIC GENERATION SYSTEMS LABORATORY (3RD SEM)	Identify the routine maintenance parts of the large hydro power plant after watching a video programme	1
6	INTRODUCTION TO ELECTRIC GENERATION SYSTEMS LABORATORY (3RD SEM)	Study on the different types of Boiler used in coal based thermal power plant	1
7	INTRODUCTION TO ELECTRIC GENERATION SYSTEMS LABORATORY (3RD SEM)	Study on different types of Nuclear Reactor used in nuclear power plant	1
8	INTRODUCTION TO ELECTRIC GENERATION SYSTEMS LABORATORY (3RD SEM)	Study on different types of Water Turbines used in large hydro power plant	1
9	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	To verify Kirchhoff's Current Law and Kirchhoff's Voltage Law.	1
10	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use voltmeter, ammeter, wattmeter to determine active, reactive and apparent power consumed in given R-L / R-C series circuit. Draw phasor diagram.	1
11	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use voltmeter, ammeter, wattmeter to determine active, reactive and apparent power consumed in given R-L-C series circuit. Draw phasor diagram.	1
12	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use variable frequency supply to create resonance in given series and parallel R-L-C circuit or by using variable inductor or variable capacitor	1

13	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use voltmeter, ammeter, wattmeter to determine current, p.f. , active, reactive and apparent power in R-L / R-C parallel A.C. circuit.	1
14	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use voltmeter, ammeter, wattmeter, p.f meter to determine current, p.f., active, reactive and apparent power for given R-L-C parallel circuit with series connection of resistor and inductor in parallel with capacitor	1
15	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use voltmeter, ammeter to determine current through the given branch of an electric network by applying mesh analysis.	1
16	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use voltmeter, ammeter to determine current through the given branch of an electric network by applying node analysis.	1
17	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use voltmeter, ammeter to determine current through the given branch and voltage across the given element of circuit by applying superposition theorem.	1
18	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use voltmeter, ammeter to determine equivalent circuit parameter in a given circuit by applying Thevenin's theorem	1
19	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use voltmeter, ammeter to determine equivalent circuit parameter in a given circuit by applying Norton's theorem	1
20	ELECTRIC CIRCUITS LABORATORY ( 3RD SEM )	Use voltmeter, ammeter to determine load resistance for maximum power transfer for a given circuit by applying maximum power transfer theorem.	1

21	ELECTRICAL AND ELECTRONIC MEASUREMENTS LABORATORY ( 3RD SEM)	Use Clamp-on meter / digital multi-meter for measurement of AC/DC current, AC/DC voltage.	1
22	ELECTRICAL AND ELECTRONIC MEASUREMENTS LABORATORY ( 3RD SEM)	Extend range of ammeter and voltmeter by using (i) shunt and multiplier (ii) CT and PT.	1
23	ELECTRICAL AND ELECTRONIC MEASUREMENTS LABORATORY ( 3RD SEM)	Use single wattmeter for measurement of active and reactive power of three phase balanced load.	1
24	ELECTRICAL AND ELECTRONIC MEASUREMENTS LABORATORY ( 3RD SEM)	Use two watt-meters for measuring active power of three-phase balanced load.	1
25	ELECTRICAL AND ELECTRONIC MEASUREMENTS LABORATORY ( 3RD SEM)	Calibrate single phase electronic energy meter by direct loading.	1
26	ELECTRICAL AND ELECTRONIC MEASUREMENTS LABORATORY ( 3RD SEM)	Troubleshoot single phase electronic energy meter.	1
27	ELECTRICAL AND ELECTRONIC MEASUREMENTS LABORATORY ( 3RD SEM)	Use Kelvin's double bridge for measurement of low resistance.	1
28	ELECTRICAL AND ELECTRONIC MEASUREMENTS LABORATORY ( 3RD SEM)	Use Megger for measurement of insulation resistance.	1
29	ELECTRICAL AND ELECTRONIC MEASUREMENTS LABORATORY ( 3RD SEM)	Use earth tester for measurement of earth resistance.	1
30	ELECTRICAL AND ELECTRONIC MEASUREMENTS LABORATORY ( 3RD SEM)	Measure unknown capacitance using Schering bridge.	1
31	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Dismantle a DC machine.	1
32	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Plot the O.C.C. of a D.C. generator & find the critical resistance.	1
33	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Control the speed of DC shunt motor above & below rated speed & draws the speed characteristics.	1
34	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Starting and reversing of DC motor	1

35	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Perform the brake test on DC series motor.	1
36	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Compute the efficiency of a D.C. motor by Swinburne's test.	1
37	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Determine equivalent circuit parameters of single-phase transformer by performing O.C. test and S.C. test.	1
38	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Determine the regulation & efficiency of single-phase transformer by direct loading method	1
39	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Compute the efficiency of a single-phase transformer by Back-to- Back test.	1
40	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Check the functioning and testing of the isolation transformer.	1
41	DC MACHINES AND TRANSFORMERS LABORATORY ( 3RD SEM )	Study and check the connections (vector grouping) of three phase transformers	1
42	INDUCTION, SYNCHRONOUS AND SPECIAL ELECTRICAL MACHINES LABORATORY ( 4TH SEM )	Identify the different parts (along with function and materials) for the given single phase and three phase induction motor.	1
43	INDUCTION, SYNCHRONOUS AND SPECIAL ELECTRICAL MACHINES LABORATORY ( 4TH SEM )	Perform the direct load test on the three phase squirrel cage induction motor and plot the i) efficiency versus output, ii) power factor versus output, iii) power factor versus motor current and iv) torque – slip/speed characteristics efficiency versus output, v) power factor versus output, vi) power factor versus motor current and vii ) torque – slip/speed characteristics.	1

44	INDUCTION, SYNCHRONOUS AND SPECIAL ELECTRICAL MACHINES LABORATORY ( 4TH SEM )	Conduct the No-load and Blocked-rotor tests on given 3-phase squirrel cage induction motor and determine the equivalent circuit parameters.	1
45	INDUCTION, SYNCHRONOUS AND SPECIAL ELECTRICAL MACHINES LABORATORY ( 4TH SEM )	Control the speed of the given three phase squirrel cage induction motor using the applicable methods: i) autotransformer, ii) VVVF.	1
46	INDUCTION, SYNCHRONOUS AND SPECIAL ELECTRICAL MACHINES LABORATORY ( 4TH SEM )	Measure the open circuit voltage ratio of the three-phase slip ring induction motor and perform the speed control by insertion of resistance in rotor circuit for slip ring induction motor.	1
47	INDUCTION, SYNCHRONOUS AND SPECIAL ELECTRICAL MACHINES LABORATORY ( 4TH SEM )	Conduct the direct load test to determine the efficiency and speed regulation for different loads on the given single phase induction motor; plot the efficiency and speed regulation curves with respect to the output power.	1
48	INDUCTION, SYNCHRONOUS AND SPECIAL ELECTRICAL MACHINES LABORATORY ( 4TH SEM )	Determine the regulation and efficiency of the given three phase alternator from OC and SC tests (Synchronous impedance method)	1
49	INDUCTION, SYNCHRONOUS AND SPECIAL ELECTRICAL MACHINES LABORATORY ( 4TH SEM )	Conduct the test on load or no load to plot the 'V' curves and inverted 'V' curves (at no-load) of 3-phase synchronous motor.	1
50	INDUCTION, SYNCHRONOUS AND SPECIAL ELECTRICAL MACHINES LABORATORY ( 4TH SEM )	Dismantling and reassembling of single phase motors used for ceiling fans, universal motor for mixer.	1

51	SWITCHGEAR AND PROTECTION LABORATORY ( 4TH SEM )	Identify various components of different switchgears(through visit or video or model) viz A. Circuit Breaker [: i) LT air circuit breaker; ii) Minimum Oil Circuit Breaker; iii) Air Blast Circuit Breaker; iv) SF6 Circuit Breaker; v) Vacuum Circuit Breaker] B. Isolator [vertical break, horizontal break] C. CTs and PTs D. Power and distribution Transformers and write their specifications	1
52	SWITCHGEAR AND PROTECTION LABORATORY ( 4TH SEM )	Test HRC fuse by performing the load test	1
53	SWITCHGEAR AND PROTECTION LABORATORY ( 4TH SEM )	Test MCB by performing the load test	1
54	SWITCHGEAR AND PROTECTION LABORATORY ( 4TH SEM )	Dismantle MCCB/ELCB/RCCB and identify various parts	1
55	SWITCHGEAR AND PROTECTION LABORATORY ( 4TH SEM )	Testing of Induction type/ Microprocessor Based Over Current relay using Relay Testing Kit to plot the inverse characteristics.	1
56	SWITCHGEAR AND PROTECTION LABORATORY ( 4TH SEM )	Testing of Directional Over Current Relay (DOCR) by Relay Testing Kit.	1
57	SWITCHGEAR AND PROTECTION LABORATORY ( 4TH SEM )	Study of different lightning arrester and identify different parts.	1
58	SWITCHGEAR AND PROTECTION LABORATORY ( 4TH SEM )	Study of ACB/VCB and identify different parts.	1

59	ELECTRIC POWER TRANSMISSION AND DISTRIBUTION LABORATORY ( 4TH SEM )	<p>Students should conduct following activities (any two)</p> <p>Activity-I: Prepare a report based on transmission line network in West Bengal.</p> <p>Activity-II: Collect the information on components of transmission line.</p> <p>Activity-III: Evaluate transmission line performance parameters of a given line.</p> <p>Activity-IV: Library/ Internet survey of electrical high voltage line and HVDC lines.</p> <p>Activity-V: Visit to Transmission/ Distribution Substation and make a report on the visit.</p>	1
60	ELECTRIC POWER TRANSMISSION AND DISTRIBUTION LABORATORY ( 4TH SEM )	<p>Prepare a model showing: (any two)</p> <p>Activity-I: Single line diagram of electric supply system.</p> <p>Activity-II: Single line diagram of a given distribution system.</p> <p>Activity-III: Short line and medium transmission line.</p> <p>Activity-IV: Write a report on the same by giving the details of lines in West Bengal.</p>	1
61	ELECTRIC POWER TRANSMISSION AND DISTRIBUTION LABORATORY ( 4TH SEM )	Study samples of Overhead Conductors, Underground Cables, Line supports and Line Insulators.	1
62	ELECTRIC POWER TRANSMISSION AND DISTRIBUTION LABORATORY ( 4TH SEM )	Demonstrate various system faults by D.C. network analyzer.	1
63	ELECTRIC POWER TRANSMISSION AND DISTRIBUTION LABORATORY ( 4TH SEM )	Demonstrate the improvement of p.f. using static condenser.	1

64	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Perform experiment to measure solar radiation using Pyranometer on tilted surface at different angles of inclination and plot radiation vs. time characteristics for certain duration.	1
65	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Perform experiment to plot I-V characteristics of photovoltaic cell module and find out the solar cell parameters (O.C. voltage, Short circuit current, Voltage-current-power at Maximum Power point, Fill factor, Efficiency).	1
66	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Study different parts of a solar flat plate collector/ solar concentrating collector.	1
67	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Perform experiment to measure thermal performance of a solar water heating system	1
68	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Perform experiment to measure thermal performance of a solar cooker with varying reflector.	1
69	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Identify & study different components of solar street lighting system for AC supply	1
70	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Identify & study the specified components of a 1 KW Small Wind Turbine (SWT) system.	1
71	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Identify & study the specified components of water turbine using cut section model.	1
72	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Set up the wind power plant of with a Small Wind Turbine to produce electricity	1
73	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Study on assembling of vertical axis / horizontal axis small wind turbine to produce electric power.	1

74	RENEWABLE ENERGY POWER PLANTS LABORATORY (4TH SEM)	Study on assembling of a micro hydro power plant.	1
75	POWER ELECTRONICS CONVERTERS AND APPLICATIONS LABORATORY ( 4TH SEM )	Test the proper functioning of power electronic switches – SCR, IGBT, SCS and TRIAC.	1
76	POWER ELECTRONICS CONVERTERS AND APPLICATIONS LABORATORY ( 4TH SEM )	Determine the latching current and holding current using V-I characteristics of SCR.	1
77	POWER ELECTRONICS CONVERTERS AND APPLICATIONS LABORATORY ( 4TH SEM )	Test the variation of R, C in R and RC triggering circuits on firing angle of SCR.	1
78	POWER ELECTRONICS CONVERTERS AND APPLICATIONS LABORATORY ( 4TH SEM )	Test the effect of variation of R, C in UJT triggering technique.	1
79	POWER ELECTRONICS CONVERTERS AND APPLICATIONS LABORATORY ( 4TH SEM )	Perform speed control of DC series / DC separately excited motor using SCR.	1
80	POWER ELECTRONICS CONVERTERS AND APPLICATIONS LABORATORY ( 4TH SEM )	Study on SMPS.	1
81	BUILDING ELECTRIFICATION LABORATORY (5TH SEM)	Prepare series testing board for testing fan or other electrical gadgets.	1
82	BUILDING ELECTRIFICATION LABORATORY (5TH SEM)	Select the electric wire using measuring and testing instruments for particular applications.	1
83	BUILDING ELECTRIFICATION LABORATORY (5TH SEM)	Study and Identify cables (PVC, XLPE, and VIR) and catenary cable of different current ratings.	1
84	BUILDING ELECTRIFICATION LABORATORY (5TH SEM)	Prepare wiring installation on a board from the commencement of supply showing energy meter, MCB, control of one lamp, one fan and one socket from one switch board in PVC surface conduit wiring system.	1

85	BUILDING ELECTRIFICATION LABORATORY (5TH SEM)	Prepare wiring installation on a board showing control of one lamp, one fan and one socket from one switch board using Batton wiring system.	1
86	BUILDING ELECTRIFICATION LABORATORY (5TH SEM)	Control one lamp from two different places using PVC surface conduit wiring system.	1
87	BUILDING ELECTRIFICATION LABORATORY (5TH SEM)	Test wiring insulation using megger.	1
88	BUILDING ELECTRIFICATION LABORATORY (5TH SEM)	Measure earth resistance using earth megger.	1
89	BUILDING ELECTRIFICATION LABORATORY (5TH SEM)	Measurement of energy using CT or CT and PT.	1
90	BUILDING ELECTRIFICATION LABORATORY (5TH SEM)	Study of smart meter and associated system for commercial building/complex.	1
91	SOLAR POWER TECHNOLOGIES LABORATORY (5TH SEM)	Experiment to plot V-I Characteristics of solar panel/cell and determine the fill factor.	1
92	SOLAR POWER TECHNOLOGIES LABORATORY (5TH SEM)	Perform experiment to study the effect of shading on solar cell current when PV cells are connected in Series-Parallel combination.	1
93	SOLAR POWER TECHNOLOGIES LABORATORY (5TH SEM)	Perform experiment to study the effect of tilt angle on solar cell parameters (Voc, Vmp, Isc, Imp, Mpp, Fill factor, Efficiency).	1
94	SOLAR POWER TECHNOLOGIES LABORATORY (5TH SEM)	Determination of the rating of accessories (preparation of solar panel from solar module, charge controller, battery, inverter) of Solar PV system to generate electricity.	1
95	SOLAR POWER TECHNOLOGIES LABORATORY (5TH SEM)	Experiment to determine efficiency measurement of standalone solar PV system.	1
96	SOLAR POWER TECHNOLOGIES LABORATORY (5TH SEM)	Experiment to measure beam and diffuse solar radiation using Pyranometer.	1

97	SOLAR POWER TECHNOLOGIES LABORATORY (5TH SEM)	Assemble solar power heaters and implement it for heating	1
98	SOLAR POWER TECHNOLOGIES LABORATORY (5TH SEM)	Assemble different components of solar street lighting system for AC supply and implement it for lighting.	1
99	SOLAR POWER TECHNOLOGIES LABORATORY (5TH SEM)	Troubleshoot solar PV panel and arrays and identify its remedy.	1
100	SOLAR POWER TECHNOLOGIES LABORATORY (5TH SEM)	Experiment to run water pumping system using solar power.	1
101	INDUSTRIAL DRIVES LABORATOR (5TH SEM)	Control the speed of DC Motor using armature voltage control method	1
102	INDUSTRIAL DRIVES LABORATOR (5TH SEM)	Control the speed of DC Motor using field current control method.	1
103	INDUSTRIAL DRIVES LABORATOR (5TH SEM)	Control the speed of three phase squirrel cage induction motor using stator voltage control method.	1
104	INDUSTRIAL DRIVES LABORATOR (5TH SEM)	Control the speed of the given three phase induction motor by using constant V/f method and plot the graph between speed and frequency.	1
105	INDUSTRIAL DRIVES LABORATOR (5TH SEM)	Control the speed of the given three phase induction motor by varying frequency and plot the graph between speed and frequency.	1
106	INDUSTRIAL DRIVES LABORATOR (5TH SEM)	Make & test the control and power circuit for forward and reverse rotation of sq. cage induction motor using contactor circuit.	1
107	INDUSTRIAL DRIVES LABORATOR (5TH SEM)	Make & test the control and power circuit for automatic star-delta starter operation of sq. cage induction motor using contactor control.	1

108	INDUSTRIAL DRIVES LABORATOR (5TH SEM)	Dynamic braking of three phase squirrel cage induction motor using contactor control.	1
109	ENERGY CONSERVATION AND AUDIT LABORATORY (6TH SEM)	Experiment to determine the reduction in power consumption in star mode operation of Induction motor compared to delta mode at different load conditions.	1
110	ELECTRICAL TESTING AND COMMISIONING LABORATORY (6TH SEM)	Determine breakdown strength of transformer oil	1
111	ELECTRICAL TESTING AND COMMISIONING LABORATORY (6TH SEM)	Perform insulation resistance test on any one motor/transformer	1
112	ELECTRICAL TESTING AND COMMISIONING LABORATORY (6TH SEM)	Prepare trouble shooting charts for electrical machines such as Transformer, D.C. machines, Induction motor and Synchronous machines.	1
113	ELECTRICAL TESTING AND COMMISIONING LABORATORY (6TH SEM)	Find regulation and efficiency of single-phase transformer using back-to-back connection method.	1
114	ELECTRICAL TESTING AND COMMISIONING LABORATORY (6TH SEM)	Determine efficiency of D.C. motor by direct loading or by electrical loading	2
115	ELECTRICAL TESTING AND COMMISIONING LABORATORY (6TH SEM)	Determine efficiency of D.C. machine by Hopkinson's test.	1
116	ELECTRICAL TESTING AND COMMISIONING LABORATORY (6TH SEM)	Measure no load power, losses, current of a single-phase transformer upto 110% of rated voltage	1
117	ELECTRICAL TESTING AND COMMISIONING LABORATORY (6TH SEM)	Perform no load test on single phase Induction motor for the measurements of no load current, power input, and speed at rated voltage.	1

118	ELECTRICAL TESTING AND COMMISSIONING LABORATORY (6TH SEM)	Methods of providing artificial respiration (CPR) and prepare a report	1
<b>Electronics and Telecommunication Engineering Department</b>			
<b>List of equipments</b>			
SL No	Name of the lab	Name of the equipments	Nos
1	Digital Electronics_DE Lab	Experimental Board DB 06	1
2	Digital Electronics_DE Lab	Experimental Board DB 11	1
3	Digital Electronics_DE Lab	Experimental Board DB 12	1
4	Digital Electronics_DE Lab	Experimental Board DB 13	1
5	Digital Electronics_DE Lab	Experimental Board DB 14	1
6	Digital Electronics_DE Lab	Experimental Board DB 16	1
7	Digital Electronics_DE Lab	Experimental Board DB 22	1
8	Digital Electronics_DE Lab	Experimental Board DB 28	1
9	Digital Electronics_DE Lab	Experimental Board DB 30	1
10	Digital Electronics_DE Lab	Trainer Kit ST2611	1
11	Digital Electronics_DE Lab	Register Trainer Kit	1
12	Digital Electronics_DE Lab	Synchronous Counter Trainer Kit	1
13	Digital Electronics_DE Lab	Asynchronous Binary up down Counter Trainer Kit	1
14	Digital Electronics_DE Lab	D/A Converter Trainer Kit	1
15	Digital Electronics_DE Lab	A/D Converter Trainer Kit	1
16	Electronic Devices and Circuits Lab-EDC Lab	AB-01	1
17	Electronic Devices and Circuits Lab-EDC Lab	AB-02	1
18	Electronic Devices and Circuits Lab-EDC Lab	AB-04	1
19	Electronic Devices and Circuits Lab-EDC Lab	AB-06	1
20	Electronic Devices and Circuits Lab-EDC Lab	AB-08	1
21	Electronic Devices and Circuits Lab-EDC Lab	AB-15	1
22	Electronic Devices and Circuits Lab-EDC Lab	AB-16	1
23	Electronic Devices and Circuits Lab-EDC Lab	AB-17	1
24	Electronic Devices and Circuits Lab-EDC Lab	AB-21	1
25	Electronic Devices and Circuits Lab-EDC Lab	AB-22	1
26	Electronic Devices and Circuits Lab-EDC Lab	AB-23	1

27	Electronic Devices and Circuits Lab-EDC Lab	AB-32	1
28	Electronic Devices and Circuits Lab-EDC Lab	AB-33	1
29	Electronic Devices and Circuits Lab-EDC Lab	AB-88	1
30	Electronic Devices and Circuits Lab-EDC Lab	AB-89	1
31	Electronic Devices and Circuits Lab-EDC Lab	Astable Multivibrator Trainer Kit	1
32	Electronic Devices and Circuits Lab-EDC Lab	FET characteristics Trainer Kit	1
33	Electronic Devices and Circuits Lab-EDC Lab	Rectifier Trainer Kit	1
34	Electronic Devices and Circuits Lab-EDC Lab	Trainer Kit -ST2612	1
35	Electronic Devices and Circuits Lab-EDC Lab	Trainer kit-RC coupled amplifier	1
36	Electronic Devices and Circuits Lab-EDC Lab	Trainer kit-1609 MOSFET characteristics	1
37	Electronic Devices and Circuits Lab-EDC Lab	Trainer kit-1613 UJT characteristics	1
38	Electronic Devices and Circuits Lab-EDC Lab	1664 UJT characteristics trainer kit	1
39	Electronic Devices and Circuits Lab-EDC Lab	DSO-NVIS50MHZ	1
40	Electronic Devices and Circuits Lab-EDC Lab	CRO NVIS Tech	1
41	Electronic Devices and Circuits Lab-EDC Lab	Wein Bridge Oscillator Trainer Kit	1
42	Electronic Devices and Circuits Lab-EDC Lab	Signal Oscillator	1
43	Electronic Devices and Circuits Lab-EDC Lab	Crystal Oscillator	1
44	Electronic Devices and Circuits Lab-EDC Lab	OP-AMP trainer kit	1
45	Electronic Devices and Circuits Lab-EDC Lab	OP-AMP characteristics trainer kit	1
46	Electronic Devices and Circuits Lab-EDC Lab	Signal Generator-AF Oscillator	1
47	Electronic Measurement Lab - EMN Lab	Maxwell Bridge Trainer Kit	1
48	Electronic Measurement Lab - EMN Lab	Wein Bridge Trainer Kit	1
49	Electronic Measurement Lab - EMN Lab	Schering Bridge Trainer Kit	1

59	Consumer Electronics Lab-CNE Lab	Color TV trainer kit	1
60	Consumer Electronics Lab-CNE Lab	Loop Antenna Trainer Kit	1
61	Consumer Electronics Lab-CNE Lab	Black and White TV trainer kit	1
62	Consumer Electronics Lab-CNE Lab	DTH system installation	1
63	Electric Circuits and Network-ECN Lab	Multimeter(NVIS 4021T)	1
64	Electric Circuits and Network-ECN Lab	Network Theorem Trainer Kit(BEL - NBT)	1
65	Electric Circuits and Network-ECN Lab	Exp set up to plot Freq of active 01 No Filters - Low Pass Filter	1
66	Electric Circuits and Network-ECN Lab	Exp set up to plot Freq of active 01 No Filters - High Pass Filter	1
67	Electric Circuits and Network-ECN Lab	To design and test T and Pi attenuator	1
68	Electric Circuits and Network-ECN Lab	1707 series and parallel resonance kit	1
69	Industrial Electronics Lab-IE Lab	Trainer kit to determine TRIAC Characteristics	1
70	Industrial Electronics Lab-IE Lab	Stepper Motor	1
71	Industrial Electronics Lab-IE Lab	SMPS trainer kit	1
72	Industrial Electronics Lab-IE Lab	Digital storage oscilloscope	1
73	Industrial Electronics Lab-IE Lab	Trainer kit to determine SCR Characteristics	1
74	Industrial Electronics Lab-IE Lab	Reverse Recovery of Diode and BJT	1
75	Communication Engg Lab-CE Lab	Microwave antenna trainer kit(MT- Klystron)	1
76	Communication Engg Lab-CE Lab	Microwave antenna trainer kit(MT- Passive)	1
77	Communication Engg Lab-CE Lab	Compact microwave trainer kit	1

78	Communication Engg Lab-CE Lab	Advanced Fiber Optic Trainer Kit	1
79	Communication Engg Lab-CE Lab	Delta Modulator Kit	1
80	Communication Engg Lab-CE Lab	Delta / Sigma Delta & Adaptive delta Modulation and Demodulation	1
81	Communication Engg Lab-CE Lab	Trainer Kit ST2106/ST2156	1
82	Communication Engg Lab-CE Lab	Trainer Kit ST2107/ST2157	1
83	Communication Engg Lab-CE Lab	Trainer Kit ST2201	1
84	Communication Engg Lab-CE Lab	Trainer Kit ST2202	1
85	Communication Engg Lab-CE Lab	Trainer Kit ACL 03	1
86	Communication Engg Lab-CE Lab	Trainer Kit DCL 01	1
87	Communication Engg Lab-CE Lab	AF Trainer Kit	1
88	Communication Engg Lab-CE Lab	RF Trainer Kit	1
89	Communication Engg Lab-CE Lab	EPABX/EPX05 Trainer Kit	1
90	Communication Engg Lab-CE Lab	DSP Lab Tariner Kit	1
91	Communication Engg Lab-CE Lab	Function Generator - CADD0 4061	1
92	Communication Engg Lab-CE Lab	Function Generator - CADD0 4060	1
93	Communication Engg Lab-CE Lab	CRO- CADD0 803	1
94	Communication Engg Lab-CE Lab	Trainer Kit DCL 04	1
<b>Mechanical Engineering Department</b>			
<b>List of equipments</b>			
<b>SL No</b>	<b>Name of the lab</b>	<b>Name of the equipments</b>	<b>Nos</b>
1	ENGINEERING WORKSHOP PRACTICE	BENCH VICE 4"	8

2	ENGINEERING WORKSHOP PRACTICE	BENCH VICE 6"	23
3	ENGINEERING WORKSHOP PRACTICE	VERNIER CALIPER 6"	7
4	ENGINEERING WORKSHOP PRACTICE	BEVEL PROTECTOR	12
5	ENGINEERING WORKSHOP PRACTICE	MICROMETER (0-25MM)	6
6	ENGINEERING WORKSHOP PRACTICE	DIE SET	6
7	ENGINEERING WORKSHOP PRACTICE	SURFACE PLATE	2
8	ENGINEERING WORKSHOP PRACTICE	TAP SET 10MM	2
9	ENGINEERING WORKSHOP PRACTICE	TAP SET 8MM	2
10	ENGINEERING WORKSHOP PRACTICE	TAP SET 6MM	6
11	ENGINEERING WORKSHOP PRACTICE	HAND SHEARING MACHINE	1
12	ENGINEERING WORKSHOP PRACTICE	SHARPING STONE	2
13	MANUFACTURING PROCESSES I	WELDING MACHINE (AC, 100/250 AMP.)	1
14	MANUFACTURING PROCESSES I	WELDING TRANSFORMER WITH ACCESSORIES	3
15	MANUFACTURING PROCESSES I	MIG WELDING M/C (ESAB MAKE PC 255,250 AMP.)	1
16	MANUFACTURING PROCESSES I	SAFETY HELMAT	24
17	MANUFACTURING PROCESSES I	TABLE (WELDING)	4
18	MANUFACTURING PROCESSES I	GAS CYKINDER KEY	3
19	MANUFACTURING PROCESSES I	REGULATOR(GAS)	2
20	MANUFACTURING PROCESSES I	GAS WELDING SET	2
21	MANUFACTURING PROCESSES I	OXYGEN GAS	1
22	MANUFACTURING PROCESSES I	DA GAS	1

23	MANUFACTURING PROCESSES I	CARBON DI OXIDE CYLINDER	1
24	MANUFACTURING PROCESSES I	HAND SHEILD	2
25	MANUFACTURING PROCESSES I	CONTACT TIP - 0.8 MM (MK.: ESAB)	1
26	MANUFACTURING PROCESSES I	CO2 HEATER	1
27	MANUFACTURING PROCESSES I	LATHE MACHINE (4-6")	2
28	MANUFACTURING PROCESSES I	CENTRE LATHE MACHINE	2
29	MANUFACTURING PROCESSES I	POWER HACKSAW M/C SIZE 8" CAPACITY	1
30	MANUFACTURING PROCESSES I	DRILLING M/C ( 1"-CAPACITY)	1
31	MANUFACTURING PROCESSES I	DRILLING M/C ( 1/2"-CAPACITY)	1
32	MANUFACTURING PROCESSES II	GRINDER M/C ( 8" )	1
33	MANUFACTURING PROCESSES II	MILLING MACHINE (UNIVERSAL)	1
34	MANUFACTURING PROCESSES II	RADIAL DRILL MACHINE	1
35	MANUFACTURING PROCESSES II	EXPANSION REAMER	8
36	MANUFACTURING PROCESSES II	GRINDING MACHINE (SURFACE GRINDER)	1
37	MANUFACTURING PROCESSES II	SHAPING MACHINE	2
38	MANUFACTURING PROCESSES II	DRILL VICE 4"	2
39	MANUFACTURING PROCESSES II	DRILL VICE 6"	2
40	MANUFACTURING PROCESSES I	KNURLING TOOLS WITH HOLDER (0.5")	2
41	MANUFACTURING PROCESSES I	ADJUSTABLE SPANNER	2
42	MANUFACTURING PROCESSES I	KNURLING TOOLS WITH HOLDER (1")	2
43	MANUFACTURING PROCESSES I	DULL WRENCH	1

44	MANUFACTURING PROCESSES II	MILLING CUTTER	2
45	MANUFACTURING PROCESSES II	HAND CUTTER CUM GRINDER	1
46	MANUFACTURING PROCESSES I	HSS TOOLS BLANK	8
47	MANUFACTURING PROCESSES I	PLIER	2
48	MANUFACTURING PROCESSES I	LONG CUTTING TOOLS (BORING TOOLS)	2
49	MANUFACTURING PROCESSES I	GRINDING WHEEL	1
50	MANUFACTURING PROCESSES I	WOODEN TURNING LATHE M/C	1
51	MANUFACTURING PROCESSES I	CIRCULAR SAW M/C	1
52	MANUFACTURING PROCESSES I	JACK PLANE	5
53	MANUFACTURING PROCESSES I	SPIRIT LEVEL	6
54	MANUFACTURING PROCESSES I	G-CRAMP	4
55	MANUFACTURING PROCESSES I	WOOD RULE	10
56	MANUFACTURING PROCESSES I	REBATE PLANE	10
57	MANUFACTURING PROCESSES I	COMPASS SAW	10
58	MANUFACTURING PROCESSES I	WARRINGTON HAMMER	10
59	MANUFACTURING PROCESSES I	CENTRE BIT	10
60	MANUFACTURING PROCESSES I	TWIST BIT (DOWEL BIT)	10
61	MANUFACTURING PROCESSES I	HALF ROUND CHISEL	10
62	MANUFACTURING PROCESSES I	DIAMOND POINT CHISEL	12
63	MANUFACTURING PROCESSES I	SCRIBING GOUGES CHISEL(FIRMAR CHISEL)	10
64	AUTOMOBILE ENGINEERING	MODEL OF PETROL ENGINE 4 STROKE	1

		(MARUTI GYPSY)	
65	AUTOMOBILE ENGINEERING	MODEL OF DIESEL ENGINE 4 STROK (TATA INDICA)	1
66	AUTOMOBILE ENGINEERING	SCREW DRIVER SET	1
67	AUTOMOBILE ENGINEERING	AUTOMOBILE TOOL KITS BOX	1
68	AUTOMOBILE ENGINEERING	GOTI WRENCH (SOCKET WRENCH SET)	1
69	AUTOMOBILE ENGINEERING	MODEL OF VALVE TIMING DIAGRAM DIESEL ENGINE 4-STROKE	1
70	FLUID MECHANICS & MACHINERY	STUDY OF DIFFERENT TYPES OF NOZZLES	1
71	FLUID MECHANICS & MACHINERY	REYNOLDS NO/BERNALLI'S THEORY	1
72	FLUID MECHANICS & MACHINERY	SIMPLE U-TUBE,MANOMETER & DIFFERENTIAL MANOTMETER	1
73	FLUID MECHANICS & MACHINERY	HYDRAULIC CO-EFF OF ORIFICE	1
74	FLUID MECHANICS & MACHINERY	DETERMINATION OF FRICTIONAL CO-EFF. OF CIRCULAR G.I PIPE INSTRUMENT	1
75	FLUID MECHANICS & MACHINERY	VENTURIMETER TEST RIG	1
76	FLUID MECHANICS & MACHINERY	V-NOTCH/RECT. INSTRUMENT	1
77	FLUID MECHANICS & MACHINERY	CENTRIFUGAL PUMP TEST RIG.	1
78	FLUID MECHANICS & MACHINERY	TEST RIG FOR MINOR LOSSES	1
79	OIL HYDRAULICS & PNEUMATICS LAB	PNEUMATIC CIRCUIT TRAINER KIT	1
80	ENGINEERING METROLOGY	MICROMETER(OUTSIDE-25MM),	1
81	ENGINEERING METROLOGY	MICROMETER(INSIDE 25-50MM.),	1

82	ENGINEERING METROLOGY	VENIER CALIPER,	1
83	ENGINEERING METROLOGY	MODEL OF DIAL INDICATOR,	1
84	ENGINEERING METROLOGY	MODEL OF BORE DIAL	1
85	ENGINEERING METROLOGY	RING GAUGE,	1
86	ENGINEERING METROLOGY	SCREW PITCH GAUGE,	1
87	ENGINEERING METROLOGY	SNAP GAUGE,	1
88	ENGINEERING METROLOGY	GEAR TOOTH VERNIRE CALIPER	1
89	ENGINEERING METROLOGY	MODEL OF VERNIER HEIGHT GAUGE & MEASUREMENT	1
90	ENGINEERING METROLOGY	MODEL OF SLIP GAUGE,	1
91	ENGINEERING METROLOGY	BEVEL VENIRE PROTECTOR,	1
92	ENGINEERING METROLOGY	PLUG GAUGE,	1
93	ENGINEERING METROLOGY	CENTRE GAUGE	1
94	ENGINEERING METROLOGY	SCREW THREAD MICROMETER (0-25 MM.)	1
95	ENGINEERING METROLOGY	MICROMETER (DIGITAL) 0-25 MM.	1
96	ENGINEERING METROLOGY	VERNIER CALIPER 150 MM. (DIGITAL)	1
97	ENGINEERING METROLOGY	GEAR TOOTH VERNIER CALIPER	1
98	ENGINEERING METROLOGY	SINE BAR	1
99	ENGINEERING METROLOGY	DIAL INDICATOR	1
100	COMPUTER AIDED MACHINE DRAWING PRACTICE	COMPUTER SET	12
101	THERMAL ENGINEERING LAB I & II	STEAM ENGINE MODEL	1

102	THERMAL ENGINEERING LAB I & II	STEAM CALORIMETER MODEL	1
103	THERMAL ENGINEERING LAB I & II	BOMB CALORIMETER	1
104	THERMAL ENGINEERING LAB I & II	PRESSURE GAUGE	1
105	THERMAL ENGINEERING LAB I & II	MODEL OF REFRIGERATION PLANT	1
106	THERMAL ENGINEERING LAB I & II	MODEL OF AIR CONDITIONING UNIT	1
107	THERMAL ENGINEERING LAB I & II	SURFACE CONDENSER (MODEL)	1
108	THERMAL ENGINEERING LAB I & II	JET CONDENSER (MODEL)	1
109	THERMAL ENGINEERING LAB I & II	COOLING TOWER TEST RIG	1
110	THERMAL ENGINEERING LAB I & II	TO DETERMINE COEFFICIENT OF THERMAL CONDUCTIVITY	1
111	THERMAL ENGINEERING LAB I & II	STEFAN BOLTZMAN APPARATUS	1
112	REFRIGERATIONING AND AIR CONDITIONING	REFRIGERATION TEST RIG	1
113	REFRIGERATIONING AND AIR CONDITIONING	WATER COOLER TEST RIG	1
114	REFRIGERATIONING AND AIR CONDITIONING	STUDY OF BOILER MOUNTING (303)	1
115	REFRIGERATIONING AND AIR CONDITIONING	AIRCONDITIONING TEST RIG	1
116	POWER ENGINEERING LAB	MODEL OF VALVE TIMING DIAGRAM DIESEL ENGINE 4-STROKE	1
117	POWER ENGINEERING LAB	MODEL OF VALVE TIMING DIAGRAM PETROL ENGINE 4-STROKE	1
118	POWER ENGINEERING LAB	MODEL OF AIR COMPRESSOR	1
119	POWER ENGINEERING LAB	MODEL OF FRANCISTURBINE	1
120	POWER ENGINEERING LAB	MODEL OF PELTON WHEEL	1

121	POWER ENGINEERING LAB	MODEL OF PETROL ENGINE 2-STROKE	1
122	POWER ENGINEERING LAB	MODEL OF PETROL ENGINE 4-STROKE	1
123	POWER ENGINEERING LAB	MODEL OF DIESEL ENGINE 2-STROKE	1
124	POWER ENGINEERING LAB	MODEL OF DIESEL ENGINE 4-STROKE	1
125	POWER ENGINEERING LAB	MODEL OF AIR GAS TURBINE	1
126	POWER ENGINEERING LAB	MULTI CYLINDER PETROL ENGINE 4 STROKE	1
127	POWER ENGINEERING LAB	MODEL OF KAPLAN TURBINE	1
128	POWER ENGINEERING LAB	COMPUTER SET	1
129	THEORY OF MACHINES & MECHANISM	PORTOR GOVERNOR	1
130	ENGINEERING DRAWING	COMPASS	1
131	ENGINEERING DRAWING	DIVIDER	1
132	ENGINEERING DRAWING	SCALE	1
133	ENGINEERING DRAWING	SET SQUARE	2
134	ENGINEERING DRAWING	PROTECTOR	1

**Basic Science and Humanities Department**

**List of equipments**

<b>SL No</b>	<b>Name of the lab</b>	<b>Name of the equipments</b>	<b>Nos</b>
1	Engineering workshop Practice	Twin Fluorescent tube Panel	1
2	Engineering workshop Practice	1 phase connection fixed structure	1
3	Engineering workshop Practice	1 phase connection fixed structure model(Fan)	1
4	Engineering workshop Practice	Calling bell connection model	1
5	Engineering workshop Practice	active and passive components	1
6	Engineering workshop Practice	multimeter	1
7	Engineering workshop Practice	fitting tools	1
8	Engineering workshop Practice	welding tools	1
9	Fundamentals of electrical and electronics engineering lab	model	1

10	Fundamentals of electrical and electronics engineering lab	RLC kit	1
11	Fundamentals of electrical and electronics engineering lab	RLC kit	1
12	Fundamentals of electrical and electronics engineering lab	model	1
13	Fundamentals of electrical and electronics engineering lab	active and passive components	1
14	Fundamentals of electrical and electronics engineering lab	multimeter	2
15	Fundamentals of electrical and electronics engineering lab	lcr-q meter	1
16	Fundamentals of electrical and electronics engineering lab	various digital ic	1
17	Engineering Mechanics Lab	Worm and Worm Wheel	2
18	Engineering Mechanics Lab	Differential Axle and Wheel.	1
19	Engineering Mechanics Lab	Simple Screw Jack	1
20	Engineering Mechanics Lab	Coefficient of friction apparatus	1
21	Engineering Mechanics Lab	To verify Lami's theorem apparatus	1
22	Engineering Mechanics Lab	Drawing instrument box	1 set
23	Applied Chemistry	Electronic digital balance	2
24	Applied Chemistry	Analytical balance	1
25	Applied Chemistry	Bunsen burner	8
26	Applied Chemistry	Colorimeter	2
27	Applied Chemistry	Heating Mantle 2 lt.	1
28	Applied Chemistry	Heating Mantle 5 lt.	2
29	Applied Chemistry	pH metre (digital)	8
30	Applied Chemistry	Digital Turbidity Meter	2
31	Applied Chemistry	UV-Vis Spectro photo meter	1
32	Applied Chemistry	Hot air Oven (digital)	1
33	Applied Chemistry	Conductivity meter (digital)	3
34	Applied Chemistry	Water Bath	1
35	Language Lab	Cordless Microphone	1
36	Language Lab	Projector Screen	1
37	Language Lab	Public Adress system	1
38	Language Lab	Amplifier	1
39	Applied Physics-I & II Lab	Slide Calipers	7
40	Applied Physics-I & II Lab	Screw gauge	7
41	Applied Physics-I & II Lab	Thin solid rod	7
42	Applied Physics-I & II Lab	Hydrostatic balance	15

43	Applied Physics-I & II Lab	Specific gravity bottle	7
44	Applied Physics-I & II Lab	Boyle's Law Appt.	8
45	Applied Physics-I & II Lab	Searle's apparatus	5
46	Applied Physics-I & II Lab	Half Drawing board	10
47	Applied Physics-I & II Lab	Optical Bench	7
48	Applied Physics-I & II Lab	Lens .	7
49	Applied Physics-I & II Lab	Glass slab	10
50	Applied Physics-I & II Lab	Falling sphere Viscometer with accessories	10
51	Applied Physics-I & II Lab	Travelling microscope and other accessories	10
52	Applied Physics-I & II Lab	P.O. Box	8
53	Applied Physics-I & II Lab	Resistance coil	8
54	Applied Physics-I & II Lab	Galvanometer	26
55	Applied Physics-I & II Lab	Metre bridge	8
56	Applied Physics-I & II Lab	Resistance coil	8
57	Applied Physics-I & II Lab	Resistance Box	5
58	Applied Physics-I & II Lab	Voltmeter	5
59	Applied Physics-I & II Lab	Ammeter	5
60	Applied Physics-I & II Lab	Ohms Law Appt. Compact	8
61	Applied Physics-I & II Lab	Heavy Spherical Metal bob with hook	10
62	Applied Physics-I & II Lab	P-N junction diode	14
63	Applied Physics-I & II Lab	Regulated DC power supply	12
64	Applied Physics-I & II Lab	Resonance air column apparatus	10
65	Applied Physics-I & II Lab	Tunning fork	10
66	Applied Physics-I & II Lab	Rubber Pad	10
67	Applied Physics-I & II Lab	Stop watch	20
68	Introduction to IT Systems Lab	Computer Set with Internet Connection (100MBPS) and accessories.	7

xiv. List of Experimental set-up in each laboratory/Workshop:

Department of Civil Engineering			
All Laboratory Experiments			
Name of the Subject	Year	Sem	Name of the Experiments
Mechanics of Material Lab	2nd	3rd	Study and understand the use and components of Universal Testing Machine (UTM)

Mechanics of Material Lab	2nd	3rd	Perform Tension test on mild steel as per IS:432(1).
Mechanics of Material Lab	2nd	3rd	Perform tension test on Tor steel as per IS:1608, IS:1139.
Mechanics of Material Lab	2nd	3rd	Conduct compression test on sample test piece using Compression Testing Machine.
Mechanics of Material Lab	2nd	3rd	Plot Shear force and Bending Moment diagrams for cantilever, simply supported beams
Mechanics of Material Lab	2nd	3rd	Plot Shear force and Bending Moment diagrams for overhanging beams for different types of loads including moment loading
Transportation Engineering Lab	2nd	3rd	Draw the sketches showing standard cross sections of Expressways, Freeways,
Transportation Engineering Lab	2nd	3rd	Flakiness and Elongation Index of aggregates.
Transportation Engineering Lab	2nd	3rd	Aggregate impact value test
Transportation Engineering Lab	2nd	3rd	Los Angeles Abrasion test
Transportation Engineering Lab	2nd	3rd	Aggregate crushing value test
Transportation Engineering Lab	2nd	3rd	Softening point test of bitumen
Transportation Engineering Lab	2nd	3rd	Penetration test of bitumen
Transportation Engineering Lab	2nd	3rd	Flash and Fire Point test of bitumen.
Transportation Engineering Lab	2nd	3rd	Ductility test of Bitumen
Transportation Engineering Lab	2nd	3rd	Visit the constructed road for visual inspection to identify defects
Transportation Engineering Lab	2nd	3rd	Visit the hill road constructed site to understand its components
Transportation Engineering Lab	2nd	3rd	Visit the road of any one type (flexible or rigid) to know the drainage condition
Transportation Engineering Lab	2nd	3rd	Prepare the photographic report suggesting possible repairs and maintenance
Transportation Engineering Lab	2nd	3rd	Visit to railway track for visual inspection of fixtures, fasteners and yards
Construction Material Lab	2nd	3rd	Identify various sizes of available coarse aggregates from sample of 10 kg
Construction Material Lab	2nd	3rd	Identify the available construction materials in the laboratory
Construction Material Lab	2nd	3rd	Identify the grain distribution pattern in given sample of teak wood

Construction Material Lab	2nd	3rd	Prepare the lime putty by mixing lime (1 kg) with water and prepare report on slaking of lime
Construction Material Lab	2nd	3rd	Identify various layers and types of soil in foundation
Construction Material Lab	2nd	3rd	Select first class, second class and third-class bricks from the stack of bricks
Construction Material Lab	2nd	3rd	Measure dimensions of 10 bricks and find average dimension and weight & Perform field tests
Construction Material Lab	2nd	3rd	Identify different types of flooring tiles
Construction Material Lab	2nd	3rd	Apply the relevant termite chemical
Construction Material Lab	2nd	3rd	Identify the type of glasses
Construction Material Lab	2nd	3rd	Apply two or more coats of selected paint on the prepared base
Construction Material Lab	2nd	3rd	Prepare the cement mortar of proportion 1:3 or 1:6
Construction Material Lab	2nd	3rd	Prepare mortar using cement and Fly ash
Concrete Technology	2nd	3rd	Determine fineness of cement
Concrete Technology	2nd	3rd	Determine standard consistency of cement.
Concrete Technology	2nd	3rd	Determine initial and final setting times of cement
Concrete Technology	2nd	3rd	Determine compressive strength of cement.
Concrete Technology	2nd	3rd	Determine silt content in sand.
Concrete Technology	2nd	3rd	Determine bulking of sand
Concrete Technology	2nd	3rd	Determine bulk density of fine and coarse aggregates.
Concrete Technology	2nd	3rd	Determine water absorption of fine and coarse aggregates
Concrete Technology	2nd	3rd	Determine surface moisture of fine and coarse aggregates.
Concrete Technology	2nd	3rd	Determine grading of fine aggregate and coarse aggregate
Concrete Technology	2nd	3rd	Determine workability of concrete by slump cone test
Concrete Technology	2nd	3rd	Determine workability of concrete by compaction factor test.
Concrete Technology	2nd	3rd	To prepare concrete mix of a particular grade
Civil Engineering Drawing Practice	2nd	3rd	Draw submission drawing to the scale 1:100 of a single storey load bearing residential building (2BHK)
Civil Engineering Drawing Practice	2nd	3rd	Draw working drawing for above mentioned drawing at serial number 1 showing:

Civil Engineering Drawing Practice	2nd	3rd	Culverts (problems to be supplied
Civil Engineering Drawing Practice	2nd	3rd	Steel connections [bolted or welded]
Civil Engineering Drawing Practice	2nd	3rd	Steel Roof truss
Basic Surveying Field Practices	2nd	4th	Chain & compass traverse survey
Basic Surveying Field Practices	2nd	4th	Profile and Cross-section Levelling
Basic Surveying Field Practices	2nd	4th	Block contouring
Basic Surveying Field Practices	2nd	4th	Plane table surveying
Basic Surveying Field Practices	2nd	4th	Layout of a building:
Hydraulics Lab	2nd	4th	Use of Piezometer to measure pressure at a given point.
Hydraulics Lab	2nd	4th	Use of Bourdon's Gauge to measure pressure at a given point.
Hydraulics Lab	2nd	4th	Use of U tube differential manometer to measure pressure difference between two given points.
Hydraulics Lab	2nd	4th	Use Bernoulli's apparatus to apply Bernoulli's theorem to get total energy line for a flow in a closed conduit of varying cross sections.
Hydraulics Lab	2nd	4th	Use Friction factor Apparatus to determine friction factor for a given pipe.
Hydraulics Lab	2nd	4th	Calibrate Venturimeter to find out the discharge in a pipe.
Hydraulics Lab	2nd	4th	Calibrate the Orifice to find out the discharge through a tank
Hydraulics Lab	2nd	4th	Use Pitot tube to measure the velocity of flow of water in open channel.
Hydraulics Lab	2nd	4th	Use triangular notch to measure the discharge through open channel
Hydraulics Lab	2nd	4th	Use Rectangular notch to measure the discharge through open channel
Geotechnical Engineering Lab	2nd	4th	Identification of rocks from the given specimen.
Geotechnical Engineering Lab	2nd	4th	Determine specific gravity of soil by Pycnometer method as per IS 2720 (Part- III)
Geotechnical Engineering Lab	2nd	4th	. Determine dry unit weight of soil in field by core cutter method as per IS 2720 (PartXXIX).

Geotechnical Engineering Lab	2nd	4th	Determine dry unit weight of soil in field by sand replacement method as per IS 2720 (Part- XXVIII).
Geotechnical Engineering Lab	2nd	4th	Determine Plastic and Liquid Limit along with Plasticity Index of given soil sample as per IS 2720 (Part- V).
Geotechnical Engineering Lab	2nd	4th	Use different types of soil to identify and classify soil by conducting field tests Through Visual inspection, Dry strength test, Dilatancy test and Toughness test
Geotechnical Engineering Lab	2nd	4th	Determine coefficient of permeability by constant head test/ by falling head test as per IS 2720 (Part- XVII).
Geotechnical Engineering Lab	2nd	4th	Determine shear strength of soil by direct shear test as per IS 2720 (Part-XIII).
Geotechnical Engineering Lab	2nd	4th	Determine MDD and OMC by standard Proctor test of given soil sample as per IS 2720 (Part- VII).
Geotechnical Engineering Lab	2nd	4th	.Determination of CBR value on the field as per IS2720 (Part - XVI).
Design of R.C.C and Steel Structure Practices	3rd	5th	Draw any five commonly used rolled steel sections and five built up sections.
Design of R.C.C and Steel Structure Practices	3rd	5th	Summarize the provisions of IS 800 required for the design of a. tension member b. compression members c. flexural members in report form.
Design of R.C.C and Steel Structure Practices	3rd	5th	Draw sketches for a. single lacing b. double lacing and c. battening of a given built up columns.
Design of R.C.C and Steel Structure Practices	3rd	5th	Draw cross section, strain diagram & stress diagram for a. singly reinforced section and b. doubly reinforced section.
Design of R.C.C and Steel Structure Practices	3rd	5th	Draw sketches of different types of column footings.
Design of R.C.C and Steel Structure Practices	3rd	5th	Prepare a plan and draw sectional elevation showing reinforcement detailing in the longer and shorter direction of a single span [ four edges discontinuous] for a. one way slab and b. two way slab

Design of R.C.C and Steel Structure Practices	3rd	5th	Prepare a plan and draw sectional elevations showing reinforcement detailing in the longer and shorter direction of two or more span of a two-way slab (having two adjacent edges discontinuous) inclusive of reinforcement for negative moment at support and torsional reinforcement where required.
Design of R.C.C and Steel Structure Practices	3rd	5th	Draw a sectional elevation showing reinforcement detailing of a beam having three span of unequal /equal length with cross section details at midspan and support
Design of R.C.C and Steel Structure Practices	3rd	5th	Prepare a plan and draw a sectional elevation showing reinforcement detailing for a typical isolated square footing having one column
Design of R.C.C and Steel Structure Practices	3rd	5th	Prepare a plan and draw a sectional elevation showing reinforcement detailing of a typical waist slab and landing for single flight of a dog-legged stair
Design of R.C.C and Steel Structure Practices	3rd	5th	Prepare a plan and draw a sectional elevation showing reinforcement detailing of a typical lintel with chajja
Design of R.C.C and Steel Structure Practices	3rd	5th	Interpret the actual RCC Structural Drawings used on site with reference to reinforcement details of various structural elements and Prepare a checklist for reinforcement provided from actual drawings used on site for various structural elements.
Design of R.C.C and Steel Structure Practices	3rd	5th	Prepare a detailed report of site visit for reinforcement detailing of structural elements like beams, columns, staircase & footing.
Design of R.C.C and Steel Structure Practices	3rd	5th	Prepare a detailed report of site visit for study of different elements of a bridge and roof truss
Estimating, Costing and Valuation Practices	3rd	5th	Prepare the list of items to be executed with units for detailed estimate of a given structure from the given drawing.
Estimating, Costing and Valuation Practices	3rd	5th	Prepare a report on market rates for given material, labour wages, hire charges of tools & equipment required to construct the given structure as mentioned in at Serial number 1 above.

Estimating, Costing and Valuation Practices	3rd	5th	Study of items with specification given in the PWD Schedule of Rates. ( for any ten item)
Estimating, Costing and Valuation Practices	3rd	5th	Recording in Measurement Book (MB) for any four items
Estimating, Costing and Valuation Practices	3rd	5th	Prepare bill of quantities of given item from actual measurements. (any four items).
Estimating, Costing and Valuation Practices	3rd	5th	Prepare approximate estimate for the given civil engineering works for buildings, road and culvert.
Estimating, Costing and Valuation Practices	3rd	5th	Prepare detailed estimate from the given set of drawings using "standard measurement and abstract format" for ( G+1), 2 BHK RCC framed structure Residential Building using description of item from PWD Schedule of Rates along with face sheet and prepare quarry chart, lead statement.
Estimating, Costing and Valuation Practices	3rd	5th	Prepare detailed estimate from the given set of drawings of Door(panelled door) and Window(partly glazed) - frame and shutter [ wooden]
Estimating, Costing and Valuation Practices	3rd	5th	Calculate the reinforcement quantities from the given set of drawings for a room size of 3 m X 4 m with bar bending schedule (footing, column, beam, lintel with chajja, slab)
Estimating, Costing and Valuation Practices	3rd	5th	Prepare rate analysis for the given five item of works.
Estimating, Costing and Valuation Practices	3rd	5th	Prepare detailed estimate of road of one kilometre length from the given drawing.
Estimating, Costing and Valuation Practices	3rd	5th	Prepare detailed estimate of small Septic tank from the given set of drawings.
Estimating, Costing and Valuation Practices	3rd	5th	Prepare detailed estimate of Tube well with Hand pump from the given set of drawing.
Estimating, Costing and Valuation Practices	3rd	5th	Assess the valuation of an old building from the given drawing by any one method.
Estimating, Costing and Valuation Practices	3rd	5th	Prepare detailed estimate for a two lane bituminous road and culvert (slab type)
Estimating, Costing and Valuation Practices	3rd	5th	methods of stack measurement at site for stone chips etc
Estimating, Costing and Valuation Practices	3rd	5th	Prepare detailed estimate of steel roof truss

Water Resource Engineering Practices	3rd	5th	Calculate average rainfall for the given area using isohyetal, Thiessen polygon method [ only simple cases]
Water Resource Engineering Practices	3rd	5th	Compute the yield of the Catchment area demarcated in the previous problem
Water Resource Engineering Practices	3rd	5th	Delineation of contributory area for the given outlet from the given toposheet
Water Resource Engineering Practices	3rd	5th	Estimate water requirement of crops in different season from data provided by the subject teacher.
Water Resource Engineering Practices	3rd	5th	Estimate capacity of the canal for the data provided by the subject teacher.
Water Resource Engineering Practices	3rd	5th	Calculate reservoir capacity from the data provided by the subject teacher.
Water Resource Engineering Practices	3rd	5th	Draw a neat sketch showing different control levels and storage for a reservoir.
Water Resource Engineering Practices	3rd	5th	Draw a labeled sketch of the given different types of earthen dam section
Water Resource Engineering Practices	3rd	5th	Draw the theoretical and practical profile of the given high type gravity dam section.
Water Resource Engineering Practices	3rd	5th	Draw a labeled sketch of the given diversion head works and Cross Drainage works.
Water Resource Engineering Practices	3rd	5th	Draw a labeled sketch of a canal section - a. in partly cutting and partly filling b. fully in cutting c. fully in filling.
Water Resource Engineering Practices	3rd	5th	Prepare a presentation on the technical details of any one micro or minor irrigation scheme.
Water Resource Engineering Practices	3rd	5th	Prepare a model of any irrigation structure using suitable material.
Water Resource Engineering Practices	3rd	5th	Prepare summary of the technical details of any existing water resource project in West Bengal
Public Health Engineering Lab	3rd	6th	Draw sketches of various valves used in water supply pipe line
Public Health Engineering Lab	3rd	6th	Draw a sketch of one pipe and two pipe system of plumbing
Public Health Engineering Lab	3rd	6th	Draw a sketch of one pipe and two pipe system of plumbing
Public Health Engineering Lab	3rd	6th	Determine the turbidity of the given sample of water.
Public Health	3rd	6th	Determine residual chlorine in a given sample of

Engineering Lab			water.
Public Health Engineering Lab	3rd	6th	Determine suspended, dissolved solids and total solids of given sample of water/sewage.
Public Health Engineering Lab	3rd	6th	Determine the dissolved oxygen in a sample of water/sewage.
Public Health Engineering Lab	3rd	6th	Determine Fluoride concentration in given water sample.
Public Health Engineering Lab	3rd	6th	Determine Arsenic concentration (semi-quantative) in given water sample.
Public Health Engineering Lab	3rd	6th	Determine the optimum dose of coagulant in a given raw water sample by jar test.
Public Health Engineering Lab	3rd	6th	Determine B.O.D. & C.O.D. of given sample of sewage.
Public Health Engineering Lab	3rd	6th	Determine B.O.D. & C.O.D. of given sample of sewage.
Advanced Surveying Practices	3rd	6th	Theodolite traverse Survey
Advanced Surveying Practices	3rd	6th	Simple circular curve setting
Advanced Surveying Practices	3rd	6th	Surveying with Total Station
Advanced Surveying Practices	3rd	6th	Use Theodolite as a Tacheometer to compute reduced levels and horizontal distances.
Advanced Surveying Practices	3rd	6th	GPS Surveying: Working with hand held GPS instrument. Collection coordinates of different objects. Downloading raw data from GPS instrument and prepare a report sheet (excel or doc or pdf format).

**Department of Computer Science and Technology**

**All Laboratory Experiments**

<b>Name of the Subject (Lab)</b>	<b>Year</b>	<b>Semester</b>	<b>Name of the Experiment (As Per Syllabus)</b>
Data Structures Lab	2nd year	2nd Semester	Delete an element from array using C-Programming
Data Structures Lab	2nd year	3rd Semester	Write a program to perform push operation in stack
Data Structures Lab	2nd year	3rd Semester	Write a program to perform pop operation in a stack
Data Structures Lab	2nd year	3rd Semester	Write a program to perform in order, pre order and post order traversal
Data Structures Lab	2nd year	3rd Semester	Write a C program for Fibonacci Series

Data Structures Lab	2nd year	3rd Semester	Write a C programming for Tower of Hanoi
Data Structures Lab	2nd year	3rd Semester	Write a C program to perform Linear Search
Data Structures Lab	2nd year	3rd Semester	Write a C program to demonstrate Binary Search
Data Structures Lab	2nd year	3rd Semester	Write a C program for Insertion sort
Data Structures Lab	2nd year	3rd Semester	Write a C program for Bubble sort
Data Structures Lab	2nd year	3rd Semester	Write a C program for Selection sort
Data Structures Lab	2nd year	3rd Semester	Write a C program for Merge sort
C Programming Lab	2nd year	3rd Semester	Write a program to print "Hello World"
C Programming Lab	2nd year	3rd Semester	Write a program to addition, subtract, multiply and division
C Programming Lab	2nd year	3rd Semester	Interchange two numeric values using the variable
C Programming Lab	2nd year	3rd Semester	Find the factorial of the number
C Programming Lab	2nd year	3rd Semester	Print the sum of 1+2+3+4+5+6+.....+n
C Programming Lab	2nd year	3rd Semester	Print the pattern
C Programming Lab	2nd year	3rd Semester	Check whether the input is Palindrome or not?
C Programming Lab	2nd year	3rd Semester	Find sum of digits of an integer
C Programming Lab	2nd year	3rd Semester	Find the G.C.D. & L.C.M. of two numbers
C Programming Lab	2nd year	3rd Semester	Write a C program to use of "continue" statement
C Programming Lab	2nd year	3rd Semester	Write a C program to print day of week name using switch case
C Programming Lab	2nd year	3rd Semester	Find out addition of two matrix using C programming
Scripting Language Lab	2nd year	3rd Semester	Write a program to demonstrate different number datatypes in python
Scripting Language Lab	2nd year	3rd Semester	Write a program to demonstrate working with dictionaries in python
Scripting Language Lab	2nd year	3rd Semester	Write a python program to construct the following pattern using nested for loop

Scripting Language Lab	2nd year	3rd Semester	Write a python program to print numbers less than 20
Scripting Language Lab	2nd year	3rd Semester	Write a python program to find factorial of number using recursion
Scripting Language Lab	2nd year	3rd Semester	Write a python program to define a module to find Fibonacci numbers and import the module to another program
Scripting Language Lab	2nd year	3rd Semester	Write a python program to define a module and import a specific function in the module to another program
Scripting Language Lab	2nd year	3rd Semester	Write a script named copy file.py. This script should prompt the users for the names of two text files. This contents of the first file should be input and written to the find second file.
Scripting Language Lab	2nd year	3rd Semester	Write a program that inputs a text file. The program should print all of the unique words in the file in alphabetical order
Scripting Language Lab	2nd year	3rd Semester	Write a python class to convert an integer to a roman numeral
Introduction to DBMS Lab	2nd Year,	4th Semester	<p>Creating &amp; Executing DDL in SQL.</p> <ul style="list-style-type: none"> <li>· Creating &amp; Executing Integrity constraints in SQL.</li> <li>· Creating &amp; Executing DML in SQL.</li> </ul>
Introduction to DBMS Lab	2nd Year,	4th Semester	<p>Executing relational, logical and mathematical set operators using SQL.</p> <ul style="list-style-type: none"> <li>· Executing group functions</li> <li>· Executing string operators &amp; string functions.</li> </ul>
Introduction to DBMS Lab	2nd Year,	4th Semester	<p>Executing relational, logical and mathematical set operators using SQL.</p> <ul style="list-style-type: none"> <li>· Executing group functions</li> <li>· Executing string operators &amp; string functions.</li> </ul>
Introduction to DBMS Lab	2nd Year,	4th Semester	Program for declaring and using variables and constant using PL/SQL.
Introduction to DBMS Lab	2nd Year,	4th Semester	<p>Program using for loop &amp; while loop in PL/SQL.</p> <ul style="list-style-type: none"> <li>· Program using nested loop in PI/SQL.</li> </ul>
Introduction to DBMS Lab	2nd Year,	4th Semester	Program using if then else in PL/SQL

Introduction to DBMS Lab	2nd Year,	4th Semester	Bus Operator (Roadways) – Do related activities such as prepare E-R Model, Relational Model, do Normalization, Create Tables, Insert data, Delete Data, Query database, create stored procedures, etc
Introduction to DBMS Lab	2nd Year,	4th Semester	Inventory Management System database. Do related activities such as prepare E-R Model, Relational Model, do Normalization, Create Tables, Insert data, Delete Data, Query database, create stored procedures, etc
Introduction to DBMS Lab	2nd Year,	4th Semester	Employee database – ‘Create’ employee table, ‘Select’ and display an employee matching a given condition, ‘Delete’ duplicate records, delete rows using triggers, insert and update records, find net salary, etc.
Introduction to DBMS Lab	2nd Year,	4th Semester	Students’ Academic database consisting of relevant tables to handle simple queries with PL/SQL.
Computer Networks Lab	2nd Year,	4th Semester	Showing various types of networking cables and connectors, identifying them clearly
Computer Networks Lab	2nd Year,	4th Semester	Looking at specifications of cables and connectors of various companies on Internet, find out differences
Computer Networks Lab	2nd Year,	4th Semester	Making patch cords using different types of cables and connectors - crimping, splicing, et
Computer Networks Lab	2nd Year,	4th Semester	Demonstration of different type of cable testers, using them for testing patch cords pre-pared by the students in Lab and standard cables prepared by professionals
Computer Networks Lab	2nd Year,	4th Semester	Configuring computing devices (PC, Laptop, Mobile, etc) for network, exploring different options and their impact – IP address, gateway, DNS, security options, etc
Computer Networks Lab	2nd Year,	4th Semester	Showing various networking devices – NICs, Hub, Switch, Router, WiFi access point, et

Computer Networks Lab	2nd Year,	4th Semester	Looking at specifications of various networking devices various companies on Internet,find out differences.
Computer Networks Lab	2nd Year,	4th Semester	Network simulation tool (e.g. Cisco Packet Tracer
Computer Networks Lab	2nd Year,	4th Semester	Setting up a small wired LAN in the Lab
Computer Networks Lab	2nd Year,	4th Semester	Setting up a small wireless LAN in the Lab
Operating Systems Lab	2nd Year,	4th Semester	Practice of various commands like man, cp, mv, ln, rm, unlink, mkdir, rmdir, etc a
Operating Systems Lab	2nd Year,	4th Semester	Simulate the CPU scheduling algorithms - Round Robin, SJF,
Operating Systems Lab	2nd Year,	4th Semester	Simulate the CPU scheduling algorithms - FCFS,priority
Operating Systems Lab	2nd Year,	4th Semester	Simulate Bankers algorithm for Deadlock Avoidance and Preventio
Operating Systems Lab	2nd Year,	4th Semester	Simulate all FIFO Page Replacement Algorithm using C program
Operating Systems Lab	2nd Year,	4th Semester	Simulate all LRU Page Replacement Algorithms using C program
Operating Systems Lab	2nd Year,	4th Semester	Simulate Paging Technique of Memory Management
Operating Systems Lab	2nd Year,	4th Semester	Practice various commands/utilities such as catnl, uniq, tee, pg,
Operating Systems Lab	2nd Year,	4th Semester	Practice various commands/utilitiessuch as comm, cmp, diff, tr, tar, cpio, mount, umount, find, umask, ulimit
Operating Systems Lab	2nd Year,	4th Semester	Practice various commands/utilities such as sort, grep, egrep,fgrep cut, paste, join, du, df , ps, who,
Java Programming Lab	2nd Year,	4th Semester	Install JDK, write a simple "Hello World" or similar java program, compilation, debugging, executing using java compiler and interpreter.
Java Programming Lab	2nd Year,	4th Semester	Write a program in Java to generate first n prime numbers.

Java Programming Lab	2nd Year,	4th Semester	Write a program in Java to generate first n prime numbers.
Java Programming Lab	2nd Year,	4th Semester	Write a program in Java to find second maximum of n numbers without using arrays
Java Programming Lab	2nd Year,	4th Semester	Write a program in Java to reverse the digits of a number using while loop
Java Programming Lab	2nd Year,	4th Semester	Write a program in Java to convert number into words & print it
Java Programming Lab	2nd Year,	4th Semester	Write programs in Java to use Wrapper class of each primitive data types
Java Programming Lab	2nd Year,	4th Semester	Write a program in Java to multiply two matrix
Java Programming Lab	2nd Year,	4th Semester	Write a static block which will be executed before main( ) method in a class.
Java Programming Lab	2nd Year,	4th Semester	Write a program in Java to demonstrate use of this keyword. Check whether this can access the private members of the class or not.
Microprocessors and Microcontrollers Lab	3rd year	5th Semester	To Add Two Binary Number Each 1 Bytes Long (without and with carry)
Microprocessors and Microcontrollers Lab	3rd year	5th Semester	To Add Two Binary Number Each 2 Bytes Long (without and with carry)
Microprocessors and Microcontrollers Lab	3rd year	5th Semester	To Add array of 1 Bytes numbers. #To Add array of 2 Bytes numbers.
Microprocessors and Microcontrollers Lab	3rd year	5th Semester	To Add Two Binary Number Each 4/8 Bytes Long Write a python class to reverse a string word by word
Microprocessors and Microcontrollers Lab	3rd year	5th Semester	Exchange two memory location without using exchange instruction
Microprocessors and Microcontrollers Lab	3rd year	5th Semester	How do mode bits of timer 0 and 1 swapped at the TMOD?
Microprocessors and Microcontrollers Lab	3rd year	5th Semester	Complement the port P2 bits.
Microprocessors and Microcontrollers Lab	3rd year	5th Semester	Add/Subtract two 8 bit numbers.

Microprocessors and Microcontrollers Lab	3rd year	5th Semester	Add two 16 bit numbers.
Microprocessors and Microcontrollers Lab	3rd year	5th Semester	Add two BCD numbers.
<b>Department of Electronics &amp; Telecommunication Engineering</b>			
<b>All Laboratory Experiments</b>			
Electronic Devices and Circuits	2nd	3rd	To study the rectifier with and without capacitor filter for : — (a) Half-wave rectifier, (b) Full-wave rectifier,
Electronic Devices and Circuits	2nd	3rd	To observe the waveform at the input and output of clipping circuits in different clipping configuration.
Electronic Devices and Circuits	2nd	3rd	To study the operation of positive and negative clamper circuit.
Electronic Devices and Circuits	2nd	3rd	To study the VI characteristics of a forward and reverse biased Zener diode.
Electronic Devices and Circuits	2nd	3rd	To study the input and output characteristics and to determine the h-parameters of a BJT for : — (a) C-E configuration, (b) C-B configuration, (c) C-C configuration
Electronic Devices and Circuits	2nd	3rd	To determine frequency response characteristics of RC coupled amplifier circuit and calculation of bandwidth, midband gain, input impedance and output impedance for : (a) Single-stage amplifier, (b) Double-stage amplifier
Electronic Devices and Circuits	2nd	3rd	To study Drain Characteristics and Transfer Characteristics of a Field Effect Transistor (FET).
Electronic Devices and Circuits	2nd	3rd	To study Drain Characteristics and Transfer Characteristics of a MOSFET.
Electronic Devices and Circuits	2nd	3rd	To study the V-I characteristics of UJT ( show the cut-off, saturation and negative resistance region)
Electronic Devices and Circuits	2nd	3rd	To study the operation of a Class B Push-Pull Amplifier
Electronic Devices and Circuits	2nd	3rd	To determine the frequency characteristics of a negative feedback amplifier and compare with that of an amplifier without feedback
Electric Circuits and Network	2nd	3rd	To verify node and mesh analysis using independent and controlled sources
Electric Circuits and Network	2nd	3rd	To verify Thevenin's and Norton's theorems

Electric Circuits and Network	2nd	3rd	To verify Superposition theorem.
Electric Circuits and Network	2nd	3rd	To verify Maximum Power Transfer theorem and Reciprocity Theorem.
Electric Circuits and Network	2nd	3rd	To verify characteristics of Series resonant Circuit
Electric Circuits and Network	2nd	3rd	To verify characteristics of Parallel resonant Circuit
Electric Circuits and Network	2nd	3rd	To measure the characteristic impedance of symmetrical T and $\pi$ networks
Electric Circuits and Network	2nd	3rd	To measure the cut –off frequencies of the following: — (a) constant k-type low pass filter; (b) constant k-type high pass filter;
Electric Circuits and Network	2nd	3rd	To measure T and $\pi$ type attenuator
Electric Circuits and Network	2nd	3rd	To observe standing wave pattern for a transmission line of finite length with: (a) open termination, (b) shorted termination and (c) matched termination,
Electric Circuits and Network	2nd	3rd	To measure the attenuation constant and phase shift constant for matched termination.
Digital Electronics	2nd	3rd	To verify the truth tables for all logic gates – NOT, OR, AND, NAND, NOR, XOR and XNOR using CMOS Logic gates [CMOS ICs 4001, 4011, 4030, 4070, 4071, 4077, 4081, 4093] and TTL Logic Gates [TTL ICs- 7400, 7402, 7404, 7408, 7432, 7486]
Digital Electronics	2nd	3rd	Implement and realize Boolean Expressions with different Logic Gates
Digital Electronics	2nd	3rd	Implement Half Adder, Full Adder, Half Subtractor and Full subtractor by using different digital ICs
Digital Electronics	2nd	3rd	Realization of parallel and serial full-adder using ICs (IC- 74LS83)
Digital Electronics	2nd	3rd	To implement encoder (IC-74147), decoder (IC-74138), multiplexer (IC-74151) and demultiplexer (IC-74138).
Digital Electronics	2nd	3rd	Construct a Single digit Decade Counter (0-9) with 7 segment display (74LS90)
Digital Electronics	2nd	3rd	To construct 2 bit parity generator and checker & 2 bit comparator by using logic gates.

Digital Electronics	2nd	3rd	To verify the Truth Table of SR, D, JK and T Flip-flops ( IC-74LS76)
Digital Electronics	2nd	3rd	To construct binary synchronous and asynchronous counter.
Digital Electronics	2nd	3rd	To design programmable up / down counter.
Digital Electronics	2nd	3rd	To design controlled shift register and study their function as SIPO.SISO, PIPO, PISO (by using IC74LS76)
Digital Electronics	2nd	3rd	To study different memory ICs.
Digital Electronics	2nd	3rd	To study DA and AD converters
Principles of Electronic Communication	2nd	3rd	To study generation of AM signal and the waveforms
Principles of Electronic Communication	2nd	3rd	To study Envelop detector for demodulation of AM and observe the effect
Principles of Electronic Communication	2nd	3rd	To study generation of FM signal using varactor and reactance modulator and the waveforms
Principles of Electronic Communication	2nd	3rd	To study detection of FM signal using Foster Seeley method.
Principles of Electronic Communication	2nd	3rd	To study the frequency spectrum of AM and FM using spectrum analyzer
Principles of Electronic Communication	2nd	3rd	To study super heterodyne AM receiver and measurement receiver parameters as i)Sensitivity, ii) selectivity and iii) Fidelity
Principles of Electronic Communication	2nd	3rd	To study PAM modulation and demodulation
Principles of Electronic Communication	2nd	3rd	To study PWM modulation and demodulation
Principles of Electronic Communication	2nd	3rd	To study PPM modulation and demodulation
Principles of Electronic Communication	2nd	3rd	To study the analog signal sampling and reconstruction for different sampling frequency
Principles of Electronic Communication	2nd	3rd	To study the different blocks of a telephone receiver
Principles of Electronic Communication	2nd	3rd	Mini projects on (A) AM radio receiver (B) FM radio receiver (C) AM transmitter (D) FM transmitter
Consumer Electronics Lab 1	2nd	4th	1. Test the performance of speaker
Consumer Electronics Lab 1	2nd	4th	2. Measure voltage level to sketch composite video signal at different stages of TV receiver.

Consumer Electronics Lab 1	2nd	4th	3. Study the internal layout of black and white TV receiver.
Consumer Electronics Lab 1	2nd	4th	4. Study the internal layout of colour television
Consumer Electronics Lab 1	2nd	4th	5. Fault finding in given Colour TV: i) No color ii) Red Colour only iii) Blue color only iv) Green color only v)
Consumer Electronics Lab 1	2nd	4th	Magenta color only vi) Cyan only vii) Yellow only viii) No raster, No Sound.
Consumer Electronics Lab 1	2nd	4th	6. Test various sections of LED TV receivers.
Consumer Electronics Lab 1	2nd	4th	7. Installation of DTH trainer.
Consumer Electronics Lab 1	2nd	4th	8. Demonstration of Photocopier.
Consumer Electronics Lab 1	2nd	4th	9. Demonstration of Microwave Oven.
Consumer Electronics Lab 1	2nd	4th	10. Demonstration of Washing machine.
Consumer Electronics Lab 1	2nd	4th	11. Demonstration of Refrigerator.
Consumer Electronics Lab 1	2nd	4th	12. Demonstration of Digital Camera.
Linear Integrated Circuits Lab 1	2nd	4th	1 .To determine the following characteristics of op-amp: — a) input offset voltage, b) slew rate, c) non-inverting gain, d) inverting gain.
Linear Integrated Circuits Lab 1	2nd	4th	2 .To study the following applications of op-amp using IC741: —a) clipper, b) clamper, c) Schmitt trigger, d) voltage follower
Linear Integrated Circuits Lab 1	2nd	4th	3. To study the operation of low-pass, high-pass and band-pass Butterworth filters.
Linear Integrated Circuits Lab 1	2nd	4th	4.To study the operation of Oscillators (any two) using OPAMP - a) Hartley, b) Colpitt, c) Wein-bridge, d) Phase Shift, e) Crystal.
Linear Integrated Circuits Lab 1	2nd	4th	5. To generate Sine-wave, Triangular wave and Saw-tooth wave using ICL8038 Function generator
Linear Integrated Circuits Lab 1	2nd	4th	6. To study the application of IC555 timer connected as: a) astable multivibrator, b) monostable multivibrator.
Linear Integrated Circuits Lab 1	2nd	4th	7.To study the operation of IC 723 Voltage Regulator
Linear Integrated Circuits Lab1	2nd	4th	8. To study the operation of Current mirror
Linear Integrated Circuits Lab 1	2nd	4th	9. To study the operation of a) Frequency to Voltage converter and b) Voltage to Frequency converter

Linear Integrated Circuits Lab 1	2nd	4th	10. To study the operation of analog multiplier ICs and their applications
Linear Integrated Circuits Lab 1	2nd	4th	11.To study the operation of Voltage controlled oscillator
Electronic Measurements and Instrumentation Lab	2nd	4th	1. To study the operation of :(a)Multimeter (b) Function Generator (ϕ) PMMC (d) Single Phase Energy Meter.
Electronic Measurements and Instrumentation Lab	2nd	4th	2. Measure unknown inductance using following bridges (a) Wheatstone Bridge (b) Maxwell Bridge.
Electronic Measurements and Instrumentation Lab	2nd	4th	3. Measurement of displacement with the help of LVDT.
Electronic Measurements and Instrumentation Lab	2nd	4th	4. Measurement of strain/force with the help of strain gauge load cell.
Electronic Measurements and Instrumentation Lab	2nd	4th	5. Draw the characteristics of the following temperature transducers (a) RTD (Pt-100) (b) Thermistor.
Electronic Measurements and Instrumentation Lab	2nd	4th	6. Calibrate a single-phase energy meter by phantom loading.
Electronic Measurements and Instrumentation Lab	2nd	4th	7. Calibrate a voltmeter using Crompton potentiometer.
Electronic Measurements and Instrumentation Lab	2nd	4th	8. Study working and applications of (i) C.R.O. (ii) Digital Storage C.R.O. & (ii) C.R.O. Probes.
Electronic Measurements and Instrumentation Lab	2nd	4th	9. Study the working of Q-meter and measure Q of coils.
Electronic Measurements and Instrumentation Lab	2nd	4th	10.   To study the spectrum analyzer.
Linear Integrated Circuits Lab	2nd	4th	1 To determine the following characteristics of op-amp: —a) input offset voltage, b) slew rate, ϕ) non-inverting gain, d) inverting gain.
Linear Integrated Circuits Lab	2nd	4th	2 To study the following applications of op-amp using IC741: —a) clipper, b) clamper, ϕ) Schmitt trigger, d) voltage follower
Linear Integrated Circuits Lab	2nd	4th	3 To study the operation of low-pass, high-pass and band-pass Butterworth filters.
Linear Integrated Circuits Lab	2nd	4th	4To study the operation of Oscillators (any two) using OPAMP - a) Hartley, b) Colpitt, ϕ) Wein-bridge, d) PhaseShift, e) Crystal.
Linear Integrated Circuits Lab	2nd	4th	5 To generate Sine-wave, Triangular wave and Saw-tooth wave using ICL8038 Function generator
Linear Integrated Circuits Lab	2nd	4th	6 To study the application of IC555 timer connected as: a) astable multivibrator, b) monostable multivibrator.
Linear Integrated Circuits Lab	2nd	4th	7 To study the operation of IC 723 Voltage Regulator

Linear Integrated Circuits Lab	2nd	4th	8 To study the operation of Current mirror
Linear Integrated Circuits Lab	2nd	4th	9 To study the operation of a) Frequency to Voltage converter and b) Voltage to Frequency converter
Linear Integrated Circuits Lab	2nd	4th	10 To study the operation of analog multiplier ICs and their applications
Linear Integrated Circuits Lab	2nd	4th	11 To study the operation of Voltage controlled oscillator
Digital and Microwave Communication Systems Lab	2nd	4th	1 To study generation of TDM signal and the detected waveforms
Digital and Microwave Communication Systems Lab	2nd	4th	2 To study generation of FDM signal and the detected waveforms
Digital and Microwave Communication Systems Lab	2nd	4th	3 To study generation of ASK signal and the detected waveforms
Digital and Microwave Communication Systems Lab	2nd	4th	4 To study generation of FSK signal and the detected waveforms.
Digital and Microwave Communication Systems Lab	2nd	4th	5 To study generation of PSK signal and the detected waveforms
Digital and Microwave Communication Systems Lab	2nd	4th	6 To study the characteristics of GUNN diode
Digital and Microwave Communication Systems Lab	2nd	4th	7 To study the characteristics of KLYSTRON
Digital and Microwave Communication Systems Lab	2nd	4th	8 To study the characteristics of Directional Coupler
Digital and Microwave Communication Systems Lab	2nd	4th	9 To study the characteristics of Attenuator
Digital and Microwave Communication Systems Lab	2nd	4th	10 To study the characteristics of Isolator
Digital and Microwave Communication Systems Lab	2nd	4th	11 To study the characteristics of Magic Tee
Digital and Microwave Communication Systems Lab	2nd	4th	12 Mini projects on (A) TDM transmitter (B) TDM receiver (C) FDM transmitter (D) FDM receiver
Industrial Electronics	3rd	5th	To measure the reverse recovery time and softness factor of a diode
Industrial Electronics	3rd	5th	To plot V/I characteristics of SCR
Industrial Electronics	3rd	5th	To plot V/I characteristics of Triac.

Industrial Electronics	3rd	5th	To plot V/I characteristics of Diac
Industrial Electronics	3rd	5th	To study the operation of a triggering circuit of SCR
Industrial Electronics	3rd	5th	To study the operation of a single phase rectifier—output waveform with phase control circuit
Industrial Electronics	3rd	5th	To study the operation of a polyphase rectifier
Industrial Electronics	3rd	5th	To study the operation of SMPS
Industrial Electronics	3rd	5th	To study the operation of a phase control AC regulator
Industrial Electronics	3rd	5th	To study the operation of a Jones chopper
Industrial Electronics	3rd	5th	To study the operation of an Online UPS system
Industrial Electronics	3rd	5th	To study the operation of a single-phase bridge inverter with resistive load
Industrial Electronics	3rd	5th	To study the speed control of DC motor by: — (a) varying field current keeping armature voltage constant; and, (b) varying armature voltage keeping field current constant
Industrial Electronics	3rd	5th	To study speed control of an induction motor by voltage and frequency variation
Advance Communication System	3rd	5th	To study the function of fiber optic analog link
Advance Communication System	3rd	5th	To study the frequency response of optical receiver at various load conditions
Advance Communication System	3rd	5th	To study the propagation loss in optical fiber
Advance Communication System	3rd	5th	To study the bending loss in optical fiber.
Advance Communication System	3rd	5th	To study the numerical aperture of optical fiber
Advance Communication System	3rd	5th	To study the radiation pattern and to obtain the polar plot of half wave dipole antenna, full wave dipole antenna, folded dipole antenna and Yagi-Uda antenna.
Advance Communication System	3rd	5th	To set up a satellite communication link and study of change in uplink and downlink frequency
Advance Communication System	3rd	5th	To establish an Audio-Video satellite link between transmitter and receiver
Advance Communication System	3rd	5th	To find the maximum range of RADAR ( using simulation software)

Advance Communication System	3rd	5th	To study the behavior of the CDMA Direct sequence Spread spectrum modulation and demodulation.
Advance Communication System	3rd	5th	To study and analyze the Mobile Phone.
Embedded Systems	3rd	5th	Installation software From MPLAB IDE and MPLAB XC from microchip website
Embedded Systems	3rd	5th	Installation of Proteus software for simulation purpose.
Embedded Systems	3rd	5th	Built-in LED state control by push button sketch implementation (Arduino /PIC)
Embedded Systems	3rd	5th	Built-in LED blinking sketch implementation (Arduino /PIC)
Embedded Systems	3rd	5th	Built-in LED blinking by toggling states based on binary operation (Arduino /PIC)
Embedded Systems	3rd	5th	Controlling multiple LEDs with a loop and an array (Arduino /PIC)
Embedded Systems	3rd	5th	Use a potentiometer to control the blinking of an LED (Arduino /PIC)
Embedded Systems	3rd	5th	Temperature monitor using LCD display and LM35 (using Adrino /PIC)
Embedded Systems	3rd	5th	Light sensor interfacing and sending its reading using I2C Communication Protocol (using Arduino /PIC)
Embedded Systems	3rd	5th	Servo Motor Control using PWM(Arduino /PIC)
Embedded Systems	3rd	5th	Mini projects on 1. Home automation. (Arduino /PIC) 2. Solar Street Light system. (Arduino /PIC) 3. Clock. (Arduino /PIC) 4. Solar charge controller(Arduino /PIC) 5. RTC clock(Arduino /PIC)
Mobile Communication	3rd	5th	To study Cellular Fundamentals like Frequency Reuse, Interference, cell splitting, Base Station, Control channel, Forward and reverse channel, MSC, MTSO, PSTN (by using virtual lab).
Mobile Communication	3rd	5th	Study of GSM handset for various signalling and fault insertion techniques (Major GSM handset sections: clock, SIM card, charging, LCD module, Keyboard, User interface).

Mobile Communication	3rd	5th	To study transmitters and receiver sections in mobile handset and measure frequency band signal.
Mobile Communication	3rd	5th	Demonstrate the impact the received power levels for hand-off in case of mobile cellular communication using fading channel mobile communication virtual lab
Mobile Communication	3rd	5th	Estimate the impact of sectoring in increasing cellular system capacity using fading channel mobile communication virtual lab.
Mobile Communication	3rd	5th	Study the GPRS system and use it for sending an e-mail through WI-GPRS trainer.
Mobile Communication	3rd	5th	Study the GSM modem and its different module for phone book, setting up a call, sending SMS and identifying call history using AT commands.
Computer Networking and Data Communication Lab	3rd	6th	Compare and configure different Network Topologies physically or by using CISCO Packet Tracer software
Computer Networking and Data Communication Lab	3rd	6th	Compare and demonstrate Network directing devices: Repeater, Hub, Switch, Bridge, Router, Gateway
Computer Networking and Data Communication Lab	3rd	6th	Study of different types of Network cables and practically implement the cross wired cable and straight through cable by using crimping tool and RJ-45 Connector
Computer Networking and Data Communication Lab	3rd	6th	Connect the Computers in Local Area Network
Computer Networking and Data Communication Lab	3rd	6th	Study of different types of IP Addressing and Subnetting and Super netting concepts
Computer Networking and Data Communication Lab	3rd	6th	Configuring TCP/IP Network
Computer Networking and Data Communication Lab	3rd	6th	Study of basic Network and Network configuration commands
Computer Networking and Data Communication Lab	3rd	6th	Web page designing by using HTML
Control System and PLC	3rd	6th	To study the step response of R-C Circuit (First Order System)
Control System and PLC	3rd	6th	To study the step response of R-L-C Circuit (Second Order System)
Control System and PLC	3rd	6th	To study the operation of an ON-OFF controller
Control System and PLC	3rd	6th	To study the operation of a Proportional controller
Control System and PLC	3rd	6th	To study the operation of a PI controller
Control System and PLC	3rd	6th	To study the operation of a PD controller

Control System and PLC	3rd	6th	To study the operation of a PID controller
Control System and PLC	3rd	6th	To study MATLAB simulation for different types of Control System
Control System and PLC	3rd	6th	To Identify and test different parts of a PLC
Control System and PLC	3rd	6th	To develop Ladder Diagram to test the functionality of different logic gates
Control System and PLC	3rd	6th	To develop Ladder Diagram for Adder and Subtractor by using PLC
Control System and PLC	3rd	6th	To develop Ladder Diagram for ON-OFF control of a lamp using Timer and Counter
Control System and PLC	3rd	6th	To develop Ladder Diagram for Traffic Light Control System
Control System and PLC	3rd	6th	To develop Ladder Diagram for Stepper Motor Control
<b>Department of Electrical Engineering</b>			
<b>All Laboratory Experiments</b>			
Electrical Circuits Lab	2nd	3rd	To verify Kirchoff's current law & Kirchoff's voltage law.
Electrical Circuits Lab	2nd	3rd	To verify following network theorems applicable to D.C. circuit- i> Superposition Theorem, ii> Thevenin's Theorem, iii> Norton's Theorem.
Electrical Circuits Lab	2nd	3rd	Use Voltmeter, Ammeter, Wattmeter to determine active, reactive & apperent power consumed in given R-L/R-C/ R-L-C series circuit & Draw phasor diagram.
Electrical Circuits Lab	2nd	3rd	Use variable frequency supply to create resonance in given series & parallel R-L-C circuit or by using variable inductor or variable capacitor.
Electrical Circuits Lab	2nd	3rd	Use Voltmeter, Ammeter, Wattmeter to determine current, P.F., Active, Reactive & Apparent power in R-L/R-C parallel A.C. circuit.
Electrical Circuits Lab	2nd	3rd	Use Voltmeter, Ammeter to determine current through the given branch of an electric network by applying mesh analysis.
Electrical Circuits Lab	2nd	3rd	Use Voltmeter, Ammeter to determine current through the given branch of an electric network by applying node analysis.
Electrical Circuits Lab	2nd	3rd	Use voltmeter, ammeter, wattmeter to determine current,p.f., active, reactive & apparent power for given R-L-C parallel circuit with series connection of resistor & inductor in parallel with capacitor.
Electrical Circuits Lab	2nd	3rd	To verify following network theorem applicable to D.C. circuit- i> Maximum

			Power transfer theorem.
DC Machines & Transformer Lab	2nd	3rd	To plot the O.C.C. of a DC generator & find the critical resistance
DC Machines & Transformer Lab	2nd	3rd	To compute the efficiency of a DC motor by swinburn test.
DC Machines & Transformer Lab	2nd	3rd	To control the speed of DC shunt motor above & below normal speed & draw the speed characteristics
DC Machines & Transformer Lab	2nd	3rd	To determine equivalent circuit parameters of 1 $\emptyset$ transformer by performing OC test & SC Test.
DC Machines & Transformer Lab	2nd	3rd	To determine the regulation & efficiency of 1 $\emptyset$ transformer by direct loading method.
DC Machines & Transformer Lab	2nd	3rd	To compute the efficiency of 1 $\emptyset$ transformer by back to back test.
DC Machines & Transformer Lab	2nd	3rd	Dismantle Parts of DC Machine.
DC Machines & Transformer Lab	2nd	3rd	Starting & reversing of a DC shunt motor.
DC Machines & Transformer Lab	2nd	3rd	Performing the break test on DC series Motor.
DC Machines & Transformer Lab	2nd	3rd	Check the functioning & tesyting of the Isolation Transformer.
DC Machines & Transformer Lab	2nd	3rd	Check the connection of 3 $\emptyset$ transformer.
Electrical & Electronic Measurments Lab	2nd	3rd	i> To measure resistance, voltage, current in A.C. & D.C. circuit using multimeter. ii> To measure A.C. current by clip-on ammeter.
Electrical & Electronic Measurments Lab	2nd	3rd	To calibrate 1 $\emptyset$ energy meter using resistive & inductive load / direct loading.
Electrical & Electronic Measurments Lab	2nd	3rd	To measure low resistance by Kelvin's double bridge.
Electrical & Electronic Measurments Lab	2nd	3rd	To measure active & reactive power in 3 $\emptyset$ balanced load by two wattmeter method & observe the effect of power factor variation on wattmeter reading.
Electrical & Electronic Measurments Lab	2nd	3rd	Use Megger for measurement of Instrument Insulation resistance.
Electrical & Electronic Measurments Lab	2nd	3rd	Extend range of ammeter & voltmeter by using- i> Shunt & multiplier, ii> CT & PT
Electrical & Electronic Measurments Lab	2nd	3rd	Measure unknown capacitance using Schering Bridge.
Electrical & Electronic Measurments Lab	2nd	3rd	Troubleshoot 1 $\emptyset$ electronic energy meter.

Electrical & Electronic Measurements Lab	2nd	3rd	Use earth tester for measurement of earth resistance.
Electrical & Electronic Measurements Lab	2nd	3rd	Use single wattmeter for measurement of active & reactive power of 3 $\phi$ balanced load.
Introduction to Electric Generation System Lab	2nd	3rd	Identify the routine-maintenance parts of the coal fired thermal power plant after watching a video programme.
Introduction to Electric Generation System Lab	2nd	3rd	Identify the routine-maintenance parts of the gas fired thermal power plant after watching a video programme.
Introduction to Electric Generation System Lab	2nd	3rd	Identify the routine-maintenance parts of the diesel generator power plant after watching a video programme.
Introduction to Electric Generation System Lab	2nd	3rd	Identify the routine-maintenance parts of the nuclear fired thermal power plant after watching a video programme.
Introduction to Electric Generation System Lab	2nd	3rd	Identify the routine-maintenance parts of the large hydro power plant after watching a video programme.
Introduction to Electric Generation System Lab	2nd	3rd	On the different types of boiler used in coal based thermal power plant.
Introduction to Electric Generation System Lab	2nd	3rd	Study on different types of water turbines used in large hydro power plant.
Introduction to Electric Generation System Lab	2nd	3rd	Draw load curve, load duration curve & mass curve of your institute.
Introduction to Electric Generation System Lab	2nd	3rd	Calculate the total energy cost in a - i> Residential, ii> Commercial & iii> Industrial bill.
Introduction to Electric Generation System Lab	2nd	3rd	Different types of Nuclear Reaction.
Renewable Energy Power Plant Lab	2nd	4th	Perform experiment to measure solar radiation using pyranometer on tilted surface at different angles of inclination & plot radiation vs. time characteristics for certain duration.
Renewable Energy Power Plant Lab	2nd	4th	Perform to plot I-V characteristics of photovoltaic cell module & find out the solar cell parameter (O.C. voltage, short circuit current, voltage-current-power at maximum power point, fill factor, efficiency)
Renewable Energy Power Plant Lab	2nd	4th	Study different parts of a solar flat plate collector/ solar concentrating collector.
Renewable Energy Power Plant Lab	2nd	4th	Perform experiment to measure thermal performance of a solar water heating system.
Renewable Energy Power Plant Lab	2nd	4th	Perform experiment to measure thermal performance of a solar cooker with varying reflector.

Renewable Energy Poer Plant Lab	2nd	4th	Identify & study the different components of solar street lighting system for AC supply.
Renewable Energy Poer Plant Lab	2nd	4th	Identify & study the specified components of water turbine using cut section model.
Renewable Energy Poer Plant Lab	2nd	4th	Identify & study the specified components of A1KW small wind turbine(SWT) system.
Renewable Energy Poer Plant Lab	2nd	4th	Set up the wind power plant of with a small wind turbine to produce electricity.
Renewable Energy Poer Plant Lab	2nd	4th	Study on assembling of vertical axis/horizontal axis small wind turbine to produce electric power.
Renewable Energy Poer Plant Lab	2nd	4th	Study on assembling of a micro hydro power plant.
Switchgear & Protection	2nd	4th	To demonstrate HRC fuse, MCB & ELCB & Explain the various components + to study ELCB/RCCB
Switchgear & Protection	2nd	4th	To test directional over current relay (DOCR) by using relay testing kit
Switchgear & Protection	2nd	4th	Video tutorial for SF6 circuit breaker.
Switchgear & Protection	2nd	4th	Video tutorial of VCB.
Switchgear & Protection	2nd	4th	To perform a report on specification of lightning arresters of different manufacturers through brochures/ literature.
Switchgear & Protection	2nd	4th	Video tutorial of ABCB.
Switchgear & Protection	2nd	4th	Test HRC fuse by performing the load test.
Switchgear & Protection	2nd	4th	Test MCB by performing the load test.
Switchgear & Protection	2nd	4th	Testing of induction type/ microprocessor based over current relay using relay testing kit to plot the inverse characteristics.
Electrica Power Transmission & Distribution Lab	2nd	4th	To demonstrate the improvement of P.F. using static condenser.
Electrica Power Transmission & Distribution Lab	2nd	4th	Study samples of overhead conductors, underground cables, line supports & line insulators.
Electrica Power Transmission & Distribution Lab	2nd	4th	To demonstrate various system faults by D.C. network analyser
Electrica Power Transmission & Distribution Lab	2nd	4th	Students should conduct following activities. Activities i> Prepare a report based on transmission line network in West Bengal. Activity ii> Library / Internet survey of electrical high voltage line & HDVC lines
Electrica Power Transmission & Distribution Lab	2nd	4th	Prepare a Model showing (only two)- Activity 1: Single line diagram of electric supply system. Activity 2: Single line diagram of given distribution system.

Building Electrification Lab	3rd	5th	Prepare series testing board for testing fan or other electrical gadgets.
Building Electrification Lab	3rd	5th	Select the electric wire using measuring & testint instruments for particular applications.
Building Electrification Lab	3rd	5th	Study & Identify cables (PVC,XLPE & VIR) & catenary cable of different current rating.
Building Electrification Lab	3rd	5th	Prepare wiring installation on a board from the commencement of supply showing energy meter, MCB, control of one lamp, one fan & one socket from one switch board in PVC surface conduit wiring system.
Building Electrification Lab	3rd	5th	Prepare wiring installation on a board showing control of one lamp,one fan & one socket from switch board using board using batton wiring system.
Building Electrification Lab	3rd	5th	Control one lamp from two different places using PVC system conduit wiring system.
Building Electrification Lab	3rd	5th	Make a report on design & estimation of lighting load of a classroom.
Building Electrification Lab	3rd	5th	Test wiring insulation using megger.
Building Electrification Lab	3rd	5th	Measure earth resistance using earth megger.
Building Electrification Lab	3rd	5th	Study of smart meter & assciated system for commercial building/ complex.
Building Electrification Lab	3rd	5th	Draw different types of earthing system & make a chart of material required.
Building Electrification Lab	3rd	5th	Measrement of energy using CT &PT.
Solar Power Technology Lab	3rd	5th	Experiment to plot V-I characteristics of solar panel / cell & determine the fill factor.
Solar Power Technology Lab	3rd	5th	Perform experiment to study the effect of shading on solar cell current when PV cells are connected in series-parallel combination.
Solar Power Technology Lab	3rd	5th	Perform experiment to study the effect of tilt angle on solar cell parameters (VOC, Vmp, Isc, Imp, Mpp, fill factor, efficiency)
Solar Power Technology Lab	3rd	5th	Determination of the rating of accessories ( Preparation of solar panel from solar module, charge controller, battery, inverter) of solar PV system to generate electricity.
Solar Power Technology Lab	3rd	5th	Experiment to determine efficiency measurement of standalone solar PV system.
Solar Power Technology Lab	3rd	5th	Experiment to measure beam & diffuse solar radiation using pyranometer.
Solar Power Technology	3rd	5th	Assemble solar power heaters & implement

Lab			it for heating.
Solar Power Technology Lab	3rd	5th	Troubleshoot solar PV panel & arrays & identify its remedy.
Solar Power Technology Lab	3rd	5th	Experiment to run water pumping system using solar power.
Solar Power Technology Lab	3rd	5th	Assemble different components of solar street lighting system for AC supply & implement it for lighting.
Power Elec tronics Converters & Application Lab	3rd	4th	Test The proper function of Power Electronic Switches- SCR,IGBT,SCS & TRIAC.
Power Elec tronics Converters & Application Lab	3rd	4th	Determine The Latching Current & Holding Current using V-I Characteristics of SCR.
Power Elec tronics Converters & Application Lab	3rd	4th	Test The variation of R,C in R & RC Triggering circuits on firing angle of SCR.
Power Elec tronics Converters & Application Lab	3rd	4th	Test the effect of Variation of R,C in UJT Triggering Technique.
Power Elec tronics Converters & Application Lab	3rd	4th	Perform speed control of DC series/ DC separately excited motor using SCR.
Power Elec tronics Converters & Application Lab	3rd	4th	Test the performance of Given UPS.
Power Elec tronics Converters & Application Lab	3rd	4th	Study on SMPS
Induction, Synchronous & Special Electrical Machines Lab	3rd	4th	Control the speed of the given 3Ø squirrel cage induction motor using the applicable methods: i> Autotransformer, ii> VVVF
Induction, Synchronous & Special Electrical Machines Lab	3rd	4th	Meaure the power circuit voltage ratio of the 3Ø slipring induction motor & perform the speed control by insertion of resistance in rotor circuit for slipring induction motor.
Induction, Synchronous & Special Electrical Machines Lab	3rd	4th	Conduct the direct load test to determine the efficiency & speed regulation for different loads on the given 1Ø Induction Motor polt the efficiency & speed reegulation curves with respect to the output power.
Induction, Synchronous & Special Electrical Machines Lab	3rd	4th	Determine the regulation & efficiency of the given 3Ø alternator from OC & SC tests (Synchronous Impedance Method).
Induction, Synchronous & Special Electrical Machines Lab	3rd	4th	Conduct the test on load or no-load to plot 'V' curves & inverted 'V' curves of 3Ø synchronous motor.

Induction, Synchronous & Special Electrical Machines Lab	3rd	4th	Dismantling & reassembling of 1 $\emptyset$ motors used for ceiling fans, Universal Motor for mixer.
Induction, Synchronous & Special Electrical Machines Lab	3rd	4th	Identify the different parts (along with function & phase & 1 $\emptyset$ & 3 $\emptyset$ Induction Motor.
Induction, Synchronous & Special Electrical Machines Lab	3rd	4th	Perform the direct load test on the 3 $\emptyset$ vs. output- i> Efficiency Power Factor vs. Motor current, ii> Power Factor vs. Output, iii> speed characteristics efficiency vs. output, iv> torque-slip/ factor vs. output, v> power & vi> power factor vs. motor current, vii> torque-slip/speed characteristics squirrel cage induction motor.
Induction, Synchronous & Special Electrical Machines Lab	3rd	4th	Conduct the no-load & blocked rotor tests on given 3 $\emptyset$ squirrelcage induction motor & determine the equivalent circuit parameter.
Industrial Drives Lab	3rd	5th	Control the speed of DC Motor using Armature voltage control method
Industrial Drives Lab	3rd	5th	Control the speed of DC Motor using Field Current control method
Industrial Drives Lab	3rd	5th	Control the speed of 3 $\emptyset$ squirrel cage Induction Motor using Stator voltage control method.
Industrial Drives Lab	3rd	5th	Control the speed of the given 3 $\emptyset$ by constant V/f method & plot the graph between speed & measure the speed.
Industrial Drives Lab	3rd	5th	Control the speed of the given 3 $\emptyset$ by variable frequency & plot the graph between speed & frequency.
Industrial Drives Lab	3rd	5th	Make & test the control & power circuit for forward & reverse rotation of squirrel cage Induction Motor using contactor circuit.
Industrial Drives Lab	3rd	5th	Make & test the control & power circuit for automatic star-delta starter operation of squirrel cage Induction Motor using contactor control
Industrial Drives Lab	3rd	5th	Dynamic Breaking of 3 $\emptyset$ squirrel cage induction motor using contactor control.
Energy Conservation & Audit Lab	3rd	6th	Experiment to determine the reduction in power consumption in star mode operation of induction motor compared to delta mode at different load conditions.
Energy Conservation & Audit Lab	3rd	6th	Collect electricity bill of a residential-consumer & suggest suitable means for Energy Conservation & reduce consumption.

Energy Conservation & Audit Lab	3rd	6th	Prepare an energy audit report (Phase-I, Phase-II, Phase-III) for a workshop/Institute.
Energy Conservation & Audit Lab	3rd	6th	Identify star labeled electrical apparatus & compare the data for various star ratings.
Energy Conservation & Audit Lab	3rd	6th	Collect electricity bill of a Commercial consumer & suggest suitable tariff for energy conservation & reduction of its energy bill.
Energy Conservation & Audit Lab	3rd	6th	Collect electricity bill of an industrial consumer & suggest suitable tariff for energy conservation & its impact on energy bill.
Energy Conservation & Audit Lab	3rd	6th	Prepare a sample energy audit questionnaire for the given industrial/ commercial facility.
Electrical Testing & Commissioning Lab	3rd	6th	Determine break-down strength of transformer oil.
Electrical Testing & Commissioning Lab	3rd	6th	Perform insulation resistance test on any motor/ transformer.
Electrical Testing & Commissioning Lab	3rd	6th	Find Regulation & efficiency of 1 $\phi$ transformer using back-to-back connection method.
Electrical Testing & Commissioning Lab	3rd	6th	Prepare trouble-shooting charts for electrical machines such as transformer, DC Machines, Induction Motor & Synchronous Machine.
Electrical Testing & Commissioning Lab	3rd	6th	Determine efficiency of DC Motor by Direct Loading or by Electrical Loading.
Electrical Testing & Commissioning Lab	3rd	6th	Determine efficiency of DC Machine by Hopkinson's Test.
Electrical Testing & Commissioning Lab	3rd	6th	Measure no load power, losses, current of a 1 $\phi$ transformer upto 110% of rated voltage.
Electrical Testing & Commissioning Lab	3rd	6th	Prepare no load test on 1 $\phi$ induction motor for the measurements of no load current, power input & speed at rated voltage.
Electrical Testing & Commissioning Lab	3rd	6th	Methods of providing artificial respiration (CPR) & prepare a report.
Electrical Testing & Commissioning Lab	3rd	6th	Study of different types of Fire Extinguisher.
<b>Department of Mechanical Engineering</b>			
<b>All Laboratory Experiments</b>			
Mechanical Engineering Drawing Practice	2nd	3rd	1a. Develop plain / single curved lateral surfaces of oblique solids like prisms and cylinders. 1b. Develop plain / single curved lateral surfaces of oblique solids like pyramids and cones.

Mechanical Engineering Drawing Practice	2nd	3rd	2a. Develop lateral surfaces of compound solids like funnel, tray, oil can, hopper, transition piece (square to circular).
Mechanical Engineering Drawing Practice	2nd	3rd	3a. Draw curves of intersection of two interpenetrating solids having plane surfaces (vertical square prism with horizontal square prism). 3b. Draw curves of intersection of two interpenetrating solids having single curved surface (vertical cylinder with horizontal cylinder). 3c. Draw curves of intersection of two interpenetrating solids having single curved surface (horizontal cylinder with vertical cone).
Mechanical Engineering Drawing Practice	2nd	3rd	4a. Draw different orthographic views from the given isometric view. 4b. Draw sectional front view, top view and side view from the given isometric view of machine component, castings etc. (using conventions of sections)
Mechanical Engineering Drawing Practice	2nd	3rd	5a. State the procedure for assembly from the given detailed drawing. 5b. Draw assembly drawing (sectional front view and side view) from the given detailed drawings of components including conventional representation of tolerances and surface finish symbols. 5c. Prepare Bill of materials. (See Annexure-5b: sample of industrial drawing).
Mechanical Engineering Drawing Practice	2nd	3rd	6a. Identify various components in the given assembly drawing and the sequence of dismantling it. 6b. Describe the procedure for dismantling the given assembly drawing. 6c. Draw part drawing (sectional front view and side view) from the given assembly drawing. 6d. Construct the tooth profile of a spur gear from given module, pressure angle and number of teeth.
Material Testing Lab	2nd	3rd	Tensile test on mild steel/ aluminum on UTM.
Material Testing Lab	2nd	3rd	To determine shear strength of mild steel by Direct Shear Test on UTM.
Material Testing Lab	2nd	3rd	To find out the resistance of a standard specimen of common engineering materials against impact load by Izod and Charpy test.

Material Testing Lab	2nd	3rd	To determine the hardness value of mild steel / aluminum by Brinell Hardness tester.
Material Testing Lab	2nd	3rd	To determine the hardness value of mild steel / aluminum specimen by Rockwell Hardness tester.
Material Testing Lab	2nd	3rd	Torsion test on mild steel/ Aluminum bar.
Material Testing Lab	2nd	3rd	To detect the exterior surface cracks in the specimen using (i) Visual inspection and ring test, (ii) Die penetration test, (iii) Magnetic particle test.
Material Testing Lab	2nd	3rd	Determination of modulus of rigidity, strain energy, shear stress and stiffness by load deflection method ( Closed coil helical spring)
Manufacturing Process I Practice	2nd	3rd	Study of lathe: Identifying its major components: available spindle speed changing devices, available tool feeding devices, feed reversal devices, change gears, job holding devices, tool holding devices, types of cutting tools used in various lathe operations, setting of job and cutting tools, operate lathe without removal of chips and observe jobtool relative movement.
Manufacturing Process I Practice	2nd	3rd	Study of different equipment of Electric Arc Welding set-up or gas welding set-up or electric resistance welding set-up, hand tools used, safety items used, connection details, types of welding joints (Lap, Butt, Tee, Corner and Edge joints etc.), different welding positions (Horizontal, Vertical and Overhead positions etc.) and practice on edge preparation, tag welding and stitch welding.
Manufacturing Process I Practice	2nd	3rd	Study the geometry of a single point cutting tool and produce an assignment on tool nomenclature and tool signature of a single point cutting tool.
Manufacturing Process I Practice	2nd	3rd	Practice on making a job involving Lathe operations like facing, plain turning, step turning, grooving, knurling and chamfering.
Manufacturing Process I Practice	2nd	3rd	Practice on making a job involving taper turning by swivelling the compound rest on Lathe as per given drawing.
Manufacturing Process I Practice	2nd	3rd	Practice on making a job involving thread cutting operation on Lathe as per given drawing.

Manufacturing Process I Practice	2nd	3rd	Practice on making welding joint (lap-joint or butt-joint or tee-joint or corner-joint) as per given drawing by utilizing available facilities of welding shop.
THERMAL ENGINEERING-I LAB	2nd	3rd	Observation of the working principle of Burden tube pressure gauge
THERMAL ENGINEERING-I LAB	2nd	3rd	Calculation of characteristics gas constant of air using some practical data
THERMAL ENGINEERING-I LAB	2nd	3rd	Measurement of Dryness Fraction of Steam by Dryness Fraction Measuring Instrument.
THERMAL ENGINEERING-I LAB	2nd	3rd	Use of Mollier Chart by plotting different vapour processes on it.
THERMAL ENGINEERING-I LAB	2nd	3rd	Study of Cochran Boiler (fire tube boiler)
THERMAL ENGINEERING-I LAB	2nd	3rd	Study of Lancashire Boilers (fire tube boiler)
THERMAL ENGINEERING-I LAB	2nd	3rd	Study of Babcock and Wilcox Boiler (water tube boiler)
THERMAL ENGINEERING-I LAB	2nd	3rd	Study of La-Mont Boiler (water tube boiler)
THERMAL ENGINEERING-I LAB	2nd	3rd	Study the boiler mountings and accessories
THERMAL ENGINEERING-I LAB	2nd	3rd	Trace the path of flue gas and water steam circuit of boiler
THERMAL ENGINEERING-II LAB	2nd	4th	Study of Boiler and Boiler Parts.(Both Fire Tube and Water Tube Boilers)
THERMAL ENGINEERING-II LAB	2nd	4th	Study of Boiler Mountings and Accessories.
THERMAL ENGINEERING-II LAB	2nd	4th	Study and compare between Surface Condenser and Jet Condenser.
THERMAL ENGINEERING-II LAB	2nd	4th	Trace the cooling water circulation of a surface condenser with cooling tower.
THERMAL ENGINEERING-II LAB	2nd	4th	Study of schematic layout of Steam Power Plant.
THERMAL ENGINEERING-II LAB	2nd	4th	Study of Refrigeration Unit / Air-Conditioning Unit.(Refrigerator/ Window Air-Conditioner)
THERMAL ENGINEERING-II LAB	2nd	4th	Trial on Refrigeration Test Rig for calculation of COP, power required and refrigeration effect.

Manufacturing Process II Practice	2nd	4th	Study of shaper & Planner machine & Identify different parts, drives, clapper box, crank & slotted mechanism, feed mechanism, adjustment of length & position of stroke, work holding devices, tool holding devices, tools used, setting of tool & work also Operate shaper machine without work
Manufacturing Process II Practice	2nd	4th	Study attachment & accessories and Practice on making a job involving lathe operations like taper turning & thread cutting & use of measuring instruments
Manufacturing Process II Practice	2nd	4th	Study of Milling machine & identify different parts, drives, cutter holding devices, milling cutters, dividing head
Manufacturing Process II Practice	2nd	4th	Operate milling machine without work
Manufacturing Process II Practice	2nd	4th	Practice on making a job involving Shaper machine with the operations like a) surface planning b) slot making c) angular machining [For example V block]
Manufacturing Process II Practice	2nd	4th	Practice of milling machine on making a spur gear of given module
Manufacturing Process II Practice	2nd	4th	Practice on making welding of flat position & vertical position, MIG & TIG welding practice on 4mm thick plate spot & seam welding
Engineering Metrology	2nd	4th	Standard use of basic measuring instruments. Surface plate, v-block, spirit level, combination set, filler gauge, screw pitch gauge, radius gauge, vernier caliper, micrometer and slip gauges to measure dimension of given jobs.
Engineering Metrology	2nd	4th	To find unknown angle of component using sine bar and slip gauges.
Engineering Metrology	2nd	4th	Study and use of optical flat for flatness testing
Engineering Metrology	2nd	4th	Measurement of screw thread elements by using screw thread micrometer, screw pitch gauge.
Engineering Metrology	2nd	4th	Study and use of dial indicator as a mechanical comparator for run out measurement, and roundness comparison.
Engineering Metrology	2nd	4th	Measurement of gear tooth elements by using gear tooth vernier caliper
Engineering Metrology	2nd	4th	Alignment Testing of lathe machine tool.
Minor Project	2nd	4th	Find the ratio of time of cutting stroke to the time of return stroke for quick return mechanism of a shaper machine.

Minor Project	2nd	4th	Study of different types of gear train: a) simple gear train – tumbler gears for speed reversing, b) compound gear train – All geared head stock, c) reverted gear train – Back gear in lathe, d) epicyclic gear train – differential.
Minor Project	2nd	4th	3) Determination of velocity by relative velocity method (two problems) (use graphical method).
Minor Project	2nd	4th	Determine the radius of rotation of fly ball (Porter governor) for different speeds of governor and draw a graph between radius of rotation versus speed.
MINOR PROJECT	2nd	4th	Trial on water cooler test rig.
MINOR PROJECT	2nd	4th	Identification of components of 'hermetically sealed compressor'.
Advanced Manufacturing Processes Lab	3rd	5th	Prepare a chart showing the working principle and setup of Ultrasonic Machining (USM) for demonstration purpose and also prepare a detailed study report on working principle, setup, process parameters, advantages, limitations and applications of Ultrasonic Machining (USM).
Advanced Manufacturing Processes Lab	3rd	5th	Prepare charts showing the working principle and setup of Electrical Discharge Machining (EDM) and Wire-EDM for demonstration purpose and also prepare a detailed study report on working principle, setup, process parameters, advantages, limitations and applications of Electrical Discharge Machining (EDM) and Wire-EDM.
Advanced Manufacturing Processes Lab	3rd	5th	Prepare a model of a specific jig (as assigned by the concern teacher) with a suitable material for demonstration of its basic elements, purpose of each element and function of the whole setup.
Advanced Manufacturing Processes Lab	3rd	5th	Study of CNC Machining Centre (CNC Milling Machine) and identify different parts, drives, work holding device etc. and also study all sequential steps to be followed for machining a job in a CNC Machining Centre.
Advanced Manufacturing Processes Lab	3rd	5th	Study of CNC Turning Centre (CNC Lathe) and identify different parts, drives, work holding device etc. and also study all sequential steps to be followed for machining a job in a CNC Turning Centre.
Fluid Mechanics & Machinery	3rd	5th	Calibration of Bourdon tube pressure gauge with the help of Dead Weight Pressure gauge.

Fluid Mechanics & Machinery	3rd	5th	Verification of Bernoulli's Theorem.
Fluid Mechanics & Machinery	3rd	5th	Determination of Coefficient of Discharge of Venturimeter.
Fluid Mechanics & Machinery	3rd	5th	Determination of Coefficient of Discharge of orifice meter.
Fluid Mechanics & Machinery	3rd	5th	Measurement of velocity of flow through pipe with the help of Pitot tube.
Fluid Mechanics & Machinery	3rd	5th	Measurement of flow of liquid by using Rotameter
Fluid Mechanics & Machinery	3rd	5th	Determination of coefficient of friction of flow through pipes.
Fluid Mechanics & Machinery	3rd	5th	Trial on centrifugal pump to determine overall efficiency.
POWER ENGINEERING	3rd	5th	Study and demonstration of the construction and working of two-stroke IC engine and identify different components of it.
POWER ENGINEERING	3rd	5th	Study and demonstration of the construction and working of four-stroke IC engine and identify different components of it.
POWER ENGINEERING	3rd	5th	Conduct trial on Petrol Engine Test Rig to find out the Brake Thermal Efficiency and Brake Specific Fuel Consumption.
POWER ENGINEERING	3rd	5th	Conduct trial on Diesel Engine Test Rig to find out the Brake Thermal Efficiency and Brake Specific Fuel Consumption.
POWER ENGINEERING	3rd	5th	Conduct Morse Test to obtain the approximate Indicated Power of a Multicylinder IC Engine.
POWER ENGINEERING	3rd	5th	Conduct Valve / Port timing diagram of an IC engine.
POWER ENGINEERING	3rd	5th	Study with suitable model of Water Cooling System generally installed in fourstroke I.C. Engine, identify major components of it and demonstrate their functions.
POWER ENGINEERING	3rd	5th	Study with suitable model of Lubrication System generally installed in fourstroke I.C. Engine, identify major components of it and demonstrate their functions.
POWER ENGINEERING	3rd	5th	Study with suitable model the working of impulse steam turbines.
POWER ENGINEERING	3rd	5th	Study with suitable model the working of gas turbine/Turbojet propulsion system.
POWER ENGINEERING	3rd	5th	Study with suitable model the working of any type of water turbine

POWER ENGINEERING	3rd	5th	Study of schematic layout of Hydroelectric Power Plant and explain the working principle of it.
Automobile Engineering Laboratory	3rd	5th	Study of transmission system, suspension system, braking system, and steering system equipped with medium duty vehicles.
Automobile Engineering Laboratory	3rd	5th	Prepare a comparative survey report based on technical data (type of clutch used, gearing ratio for forward speeds and reverse speed, final drive, type of steering used, type of suspension used, type of service brake used, tyre size, battery used, capacity of fuel tank, etc) of Indian light-duty diesel vehicles (Mahindra, Tata, Swaraj Mazda, Maruti and Ambassador).
Automobile Engineering Laboratory	3rd	5th	Demonstration of differential gear box.
Automobile Engineering Laboratory	3rd	5th	Demonstration of transmission gear box (preferably synchromesh gearbox) used in medium duty vehicle.
Automobile Engineering Laboratory	3rd	5th	Demonstration of rack & pinion type steering gear box
Automobile Engineering Laboratory	3rd	5th	Demonstration of braking system (hydraulic / pneumatic) used in light / medium duty vehicle.
Automobile Engineering Laboratory	3rd	5th	Demonstration of rear axle assembly used in light-duty vehicle
Oil Hydraulics and Pneumatics	3rd	6th	Study of FRL Unit generally used in Pneumatic System.

**Department of Basic Science and Humanities**

**All Laboratory Experiments**

<b>Name of the Subject</b>	<b>Year</b>	<b>Sem</b>	<b>Name of the Experiments</b>
Applied Physics -I Lab	1st	1st Sem	To measure the volume of the material of a given hollow cylinder, using a Vernier calipers.
Applied Physics -I Lab	1st	1st Sem	To determine the area of cross section of a thin wire using a screw gauge.
Applied Physics -I Lab	1st	1st Sem	To find the viscosity of a given liquid (Glycerin) by Stoke's law
Applied Physics -I Lab	1st	1st Sem	To verify Boyle's law.
Applied Physics -I Lab	1st	1st Sem	To determine the relative density of sand by using a sp. gr. Bottle.
Applied Physics -I Lab	1st	1st Sem	To determine radius of curvature of a convex and a concave mirror/ surface using a spherometer.
Applied Physics -I Lab	1st	1st Sem	To determine force constant of a spring using Hook's law.

Applied Physics -I Lab	1st	1st Sem	To find the co-efficient of friction between wood and glass using a horizontal board
Applied Physics -I Lab	1st	1st Sem	To find the moment of inertia of a flywheel.
Applied Physics -I Lab	1st	1st Sem	To find the co-efficient of linear expansion of the material of a rod.
Applied Chemistry	1st	1st Sem	Introduction to Applied Chemistry Lab and preparation of standard solution and reagents following SOP.
Applied Chemistry	1st	1st Sem	Preparation of standard solution of oxalic acid and potassium permanganate solution 100 mL (N/10) by exact weighing method.
Applied Chemistry	1st	1st Sem	To determine the strength of given NaOH solution by titrating against solution using phenolphthalein indicator.
Applied Chemistry	1st	1st Sem	Determine the amount of Fe <sup>2+</sup> ion present in supplied Mohr's Salt with KMnO <sub>4</sub> titration (Redox titration).
Applied Chemistry	1st	1st Sem	Determine the total hardness of sample water using EDTA titration.
Applied Chemistry	1st	1st Sem	Identification and isolation of unknown compounds from a mixture by TLC method.
Applied Chemistry	1st	1st Sem	Determine the amount of DO present in supplied water solution.
Applied Chemistry	1st	1st Sem	Determination of the pH of the unknown acid solution using pH Meter
Applied Chemistry	1st	1st Sem	Determine the conductivity of given water sample.
English Communication Lab	1st	1st Sem	Conversation Practice
English Communication Lab	1st	1st Sem	Group Discussion
English Communication Lab	1st	1st Sem	Role Play
Engineering Workshop Practice	1st	1st Sem	Study/ demonstration of single phase electrical service connection from pole to house including consumer installation.
Engineering Workshop Practice	1st	1st Sem	Study of different types of wiring and connection of Single Phase Motor (Fan).
Engineering Workshop Practice	1st	1st Sem	Circuits for one lamp controlled by one switch by surface conduit wiring,
Engineering Workshop Practice	1st	1st Sem	Lamp circuits- connection of lamp and socket by separate switches, Connection of Fluorescent lamp/tube light,
Engineering Workshop Practice	1st	1st Sem	Simple lamp circuits- install bedroom lighting
Engineering Workshop Practice	1st	1st Sem	Simple lamp circuits- install stair case wiring.
Engineering Workshop Practice	1st	1st Sem	Wiring of calling-bell

Engineering Workshop Practice	1st	1st Sem	Familiarization, identification and testing of active and passive components
Engineering Workshop Practice	1st	1st Sem	Soldering and de-soldering practice
Engineering Workshop Practice	1st	1st Sem	Use of Multi meter (both Analog and digital).
Engineering Workshop Practice	1st	1st Sem	Demonstration of resistor, capacitor, amplifiers, relay, diodes, zener diode and LEDs
Applied Physics -II Lab	1st	2nd	To determine and verify the time period of oscillation of a cantilever.
Applied Physics -II Lab	1st	2nd	To verify laws of refraction (Snell's law) using a glass slab.
Applied Physics -II Lab	1st	2nd	To determine focal length and magnifying power of a convex lens by u-v method.
Applied Physics -II Lab	1st	2nd	To verify Ohm's law by plotting graph between current and potential difference.
Applied Physics -II Lab	1st	2nd	To verify laws of resistances in series by P.O.box.
Applied Physics -II Lab	1st	2nd	To verify laws of resistances in parallel by using Ammeter and Volt meter. 6.To verify Kirchhoff's law using electrical circuits
Applied Physics -II Lab	1st	2nd	To find resistance of a galvanometer by half deflection method.
Applied Physics -II Lab	1st	2nd	To convert a galvanometer into an ammeter.
Applied Physics -II Lab	1st	2nd	To convert a galvanometer into a voltmeter.
Applied Physics -II Lab	1st	2nd	To verify inverse square law of radiations using a photo-electric cell
Introduction to IT Systems Lab	1st	2nd	Browser features, browsing, using various search engines, writing search queries
Introduction to IT Systems Lab	1st	2nd	Visit various e-governance/Digital India portals, understand their features, services offered
Introduction to IT Systems Lab	1st	2nd	Identify and recognise various ports/interfaces and related cables, etc.
Introduction to IT Systems Lab	1st	2nd	Install Linux and Windows operating system on identified lab machines, explore various options, do it multiple times
Introduction to IT Systems Lab	1st	2nd	Connect various peripherals (printer, scanner, etc.) to computer, explore various features of peripheral and their device driver software.
Introduction to IT Systems Lab	1st	2nd	Practice HTML commands with CSS try them with various values, make your basic own Webpage

Introduction to IT Systems Lab	1st	2nd	MS Excel: Nested if, · Reference formulas like – · lookup, vlookup, hlookup, · count formula with conditions · Index, Match, · Conditional Loops, et
Introduction to IT Systems Lab	1st	2nd	Create Advanced Charts
Introduction to IT Systems Lab	1st	2nd	Create a Power Point presentation using slide template. Create a Power Point presentation using animation. Create a Power Point presentation using transition Create a Power Point Presentation with Adding movie and sound. Create a Power Point Presentation with Adding tables and chart etc. Changing slide colour scheme in presentation. Viewing the presentation using slide navigator. Create, Save, Run and Print the Power Point Presentation.
Introduction to IT Systems Lab	1st	2nd	Create and share files/folders in Google drive Create and share Google docs. Create and share Google sheets. Create and share Google Forms. Create and share Google slides.
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Measure voltage, current and power in a 1-phase circuit with resistive load
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Visualize phase difference between voltage and current in series R-L and R-C circuits with the help of oscilloscope and plot the phasor diagram.
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Measure voltage, current, power and power factor in a R-L series circuit.
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Identify different parts of a single-phase transformer, A.C./D.C. Motor.

FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Determine the transformation ratio of a single-phase transformer and measure no load current of it
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Identify various active and passive electronic components in a given circuit
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Familiarization with multimeter to measure the value of given resistor and to verify with colour code
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Use of LCR-Q meter to measure the value of a given capacitor and inductor
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Test the PN-junction diodes using digital multimeter and find out their V-I characteristics in forward biased circuit.
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Identify three terminals of a transistor by using digital multimeter
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Use of Op-Amp as Inverting and non-inverting amplifier.
FUNDAMENTAL OF ELECTRICAL & ELECTRONICS ENGINEERING (FEEE) (Laboratory)	1st	2nd Sem	Realization of Truth Table of different Logic Gates and verification of DeMorgan's theorem.
Engineering Mechanics Lab	1st	2nd	To find the M.A., V.R., Efficiency and law of machine using Worm and worm wheel.
Engineering Mechanics Lab	1st	2nd	To find the M.A., V.R., Efficiency and law of machine for Differential Axle and Wheel.
Engineering Mechanics Lab	1st	2nd	To find the M.A., V.R., Efficiency and law of machine for Simple Screw Jack.
Engineering Mechanics Lab	1st	2nd	To determine coefficient of friction for motion on horizontal plane.

Engineering Mechanics Lab	1st	2nd	To determine coefficient of friction for motion on inclined plane
Engineering Mechanics Lab	1st	2nd	To determine resultant of concurrent force system graphically.
Engineering Mechanics Lab	1st	2nd	To determine resultant of non concurrent force system graphically.
Engineering Mechanics Lab	1st	2nd	To determine resultant of parallel force system graphically.
Engineering Mechanics Lab	1st	2nd	To verify Lami's theorem graphically
Engineering Mechanics Lab	1st	2nd	To determine centroid of geometrical plane figures

xv. Innovation Cell:

  <p style="text-align: center;"><b>Letter of Appreciation</b></p> <p>Dear Sir/Madam,</p> <p>Please accept our sincere gratitude to all the chief functionaries and every members of the IIC Institution's Innovation Council (IIC) of JIS SCHOOL OF POLYTECHNIC NADIA for the continuous support and contribution towards building the innovation and entrepreneurship culture development in your campus and also extending support to help other IIC institutions towards growth of the IIC network during the academic year 2021-22.</p> <p>Chief Functionaries of the IIC at JIS SCHOOL OF POLYTECHNIC NADIA, Nadia</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Name</td> <td style="width: 50%;">Position</td> </tr> </table> <p>As we are progressing towards a 'quality' driven I&amp;E ecosystem development, we strongly believe that the IIC model and its unique structure is definitely putting your HEI's thoughts, actions and aspirations in a systematic way to achieve inclusive and holistic development of the ecosystem.</p> <p>Thank you &amp; regards.</p> <p style="text-align: right;">Yours Sincerely, Dipanj Kumar Sahu  Assistant Innovation Director MoE's Innovation Cell, Govt. of India</p>	Name	Position	 <p style="text-align: center;"><b>CERTIFICATE</b></p> <p style="text-align: center;">Institution's Innovation Council (IIC) established at</p> <p style="text-align: center;"><b>JIS SCHOOL OF POLYTECHNIC NADIA, Nadia</b></p> <p style="text-align: center;">had undertaken various activities prescribed by Innovation Cell, Ministry of Education, Govt. of India to promote Innovation and Start-up in campus during the IIC calendar year 2021-22.</p> <p style="text-align: center;">Dr. Akhoy Jere Chief Innovation Officer MOE, Innovation Cell</p> <p style="text-align: center;">Mr. Dipanj Sahu Assistant Innovation Director MOE, Innovation Cell</p> <p style="text-align: center;">Certificate No: 7703      Issued On: 2022-11-17</p>
Name	Position		

xvi. Social media Cell:

Sl.No.	Constitution	Name and Designation	Email	Position
1	HOI	Dr. Jayanta Mukhopadhyay	<a href="mailto:principal_jissp@jissgroup.org">principal_jissp@jissgroup.org</a>	Chairman
2	Convener	Mr. Rajorshi Roy	<a href="mailto:rajorshi.roy@jissp.ac.in">rajorshi.roy@jissp.ac.in</a>	Convener

3	Digital Marketing(Face Book & Instagram)	Mr.Arijit Mukherjee	hod.ee@jissp.ac.in	Member
4	Digital Marketing(LinkedIn & YouTube & Twitter)	Mrs.Mousumi Das Ghatak	<a href="mailto:counselor@jissp.ac.in">counselor@jissp.ac.in</a>	Member
5	Website Team Representative	Mrs.Arnabi Banerjee	<a href="mailto:tic.ce@jissp.ac.in">tic.ce@jissp.ac.in</a>	Member
6	Photography Team Representative	Mr.Arkarup Mitra	<a href="mailto:arkarup.mitra@jissp.ac.in">arkarup.mitra@jissp.ac.in</a>	Member

xvii : Not applicable

xviii : [www.jissp.ac.in/video/video-for-infrastructure-and-facilities.mp4](http://www.jissp.ac.in/video/video-for-infrastructure-and-facilities.mp4)

### xix. Games & Sports Facilities:

We have a beautiful and spacious sports complex in which outdoor games like – football, cricket and others can be organized. Indoor game facilities like – Table Tennis, Carom, Basket balls events can also take place. We have also auditorium infrastructure wherein cultural functions, seminars and conference are arranged and conducted.



## xx. Teaching Learning Process:

1. Curriculum Planning and Mapping: Before the semester begins, the institution aligns its goals with industry standards.

Lesson Planning: Faculty develop "Course Outcomes" (COs) that define exactly what a student should be able to do by the end of the module.

Industry Integration: Curricula are often reviewed by industry experts to ensure the tools and technologies being taught aren't obsolete.

## 2. The Theoretical Foundation

While diploma courses are practical, they require a solid conceptual base.

Interactive Lectures: Teachers use visual aids, models, and real-world case studies to explain principles (e.g., explaining Ohm's Law through a building's wiring diagram).

Digital Resources: Many institutions now use Learning Management Systems (LMS) like Moodle or Google Classroom to share notes, simulations, and recorded lectures.

## 3. The "Learning by Doing" Core

This is the heart of a diploma education. Most of the credit hours are spent in laboratories and workshops.

Laboratory Work: Students conduct experiments to verify theoretical laws.

Workshop Practice: This involves physical labor and skill—welding, machining, circuit assembly, or software coding.

Problem-Based Learning (PBL): Students are given a specific problem (e.g., "Design a water level controller") and must find the solution using the tools available in the lab.

## 4. Industrial Exposure

A diploma is meant to make a student "job-ready."

Industrial Visits: Regular trips to factories, power plants, or construction sites to see large-scale operations.

Internships: Mandatory short-term placements where students work under the supervision of industry professionals.

Expert Lectures: Inviting working engineers to talk about current trends and "soft skills" required in the workplace.

## 5. Projects and Innovation

Micro-Projects: Small tasks assigned throughout the semester to build confidence.

Capstone Project: In the final year, students work in teams to build a working model or a comprehensive technical report. This integrates everything they have learned over three years.

#### 6. Continuous Assessment and Feedback

Assessment in a diploma setting is rarely just one big exam at the end.

Continuous Internal Evaluation (CIE): Regular quizzes, unit tests, and lab journals.

External Exams: Practical exams where an outside examiner watches the student perform a task or operate a machine.

Feedback Loop: Faculty analyze results to identify "slow learners" for remedial classes and "advanced learners" for competitive projects.

#### **18.16. Enrolment and Placement details:**

**JIS School of Polytechnic**

**SELECTED STUDENT NAME LIST \_ 2025 PO BATCH (TILL DATE)**

Sl.No.	Session	Name of the Student	Stream	Placed At
1	2022-2025	Soumik Ghosh	Diploma-ME	Sigma Electric
2	2022-2025	Subhojit Saha.	Diploma-ME	Sigma Electric
3	2022-2025	Tapabrata Manna	Diploma-EE	SKH Group
4	2022-2025	Debraj Sarkar	Diploma-ME	Sigma Electric
5	2022-2025	Ahmed Raja	Diploma-ME	Sigma Electric
6	2022-2025	Pritam Barai	Diploma-ME	Asahi India Glass Ltd
7	2022-2025	Pritam Debnath	Diploma-EE	SKH Group
8	2022-2025	Saidul Pailan	Diploma-ME	Sigma Electric
9	2022-2025	Atanu Ashutosh Dhar	Diploma-EE	SKH Group
10	2022-2025	Amit Majhi	Diploma-EE	Sigma Electric
11	2022-2025	Debnath Bhukta	Diploma-EE	Sigma Electric
12	2022-2025	Bijoy Kundu	Diploma-ME	Sigma Electric
13	2022-2025	Soumen Roy	Diploma-ME	Sigma Electric
14	2022-2025	Roki Biswas	Diploma-ME	Asahi India Glass Ltd
15	2022-2025	Dibyendu Mondal	Diploma-ME	Asahi India Glass Ltd
16	2022-2025	Krisanu Bhunia	Diploma-ME	Sigma Electric
17	2022-2025	Akash Biswas	Diploma-ME	Sigma Electric
18	2022-2025	Akash Biswas	Diploma-ME	Sigma Electric
19	2022-2025	Sayan Mondal	Diploma-EE	SKH Group
20	2022-2025	Ramkrishna Mondal	Diploma-EE	Sigma Electric
21	2022-2025	Diptendu Jana	Diploma-EE	Sigma Electric
22	2022-2025	Rahul Bhowmick	Diploma-EE	Sigma Electric
23	2022-2025	Md Nasir	Diploma-ME	Sigma Electric
24	2022-2025	Satakshi Ghosh	Diploma-ME	Sigma Electric
25	2022-2025	Dipandeb Singharoy	Diploma-ME	SKH Group
26	2022-2025	Avijit Acharjee	Diploma-ME	Sigma Electric
27	2022-2025	Tamal Dey	Diploma-ME	Sigma Electric
28	2022-2025	Banamali Ballav	Diploma-ME	Sigma Electric
29	2022-2025	Tapas Dolui	Diploma-ME	Sigma Electric
30	2022-2025	Sahid Jamal	Diploma-ME	Sigma Electric
31	2022-2025	Tanmoy Pal	Diploma-ME	Sigma Electric
32	2022-2025	Seba Mondal	Diploma-ME	Sigma Electric
33	2022-2025	Sk Imtiaz Hossain	Diploma-ME	Sigma Electric
34	2022-2025	Md Sarfraz Ansari	Diploma-ME	Asahi India Glass Ltd,Sigma Electric
35	2022-2025	Rajibul Biswas	Diploma-ME	Sigma Electric
36	2022-2025	Nibesh Mallick	Diploma-ME	Sigma Electric
37	2022-2025	Rahul Biswas	Diploma-EE	SKH Group,Tata Motors
38	2022-2025	Ayan Das	Diploma-EE	Sigma Electric
39	2022-2025	Aditya Narayan Roy	Diploma-EE	Sigma Electric
40	2022-2025	Subham Singh	Diploma-EE	SKH Group

41	2022-2025	Himadri Majumdar	Diploma-EE	Sigma Electric
42	2022-2025	Mrinmoy Bera	Diploma-EE	SKH Group
43	2022-2025	Anirban Biswas	Diploma-ME	Sigma Electric
44	2022-2025	Dhruba Biswas	Diploma-ME	Sigma Electric
45	2022-2025	Mir Masud Rana	Diploma-ME	Sigma Electric
46	2022-2025	Akash Dandapat	Diploma-EE	Sigma Electric
47	2022-2025	Anubrata Sarkar	Diploma-ME	Sigma Electric
48	2022-2025	Supriyo Kabiraj	Diploma-ME	Asahi India Glass Ltd
49	2022-2025	Anukul Mondal	Diploma-ME	Sigma Electric
50	2022-2025	Pritam Biswas	Diploma-ME	Sigma Electric
51	2022-2025	Aman Biswas	Diploma-EE	SKH Group,KEC international
52	2022-2025	Aaditya Pratap Singh	Diploma-EE	SKH Group
53	2022-2025	Debarjya Pal	Diploma-EE	SKH Group
54	2022-2025	Satyam Ghosh	Diploma-ME	Sigma Electric
55	2022-2025	Riju Barai	Diploma-ME	Sigma Electric
56	2022-2025	Arijit Ghosh	Diploma-ME	Asahi India Glass Ltd
57	2022-2025	Rajesh Adhikary	Diploma-ME	Sigma Electric
58	2022-2025	Arup Biswas	Diploma-ME	Sigma Electric
59	2022-2025	Rajkishan Barai	Diploma-ME	Sigma Electric
60	2022-2025	Ananda Mondal	Diploma-ME	Sigma Electric
61	2022-2025	Pritam Biswas	Diploma-ME	Sigma Electric
62	2022-2025	Hemanta Biswas	Diploma-EE	Tata Motors
63	2022-2025	Md Alamgir Miah	Diploma-EE	Tata Motors
64	2022-2025	Pramita Biswas	Diploma-ETCE	Wipro
65	2022-2025	Shantanu Bakundi	Diploma-EE	SKH Group

JIS SCHOOL OF POLYTECHNIC			
SELECTED STUDENT NAME LIST _ 2024 PO BATCH (TILL DATE)			
SL NO	NAME	PLACED AT	DEPT
1	Indrajit Maiti	Prism Johnson & Hella Infra	CE
2	Mainak Dutta	L & T CSTI	CE
3	Rajdip Sarkar	L & T CSTI	CE
4	Sanu Biswas	L & T CSTI	CE
5	Sohail Ansari	L & T CSTI	CE
6	Sumit kar	L & T CSTI	CE
7	Vishal kumar	L & T CSTI	CE
8	Akash shaw	Prism Johnson	CE
9	Sagar Sarkar	Hella Infra	CE
10	Souvik Ghoshal	Shyam Steel	CE
11	Abir Das	QH Talbros	ME
12	amit pattandar	QH Talbros	ME
13	Biki malakar	QH Talbros	ME
14	Saikat mitra	QH Talbros	ME
15	Soham Singh	QH Talbros	ME
16	Alok Saha	Subros	ME
17	Anirban Biswas	Subros	ME
18	Arnab Sarkar	Subros	ME
19	Biswarup Hazra	Subros	ME
20	Biswayan Hansda	Subros	ME
21	Debasish bar	Subros	ME
22	DEBRATA SANTRA	Subros	ME
23	Durjoy Barman	Subros	ME
24	Gunjan Manna	Subros	ME
25	HRISHAV MALLICK	Subros,SKH	ME
26	JAYJIT DEY SARKAR	Subros	ME
27	Md Ahmad Ansari	Subros, SKH	ME
28	Pinaki Ghosal	Subros, SKH	ME
29	PRITAM GHOSH	Subros	ME
30	Pritam Pal	Subros	ME
31	Provat choubey	Subros	ME
32	Raj Paul	Subros	ME
33	Rakesh Biswas	Subros, SKH	ME
34	Rik Barman	Subros	ME
35	Sandipan Dey	Subros	ME
36	SAYONDEEP BHAUMIK	Subros, Prism Johnson, SKH	ME
37	Souvik kundu	Subros	ME
38	Sudip Ranu	Subros	ME
39	SURJYA NARAYAN DEY	Subros	ME
40	SUSHOVAN DAS	Subros	ME
41	Arnab Samanta	Subros	ME
42	Bhaskar Chowdhury	Subros	ME
43	Pallab sarkar	Subros	ME
44	Pijush Kanti Mondal	Subros	ME

45	Protap Roy	Subros	ME
46	Rahul majumder	Subros	ME
47	SANDIP BISWAS	Subros	ME
48	Sanjay Debnath	Subros	ME
49	SANMITRA DAS	Subros	ME
50	Shekhor Biswas	Subros	ME
51	Soham kundu	Subros	ME
52	SOUMYODIP DAS	Subros	ME
53	Tarun Sarkar	Subros, Prism Johnson, SKH	ME
54	AKASH ROY	Tata Autocomp	ME
55	Aman Singh	Sigma Electric	ME
56	Misbaul Haque Ansari	Sigma Electric	ME
57	MRINMOY MONDAL	Sigma Electric	ME
58	Sattik Chakraborty	Sigma Electric, SKH	ME
59	Sazzat Shaikh	Sigma Electric	ME
60	SOUVIK HALDER	Sigma Electric	ME
61	Trideb Sarkar	Sigma Electric	ME
62	SOHAM MONDAL	Sigma Electric	ME
63	Abhradeep Roy	Schneider Electric	EE
64	Akash Das	Schneider Electric	EE
65	Ritom Seal	Safed	EE
66	ANIRBAN BISWAS	Subros, Tata Autocomp	EE
67	Badhon Chakraborty	Subros, Sigma Electric	EE
68	BIPLAB MONDAL	Subros, Tata Autocomp	EE
69	Buddhadeb Swarnakar	Subros, Tata Autocomp	EE
70	RIMI SARKAR	Subros, Tata Autocomp	EE
71	SAMIRAN BISWAS	Subros, Tata Autocomp	EE
72	Sarajit Roy	Subros, Tata Autocomp	EE
73	SAYAN BISWAS	Subros	EE
74	SOEL AKUNJEE	Subros, Tata Autocomp	EE
75	SURJA MAL	Subros	EE
76	TANAY GHOSH	Subros	EE
77	ABHIJIT MUKHERJEE	Tata Autocomp, Sigma Electric	EE
78	Abhik Ghosh	Tata Autocomp, Sigma Electric	EE
79	AKASH GANGULY	Sigma Electric	EE
80	AMIT DAS	Tata Autocomp, Sigma Electric	EE
81	ANKAN SARKAR	Tata Autocomp, Sigma Electric	EE
82	Ankush Chakraborty	Tata Autocomp, Sigma Electric	EE
83	Augustine Hansda	Tata Autocomp	EE
84	RAHUL SARKAR	Tata Autocomp	EE
85	Anupam Roy	Sigma Electric	EE
86	Bappa sarkar	Sigma Electric	EE
87	RAKESH SHIKDER		EE
88	Sahadeb Haldar	Tata Autocomp, SKH	EE
89	SAYAN SARKAR	Tata Autocomp, Sigma Electric	EE
90	SK NADIM RAHAMAN	Sigma Electric	EE
91	Souvik Datta	Sigma Electric	EE

92	Subrata Das	Sigma Electric	EE
93	BIJAN BISWAS	Tata Autocomp	EE
94	CHAYAN MONDAL	SKH	EE
95	Rahul Ballav	Tata Autocomp	EE
96	Abdul wahid	Blue Star	ETCE
97	Adnan Ahmad	HFCL	ETCE
98	Debu Bag	HFCL	ETCE
99	Moupiya Chatterjee	HFCL	ETCE

**JIS SCHOOL OF Polytechnic****SELECTED STUDENT NAME LIST - 2023 BATCH (TILL DATE)**

SL NO	NAME	PLACED AT	DEPT
1	Debrup Chakladar	Gannon Dunkerley & Co.	CE
2	Swibindu Chakraborty	Gannon Dunkerley & Co.	CE
3	Abhay Kumar Prasad	JAYA HIND / TECCECO INDIA	EE
4	Abir Das	CUMMINS	EE
5	Aditya Kumar Das	SKH	EE
6	Aishik Saha	JAYA HIND	EE
7	ANIKET GOPE	TATA AUTOCOMP	EE
8	ANKIT MONDAL	JAYA HIND	EE
9	Arnab biswas	JAYA HIND	EE
10	Bandhan Haldar	TATA AUTOCOMP /TENNECO INDIA	EE
11	Bapan Barui	SKH	EE
12	Bivash Biswas	JAYA HIND	EE
13	Debargho Ghosal	JAYA HIND	EE
14	Jishu Ghosh	TATA AUTOCOMP	EE
15	Mayank Bala	TATA AUTOCOMP	EE
16	MITHUN DUTTA	SKH	EE
17	OSAMA AL ROFI	JAYA HIND	EE
18	PRIYABRATA SARKAR	TATA AUTOCOMP	EE
19	Raj Biswas	JAYA HIND	EE
20	RIDOY MONDAL	JAYA HIND	EE
21	Rima Karmakar	AYANT SOLUTION , CUMMINS	EE
22	ROHIT PAL	TATA AUTOCOMP	EE
23	SAROJ KUMAR BISWAS	SKH	EE
24	Sayan show	JAYA HIND	EE
25	Soumyadeep Roy	SKH	EE
26	SOUVIK BOSE	JAYA HIND	EE
27	Sudiptya Raha	SKH	EE
28	Sujoy Sarkar	SKH	EE
29	Supan Mitra	SKH	EE
30	SUVAM HALDER	TATA AUTOCOMP	EE
31	UJJAL BARMAN	JAYA HIND	EE
32	Moumi Byapari	CUMMINS	ETCE
33	Paulomi Paul	CUMMINS	ETCE
34	Soumili Karmakar	CUMMINS	ETCE
35	Sourav Das	CUMMINS	ETCE
36	AKASH MONDAL	TATA AUTOCOMP / JAYA HIND	ME

JIS SCHOOL OF Polytechnic			
SELECTED STUDENT NAME LIST - 2023 BATCH (TILL DATE)			
SL NO	NAME	PLACED AT	DEPT
37	Aneek Roy	JAYA HIND	ME
38	ARDHENDU SEKHAR PAL	TATA AUTOCOMP	ME
39	ARGHA BOSE	JAYA HIND	ME
40	Arindam Ghosh	TATA AUTOCOMP / JAYA HIND	ME
41	Bhairab Mandal	SKH	ME
42	Biswarup Das	TEXMACO	ME
43	BUDDHADEB SARKAR	TATA AUTOCOMP / JAYA HIND	ME
44	Chandan Giri	SKH	ME
45	Debanga Sarkar	SKH , CUMMINS	ME
46	Debargha Debnath	SKH , CUMMINS	ME
47	Dibyendu Paul	SKH	ME
48	Dinobondhu Garai	TATA AUTOCOMP / JAYA HIND	ME
49	Dipankar Barman	CUMMINS	ME
50	Hemant Giri	JAYA HIND / QH TALBROS	ME
51	Hrithik Raushan	SKH , CUMMINS	ME
52	Jaydeb Pal	JAYA HIND	ME
53	joydeep dutta	CUMMINS	ME
54	KOUSHIK BAGDI	SKH	ME
55	PAPAI CHUNARY	TEXMACO	ME
56	PARTHIB DEBNATH	TATA AUTOCOMP / JAYA HIND	ME
57	Pradip panda	SKH , CUMMINS	ME
58	Prashanta kar	TEXMACO	ME
59	Prem Prasad	TATA AUTOCOMP / JAYA HIND	ME
60	PRITAM GHOSH	JAYA HIND / QH TALBROS	ME
61	Pritam Nandy	SKH	ME
62	RAJA BISWAS	TATA AUTOCOMP	ME
63	RATUL DAS	JAYA HIND	ME
64	RIYAJUDDIN KHAN	TATA AUTOCOMP / JAYA HIND	ME
65	Rohit Mandal	TATA AUTOCOMP / JAYA HIND	ME
66	Rony Halder	TATA AUTOCOMP / JAYA HIND	ME
67	SAGAR BANIK	SKH	ME
68	SAGAR ROY	TATA AUTOCOMP	ME
69	Saher khan	JAYA HIND	ME

<b>JIS SCHOOL OF Polytechnic</b>			
<b>SELECTED STUDENT NAME LIST - 2023 BATCH (TILL DATE)</b>			
<b>SL NO</b>	<b>NAME</b>	<b>PLACED AT</b>	<b>DEPT</b>
70	Sajibul Gayen	TATA AUTOCOMP / JAYA HIND / TENNECO INDIA	ME
71	Sanju Mondal	TATA AUTOCOMP / JAYA HIND	ME
72	Saumok Kar	TATA AUTOCOMP / JAYA HIND	ME
73	Sk sahil hossain	TATA AUTOCOMP / JAYA HIND / TENNECO INDIA	ME
74	Somnath Banerjee	TATA AUTOCOMP / JAYA HIND	ME
75	Soumen Das	JAYA HIND / TECCECO INDIA	ME
76	Souradip Das	TATA AUTOCOMP	ME
77	SOURAV DEY	JAYA HIND	ME
78	SOUVIK PAUL	TEXMACO	ME
79	Soyeb Akhtar	SKH	ME
80	SUBHAM DUTTA BANIK	TATA AUTOCOMP / JAYA HIND	ME
81	Sudipta Bairagya	JAYA HIND / QH TALBROS	ME
82	Vivek Singh	SKH	ME
83	Sandipan Shome	T- Web Solution	CST

**18.17. List of Research Project/Consultancy Work: NA**

# 18.18. MoUs with Industry:

 <p>भारतीय गैर न्यायिक एक सौ रुपये Rs. 100 रु-100 ONE HUNDRED RUPEES भारत INDIA INDIA NON JUDICIAL</p> <p>पश्चिम बंगाल WEST BENGAL AS 164 Memorandum of Understanding (MOU) <b>Opening of Belmer Centre of Excellence</b></p> <p>This Memorandum of Understanding (MOU) is made and entered into on this the <u>14th</u> day of <u>23rd</u> 2024</p> <p><b>BETWEEN:</b> Belmer India Pvt Ltd Plot No. K-15(PART, Industrial Growth Center (Phase -II), P.O. K-16 &amp; K-17, DIST. PART, WBIDC, Block A, Kalyani, West Bengal 741235, India, represented herein by Mr. R. Rouf – General Manager – Works (hereinafter referred to as <b>First Party</b>), company which expression, unless excluded by or repugnant to the subject or context shall include its successors – in-office, administrators and assigns)</p> <p><b>AND:</b> Mechanical Engineering Department of JIS School of Polytechnic, located at Phase III, Block A, Kalyani, West Bengal 741235, India, represented herein by Mr. Jayanta Mahapatrayy – Principal (hereinafter referred to as <b>Second Party</b>), the institution which expression, unless excluded by or repugnant to the subject or context shall include its successors – in-office, administrators and assigns)</p> <p>Page 1 of 8</p>	<p>(First party and Second party are hereinafter jointly referred to as <b>'PARTIES'</b> and individually as <b>'PARTY'</b>)</p> <p><b>WHEREAS :</b></p> <ol style="list-style-type: none"> <li>First Party is a leading industrial establishment engaged in manufacturing industry and is committed to developing a skilled workforce</li> <li>Second Party is an educational institution committed to providing quality technical education and training in the field of Mechanical Engineering.</li> <li>Both parties recognize the importance of collaboration between industry and academia to bridge the gap between theoretical knowledge and practical application.</li> </ol> <p><b>NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants hereinafter set forth, the parties agree as follows:</b></p> <p><b>1. Objectives</b></p> <ol style="list-style-type: none"> <li><b>Enhance Industry Exposure for JIS School of polytechnic Students:</b> JIS School of polytechnic students will benefit from increased exposure to the industrial world through internships, industrial visits, and guest lectures delivered by Belmer staff. These experiences will provide students with valuable insights into real-world engineering applications and equip them with the skills and knowledge they need to succeed in their careers.</li> <li><b>Develop a Centre of Excellence (CoE) in Mechanical Engineering Department:</b> A key focus of this collaboration will be the establishment of a CoE in Mechanical Engineering at JIS School, specializing in [Area of Specialization]. Belmer India Pvt Ltd will actively participate in the CoE's development by providing guidance, resources, guest speakers, and industry-specific curriculum inputs. The CoE will serve as a hub for advanced learning and research in Mechanical Engineering, fostering innovation and addressing industry-relevant challenges.</li> </ol> <p>Page 2 of 8</p>	<ol style="list-style-type: none"> <li><b>Promote Internship Opportunities:</b> Belmer India Pvt Ltd will offer internship placements to qualified JIS School of polytechnic students. These internships</li> <li>will provide students with hands-on experience in a professional industrial setting, allowing them to apply their theoretical knowledge to real-world projects and gain valuable workplace skills.</li> <li><b>Industry Endorsement for JIS School's Mechanical Engineering Program:</b> Through this collaboration, Belmer India Pvt Ltd will have the opportunity to provide valuable feedback and endorsement for JIS School's Mechanical Engineering program. This endorsement will signify to prospective students and employers that the program equips graduates with the skills and knowledge necessary to thrive in the industry.</li> <li>Bridge the Gap between Academia and Industry: A core objective of this MOU is to bridge the gap between the theoretical education provided in academia and the practical demands of the industry. By collaborating closely, JIS School of polytechnic and Belmer India Pvt Ltd can ensure that JIS School's curriculum is aligned with industry needs, preparing graduates with the skills and knowledge to seamlessly integrate into the workforce. Facilitate industry endorsement for First Party's Mechanical Engineering program by Second Party.</li> </ol> <p>Bridge the gap between academia and industry by ensuring graduates possess the skills and knowledge relevant to the current industrial landscape.</p> <p><b>2. SCOPE OF THE MOU</b> The collaboration will encompass the following activities:</p> <p><b>2.1 Curriculum Design:</b> Second Party will give valuable inputs to the First Party in teaching / training methodology and suitably customize the curriculum so that the students fit into the industrial scenario meaningfully.</p> <p>Page 3 of 8</p>
<p><b>2.2 Designation of Representatives:</b> Each party will nominate one of its members as its representative in charge of the cooperative program. Individual programs of work under this Memorandum will be jointly planned and conducted by the nominees of both parties. [New Inclusion]</p> <p><b>2.3 Guest Lectures:</b> Permanent staff from Second Party will be invited to deliver lectures at First Party, providing students with industry insights and real-world applications of engineering concepts.</p> <p><b>2.4 Industrial Visits:</b> First Party students will organize visits to Second Party's facilities to gain first-hand experience of industrial processes and equipment.</p> <p><b>2.5 Internships:</b> Belmer India Pvt Ltd will offer internship opportunities to qualified JIS School of polytechnic students in areas aligned with their academic studies and career aspirations.</p> <ol style="list-style-type: none"> <li>JIS School of Polytechnic will identify and nominate potential candidates based on academic performance, technical skills, and relevant coursework.</li> <li>Belmer India Pvt Ltd will provide interns with structured training programs, mentorship from experienced engineers, and opportunities to participate in real-world projects.</li> <li>Internship duration and specific responsibilities will be determined on a case-by-case basis, considering student qualifications and Belmer's project needs.</li> </ol> <p><b>2.6 Training Programs:</b> First Party and Second Party will collaborate to organize training programs for students on industry-relevant topics.</p> <ol style="list-style-type: none"> <li>JIS School of polytechnic and Belmer India Pvt Ltd will collaborate to develop and deliver training programs for JIS School of polytechnic students on industry-relevant topics identified through joint discussions.</li> <li>Belmer India Pvt Ltd will provide trainers with expertise in specific technical areas or industry software applications.</li> <li>Training programs may be delivered on-site at JIS School of polytechnic or at Belmer's facilities, depending on the program's content and resource requirements.</li> </ol> <p>Page 4 of 8</p>	<p><b>2.7 Centre of Excellence (CoE):</b> Second Party will actively participate in the development of the CoE at First Party by providing guidance, resources, guest speakers, and industry-specific curriculum inputs. First Party will dedicate a room as a laboratory sponsored by Second Party to support the CoE's activities. First Party and Second Party co-operation will facilitate effective utilization of the intellectual capabilities of the faculty of First Party, providing significant inputs to them in developing suitable teaching/training systems, keeping in mind the needs of the industry (Second Party).</p> <p><b>3. Benefits of Collaboration</b></p> <ol style="list-style-type: none"> <li><b>3.1 Industry-ready Graduates:</b> The students from First Party could play a key role in technological up-gradation, innovation, and competitiveness of an industry like Second Party.</li> <li><b>3.2 Enhanced Student Skills:</b> Both parties believe that close cooperation between the two would be of major benefit to the student community to enhance their skills and knowledge in line with industry requirements.</li> <li><b>3.3 Improved Curriculum:</b> Second Party will give valuable inputs to First Party in teaching/training methodology and suitably customize the curriculum so that the students fit into the industrial scenario meaningfully.</li> <li><b>3.4 Guest Lectures:</b> Second Party to extend the necessary support to deliver guest lectures to the students of the First Party on the technology trends and in-house requirements.</li> </ol> <p>Page 5 of 8</p>	<p><b>4. Term and Termination</b></p> <p><b>4.1</b> This Agreement will be valid for three (03) years and becomes effective on the day of signatures. It is expressly terminated by either Party on mutually agreed terms, during which period Belmer India Pvt Ltd, the Second Party, as the case may be, will take effective steps for implementation of this MOU. Any act on the part of Belmer's India Pvt Ltd, the Second Party after termination of this Agreement by way of communication, correspondence etc., shall not be construed as an extension of this MOU.</p> <p><b>4.2</b> Both Parties may terminate this MOU upon 30 calendar days' notice in writing. In the event of Termination, both parties have to discharge their obligations.</p> <p><b>5 Confidentiality</b> Both parties agree to keep confidential any proprietary information disclosed during the collaboration.</p> <p><b>6 Dispute Resolution</b> Any dispute arising out of this MOU will be resolved amicably through discussions between the parties. If an amicable resolution cannot be reached, the dispute will be settled through meeting or mail.</p> <p><b>7. Entire Agreement</b> This MOU constitutes the entire agreement between the parties and supersedes all prior or contemporaneous communications, representations, or agreements.</p> <p>Page 6 of 8</p>

8. Relationship between the Parties

It is expressly agreed that First Party and Second Party are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership. Neither Party is authorized to use the other Party's name in any way, to make any representations or create any obligation or liability, expressed or implied, on behalf of the other Party, without the prior written consent of the other Party. Neither Party shall have, nor represent itself as having, any authority under the terms of this MOU to make agreements of any kind in the name of or binding upon the other Party, to pledge the other Party's credit, or to extend credit on behalf of the other Party.

Page 7 of 8

**AGREED:**

For Belmer India Pvt Ltd Plot No. *Rajendra*  
23-05-2024  
Authorised Signatory  
BELMER INDIA PVT LTD  
KALYANI

For JIS School of Polytechnic  
23/05/2024  
Authorised Signatory  
J. MUKHOPADHYAY  
Principal  
JIS SCHOOL OF POLYTECHNIC  
Kalyani, Nadia, Pin-741235

Belmer India Pvt Ltd Plot No	JIS School of Polytechnic
K16 & K17, DIST. PART, WBHDC, Block A, Kalyani, - 741234	Kalyani, Nadia, WB - 741235
Contact Details - 9903092986	Contact Details - 9330900159
E-Mail - rajendra.rout@belmer.com	E-Mail - principal_jisso@isgroup.org

Witness 1: *Bijim Ghosh*  
Accounts - Belmer

Witness 2: *Abhijit Bhasi*  
Electrical Engineers

Witness 1: *S. Sanku*  
Principal  
JIS School of Polytechnic  
Kalyani

Witness 2: *Abhijit Bhasi*  
Electrical Engineers

Page 8 of 8

भारतीय गैर न्यायिक  
एक सौ रुपये  
Rs. 100  
रु. 100  
ONE HUNDRED RUPEES  
भारत INDIA  
INDIA NON JUDICIAL

पश्चिम बंगाल WEST BENGAL AN 4923

**MEMORANDUM OF UNDERSTANDING (MOU)**  
BETWEEN  
JIS SCHOOL OF POLYTECHNIC  
&  
ZITC (NSCBTTC) Kalyani, BSNL

This Memorandum of Understanding (hereinafter called as the 'MOU') is entered into on this the 23rd day of May, 2024.

**BETWEEN**

JIS School of Polytechnic, Kalyani (The college is one of the educational initiatives of JIS Group (the largest educational conglomerate in Eastern India) and is recognized as one of the best self-financing engineering colleges in West Bengal) having its registered office at Block A, Phase III, Kalyani, Nadia - 741235, West Bengal, India the First Party represented herein by HOD/Electronics (hereinafter referred to as 'First Party', the institution which expression, unless excluded by or repugnant to the subject or context shall include its successors - in-office, administrators and assigns).

**AND**

ZITC (NSCBTTC) Kalyani, BSNL; Kalyani Simanta, Kalyani, Nadia, West Bengal, PIN-7412135, the Second Party, and represented herein by Principal, ZITC Kalyani, BSNL (hereinafter referred to as 'Second Party', company which expression, unless excluded by or repugnant to the subject or context shall include its successors - in-office, administrators and assigns).

*Satyajit Mr. Biswas*  
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(First Party and Second Party are hereinafter jointly referred to as 'Parties' and individually as 'Party')

**WHEREAS:**

A) First Party is a Higher Educational Institution named:  
(i) **JIS School of Polytechnic, Kalyani, Nadia, West Bengal**

B) First Party & Second Party believe that collaboration and co-operation between themselves will promote more effective use of each of their resources, and provide each of them with enhanced opportunities

C) The Parties intend to cooperate and focus their efforts on cooperation within area of Skill Based Training, Education and Research.

D) Both Parties, being legal entities in themselves desire to sign this MOU for advancing their mutual interest;

E) ZITC (NSCBTTC) Kalyani, BSNL, the Second Party is engaged in imparting Industrial Training to the Graduate Engineering/ Diploma Engineering students on the Telecommunication Technology which includes Optical Communication, Networking, Mobile Communication, Transmission & Switching, Broadband Technologies etc. ZITC Kalyani has been providing specialization training on Networking and Security, Computer Programming Basis, Broadband Technologies, Optical Fibre and Optical Transmission Systems, Electrical Infrastructure for Telecom, Computer Hardware & Networking, Cloud Hosting, Artificial Intelligence (AI), IoT, Big Data, Web development etc. It has large BSNL Telecom Network at the background. In requirements, visits to telephone exchanges are organized. Industrial Visit is also organized for the students.

F) ZITC (NSCBTTC) Kalyani, BSNL imparts training for faculty development. This Training Centre has been providing skill development training on various Telecom Fields for new learners also.

G) Give related information, its branches, and dimensional information about the industry concerned with which the MoU is sworn.

**NOW THEREFORE, IN CONSIDERATION OF THE MUTUAL PROMISES SET FORTH IN THIS MOU, THE PARTIES HERETO AGREE AS FOLLOWS:**

**CLAUSE 1: CO-OPERATION**

1.1 Both Parties are united by common interests and objectives, and they shall establish channels of communication and co-operation that will promote and advance their respective operations within the institution and its related wings. The Parties shall keep each other informed of potential opportunities and shall share all information that may be relevant to secure additional opportunities for one another.

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1.2 First Party and Second Party co-operation will facilitate effective utilization of the institutional capabilities of the faculty of First Party providing significant inputs to them in developing suitable teaching / training systems, keeping in mind the needs of the industry, the Second Party

1.3 The general terms of co-operation shall be governed by this MOU. The Parties shall cooperate with each other and shall, as promptly as is reasonably practical, enter into all relevant agreements, deeds and documents (the 'Definitive Documents') as may be required to give effect to the actions contemplated in terms of this MOU. The terms of Definitive Documents shall be mutually decided between the Parties. Along with the Definitive Documents, this MOU shall represent the entire understanding as to the subject matter hereof and shall supersede any prior understanding between the Parties on the subject matter hereof.

**CLAUSE 2: SCOPE OF THE MOU**

2.1 The budding graduates from the institutions could play a key role in technological up-gradation, innovation and competitiveness of an industry. Both parties believe that close co-operation between the two would be of major benefit to the student community to enhance their skills and knowledge.

2.2 **Curriculum Design:** Second Party will give valuable inputs to the First Party in teaching / training methodology and suitably customize the curriculum so that the students fit into the industrial scenario meaningfully.

2.3 **Industrial Training & Visits:** Industry and Institution interaction will give an insight into the latest developments / requirements of the industries; the Second Party to permit the Faculty and Students of the First Party to visit the facilities of second party, involved in Industrial Training Programs for the First Party. The industrial training and exposure provided to students and faculty through this association will build confidence and prepare the students to have a smooth transition from academic to working career. The Second Party will provide its Labs / Workshops / Industrial Sites for the hands-on training of the learners enrolled with the First Party.

2.4 **Internship of Students:** Second Party will actively engage to help the delivery of the Internship Training to the students of the First Party as per feasibility of the second party.

2.5 The First party shall try to send/provide atleast 20 Nos. of students of their college per year for the course/training that will be run by the Second Party (ZITC, Kalyani, BSNL).

2.6 **Research and Development:** Both Parties have agreed to carry out the joint research activities in the fields of **Computer Hardware and Networking services and Telecom Equipments & Infrastructure.**

2.7 **Skill Development Programs:** Second Party to train the students of First Party on the emerging technologies in order to bridge the skill gap and make them industry ready.

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- 2.8 **Guest Lectures:** Second Party to extend the necessary support to deliver guest lecturers to the students of the First Party on the technology trends and in house requirements.
- 2.9 **Faculty Development Programs:** Second Party to train the Faculties of First Party for imparting industrial exposure/ training as per the industrial requirement considering the National Occupational Standards in concerned sector, if available.
- 2.10 Both Parties to obtain all internal approvals, consents, permissions, and licenses of whatsoever nature required for offering the Programs on the terms specified herein.
- 2.11 There is no financial commitment on either of the parties. If there is any financial consideration, it will be dealt with separately.
- 2.12 However ZITC Kalyani offers various Online/Offline Educational Training courses (as mentioned in Clause E) on payment basis which are given below:-
- A. 2 weeks Online Vocational Training - Rs 2360/- (Rs 2000/- + 18% GST)
  - B. 3 weeks Online Vocational Training - Rs 3540/- (Rs 3000/- + 18% GST)
  - C. 4 weeks Online Vocational Training - Rs 4720/- (Rs 4000/- + 18% GST)
  - D. 2 weeks Offline Vocational Training - Rs 3540/- (Rs 3000/- + 18% GST)
  - E. 3 weeks Offline Vocational Training - Rs 5110/- (Rs 4500/- + 18% GST)
  - F. 4 weeks Offline Vocational Training - Rs 7080/- (Rs 6000/- + 18% GST)
  - G. One week Online Faculty Development Program - Rs 2360/- (Rs 2000/- + 18% GST)
  - H. One week Offline Faculty Development Program - Rs 3540/- (Rs 3000/- + 18% GST)
  - I. Industrial Visit (One session) - Rs 354/- (Rs 300/- + 18% GST)
  - J. Industrial Visit (Half Day) - Rs 708/- (Rs 600/- + 18% GST)
  - K. Industrial Visit (Full Day) - Rs 1062/- (Rs 900/- + 18% GST)

There is also a provision of bulk discount of 10% with minimum of 50 trainees sent at a time.

- 2.13 2<sup>nd</sup> party i.e. ZITC (NSCBTTC) Kalyani will provide the services to 1<sup>st</sup> party only after considering all financial aspects involved in the services.

**CLAUSE 3: INTELLECTUAL PROPERTY**

- 3.1 Nothing contained in this MOU shall, by express grant, implication, Estoppel or otherwise, create in either Party any right, title, interest, or license in or to the intellectual property (including but not limited to know-how, inventions, patents, copy rights and designs) of the other Party.

*Satyaki Kr. Biswas*

**CLAUSE 4: VALIDITY**

- 4.1 This Agreement is valid for three years from the date of signing the agreement and extendable up to another one year with the same terms and conditions provided both the parties are mutually agree.
- 4.2 However this agreement can be terminated by either party on mutually agreed terms, during which period ZITC (NSCBTTC) Kalyani, BSNL; Kalyani Simanta, Kalyani, Nadia, West Bengal, the Second Party, as the case may be, will take effective steps for implementation of this MOU. Any act on the part of ZITC (NSCBTTC) Kalyani, the Second Party after termination of this Agreement by way of communication, correspondence etc., shall not be construed as an extension of this MOU.
- 4.3 Both Parties may terminate this MOU upon 30 calendar days' notice in writing. In the event of Termination, both parties have to discharge their obligations.

**CLAUSE 5: RELATIONSHIP BETWEEN THE PARTIES**

- 5.1 It is expressly agreed that First Party and Second Party are acting under this MOU as independent contractors, and the relationship established under this MOU shall not be construed as a partnership. Neither Party is authorized to use the other Party's name in any way, to make any representations or create any obligation or liability, expressed or implied, on behalf of the other Party, without the prior written consent of the other Party. Neither Party shall have, nor represent itself as having, any authority under the terms of this MOU to make agreements of any kind in the name of or holding upon the other Party, to pledge the other Party's credit, or to extend credit on behalf of the other Party.

First Party

Second Party

Any divergence or difference derived from the interpretation or application of the MoU shall be resolved by arbitration between the parties as per the Arbitration Act, 1996. The place of the arbitration shall be at District Head Quarters of the Second Party. This undertaking is to be construed in accordance with Indian Law with exclusive jurisdiction in the Courts of Krishnaganj.

*Satyaki Kr. Biswas*

**AGREED:**

For JISSP Kalyani, Nadia, West Bengal

For ZITC (NSCBTTC) Kalyani

*Satyaki Kr. Biswas*  
Authorized Signatory - 04/09/2024

*Suman*  
Authorized Signatory

**MOU SATTYAKI KR. BISWAS.**  
Principal / JTO  
Zonal Technical Training Centre, BSNL  
45th Floor, 45th St., KOLIKATA  
Kalyani, Nadia, W.B.  
Pin-741235

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Web - www.jissp.ac.in	Web: kolkata.bsnl.co.in/NSCBTTCWEBPAGE

Witness1: *JIT* 04/09/2024  
Dr. Jyotirmay Paul  
HOD, Dept. of Mech. & E. Engg.  
JIS School of Polytechnic.

Witness2: *Suman* 04/09/2024  
SUPTI SARKAR, JTO  
ZITC Kalyani, BSNL

Witness3: *Debojyoti Sarker* 04/09/2024  
DEBOJYOTI SARKAR  
HOD - Dept. of Mechanical Engg.  
JIS School of Polytechnic.

Witness4: *Sanjib Kumar* 04/09/2024  
(SANJIB KUMAR)  
JTO, ZITC Kalyani, BSNL