

# **MAHARAJA INSTITUTE OF ADVANCED COMPUTING AND RESEARCH**

**GAMAI, BHUBANESWAR, ODISHA**

(APPROVED BY AICTE, NEW DELHI AND AFFILIATED TO BPUT ,ODISHA (ROURKELA)



## **MANDATORY DISCLOSURE AICTE (UG ENGINEERING PROGRAMME)**

“The Information has been provided by the concerned Institution and the onus of authenticity lies with the Institution and not on AICTE.”

## 01. Name of the Institution:- **Maharaja Institute of Advanced Computing & Research(MIACR)**

Village : GAMAI  
Taluka : JATANI  
District : KHORDHA  
State : ODISHA  
Pin Code : 7542054  
STD Code : 0674  
Phone No : 2384608  
Fax No : 2384608  
E-mail : [info@miacr.ac.in](mailto:info@miacr.ac.in)

## 02. NAME AND ADDRESS OF THE TRUST / SOCIETY / COMPANY AND THE TRUSTEES:

NAME OF THE TRUST: **SONY FOUNDATION TRUST**

AT-RAYAGADA ODISHA,  
PHONE: 0680-2492440 , MOBILE: 9437567525  
E MAIL: [chairman@miacr.ac.in](mailto:chairman@miacr.ac.in)

## 03. NAME & ADDRESS OF THE PRINCIPAL:-

Name : **Dr Debesh Mishra**  
Address : **Maharaja Institute Of Advanced Computing & Research.(MIACR)**  
At: Gamai  
Po: Gangapada  
District: khordha (Odisha)  
Pin: 752054

Longitude: **85.38<sup>0</sup>** Latitude: **20.49<sup>0</sup>**

Telephone No : 9777791901  
Fax No. : 0674-2384608

Office hours at the Institution: 8.30 am to 4.30 pm

E-mail : [principal@miacr.ac.in](mailto:principal@miacr.ac.in)  
Website : [www.miacr.ac.in](http://www.miacr.ac.in)

Nearest Railway station (dist in Km): Khordha Road - 10 KM  
Nearest Airport (dist in Km)-: Bhubaneswar-17 KM.

04. **Type of Institution** : Private-Self Financed.  
Category (1) of the Institution : Non minority.  
Category (2) of the Institution : Co-Education.

## 05. NAME OF THE AFFILIATING BODY:-

Name of the Affiliating Body : BPUT  
 Address : Rourkela, Odisha  
 Website : <https://www.bput.ac.in>

**06. Governing Board Members:**

1.	Chairman	Sri Manoj Kumar Palo
2.	Secretary	Mrs.Bhabani Debi Palo
3.	Trustee-Member	Mr. Gokul dev Palo
4	An Industrialist/ Technologist/Educationalist as nominated by the Concerned Trust -as Member	Dr.Biranci Narayan Panda
5	An Industrialist/ Technologist / Educationalist as nominated by the Concerned Trust-As Member	Sri Gopal Rao
6	Nominee of Affiliating Body, University/state Board of Tech Education	To be nominated by BPUT We have written to the authority to send the name of the nominee and reply is awaited.
7	Nominee of the state Govt.	Director-Technical Education and Training. (As Ex-officio Member)
8	Principal of the Institution (Member Secretary, Ex-Officio)	Dr. Debesh Mishra Principal, Ex Officio MIACR Member Secretary, Ex-Officio
9.	Faculty of the concerned Institute- as member nominated by concerned Trust	Prof. Gagan Kumar Sahoo (Director , MIACR)
10.	Faculty of the concerned Institute- as member nominated by concerned Trust	Prof. Sagarika Das

**08. Academic Advisory Body:**

- 01) Dr. Amruta Abhishek
- 02) Prof. Sagarika Das
- 03) Prof.Gagan Kumar Sahoo
- 04) Prof. Umesh Prasad Rath

**09. GOVERNANCE:-**

**i) Member of the Board and their brief background:-**

**SONY FOUNDATION TRUST**

- 1) Chairman **Sri Manoj Kumar Palo**  
Patrapada, Bhubaneswar, Dist. Khurda
- 2) Secretary **Mrs.Bhabani Debi Palo**  
Patrapada, Bhubaneswar, Dist. Khurda

**ii) Governing Body**

- 1. Sri Manoj Kumar Palo - Chairman
- 2. Mrs.Bhabani Debi Palo - Secretary
- 3. Mr Gokul dev Palo - Member

4. Prof.Gagan kumar Sahoo	-	Member
5. AICTE Nominee	-	Member (To be nominated)
6. State Govt. Nominee	-	Member (To be suggested by the Govt. of Odisha)
7. Affiliating Body	-	Member (To be suggested by BPUT, Odisha)

iii) **Frequency of the Board Meetings and Academic Advisory Body:** - Twice a year

iv) **Organizational chart and process** : -Enclosed in **Annexure – I**

v) **Nature and Extent of involvement of faculty and students in academic affairs / Improvements:-**

- 01) Academic Information System (AIS) is installed for developing and delivering teaching materials in academic affairs.
- 02) State of Art Technology is installed for conducting classes to enhance the quality of teaching.
- 03) Visuals and teaching adds on important courses, containing lecturers delivered by eminent professors are procured for the students.

vi) **Mechanism / norms & procedure for democratic / good Governance:-**

- Under the guidance of Trustees, Governing Council, Academic Advisory Body, the day-to-day operations of GATE is managed by Principal with help from HOD's and Faculty members with individual responsibility.

vii) **Student Feedback on Institutional Governance/faculty performance:-**

- Semester wise feedback system, regular faculty development program & faculty appraisal helps for the assessment of the performance of the faculty members.

viii) **Grievance redressed mechanism for faculty, staff and students:-**

- Complaints/Suggestion boxes are available at Open Corridor/Library/Hostels. Student's interaction with Principal and a separate grievance cell meeting on weekly basis to discuss the various day to day issues. Online grievance redressal mechanism is available.

ix) **Establishment of Anti Ragging Committee:** Constitution of Anti ragging Committee and Anti ragging squad is formed to look after the in disciplinary activities.

**Constitution of Anti Ragging Committee:**

<b>Sr. No.</b>	<b>Name &amp; Designation</b>	<b>Position</b>	<b>Contact number</b>
1.	Prof. Gagan kumar Sahoo Asso. Professor	Chairperson	9861464114
2.	Mr. Umesh Prasad Rath Asst. Professor	Vice Chairperson	966898388
3.	Mr. Abhinash Sahu Asst. Professor	Member	7735166394
4.	Ms. Archana Mandal Asst. Professor	Member	7008567834
5.	Mrs. Rajashree Pandia Asst. Professor	Member	8249510065
6.	Mrs.Sammilani Moharana Asst.Professor	Member	7978962193

	Asst. professor		
7.	Mr. Lalat Keshari Champati Asst. Professor	Member	9090444304
8.	Mr. R p Mallia Asst. professor	Member	7008368257
9.	Mrs Rahul Singh Asst. Professor	Member	9778179803
10.	Mr. Sanjaya kar Sr. Tech. Asst.	Member	6371412366

**x) Establishment of Online Grievance Redressal Mechanism: Available**

1. Dr.Debesh Mishra Principal (Chairperson)	9777791901
2. Prof. Umesh Prasad Rath (OMBUDSMAN)-	
3. Prof. Gagan Kumar Sahoo (Convener)	9438430924
4. Prof. Dr Amruta Abhishek (Co-Convenor) .-	9438217327
5. Prof. Sagarika das (Advisor) .	6371844571
6. Prof.Rabi Narayan Mishra	-
7. Prof.Asim Sahoo	-
8. Prof. R.P Mallia	

**xi) Establishment of Grievance Redressal Committee: Constituted**

1. Dr.Debesh Mishra Principal (Chairperson)	9777791901
2. Prof. Umesh Prasad Rath (OMBUDSMAN)	
3. Prof. Gagan Kumar Sahoo (Convener)	9438430924
4. Prof. Dr Amruta Abhishek (Co-Convenor) .	9438217327
5. Prof. Sagarika das (Advisor) .	6371844571
6. Prof. Rabi Narayan Mishra	
7. Prof.Asim Sahoo	-
8. Prof. R.P Mallia	

**xii) Establishment of Internal Compliant Committee: Constituted**

1. Dr Debesh Mishra (Chairperson)	
2. Prof Prof. Sagarika Das	(Convener)
3. Prof. Amruta Abhishek	Co-convenor)
4. Prof. Gagan Kumar Sahoo	(Advisor)
5. Prof. Debahuti Panda	
6. Prof. Subhashree Pradhan	
7. Prof. Abhinash Sahu	
8. Prof. Lalat Keshari Champati	
9. Prof. R.P Mallia	
10. Prof. Sammilani Moharana	
11. Prof. Rajashree Pandia	

**xiv) Establishment of Committee for SC/ST: Constituted**

Constitution of SC/ST Grievance Redressal Cell:			
Sr. No.	Name & Designation	Position	Contact number

1.	Dr. Amruta Abhishek Professor	Chairperson	9937852343
2.	Mr. Abhinash Sahu Asst. professor	Vice Chairperson	7735166394
3.	Mr. R.P Mallia Asst. Professor	Member	7008359769
4.	Mr. Shreeguru Sutar Asst. Professor	Member	7008005080
5.	Mr. Rabinarayan Mishra Asst. Professor	Member	9348217327

10. **xv) Internal Quality Assurance Cell: Constituted  
PROGRAMMES:-**

(i) **Name of the Programs approved by the AICTE:-**

B.TECH in

- 1) Computer Science Engineering-120 INTAKE
- 2) Mechanical Engineering-60 INTAKE
- 3) Civil Engineering-60 INTAKE
- 4) Electrical Engineering-60 INTAKE

(ii) **Name of the Programs accredited by NBA- NIL**

<b>NBA Accreditation Status</b>		
1	Name / List of Programmes / Courses Accredited	Not Accredited
2	Applied for Accreditation	--
	A. Applied but Visit not happened	--
	B. Visit happened but result awaited	--
3	List of Programmes / Courses not applied	UG in Engg &Technology

**Name of the Programs accredited by NAAC- NIL**

<b>NAAC Accreditation Status</b>		
1	Accredited	Not Accredited
2	Applied for Accreditation	--
	A. Applied but visit not happened	--
	B. Visit happened but result awaited	--
3	List of Programmes / Courses not applied	UG in Engg &Technology

(iii) **For each Program the following details are given:-**

A) BTECH:-

**Name** : BTECH

**Number of seats** : 300

**Duration** : 4 years

**Cut off mark/rank for admission  
During the last three years** : Centralized counseling conducted by  
(Qualified students from OJJE &  
JEE Main.)

**Fee** : 61,500/- (per year)

<b>Placement facilities</b>	:	Available
<b>Campus placement in last three Years with</b>	:	
<b>Minimum salary,</b>	:	
<b>Maximum salary</b>	:	
<b>and Average salary</b>	:	
<b>Cut off mark/rank for admission</b>	:	
<b>During the last three years</b>	:	Centralized counseling conducted by OJEE

**PLACEMENT STATUS:**

Sl No	Name of the Course	Branch	2022-23	2023-24	2024-25	Total No. of students placed during last three years
2	<b>Btech</b>	MECHANICAL ENGINEERING	n/a	n/a	n/a	<b>new</b>
3	<b>Btech</b>	CIVILENGINEERING	n/a	n/a	n/a	<b>new</b>
4	<b>Btech</b>	ELECTRICAL ENGINEERING	n/a	n/a	n/a	<b>new</b>
5	<b>Btech</b>	COMPUTER SCIENCE ENGINEERING	n/a	n/a	n/a	<b>new</b>

**Name and duration of programme (s) having affiliation / collaboration with Foreign University(s)/Institution(s) and being run in the same campus along with status of their AICTE approval. If there is foreign collaboration, give the following detail.**

► Note: - None of our programme (s) is having affiliating / collaboration with Foreign University(s) / Institution(s) and none of other programme (s) being run in the same campus along with status of AICTE.

**b) Details of the Foreign Institution / University:-** - No foreign University Collaborative

**c) For each Collaborative/affiliated programme give the following:** - Non Collaborative

**d) Whether the collaborative programme is approved by AICTE? If not whether the Domestic/Foreign Institution has applied to AICTE for approval as required under notification no. 37-3/Legal/2005 dated 16<sup>th</sup> May, 2005 - Not Applicable**

**Name and duration of programme (s) having affiliation / collaboration with Foreign University(s)/Institution(s) and being run in the same campus along with status of their AICTE approval. If there is foreign collaboration, give the following detail.**

► Note:-None of our Programme (s) is having affiliating / collaboration with Foreign University(s) / Institution(s) and none of other programme (s) being run in the same campus along with status of AICTE.

**b) Details of the Foreign Institution / University:-** Not applicable

**c) For each Collaborative/affiliated programme give the following:** Not applicable

**d) Whether the collaborative programme is approved by AICTE? If not whether the Domestic/Foreign Institution has applied to AICTE for approval as required under notification no. 37-3/Legal/2005 dated 16<sup>th</sup> May, 2005 - Not applicable**

(i) **Branch wise list of faculty members:-**

(This institute got its approval on 2023. Since this is its eleventh year's programme, Hence the calculation of Student/ Faculty Ratio should be taken on overall basis.)

No of Faculty	:	45
Visiting Faculty	:	Nil
Adjunct Faculty	:	Nil
Guest Faculty	:	Nil
Permanent Faculty: Student Ratio	:	1:20

(ii) **Number of faculty employed(E) at present for the academic year 2024-25 :-**

SI No	Branch	Professor	Associate Professor	Asst.Prof	Total No. of Faculty
01	Civil Engineering	00	01	05	06
02	Mechanical Engineering	02	01	07	10
03	Electrical Engineering	02	03	06	11
05	Computer Science Engineering	00	03	07	10
06	Basic Science & Humanity	01	02	05	8

**12. PROFILE OF PRINCIPAL WITH QUALIFICATION, TOTAL EXPERIENCE, AGE AND DURATION OF EMPLOYMENT AT THE INSTITUTE CONCERNED:-**

(i)

Name	:	<b>Dr. Debesh Mishra</b>
Date of Birth	:	05/10/1979
Age	:	46yrs
Academic qualifications (with field of specialization)	:	PHD,M.Tech, BE,

Details of Experience (Academic / Industrial) : Teaching: 18 Years

Research: 3 years

Area of specialization : Industrial Engineering Subject

Teaching at Under Graduate Level : Industrial Engineering & Mgt,  
Power Plant Engg. Project Mgt.

No of paper published : National Journals ( 80 Nos.)  
International Journals (1 Nos)

Projects carried out : 24 Nos.

Patents : 02 nos

Technology Transfer -----

Research Publications : 31 Nos

Date of the appointment in the present institution : 13/09/2024

Duration of employment at the Institute concerned: Continuing

(ii) For each faculty give a page covering: ▶ Note:- Enclosed in **Annexure – IX**

(Separate sheet for each faculty in department wise as per format)

**13. FEE :-**

(i) **Is of fee, as approved by State fee Committee, for the Institution:- For Btech:**  
▶ First Year:-

Tuition Fee	40500.00
Facility Fees	--
Placement Training	2500.00
Staff and Student Welfare	3000.00
Cost of Uniform, Blazer, Tie, Crest, Hanger ,T.Shirt & Uniform(One time charge)	3000.00
Refundable Security Deposit (One time charge)	2500.00
Transport	10000.00
Total	61500.00
Accommodation with fooding	34000.00

**Hostel**

(i) **The college has its own hostel for boys and girls.** Furniture, electrical fittings, News Paper, Magazines, TV, Telephone, Aqua Guard, Salary to mess staff, doctor ward boys, ad manager, sweepers, scavengers and cost of disinfectants, detergents, acids vacuum cleaning and cost of maintenance of electrical gadgets besides tube lights, fans motor pumps and host of other incidental expenses related to maintenance of hostels are provided to each borderer.

(i) **Time scheduled for payment of fee for the entire program:-**

Institute is providing two installment process for payment of fees i.e. In the beginning of the academic year and second before commencement of even semester Examination.

(ii) **No. of fee waiver granted with amount and name of students:- Nil**

(iii) **Number of scholarship offered by the Institute, duration and amount:- One**

<u>SI.No.</u>	<u>Name of Scholarship</u>	<u>Duration</u>	<u>Amount</u>
1)	Chairman's Scholarship	One year	Rs. 3,00,000/-

(iv) **Criteria for fee waivers/scholarship :-**

▶ Income certificate of his father or his family member.  
On merit basis secured in Diploma Entrance Test (Rank holders)  
Carrier meritorious students (Academic 10<sup>th</sup> & ITI)

(v) **Estimated cost of boarding and lodging in hostels: -Rs. 34,000 /- p.a.**

**14. ADMISSION:-**

(i) **Number of seats sanctioned with the year of approval:-300 seats**

File No with date of first approval: F.No : ERO/AICTE/OR/ET/006/2008-09 Dated : 14/07/2009

(ii) **Number of students admitted under various categories each year in the last three years:-**

SL NO	YEAR	BRANCH	TOTAL INTAKE	TOTAL NO OF ADMITTED STUDENTS
3	2024-25	CIVIL	60	53
		MECH	60	62
		EE	60	74
		CSE	120	60

**15. ADMISSION PROCEDURE:-**

(i) **Mention the admission test being followed, name and address of Test Agency and its URL(website) :- <https://samsodisha.gov.in/>**

- ▶ OJEE.(Odisha Joint Entrance Examination ), OJEE, Gandamunda, BBSR , Orissa, <https://ojee.nic.in/>

(ii) **Number of seats allotted to different Test Qualified candidates separately [DTET] (State conducted test/University tests)/ Associated conducted test):-**

- ▶ 100% of the total seats is filled through OJEE counseling, Odisha,

**Calendar for admission against management/vacant seats:-**

- a) **Last date for request for applications :**
  - ▶ As per the guideline of admission rules/procedure prescribed by OJEE (Odisha).
- b) **Last date for submission of application:**
  - ▶ As per the guideline of admission rules/procedure prescribed by OJEE (Odisha).
- c) **Date of announcing final results :**
  - ▶ As per the guideline of admission rules/procedure prescribed by OJEE (Odisha).
- d) **Release of admission list (main list and waiting list should be announced on the same day):**
  - ▶ As the seats are being filled through the central counseling conducted by SAMS (Odisha) the institution has no such list of its own. Details are available at [www.jeeodisha.com](http://www.jeeodisha.com)
- e) **Date for acceptance by the candidate (time given should in no case be less than 15 days) :**

- As per the guidelines of Industries Department and OJEE (Odisha).
- f) **Last date for closing of admission** : 15<sup>th</sup> August of every year
  - As per the guideline of admission rules/procedure prescribed by BPUT, Odisha.
- g) **Starting of the Academic session** : Third week of August of every year
- h) **The waiting list should be activated only on the expiry of date of main list:**
  - As the admissions are through OJEE central counseling, hence no waiting list is being maintained by the institute.
- i) **The policy of refund of the fee, in case of withdrawal, should be clearly notified:**
  - The Institute is refunding the fees after receiving seat cancellation letter from the student/parent and the same is communicated to the BPUT as per the guidelines of OJEE, Odisha.

**16. 1. ELIGIBILITY CRITERIA FOR ADMISSION TO 1<sup>ST</sup> SEMESTER BTECH IN ENGINEERING/ TECHNOLOGY**

Sl. No	COURSE	DURATION	ENTRY QUALIFICATION	AGE.
1	1 <sup>st</sup> semester B.tech courses (All Engineering)	4 years	Candidates must have passed class 12 <sup>th</sup> examination from science stream with Physics, Mathematics, Chemistry/Biotechnology, Language and any other subject from recognized board.	Lower age 17 years and Upper age - No bar

**2.ELIGIBILITY FOR ADMISSION TO 3RD SEMESTER BTECH IN NGINEERING/ TECHNOLOGY UNDER LATERAL ENTRY**

1	Third semester B.tech courses (Lateral admission for eligible branches only)	3 years	Pass in 3 Years Diploma with 60% or its equivalent examination.	Lower age 18 years and Upper age - No bar
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**17. APPLICATION FORM:-**

(i) **Downloadable application form, with online submission possibilities:-**

► OJEE -Odisha reserves all rights for selling of the application forms.

**18. LIST OF APPLICANTS:-**

(i) All the applications are received by OJEE., Odisha and the admission is undertaken through central counseling based on OJEE ranks.

► The OJEE, Odisha is maintaining the list. All vacancy seats after round of counseling shall be filled at the college level as per the notification of Department of Skill Development and Technical Education, Govt. of Orissa.

**19. INFORMATION ON INFRASTRUCTURE AND OTHER RESOURCES AVAILABLE:-**

- Total Area of Class rooms available for Btech Engineering Courses with size of each: 1254 SqM. 66 SqM
- Total Area of Tutorial Rooms available for Btech Engineering Courses with size of each: 165 sqM, 33 SqM
- Total Area of Laboratories available for Btech Engineering Courses with size of each: 1984 SqM & 66 SqM
- Total Area of Drawing Halls available for Btech Engineering Courses with size of each: 132 SqM
- Total Area of workshop available for Btech Engineering Courses with size of each: 200SqM
- Total Area of Additional workshop available for Btech Engineering Courses with size of each: 332 SqM, 166 Sqm
- Total Area of Seminar Halls available for both Btech Engineering Courses with size of each: 1 nos & 132 SqM
- Total Area of Computer Centers available Btech Engineering Courses with size of each: 150SqM
- Central Examination Facility, Number of Rooms and Capacity of each: 1 & 75 SqM
- **Barrier Free Built Environment for disabled and elderly persons:** Available
- **Occupancy Certificate:** Procured
- **Fire and Safety Certificate:** Procured
- **Hostel Facility:** Available for both Boys and Girls
- Number of Classrooms and size of each : - 24 & 66 SqM
- Number of Tutorial rooms and size of each : - 5nos & 33 SqM
- Number of Laboratories and size of each : - 30 nos & 66 SqM
- Number of drawing halls and size of each : - 01 no & 132 SqM

- Number of Computer Center with capacity :- 01 Nos & 150 SqM
- Central Examination Facility :- Available

**20. LIBRARY**

- a) **Number of Library books/Titles/Journals available(Programme-wise):-**
  - Total No. of Volumes available for all Programmes [B.TECH]: 8010 Nos
  - Total No. of Titles available for all Programmes [B.TECH]: 1245 Nos
- b) **List of online National/International Journals subscribed:-**
  - ▶ National Journals 41
  - ▶ International Journals 14
- c) **E-Library facilities:-** Yes Available with MOOCs center.

**21. LABORATORY :-** List of major Equipment Facilities in each Laboratory/ Workshop

<b>DEPARTMENT OF ELECTRICAL ENGINEERING</b>		
<b>NAME OF THE LAB: ELECTRICAL LAB PRACTICE</b>		
<b>SL NO</b>	<b>NAME OF THE MACHINE/EQUIPMENT WITH SPECIFICATION</b>	<b>EXPERIMENT PERFORMED</b>
1	Squirrel Cage Induction Motor Phase- 3, Capacity: 5 hp, Volt: 415, Frequency: 50, Amepre:7.7 A, RPM: 1440 Insulation: Class B	Study of Direct on Line starter, Star- Delta starter, connection and running a 3-phase Induction motor and measurement of starting current.
2	Squirrel Cage Induction Motor Phase- 3, Capacity: 5 hp, Volt: 415, Frequency: 50, Amepre:7.7 A, RPM: 1440 Insulation: Class B	Study of Auto transformer starter and rotor resistance starter connection and running a 3-phase induction motor and measurement of starting current.
3	Squirrel Cage Induction Motor Phase- 3, Capacity: 5 hp, Volt: 415, Frequency: 50, Amepre:7.7 A, RPM: 1440 Insulation: Class B	Study and Practice of connection & Reverse the direction of rotation of Three Phase Induction motor.
4	Capacity: 1HP, RPM: 1400, Volt 230 Amepre: 5.21 Amp, Phase : 1, Frequency:50 Hz, Capacitor :25 $\mu$ F, Insulation: class F	Study and Practice of connection & Reverse the direction of rotation of Single Phase Induction motor.

5	Capacity: 3 KVA RPM: 1500 Volt: 415 Amepre:4.5 Phase: 3-Ø Insulation: Class B	OC and SC test of alternator and determination of regulation by synchronous impedance method.
6	Capacity: 3 KVA RPM: 1500 Volt: 415 Amepre:4.5 Phase: 3-Ø Insulation: Class B	Determination of regulation of alternator by direct loading.
7	Capacity: 3 KVA RPM: 1500 Volt: 415 Amepre:4.5 Phase: 3-Ø Insulation: Class B	Parallel operation of two alternators and study load sharing.
8	3-phase Wattmeter dynamometer type 5/10 Amp, 150-300-600 volt	Measurement of power of a 3-phase Load using two wattmeter method and verification of the result using one 3-phase wattmeter.
9	Buchholz's relay setup VPL-84	Study of Buchholz's relay.
10	KVA:3 , Volt: 115/230	Determine voltage regulation of transformer by direct loading.
11	KVA:3 , Volt: 115/230	Parallel operation of Transformers(only single Phase)
12	KW:3 RPM: 1500 , Volt: 220, Amepre:10, Exitation:230 V ,	Study different parts of DC Generator.
13	KW:3 RPM: 1500 , Volt: 220, Amepre:10, Exitation:230 V ,	Run a DC shunt Generator

### NAME OF THE LAB: POWER ELECTRONIC LAB

1	Series inverter trainer kit	To study series Inverter.
2	UPS	Study UPS & CVT.
3	IC regulator using IC723.	Construct & test IC regulator using IC723.
4	IC 78XX, 79XX, LM317.	Construct voltage regulator using IC 78XX, 79XX, LM317.

### ELECTRONICS & TELECOMMUNICATION ENGINEERING

SL. NO.	NAME OF THE LAB	NAME OF MACHINE/EQUIPMENT (SPECIFICATION)	EXPERIMENT PERFORMED
1		AM MODULATION TRAINER KIT, DEMODULATION TRAINER KIT, CRO & FUNCTION GENERATOR.	1. (A) Study of AM transmitter & Detector and observe the waveform at different test point. (B) Determine percentage of Modulation Index of AM. (C) Study of SSB signal & observe The waveform at different section.

2	COMMUNICATION ENGG.-I LAB	FM MODULATION TRAINER KIT, FOSTER SELEY EMODULATION TRAINER KIT, CRO & FUNCTION GENERATOR.	2. Study of FM transmitter & Detector & observe the waveform at different section.
3		DCT TRAINER KIT & CRO	3. Study of sampling theorem & observe the waveform at different section.
4		DCT TRAINER KIT & CRO	4. Study of ASK modulator & demodulator & observe the waveform at different section.
5		DCT TRAINER KIT & CRO	5. Study of PCM transmitter & receiver & observe the waveform at Different section
6		DCT TRAINER KIT & CRO	6. Study of FSK modulator & demodulator & observe the waveform at different section.
7		DCT TRAINER KIT & CRO	7. Study of PSK modulator & demodulator & observe the waveform at different section.
8		DCT TRAINER KIT & CRO	8. Study of Delta modulator & demodulator& observe the waveform at different section.
9		SUPERHETERODYNE AM RECEIVER & CRO	9. Study of Super heterodyne radio receiver &observe the waveform at different section
10		LINEAR DIODE DETECTOR TRAINER KIT & CRO	10. Construct Linear Diode Detector & observe the wave forms.

SL. NO.	NAME OF THE LAB	NAME OF MACHINE/EQUIPMENT (SPECIFICATION)	EXPERIMENT PERFORMED
1	COMM. ENGG.-II LAB	ANTENNA TRAINER KIT	1.(A) Study the Antenna Trainer for different type of Antenna & find its gain. (B) Draw the radiation pattern & find the characteristics of antenna ( Yogi, Horn, Rhombus, Dipole) (C) Draw the waveform of different lobe of different Antennas using antenna trainer
2		MICROWAVE TEST BENCH KIT	2.(A) To study different types of Microwave components. (B) Measurement of icrowave power using power meter. (C) Measure VSWR of different types of load (Matched, Open, Shorted) using Microwave test bench.

3	TRANSMISSION LINE KIT	3. (A) Find the Standing Wave ratio (Open & Short Circuit) & different losses in Transmission line.
4	COLOR T.V TRAINER KIT (SAMSUNG).	4. (A) Study the Block diagram of colour TV receiver and draw the circuit & waveform of different sections. (B) Study the SMPS section and find out load & line regulation. (C) Study the various faults in colour TV.

SL. NO.	NAME OF THE LAB	NAME OF MACHINE/EQUIPMENT (SPECIFICATION)	EXPERIMENT PERFORMED
1.	ADVANCE COMMUNICATION LAB	FIBER OPTIC TRAINER KIT (MODEL VOFT-02)	1. (A) Setting up a fiber optic analog & digital link including source & detector. (B) Study of losses in Optical Fiber: I. Measurement of propagation loss. II. Measurement of bending loss. III. Measurement of connector loss. IV. How connector loss is affected by fiber and quality. (C) Measurement of Numerical aperture. (D) Setting of AM, FM, PWM, Modulator & Demodulator using optical fiber kit.
2.		SATELLITE COMM. TRAINER KIT	2. STUDY OF SATELLITE COMMUNICATION TRAINER KIT
3.		MOBILE TRAINER KIT	3. STUDY OF MOBILE COMMUNICATION TRAINER KIT
4.		EPABX TRAINER KIT(VCT-41)	4. STUDY OF DIFFERENT CALL SET-UP USING EPABX TRAINER KIT AND OBSERVE ITS WAVEFORM.
SL. NO.	NAME OF THE LAB	NAME OF MACHINE/EQUIPMENT (SPECIFICATION)	EXPERIMENT PERFORMED
1.	ANALOG ELECTRONICS-I LAB	Two Stage Rc Coupled Amplifier Trainer Kit, Cro, Multimeter	1. Study the two stage CE amplifier, find Gain & draw the frequency response curve
2.		Push Pull Amplifier Trainer Kit, Cro, Multimeter	2. Construct & test Push Pull amplifier & observe the wave form
3.		CLASS-C TUNED AMPLIFIER TRAINER KIT, CRO, MULTIMETER	3. Construct & Find the gain Class C Tuned Amplifier
4.		FET CHARACTERISTIC KIT, CRO, MULTIMETER	4. Determine Drain & Transfer characteristics of JFET

5.		(i) Hartly Oscillator (ii) Colpitt Oscillator (iii) Wein Bridge Oscillator (iv) R-C phase shift Oscillator AND CRO, MULTIMETER	5. Construct & calculate the frequency & Draw the waveform.
6.		Differentiator and Integrator KIT,CRO,MULTIMETER	6. Construct & Test Differentiator and Integrator using R-C Circuit.
7.		Transistor Characteristic kit, MULTIMETER, Ammeter, Voltmeter	7. Test Transistor act as an Switch & study its characteristics
8.		Clipper, Clamper kit, CRO, Multimeter	8. Observe the waveform of Clipper, Clamper circuits
SL. NO.	NAME OF THE LAB	NAME OF MACHINE/ EQUIPMENT(SPECIFICATION)	EXPERIMENT PERFORMED
1.	ANALOG ELECTRONICS-II LAB	78xx &79xx ICs KIT, CRO, MULTIMETER	1. Construct and test voltage power supply using 78xx &79xx ICs (+5V, -5V,+9V,-9V)
2.		OPAMP CHRACTERISTIC KIT, CRO, MUTIMETER, VOLTMETER, AMMETER	2.(A) Study of Operational Amplifier 741 & draw its pin diagram, (B) Determine the following characteristics of an OP-Amp. i) Input off-set voltage. ii) Slew rate iii) CMRR iv) Bandwidth v) Input bias current
3.		Inverting and non-inverting amplifier using OPAMP KIT, CRO	3. Construct and study inverting and non-inverting amplifier using OPAMP
4.		Integrator and differentiator using OPAMP KIT, CRO	4. Construct and study integrator and differentiator using OPAMP.
5.		V to F and F to V using OPAMP KIT, CRO	5. Construct and study voltage comparator, V to F and F to V using OPAMP
6.		Multivibrator Kit using OPAMP Kit, CRO	6. Construct and study Astable & Monostable Multivibrator

SL. NO.	NAME OF THE LAB	NAME OF MACHINE/EQUIPMENT (SPECIFICATION)	EXPERIMENT PERFORMED
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1	ELECTRONICS MEASUREMENTS LAB	CRO, Function generator, CDS	<p>1. (A) Measurement of Current and Voltages by Low range ammeter and voltmeter respectively with shunt and multiplier.</p> <p>(B) Observe the wave forms of different frequency by using Function generator and draw its diagram. &amp; calculates average &amp; R.M.S. Values, frequency, Time Periods using CRO.</p> <p>(C) Measure the unknown frequency and phase angle using CRO by Lissajous figure</p>
2		DUAL TRACE CRO	2. Measure the amplitude and frequency using dual trace CRO.
3		Wheatstone Bridge, Maxwell Bridge, Hay's Bridge, Schering's Bridge KIT, CRO	<p>3. (A) Measurement of resistance using Wheatstone's Bridge</p> <p>(B) Measure the inductance by Maxwell's Bridge &amp; Hay's Bridge</p> <p>(C) Measure the capacitance by Schering's Bridge</p>
4		LCR meter KIT, CRO	4. Measure the Resistance, Capacitance of circuit (Series & parallel) by using LCR meter and find the Q factor of the coil

## DEPT.OF CIVIL ENGG NAME OF THE LAB – CE LAB

SL NO	NAME OF M/C OR EQUIPMENT	EXPERIMENT PERFORMED
1	Compression testing m/c Specification -235mm Ram dia 2000 KN load Company -ASEW	Compressive strength of concrete cube, Cement Mortar & brick
2	Laboratory concrete mixture Fitted with ac induction motor 1440 rpm ,0.75 KN ,1 Hp Company -ASEW	Preparation of fresh concrete mix for Concrete cube
3	Losangel'sabrasationm/c IS:2386(part iv) Company -ASEW	Strength of coarse road aggregate
4	Ductility testing apparatus Thermotech TH-012 Company -ASEW	Ductility of bitumen sample
5	Hot air oven DTC-204 Company-Creative	Water content of soil sample
6	Impact test apparatus Motor operated,1/2 Hp,1425 RPM Model No-LK3071Company -ASEW	For SPT and MPT of a soil sample

## NAME OF THE LAB – SURVEY LAB

SL NO	NAME OF M/C OR EQUIPMENT	EXPERIMENT PERFORMED
1	Theodolite m/c 12 cm dia transit Front line NO-00180/07	Measurement of HA , VA, DA ,ranging between various staffs
2	Auto level SOKKIA C410 Model NO -03581	Measurement of RL of various points
3	Dumpy level Front line Model NO- 0040/2006	Measurement of RL of various points

## MECHANICAL ENGINEERING HEAT POWER LAB

1	MULTI CYLINDER FOUR STROKE PETROL ENGINE	Type- Load type Capacity- 7.5 kw Speed- 3000 rpm Arm length- 0.3 meter	i)-Determination of Brake Horse power,, Indicated Horse power, Brake specific fuel consumption of a multi cylinder engine by Morse test(5 <sup>th</sup> semester)
2	FOUR STROKE SINGLE CYLINDER DIESEL ENGINE	Engine type- AVI Speed- 1500 rpm Power rating- 3.7 kw SFC- 245g/kw-h	i)-Determination of brake thermal efficiency of a single cylinder diesel engine(5 <sup>th</sup> semester)

## STRENGTH OF MATERIAL LAB

1	TORSION TESTING MACHINE	Max torque capacity- 50 kg Testing speed- 1.5 rpm Max clearance between grips- 0-500 mm Drive motor power required- 2 hp	i)-Determination of Torsional rigidity of a shaft using torsion testing machine(3 <sup>rd</sup> semester)
2	IMPACT TESTING MACHINE	Model- AIT-300-D Display- Digital I.P energy for Charpy- 300 joule I.P energy for Izod- 170 joule L.C- 2 joule pendulum drop angle for Izod - 90°	i)-Determination of toughness using impact testing machine (Charpy/Izod) (3 <sup>rd</sup> semester)
3	UNIVERSAL TESTING MACHINE	Capacity- 100 kn Effective test width- 600 mm Setting method of Testing speed- digital Display set with cursor key Weight 900 kg approx.	i)-Determination of Young's modulus, Yield point, Fracture point from stress-strain curve using UTM (3 <sup>rd</sup> semester)
4	HARDNESS TESTING MACHINE	Depth of throat- 135 mm Max depth of screw- 215 mm Dimension of machine base- 150×425 mm approx. Height- 660 mm approx. Net weight- 67 kg approx.	i)-Determination of hardness number by Rockwell hardness testing machine(3 <sup>rd</sup> semester)

## HYDRAULICS LAB

1	PELTON WHEEL TURBINE	Make- Crompton greaves Type- MEP 52 Rating- 5 H.P Total head- 24 mtrs Discharge- 840 ltrs/min Rpm-2880 Size- 80×65 mm	i)-Performance test in impulse turbine(4 <sup>th</sup> semester)
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2	FRANCIS TURBINE	Power o/p- 1 H.P Runway speed- 1500 rpm Runner dia- 160 mm No. of guide vens- 10 Brake drum dia- 310 mm Rope brake dia- 15 mm PCD guide vane- 230 mm	i)-Performance test in reaction turbine(4 <sup>th</sup> semester)
3	CENTRIFUGAL PUMP	Size- 25×25 Head- 11 mtrs RPM- 2900 Head range 8-12 mtrs BHP- 0.63 H.P- 0.75	i)-Performance test in centrifugal pump (4 <sup>th</sup> sem)
		Transmission efficiency- 80% Rating- 1 hp Current speed- 4 amp	
4	HYDRAULIC BENCH	Size of table- 55×45×10 cm Measuring tank- 60 ltrs capacity Size- 40×50×30 cm Sump tank- 120 ltrs capacity Size- 40×100×30 cm Nominal dia. of pipe- 28 mm	i)-Verification of Bernoulli's theorem ii)-Determination of cd from venturimeter iii)-Determination of cc, cv, cd from orifice meter(4th semester)

## THEORY OF MACHINE LAB

1	CAM ANALYSIS	i)- Circular cam ii)- Eccentric cam iii)- Tangent cam iv)- Mushroom follower v)- Roller follower vi)- Knife edge follower vii)- Compression spring- a spring of 4.5 kg/cm & 8.5 kg/cm stiffness is provided	i)-Study of different types of cam & followers(5 <sup>th</sup> semester)
2	JOURNAL BEARING	Dia. of journal- 55 mm Dia. of bearing- 75 mm Bearing width- 75 mm Weight- 0.5 kg Motor- 1 hp RPM- 3000 Current- DC Supply required- 230v, AC stabilized	i)-Study & demonstration of journal bearing apparatus (5 <sup>th</sup> semester)
3	UNIVERSAL GOVERNOR	Drive DC motor of 0.25 hp, 500 rpm speed, speed variation arrangement provided separate linkage for governor arrangement	I)-Determination of centrifugal force of a governor (Hartnell, Watt & Porter) (5 <sup>th</sup> semester)

## 22. COMPUTING FACILITIES:-

### a) Number of configuration of systems: -

Desktop	
Desktop with Intel Core Due Processor, 256 GB HDD, 2GB RAM, 2.20 GHz = Nos. 190	
Printer:	12 Nos
Scanner -	02 Nos
Xerox -	02 Nos
Color Printer-	01 Nos

b) Total number of systems connected by LAN :- 170 nos

c) Total number of systems connected to WAN -----

- d) **Internet bandwidth:- 100 Mbps : Optical Fibre line from BSNL Network**
- e) **Major software packages available: - Available**
  - i. Windows 98, Windows 2003 server, Linux 9.0, Microsoft windows, XP,
  - ii. MSDN Academic Alliance Ver-7 Full Pack, Borland C++, MS Office 2007, Oracle -10, Oracle-8, Adobe Photoshop-7, Matlab-7, Java-3.0, Tally-9.0, Autocad-2007-2010.
- f) **Special purpose facilities available:- Yes available for conducting of online Meeting/Webinars/Workshops etc.**
- g) **Facilities for conduct of classes / Courses in online mode (Theory & Practical) : Yes available**
- h) **Social Media Cell: Available**

23. **WORKSHOP: - Basic work Shop and Addl work shop with 200 Sq. Mt each**

24. **List of Other Academic facilities available.**

- Games and Sports facilities :- Available
- Extra Curriculum Activities :- Available
- Soft Skill Development Facilities :- Available

25. **Teaching Learning Process:-**

- a) **Curricula and syllabi for each of the programmes as approved by the University**  
:- Available on <https://bputodisha.nic.in>
- b) **Academic Calendar of the Affiliating Boby** :- Yes Available on <https://bputodisha.nic.in>
- c) **Academic Time Table** :-Yes Available on college website
- d) **Teaching Load of each Faculty** :- Lecturer: 16 hours per week  
Asst. Professor: 12 hours per week  
Professor: 06 hours per week

e) **Internal Continuous Evaluation System in Place :- Yes Available**

- The syllabus is distributed over a number of semesters. Grasp and knowledge of the subject is evaluated in bits continuously and periodically thereby putting lesser burden on the student as compared to evaluation by one examination at the end of the session.
- The courses allotted for a particular semester are completed by the end of the semester and also examined and evaluated simultaneously, thereby reducing the amount of material to be studied at one time.
- The mode of evaluation is also varied, depending upon the nature of the subjects and topics. In general, the following components of evaluation are adopted:

Theory Course	Practical Course
Class Tests	Records
Assignments	Experiments
Seminars & Group Discussions	Viva-voce
Attendance	Attendance
End-semester Examination	End-semester Examination

- The student's performance is assessed throughout the semester by continuous evaluation followed by an end-semester examination which covers the entire syllabus.
- The number of credits allotted to each course depends on the relative time a student is expected to devote for the respective course.

- Each component of evaluation is assigned a certain weight age towards the computation of over-all performance in each course.
- Mark grade sheet is issued by University after evaluation of each semester and the declaration of the result of each academic session is based on student's performance over both the semesters of the session. An academic session means both the semesters of the session taken together.
- The student's performance for a session is indicated through a result card issued to the student after each even end-semester examination of a session which shows his achievements in each of the courses registered for.

**f) Student's assessment of Faculty System in place :- Yes Available**

- Feedback about Faculty is taken from students twice a semester. The various parameters on which teaching is assessed are: Communication Skills, Quality of Teaching/ Academic input, Subject Knowledge, Content and Method of Delivery, Resourcefulness, Readiness of teacher, Accessibility and Availability of Teacher in Campus/ Department. Feedback is signed by the Principal and conveyed to the faculty by respective Head of the Department. Counseling of faculty having feedback is carried out by Head of the Department as well as by the Principal for his/her improvement.

**26. FOR EACH POST GRADUATE PROGRAMME GIVE FOLLOWING:**

.....NA.....

**27. Enrollment and Placement details of students in the last three years:** Refer Sl.10 &14.

**28. List of Research Projects / Consultancy Works:**

- **No.of Projects Carried Out, Funding agency, Grant Received:** Nil
- **Publications (if any) out of research in last three years out of masters projects:** Nil
- **Industry Linkage:** The Institute made MoUs with five industries for industry linkages to provide demand-driven industry-relevant training opportunities and would work with industries with an aim to bridging the skill gap and provide demand-based skilled manpower to industries which would in turn add new jobs.
- **MoUs with Industries:** Made MoUs with five Industries to carry out Internship to the students on regular basis.

**29. LoA and subsequent EoA till the current Academic Year: Got approved by AICTE, New Delhi and the copies are available in college website [www.miacr.ac.in](http://www.miacr.ac.in)**

Sl. No	Year of Approval	Intake	Approval Reference No.
1	2023-24	ME-60 EE-60 CSE-120 CE-60	Dated : 14/07/2023
2	2024-25	ME60 EE-60 CSE- 120 CE-60	Eastern/1-43659005034/2024/EOA Dated : 08/05/2024

Sd/-

**Dr. Debesh Mishra  
PRINCIPAL**

