



Reference No.	CTM4698961
Debit Account Number	00000035844571113
Debit Branch	PATTAMUNDAI
Remarks	Solar Installation
Transaction Date	01-Feb-2021
Amount	INR 2,95,000.00
Status	Success
Reason	Completed Successfully

Attest
[Signature]
7.3.21

Principal
Pattamundai College



GSTIN : 21AMNPM1518J1Z5

Original Copy

TAX INVOICE

SWARNA TYRES***

SWARNA TYRES, BUS STAND, JAGATSINGHPUR
PH NO-9437666395Invoice No. : GST-2299-20/21
Date of Invoice : 24-01-2021
Place of Supply : Odisha (21)
Reverse Charge : N
GR/RR No. :Transport :
Vehicle No. :
Station :
E-Way Bill No. :**Billed to :**
PRINCIPAL PATTAMUNDAI COLLEGE
PATTAMUNDAI
KENDRAPARA**Shipped to :**
PRINCIPAL PATTAMUNDAI COLLEGE
PATTAMUNDAI
KENDRAPARA

GSTIN / UIN :

GSTIN / UIN :

S.N.	Description of Goods	HSN/SAC Code	Qty.	Unit	Price	CGST Rate	CGST Amount	SGST Rate	SGST Amount	Amount(₹)
1.	LUMINOUS SOLAR PCU BKT+ 7.5 KVA 96V	85044010	1.00	Pcs.	49,067.80	9.00 %	4,416.10	9.00 %	4,416.10	57,900.00
2.	SOLAR PV. MODULE 330W/24V 72C POLY	85414012	20.00	PCS	7,323.81	2.50 %	3,661.90	2.50 %	3,661.90	1,53,800.00

Passed for Rs. 2,83,700/-
(Rupees Two Lakh Eighty Three
Thousand Seven Hundred) only

[Signature]
Principal
Pattamundai Jr. College
30/1/21

Add : INSTALATION CHARGES

2,11,700.00
72,000.00

Grand Total 21.00 Units

₹ 2,83,700.00

Tax Rate	Taxable Amt.	CGST Amt.	SGST Amt.	Total Tax
18%	49,067.80	4,416.10	4,416.10	8,832.20
5%	1,46,476.20	3,661.90	3,661.90	7,323.80
Totals	1,95,544.00	8,078.00	8,078.00	16,156.00

Rupees Two Lakh Eighty Three Thousand Seven Hundred Only
Party - 2,83,700.00Principal
Pattamundai College

Terms & Conditions

E. & O.E.

- Goods once sold will not be taken back.
- Interest @ 18% p.a. will be charged if the payment is not made with in the stipulated time.
- Subject to 'Odisha' Jurisdiction only.

Receiver's Signature :

for SWARNA TYRES***

[Signature]
Authorised Signatory

STIN : 21AMNPM1518J1Z5

Original Copy

TAX INVOICE
SWARNA TYRES***
 SWARNA TYRES, BUS STAND, JAGATSINGHPUR
 PH NO-9437666395

Invoice No. : GST-2300-20/21
 Date of Invoice : 24-01-2021
 Place of Supply : Odisha (21)
 Reverse Charge : N
 GR/RR No. :

Transport :
 Vehicle No. :
 Station :
 E-Way Bill No. :

Billed to :
 PRINCIPAL PATTAMUNDAI COLLEGE
 PATTAMUNDAI
 KENDRAPARA

Shipped to :
 PRINCIPAL PATTAMUNDAI COLLEGE
 PATTAMUNDAI
 KENDRAPARA

GSTIN / UIN :

GSTIN / UIN :

S.N.	Description of Goods	HSN/SAC Code	Qty.	Unit	Price	CGST Rate	CGST Amount	SGST Rate	SGST Amount	Amount(₹)
1.	LUM 150AH 12V ELTT18000N BATTERY	8507	1.00	Pcs.	8,828.12	14.00%	1,235.94	14.00%	1,235.94	11,300.00

Passed for Rs. 11,300/-
 (Rupees Eleven thousand
 three hundred.....) only
[Signature]
 Principal
 Pattamundai Jr. College
 30/1/21

Attested
[Signature]
 7.3.4
 Principal
 Pattamundai College

Grand Total 1.00 Pcs.

₹ 11,300.00

Tax Rate	Taxable Amt.	CGST Amt.	SGST Amt.	Total Tax
28%	8,828.12	1,235.94	1,235.94	2,471.88

Rupees Eleven Thousand Three Hundred Only
 Party - 11,300.00

Terms & Conditions

- E & O E
- Goods once sold will not be taken back.
 - Interest @ 18% p.a. will be charged if the payment is not made within the stipulated time.
 - Subject to 'Odisha' Jurisdiction only.

Receiver's Signature :

for SWARNA TYRES***

[Signature]
 Authorised Signatory



Government of India
Form GST REG-06
[See Rule 10(1)]

Principal
Pattamundai College

29.12.20

Registration Certificate

Registration Number : 21AMNPM151811Z5

1.	Legal Name	JITENDRA MALLICK			
2.	Trade Name, if any	M/S. SWARNA TYRES			
3.	Constitution of Business	Proprietorship			
4.	Address of Principal Place of Business	DEULIGRAMESWAR, DEULIGRAMESWAR, JAGATSINGHPUR, SANABAZAR, Jagatsinghpur, Odisha, 754103			
5.	Date of Liability	01/07/2017			
6.	Period of Validity	From	01/07/2017	To	NA
7.	Type of Registration	Regular			
8.	Particulars of Approving Authority				

Signature

Signature Not Verified
Digitally signed by DS GOODS AND SERVICES-TAX NETWORK 1
Date: 2018.07.28 14:55:06 IST

Name	
Designation	
Jurisdictional Office	
9. Date of issue of Certificate	28/07/2018

Note: The registration certificate is required to be prominently displayed at all places of business in the State.

This is a system generated digitally signed Registration Certificate issued based on the deemed approval of application on 01/07/2

Principal
Pattamundai College

Jitendra Mallik

SWARNA TYRES

GANDHI CHHAK, JAGATSINGHPUR,
ODISHA - 754103
MOB.: 9437666395

MRF TYRES EXCLUSIVE DEALER

MOB.9437666395

REF:12/SW/2020

DATE:16.12.2020

Sri A. Panday
16/12/20

To
The Principal
Pattamundai college
Pattamundai ,kendrapada

	QNT	AMOUNT
LUMINOUS PCU7.5KVA-96VIN-B150 H8N-P330W-20N (PCU7.5KVA-1PCS,B150H-8PCS, 330W PANNEL-20NOS)	1SET	300500
LUMINOUS PCU 7.5 KVA	1PCS	57900
LUMINOUS Poly 330W/24V 72 Cells	20NOS	153800
TOTAL AMOUNT		512200
INSTALLATION 12RUPEES PER WATT INCLUDING EARTHING	72000*2	144000

100% Advance in payment

DELIVERY:-Within 15 days from date of your confirmed order.

Delivery against cash of DD Hope the above price terms and condition with suit you will be pleased to place your valued order with us at an early date.

Thanking you

Attested
16/12/20
7.3.4

Jatendra Maun
16/12/20
yours faithfully
Swarna tyres

Principal
Pattamundai College





**OFFICE OF THE PRINCIPAL
PATTAMUNDAI COLLEGE, PATTAMUNDAI**

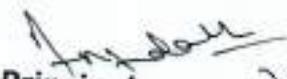
No. 666 /Dt. 10/07/2020

NOTICE

The online classes of +3 2nd year (3rd Semester) and +3 3rd year (5th Semester) Arts, Science, Commerce shall be commencing from 13th July 2020 through Google Meet, Zoom, Skype etc. The Students are advised to download these apps in their mobile in order to attend the classes. The timetable of different departments are available with their respective HOD, it is also uploaded in their WhatsApp group. Students are to remain present in the classes as attendance will be taken by the teacher.

If they have any query / complain / suggestion etc. they can contact with the following staff members who are assigned to monitor these classes.

1. Science Stream :-Mr. Sanjib Kumar Dash, Mob-9938493379
2. Commerce Stream :-Dr. Nilamani Lenka , Mob-9438329950
3. Arts (English, Odia, Sociology & Philosophy) :-Mr. Dillip Kumar Bhuyan, Mob-9437383989
4. Arts (Economics, Education, Pol.Sc & History):- Capt. Manoj Parida, Mob-9861329944


Principal 10.7.2020
Pattamundai College

Copy to:- Noticeboard /Website/Staff Common Room / Guard file.



Bikash Ranjan Dash, IFS

Divisional Forest Officer,
Mangrove Forest Division (Wildlife)
At/PO Rajnagar, District – Kendrapada
Odisha-754225
Phone/FAX: 06729-242460
Mobile: 9437037370
e-mail: dfomangrovefdwl.od@gov.in

This is to certify that, Green Audit and Environment Audit of Pattamundai College, Pattamundai in the District of Kendrapada, Odisha for the year 2017-18 to 2019-20 has been conducted by the undersigned.

(Bikash Ranjan Dash)
Divisional forest Officer
Mangrove Forest Division(WL)
Rajnagar





GREEN AUDIT REPORT

2017-18 TO 2019-20

PATTAMUNDAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA



Prepared by:-

BIKASH RANJAN DASH
DIVISIONAL FOREST OFFICER
MANGROVE FOREST DIVISION (WILDLIFE)
RAJNAGAR, KENDRAPARA, ODISHA

EXECUTIVE SUMMARY

Educational institutions are the nursing grounds for the futures of a nation's growth. A conducive learning atmosphere in an educational institution requires a clean and healthy environment. While the concept of 'Eco Club' is being adopted in institutions of primary education level to imbibe the essence of environment among the young, more environmental responsibility is required in case of institutions of higher education to achieve environmental sustainability through wise resource utilization and waste discharge to the environment. Waste minimization plan and sustainable environmental management are now mandatory for educational institutions. Environmental Auditing or Green Auditing is a process to test the environmental performance of an organization against its environmental policies and objectives.

The audit process in Pattamundai College, Pattamundai involved initial interactions with the management to clarify policies, activities, records and cooperation of staff and students in the implementation of mitigation measures. This was followed by collection of data through questionnaire, review of records, observation of practices and observable outcomes. In order to assess the quality of water and soil, data on water and soil quality was obtained by testing of samples collected from different locations of the college campus by testing laboratories. In addition, the approach ensured that the management, staff and students are active participants in the green auditing process in the college.

This is the first Green Audit of Pattamundai College and the baseline data prepared for the college will be a useful tool for campus greening, resource management, planning of future projects, and a document for implementation of sustainable development of the college. It is expected that the management will be committed to implement the green audit recommendations.

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BRIEF BACKGROUND OF THE COLLEGE

Pattamundai College, affiliated to Utkal University, Odisha, is situated away from the din and bustle of the town with five meadows and rich corn fields around. It came into being in 1970 as an Arts College with the provision for teaching pre-University Humanities course. The institute at present is a family of 1475 students with boys and girls of 869 and 606 respectively taking education at under graduate level in Arts, Commerce and Science disciplines with 80 numbers of teaching and non teaching faculties.

With a long history of 50 years and a picturesque sprawling campus of 14.6 acres land of its own is indeed a testimony of truly materialized dream of education lovers of Pattamundai. Since fifty springs has been passed, this institution continuously ventilating knowledge and has been playing a pivotal role in the development of Pattamundai and its surrounding regions. With the modest strength of 128 students in the year of its inception-1970, besides all odds and constraints the college grew manifold in leaps and bounds. It is carefully nurtured by illustrious academicians, administrators, dedicated faculties and alumni, with institutionalised efforts over the years, and it has become a premiere institution in the academic map of Odisha.

In its onward march, the institution cradled with one faculty in Arts in 1970, and introduced Honours in Political Science, History, Economics in 1978 and English, Odia, Sociology, Philosophy & Education in 1989. Then Commerce faculty was opened in 1979 and Science faculty in 1989 with introduction of Chemistry and Mathematics Honours in 1994-94 and Botany, Physics and Zoology Honours in 1998 added to its glory. The University was pleased to open a vocational subject of Tourism and Travel Management in 1998 which illuminated as land mark in development and expansion of the academic area of the college. The college has a permanent affiliation and has been listed under 2(f) and 12(B) of the UGC act which withstands the academic and administrative standards of the college. In response to the changing needs of the society and as per UGC norms innovative experiments are being carried out with help of computer networking for making the teaching learning process interactive and participative.

With the need of the time, the institution expanded its area of innovation in different respects to meet the requirement of the students as well as different stake holders.

With the infrastructural growth such as addition of new buildings, hostels, renovation of library laboratories and playground, it also emphasized to enhance its academic quality to reach the institution to a new height. It contributed toppers in Sociology and Mathematics at University level in different years with many more best students along with achievements in sports and other fields. The institution also adopted the new curriculum as changed by Utkal University at different times and prepared the students accordingly with a new idea to compete with the other in national and international levels. The contribution of its NCC, NSS and YRC students has a remarkable effect in serving the society by awarding and donating blood, planting trees, campus cleaning, observing national days etc. The institution is one step ahead by planting about 4000 trees since 1990 to make the campus an eco-friendly environment with a permanent green and waste management policy of its own. The institution is diversified with a planed electricity management to save energy by switching off the unused buildings and converting whole institution with LED bulbs. This year, the institution has also planned to install solar power to provide the main building where main electric consumption is there.

The institution has a fully operational website providing day to day information and has also fully automated library with INFLIBNET connection and e-portals to provide easy access to its all the stake holders.



Location of Pattamundai College

Vision of the College

- To make higher education qualitative and value based for the socio-economic transformation of the nation.
- To instill a sense of discipline and morality among the student's community for the making the students socially responsible citizens.

Mission of the College

- To grow into an institution of excellence and exemplary at the university level
- To provide literary, scientific, professional and technical education to the aspiring rural youth at a minimum cost.
- To be recognized as an institution with proven capacity to provide quality education in Science, Commerce & Humanities.
- To create symbiotic relationship with the society to meet the changing needs
- To introduce self-financing courses in multidisciplinary area.
- To adopt continues measures to improve the quality of the programme.
- To provide need-based career-oriented courses to the needs of the society

- To involve the Alumni for all round development of the college

NAAC Accreditation

Year: 2006

Grade: B+

Courses offered:

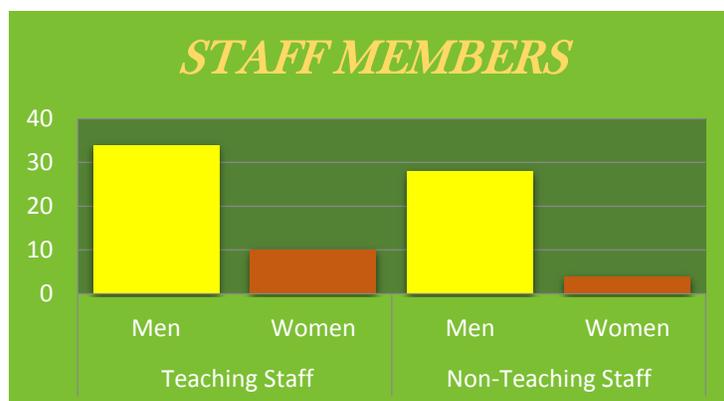
The institution offers following programmes which include the different courses as given in the table below.

PROGRAMME OFFERED	COURSES OFFERED
Bachelor of Arts	Economics
	Education
	English
	History
	Odia
	Philosophy
	Political science
	Sociology
Bachelor of Science	Botany
	Chemistry
	Mathematics
	Physics
	Zoology
Bachelor of Commerce	Commerce

Strength of Staff (Teaching/ Non-teaching):

Presently this institution runs with 76 Nos of both teaching and non teaching staff members whose continuous effort makes this institution a glorious one. Among the total staff, detailed analysis of men and women of both the categories are given.

Teaching Staff		Non-Teaching Staff	
Men	Women	Men	Women
34	10	28	4



Strength of Students:

Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2017-18	Arts	124	352	88	126	0	0	24	105	0	0	0	5	236	588	824
	Commerce	185	103	34	22	0	0	43	36	0	0	2	3	264	164	428
	Science	97	109	25	16	0	0	26	42	0	0	3	0	151	167	318
	Total	406	564	147	164	0	0	93	183	0	0	5	8	651	919	1570

Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2018-19	Arts	140	392	56	107	0	0	12	61	0	0	0	3	208	563	771
	Commerce	213	120	30	13	0	0	9	13	0	0	4	2	256	148	404
	Science	114	126	22	11	0	0	3	21	0	0	3	0	142	158	300
	Total	467	638	108	131	0	0	24	95	0	0	7	5	606	869	1475

Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2019-20	Arts	93	329	47	114	0	0	23	120	0	0	0	3	163	566	729
	Commerce	159	100	39	12	0	0	49	26	0	0	2	0	249	138	387
	Science	90	102	21	18	0	0	34	21	0	0	2	0	147	141	288
	Total	342	531	107	144	0	0	106	167	0	0	4	3	559	845	1404

Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2017-18	Commerce	185	103	34	22	0	0	43	36	0	0	2	3	264	164	428



Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls			
2017-18	Science	97	109	25	16	0	0	26	42	0	0	3	0	151	167	318

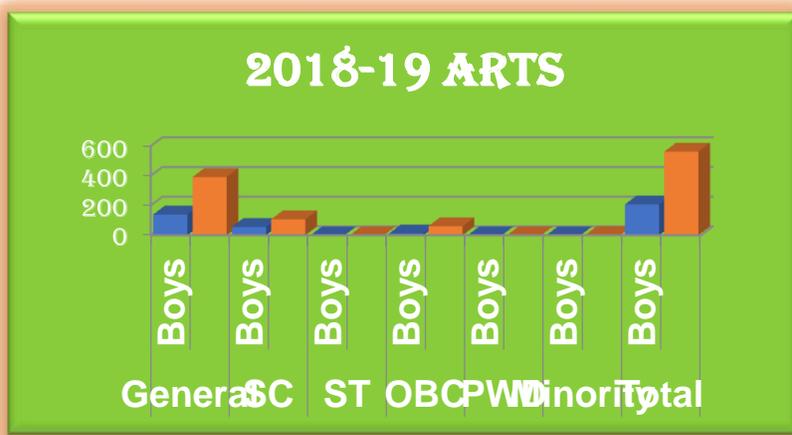


Table -7

Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2017-18	Arts	124	352	88	126	0	0	24	105	0	0	0	5	236	588	824



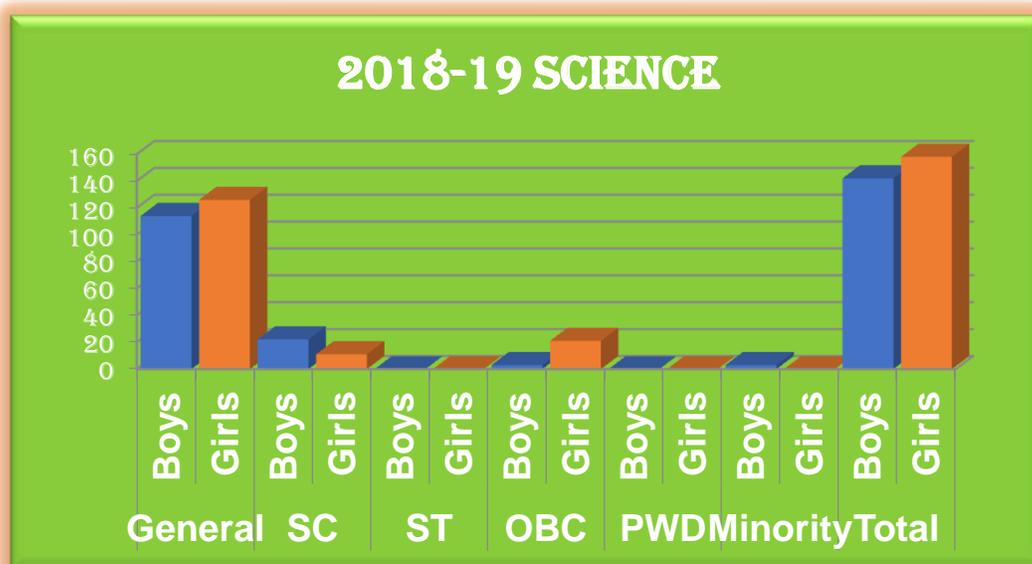
Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2018-19	Arts	140	392	56	107	0	0	12	61	0	0	0	3	208	563	771



Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2018-19	Commerce	213	120	30	13	0	0	9	13	0	0	4	2	256	148	404



Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2018-19	Science	114	126	22	11	0	0	3	21	0	0	3	0	142	158	300



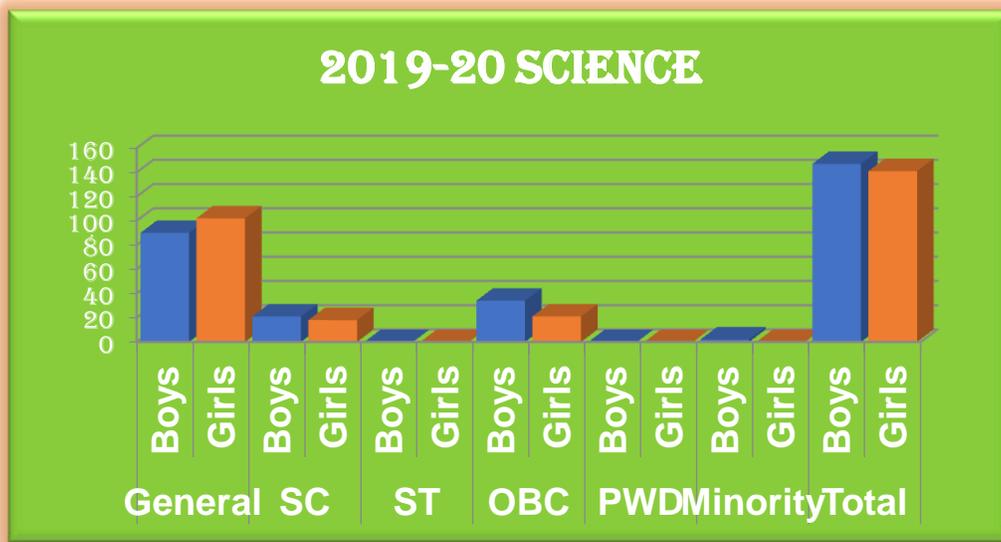
Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2019-20	Arts	93	329	47	114	0	0	23	120	0	0	0	3	163	566	729



Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2019-20	Commerce	159	100	39	12	0	0	49	26	0	0	2	0	249	138	387



Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2019-20	Science	90	102	21	18	0	0	34	21	0	0	2	0	147	141	288



Year	Male	Female	Total
2017-18	651	919	1570
2018-19	606	869	1475
2019-20	559	845	1404



Physical structure (Area/ Built up area/ No. of class rooms/ libraries/ administrative rooms/ laboratories/ auditoriums/ conference rooms/ staff common rooms/ students common rooms/ hostels/ canteens/ others)

The institution has a land area of 14.6 acres of its own which is surrounded with pucca boundary fully to check the free access of the trespassers to overcome any kind of huddles in its academic atmosphere. Out of this, the built up area covers 10299.23m² which includes the physical

structures given in the list below to cater the need of the students as well as all other stakeholders. The rest part of the total area covers a huge playground with full of green lands of different plants. Different gardens inside the campus add to its beautification in many folds.

. Details of physical structures	
Physical Structure	Area/No
Total Area	14.6 Acre
Built Up Area	10299.23 m ²
Class Rooms	32
Libraries	01
Administrative rooms	05
Laboratories	04
Auditoriums	01
Conference rooms	01
Staff common rooms	01
Students common rooms	02
Hostels	03
Canteens	01
Guest House	01
Post Office	01
Staff Quarter	02
Stadium	01
Security Rooms	03
Principal Quarter	01
Cycle Stand	01
Examination Hall	01
Lavatories	14

Construction Area in Sqft.		
Specific area	Size in ft	Total area in ft².
Staff Common Room to Boys Lavatories	2(200 X 28)	11200
Administrative Block	2(125 X 28)	7000
Zoology Department	89 X 37	3293
Examination Hall	2(115 X 25)	5750
Room No-01 to 06	145 X 26	37770
Room No-26 & 27	64 X 27	1727
Library Hall	2(137 X 38)	10412
Chemistry, Botany & Math Laboratory	100 X 68	6800
Boys Hostel	92 X 67	6164
Principal Quarter	51 X 34	1734
Guest House	62 X 56	3472

Canteen	34 X 23	782
Old Chemistry Block	87 X 42	3650
Post Office	36 X 46	1656
New OBC Hostel	3(94 X 52)	14664
Ladies Hostel	2 (112 X 90)	20160
Staff Quarter	79 X 35	2765
Cycle Stand	35 X 18	630
Stadium	72 X 31	2232
Security 3 Nos. Room	10 X 12.5	125
	25 X 10	250
	10 X 12.5	125
Total		110860 ft² =10,299.23 m²

Establishment of Environment Management System

- **Declaration of Environment Policy**

The institution has its own environment policy to set up the targets which technically possible for the environmental protection and economically possible to create eco-friendly green environment .The different policies are

- To create the sense for environmental protection for the society.
- To aware and educate different stake holders regarding relevant laws and regulations of environmental protection.
- To aware about planting of more number of trees and reduce fossil fuel consumption.
- To reduce energy consumption and avoid plastic based materials.
- To aware the local people by making continuous rally with placards, posters and road show by the students.
- To avoid the burning of coal, wood, leaves, dung cake for different purposes and give more emphasis on use of natural gas.
- To dispose the particular wastes in proper manner as per then rule.

- **Planning of programme or activity**

The institution has an annual plan and programme for the different activities relating to plantation, gardening (ornamental and medicinal), beautification, auction of uprooted trees, and waste disposal of its own. The different stake holders such as NCC, NSS, YRC, Alumni etc. are advised accordingly to perform such activities in due course of time to adhere the environmental policy of this institution.

- **Implementation and operation**

As per the programme, the institution is planted with different trees by our different stake holders and they are well aware to take care of these plants. Regular awareness programme, meetings and placards rally are going on to aware and activate the students, staff and people of this locality. Cleanliness programme are regularly done to make the campus clean. The watering of plants and garden are regularly done through supplied, waste and harvested rain water. The waste management of the institution is properly done as explained in the waste management.

OBJECTIVES OF GREEN AUDIT

The objectives of Environmental Audit in Pattamundai College are:

- To recognize the initiative taken by the College towards environment.
- To recognize, diagnose and resolve the environmental problems.
- To recognize the effects of the College on the environment and vice versa.
- To identify and control the impact of activities of the College on environment.
- To suggest the best protocols for sustainable environment.
- To assess environmental performance and the effectiveness of the measures to achieve the defined objectives and targets.
- To identify the different pressures on the College to improve their environmental performance.
- To ensure that the natural resources are utilized properly as per national policy of environment.
- To set the procedure for disposal of all types of harmful wastes.
- To reduce energy consumption.

- To give preference to the most energy efficient and environmentally sound appliances.
- To minimize the consumption of water and monitor its quality.
- To identify the risks of hazards and implement the policies for safety of stakeholders.
- To make sure that rules and regulations are taken care to avoid the interruptions in environment.
- To provide baseline information to enable the College to evaluate and manage environmental change, threat and risk.
- To identify the gap areas and suggest recommendations to improve the Green Campus status of the College.

TARGET AREAS OF GREEN AUDITING

Green audit forms part of a resource management process. Although they are individual events, the real value of green audit is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. The concept mainly focuses on the efficient use of energy and water; minimize waste generation or pollution and also economic efficiency.

All these indicators are assessed in the process of Green Auditing of this Institute. It focuses on the reduction of contribution to emissions, procure a cost effective and secure supply of energy, encourage and enhance energy use conservation, promotes personal action, reduce the institute's energy and water consumption, reduce wastes to landfill, and integrate environmental considerations into all services considered to have significant environmental impacts. Target areas included in this green auditing are water, energy, waste, green campus and carbon footprint.

Auditing for Water Management

Water is a natural resource; all living organisms depend on water. Groundwater depletion and water contamination are taking place at an alarming rate. Hence it is essential to examine the quality and usage of water in the college. Water auditing is conducted for the evaluation of facilities of raw water intake and determining the facilities for water treatment and reuse. The

concerned auditor investigates the relevant method that can be adopted and implemented to balance the demand and supply of water.

Auditing for Energy Management

Energy conservation is an important aspect of campus sustainability which is also linked with carbon foot print of the campus. Energy auditing deals with the conservation and methods to reduce its consumption related to environmental degradation. It is therefore essential that any environmentally responsible institution examine its energy use practices.

Auditing for Waste Management

Human activities create waste, and it is the way these wastes are handled, stored, collected and disposed of, which can pose risks to the environment and to public health. Pollution from waste is aesthetically unpleasing and results in large amounts of litter in our communities which can cause health problems. Solid waste can be divided into three categories: bio-degradable, non-biodegradable and hazardous waste. Bio-degradable wastes include food wastes, canteen waste, wastes from toilets etc. Non-biodegradable wastes include what is usually thrown away in homes and schools such as plastic, tins and glass bottles etc. Hazardous waste is waste that is likely to be a threat to health or the environment like cleaning chemicals, acids and petrol. Unscientific management of these wastes such as dumping in pits or burning them may cause harmful discharge of contaminants into soil and water supplies, and produce greenhouse gases contributing to global climate change respectively. Special attention should be given to the handling and management of hazardous waste generated in the college. Bio-degradable waste can be effectively utilized for energy generation purposes through anaerobic digestion or can be converted to fertilizer by composting technology. Non-biodegradable waste can be utilized through recycling and reuse. Thus, the minimization of solid waste is essential to a sustainable college. The prevailing waste disposal policies are assessed and suggestions made on the best way to combat the problems.

Auditing for Green Campus Management

Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen released by the trees of the campus is good for the people in the campus. So while you are busy studying and working on earning those good grades, all the trees in campus are also working hard to make the air cleaner for you.

Auditing for Carbon Footprint

Burning of fossil fuels (such as petrol) has an impact on the environment through the emission of greenhouse gases into the atmosphere. The most common greenhouse gases are carbon dioxide, water vapour, methane, nitrous oxide and ozone. Of all the greenhouse gases, carbon dioxide is the most prominent greenhouse gas, comprising 402 ppm of the Earth's atmosphere. The release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon emissions. Vehicular emission is the main source of carbon emission in the campus, hence to assess the method of transportation that is practiced in the college is important.

METHODOLOGY ADOPTED

The methodology adopted to conduct the Green Audit of the college had the following components

Onsite Visit

Three day field visit was conducted by the Green Audit Team . The key focus of the visit was on assessing the status of the green cover of the college, their waste management practices and energy conservation strategies etc.

Group Discussion

The Group discussions were held with the staff members, students and the management focusing various aspects of Green Audit. The discussion was focused on identifying the attitudes and awareness towards environmental issues at the institutional and local level.

Energy, waste management and Carbon foot print analysis Survey

With the help of teachers and students, the audit team assessed the energy consumption pattern and waste generation, disposal and treatment facilities of the college. The monitoring was conducted with a detailed questionnaire survey method.



Pre Audit Meeting

AUDIT STAGE

Green auditing began with the assessment of the status of the green cover of the Institution followed by waste management practices and energy conservation strategies etc. Different facilities at the college were monitored, different types of appliances and utilities (lights, taps, toilets, fridges, etc.) were determined as well as measuring the usage per item (Watts indicated on the appliance or measuring water from a tap) and identifying the relevant consumption patterns (such as how often an appliance is used) and their impacts. The staff were interacted to get details of usage, frequency or general characteristics of certain appliances.

Data collection was done in the sectors such as Energy, Waste, Greening, Carbon footprint and Water use. College records and documents were verified several times to clarify the data received through survey and discussions. The environment samples including water, soil from various location of the campus were collected and analyzed at government recognized testing laboratories.



Post Audit Discussion

GREEN AUDIT REPORT

Water Quality assessment

Water quality:

Water samples were collected from 4 different sites such as tube well water (boys hostel), pond water (near main building) and two bore wells of the campus and analysed for the basic parameters by sending State Food Testing Laboratory, Bhubaneswar, Odisha whose results are given in the tabular form.

Parameters	Tube Well Water (Boys hostel)	Pond Water (Near Main Building)	Bore Well Water 1	Bore Well Water 2	Standard BSI value (BIS)
Colour	Nil	Nil	Nil	Nil	Agreeable
Odour	Nil	Nil	Nil	Nil	Agreeable
Alkalinity (mg/l)	150	136	152	110	200
Chloride (mg/l)	32	28	36	34	250 mg/l Max
Residual Free	Nil	Nil	Nil	Nil	0.2 mg/l Max

Chlorine(mg/l)					
Total Hardness (Total)	62	54	64	58	200 mg/l Max
Iron (as Fe) (mg/l)	3.5	Nil	Nil	Nil	1.0 mg/l Max
pH	6.0	6.5	7.0	7.5	6.0 to 8.5
Turbidity	20 NTU	15 NTU	Nil	Nil	1 NTU Max
Sulphate as SO_4^{-2} (mg/l)	Nil	Nil	Nil	Nil	200 mg/l Max
Total Alkalinity (as HCO_3^-)(mg/l)	150	136	152	110	200 mg/l Max
Nitrate (as NO_3^-)	Nil	Nil	Nil	Nil	45 mg/l Max
Nitrate (as NO_2^-)	Nil	Nil	Nil	Nil	0.02 mg/l Max
Test for E.Coli coliform	Negative	Negative	Negative	Negative	Absent
MPN of Coli form group of organisms per 100 ml	Negative	+5	Absent	Absent	Negative



Water samples for testing

Water Management

The institution has its own water management system. There are two deep Bore wells with two submersible pumps of capacity 2 hp and 1 hp each which meet all the need of the water. The distribution of water is properly done to different places as per the requirements. Different overhead tanks are available in different parts of the college to meet these requirements. There are 13 water purifiers and 1 cooler at different parts of the college to overcome the drinking water of the different stakeholders. The waste water obtained from different parts are well managed by watering the plants, ponds as well as sumps. Also college has access to the municipality supply water and also used at its need. Rain water harvesting system is also managed properly to watering the plants and rest to the ponds. There is also a well available in the college whose water is not used due to the supply of water from the Bore wells. The ponds are cleaned time to time for the pisciculture which add some funds to the college and consume biodegradable wastes left to the ponds through rain as well as waste water.

Sl. No	Parameters	Response	Remarks
1	Source of water	Bore Well with submersible pump, Municipality water supply, Ponds	Bore Well-02 Ponds -02
2	No of wells	01	Available but not in use (Location- Physics Department back side)
3	No of motors used	02	
4	Horse power (motor)	2 hp and 1 hp each	Total Quantity -02
5	Depth of well	20 feet	
6	Water level	10 feet	
7	No of water tanks	20	
8	Capacity of tank	18,000 L	2000 L × 4 =8000 L 750 L × 4 =3000 L 1000 L × 6 =6000 L 500 L × 2 =1000 L

9	Qty of water pumped everyday	10,000 L	Regular use before COVID-19
10	No of ponds	02	Near College Canteen-01 Boys Hostel -01
11	Any water wastage/ why?	No	
12	Water usage for gardening	Yes	
13	Waste water sources	<ol style="list-style-type: none"> 1) Lavatory College Office& Building 2) Laboratory(Physics, Chemistry, Zoology & Botany) 3) Water Cooler & Water Purifiers. Outlet 4) Boys & Girls Hostel, Toilets, Kitchen & wash basin outlet 	
14	Use of waste water	Gardening, Plantation & Drained to ponds for storage.	
15	Fate of wastewater from labs	Soak pits are made at their outlet to absorb within	
16	Whether waste water from labs mixed with ground water	No	Absorbed fully within the soak pits.
17	Whether any green chemistry method practiced in labs	No	
18	Any treatment of lab water	No	Only absorbed through soak pits.
19	No of water coolers	01+13 =14	01-Water Cooler 11-Kent RO water Purifier 02-UV water purifiers
20	Rain water	Yes	

	harvest available?		
21	No of units and amount of water harvested	02 units	
22	Any leaky taps	No	
23	Amount of water lost per day	Nil	
24	Any water management plant used	No	
25	Any water saving techniques followed	Yes	1.Urinals are equipped with push pull angle cocks to prevent wastage of water. 2. Overhead water tanks connected with ball cock to prevent water spillages automatically
26	Are there any signs reminding people to turn off the water		1. Overhead tanks are also connected with drain Pipes in case water fall on ground because of faulty ball cock.

Soil Quality Assessment

Soil samples were collected from four locations such as ornamental garden, playground , herbal garden and back side of the main building plantation area of the campus and analysed the basic Parameters Krushi Vigyan Kendra, Kendrapara, Odisha. The results are tabulated and presented in the table.

Parameter	Location 1	Location 2	Location 3	Location 4
pH	5.8	5.4	5.9	6.2
Total Available Nitrogen (kg/ha)	195.2	175.6	205.3	220.4
Total organic carbon (%)	0.39	0.35	0.41	0.44
Available Phosphorous (kg/ha)	10.2	9.3	10.4	11.3



Soil samples for testing

Energy Audit

A detailed data of consumption of electricity of the institution for the sessions 2017-18, 2018-19 and 2019-20 are given elaborately in table separately. The consumption of electricity is varied with the addition / modification of different items/ instruments. The institution is equipped with modern / updated electric appliances such as 5star rated instruments LED tube and bulbs to reduce the energy consumption. It also tried to add solar energy system to further save and use of green energy.

Data Sheet for Energy Audit of the Session: 2017-18

Room No./ Name	Electrical device/ Items (Bulbs: CFL/ Incandescent/ CFL; AC, Fan/ Computer, Instruments, Other appliances)	Number	Power In watt	Usage Time (Hr/Day)
NAAC	Fan	2	140	5
	CFL	2	36	5
	Desktop	8	440	5
	Laptop	1	150	5
	AC	1	1500	2
Principal's Office	Fan	3	210	7
	CFL	3	36	7
	Laptop	1	150	7

Principal's Rest Room	Fan	1	70	5
	CFL	1	36	5
	CCTV DVR	1	220	24
	AC	1	1500	2
	Refrigerator	1	125	24
Account Section	Fan	2	140	7
	CFL	2	48	7
	Desktop	1	220	7
	Printer	2	220	5
Administrative Office	Fan	2	140	7
	CFL	3	96	7
	Printer	1	220	5
Office Veranda	Tube Light	4	48	5
Staff Common Room	Fan	8	560	7
	CFL	6	240	7
	AC	3	4500	3
	Water Purifier	1	30	24
Examination Section	Fan	8	560	5
	Tube Light	9	360	5
	Desktop	1	220	5
SAMS	Fan	1	70	5
	Tube Light	2	80	5
	Desktop	3	220	5
	Xerox	1	350	5
Education Seminar	Fan	3	210	5
	Tube Light	3	120	5
	Laptop	1	150	5
Economics Seminar	Fan	3	210	5
	Tube Light	3	120	5
Sociology Seminar	Fan	2	140	5
	Tube Light	2	80	5
English Seminar	Fan	1	70	5
	Tube Light	1	40	5
	Laptop	1	150	5
	Printer	1	220	5
Philosophy Seminar	Fan	2	140	5
	Tube Light	1	40	5
Vocational Office	Fan	1	70	5
	Tube Light	2	80	5
Odia Seminar	Fan	3	210	5
	Tube Light	2	80	5
History Seminar	Fan	3	210	5
	Tube Light	3	120	5
Political Sc	Fan	3	210	5

Seminar	Tube Light	3	120	5
Commerce Seminar	Fan	3	210	5
	Tube Light	4	160	5
Ladies Common Room	Fan	2	14	5
	Tube Light	6	240	5
	Water Purifier	1	30	24
Zoology Department	Fan	9	630	5
	Tube Light	10	400	5
	CFL	3	72	5
Motor Room	Motor	1	1492	4
	Bulb	1	40	4
Class Room No 08	Fan	8	560	5
	CFL	3	60	5
Class Room No 10	Fan	4	280	5
	CFL	2	45	5
Class Room No 09	Fan	1	70	5
	CFL	1	15	5
Class Room No 07	Fan	2	140	5
	CFL	1	30	5
Class Room No 14	Fan	1	70	5
	CFL	1	15	5
Class Room No 15	Fan	1	70	5
	CFL	1	15	5
Class Room No 16	Fan	6	210	5
	CFL	2	45	5
Class Room No 17	Fan	1	70	5
	CFL	1	15	5
Class Room No 18	Fan	1	70	5
	CFL	1	15	5
Class Room No 19	Fan	1	70	5
	CFL	1	15	5
Class Room No 20	Fan	6	420	5
	CFL	2	45	5
Class Room No 21	Fan	8	560	5
	CFL	2	60	5
Class Room No 23	Fan	6	420	5
	CFL	2	45	5
Class Room No 24	Fan	2	140	5
	CFL	2	30	5
Class Room No 25	Fan	10	700	5
	CFL	2	75	5
Physics Department	Fan	9	630	5
	CFL	10	295	5
	Desktop	1	220	5

	Water Purifier	1	30	24
	Refrigerator	1	125	24
	Printer	1	220	5
Botany Department	Fan	11	770	5
	CFL	7	140	5
	Desktop	1	220	5
	Printer	1	220	5
	Refrigerator	1	125	24
Mathematics Department	Fan	4	280	5
	CFL	6	90	5
	Desktop	1	1320	5
	Printer	1	220	5
Chemistry Department	Fan	12	840	5
	CFL	3	45	5
	Refrigerator	1	125	24
	Tube light	7	280	5
Library	Fan	25	1750	5
	Tube Light	13	520	5
	CFL	20	300	5
	Desktop	3	660	5
	Water Purifier	1	30	24
	Printer	1	220	5
	Xerox	1	350	5
Boys Hostel	Fan	12	840	5
	Tube Light	16	192	5
	Water Purifier	1	30	24
	CFL	3	132	5
Ladies Hostel	Fan	24	1680	5
	Water Purifier	1	30	24
	Tube Light	25	1000	5

Data Sheet for Energy Audit of the Session: 2018-19

Room No./ Name	Electrical device/ Items (Bulbs: CFL/ Incandescent/ CFL; AC, Fan/ Computer, Instruments, Other appliances)	Number	Power In watt	Usage Time (Hr/Day)
NAAC	Fan	2	140	5
	LED	2	18	5
	Desktop	8	440	5

	Laptop	1	150	5
	AC	1	1500	2
Principal's Office	Fan	5	210	7
	LED	3	27	7
	Laptop	1	150	7
Principal's Rest Room	Fan	1	70	5
	LED	2	18	5
	CCTV DVR	1	220	24
	AC	1	1500	2
	Refrigerator	1	125	24
Account Section	Fan	2	140	7
	LED	3	27	7
	Desktop	1	220	7
	Printer	2	220	5
Administrative Office	Fan	2	140	7
	LED	5	45	7
	Printer	1	220	5
Office Veranda	Tube Light	4	48	5
Staff Common Room	Fan	8	560	7
	LED	8	72	7
	AC	3	4500	3
	Water Purifier	1	30	24
Examination Section	Fan	8	560	5
	Tube Light	9	360	5
	Desktop	1	220	5
	LED	3	27	7
SAMS	Fan	1	70	5
	Tube Light	2	80	5
	Desktop	3	220	5
	Xerox	1	350	5
Education Seminar	Fan	3	210	5
	Tube Light	3	120	5
	Laptop	1	150	5
Economics Seminar	Fan	3	210	5
	Tube Light	3	120	5
Sociology Seminar	Fan	2	140	5
	Tube Light	2	80	5
English Seminar	Fan	1	70	5
	Tube Light	1	40	5

	Laptop	1	150	5
	Printer	1	220	5
Philosophy Seminar	Fan	2	140	5
	Tube Light	1	40	5
Vocational Office	Fan	1	70	5
	Tube Light	2	80	5
Odia Seminar	Fan	3	210	5
	Tube Light	2	80	5
History Seminar	Fan	3	210	5
	Tube Light	3	120	5
Political Seminar	Sc Fan	3	210	5
	Tube Light	3	120	5
Commerce Seminar	Fan	3	210	5
	Tube Light	4	160	5
Ladies Common Room	Fan	2	14	5
	Tube Light	6	240	5
	Water Purifier	1	30	24
Zoology Department	Fan	9	630	5
	Tube Light	10	400	5
	LED	5	45	5
Motor Room	Motor	1	1492	4
	LED	1	9	6
Class Room No 08	Fan	8	560	5
	LED	5	45	5
Class Room No 10	Fan	4	280	5
	LED	3	27	5
Class Room No 09	Fan	1	70	5
	LED	1	9	5
Class Room No 07	Fan	2	140	5
	LED	1	9	5
Class Room No 14	Fan	1	70	5
	LED	1	9	5
Class Room No 15	Fan	1	70	5
	LED	1	9	5
Class Room No 16	Fan	6	210	5
	LED	4	36	5
Class Room No 17	Fan	1	70	5
	LED	1	9	5
Class Room No 18	Fan	1	70	5

	LED	1	9	5
Class Room No 19	Fan	1	70	5
	LED	1	9	5
Class Room No 20	Fan	6	420	5
	LED	4	36	5
Class Room No 21	Fan	8	560	5
	LED	4	36	5
Class Room No 23	Fan	6	420	5
	LED	4	36	5
Class Room No 24	Fan	2	140	5
	LED	2	18	5
Class Room No 25	Fan	10	700	5
	LED	4	36	5
Physics Department	Fan	9	630	5
	LED	10	90	5
	Desktop	1	220	5
	Water Purifier	1	30	24
	Refrigerator	1	125	24
	Printer	1	220	5
Botany Department	Fan	11	770	5
	LED	7	63	5
	Desktop	1	220	5
	Printer	1	220	5
	Refrigerator	1	125	24
Mathematics Department	Fan	4	280	5
	LED	6	54	5
	Desktop	1	1320	5
	Printer	1	220	5
Chemistry Department	Fan	12	840	5
	LED	8	72	5
	Refrigerator	1	125	24
	Tube light	7	280	5
Library	Fan	25	1750	5
	Tube Light	13	520	5
	LED	20	180	5
	Desktop	3	660	5
	Water Purifier	1	30	24
	Printer	1	220	5
	Xerox	1	350	5

Boys Hostel	Fan	12	840	5
	Tube Light	16	192	5
	Water Purifier	1	30	24
	LED	3	27	5
Ladies Hostel	Fan	24	1680	5
	Water Purifier	1	30	24
	Tube Light	25	1000	5

Data Sheet for Energy Audit of the Session: 2019-20

Room No./ Name	Electrical device/ Items (Bulbs: CFL/ Incandescent/ CFL; AC, Fan/ Computer, Instruments, Other appliances)	Number	Power	Usage Time (Hr/Day)
NAAC	Fan	2	140	5
	LED	3	36	5
	Desktop	2	440	5
	Laptop	1	150	5
	AC	1	1500	2
	Printer	2	440	5
Principal's Office	Fan	3	210	7
	LED	3	36	7
	Laptop	1	150	7
Principal's Rest Room	Fan	1	70	5
	LED	3	36	5
	Desktop	1	220	5
	CCTV DVR	1	220	24
	AC	1	1500	2
	Printer	1	220	5
	Refrigerator	1	125	24
Account Section	Fan	2	140	7
	LED	4	48	7
	Desktop	1	220	7
	Printer	2	220	5
Administrative Office	Fan	2	140	7
	LED	8	96	7
	Desktop	1	220	7

	Printer	1	220	5
Office Veranda	Tube Light	4	48	5
Staff Common Room	Fan	8	560	7
	LED	16	240	7
	AC	3	4500	3
	Water Purifier	1	30	24
Examination Section	Fan	8	560	5
	Tube Light	9	360	5
	Desktop	1	220	5
SAMS	Fan	1	70	5
	Tube Light	2	80	5
	Desktop	3	220	5
	Xerox	1	350	5
Education Seminar	Fan	3	210	5
	Tube Light	3	120	5
	Laptop	1	150	5
Economics Seminar	Fan	3	210	5
	Tube Light	3	120	5
	Laptop	1	150	5
	Printer	1	220	5
Sociology Seminar	Fan	2	140	5
	Tube Light	2	80	5
	Laptop	1	150	5
English Seminar	Fan	1	70	5
	Tube Light	1	40	5
	Laptop	1	150	5
	Printer	1	220	5
Philosophy Seminar	Fan	2	140	5
	Tube Light	1	40	5
	Laptop	1	150	5
Vocational Office	Fan	1	70	5
	Tube Light	2	80	5
Odia Seminar	Fan	3	210	5
	Tube Light	2	80	5
History Seminar	Fan	3	210	5
	Tube Light	3	120	5
	Desktop	1	220	5
Political Seminar	Fan	3	210	5
	Tube Light	3	120	5

	Laptop	1	150	5
Commerce Seminar	Fan	3	210	5
	Tube Light	4	160	5
	Laptop	1	150	5
Ladies Common Room	Fan	2	14	5
	Tube Light	6	240	5
	Fan	9	630	5
Zoology Department	Tube Light	10	400	5
	Laptop	1	150	5
	LED	6	72	5
Motor Room	Motor	1	1492	4
	Bulb	1	40	4
Class Room No 08	Fan	8	560	5
	LED	4	60	5
Class Room No 10	Fan	4	280	5
	LED	3	45	5
Class Room No 09	Fan	1	70	5
	LED	1	15	5
Class Room No 07	Fan	2	140	5
	LED	2	30	5
Class Room No 14	Fan	1	70	5
	LED	1	15	5
Class Room No 15	Fan	1	70	5
	LED	1	15	5
Class Room No 16	Fan	6	210	5
	LED	3	45	5
Class Room No 17	Fan	1	70	5
	LED	1	15	5
Class Room No 18	Fan	1	70	5
	LED	1	15	5
Class Room No 19	Fan	1	70	5
	LED	1	15	5
Class Room No 20	Fan	6	420	5
	LED	3	45	5
Class Room No 21	Fan	8	560	5
	LED	4	60	5
Class Room No 23	Fan	6	420	5
	LED	3	45	5
Class Room No 24	Fan	2	140	5

	LED	2	30	5
Class Room No 25	Fan	10	700	5
	LED	5	75	5
Physics Department	Fan	9	630	5
	LED	13	295	5
	Desktop	1	220	5
	Water Purifier	1	30	24
	Refrigerator	1	125	24
	Printer	1	220	5
Botany Department	Fan	11	770	5
	LED	7	140	5
	Desktop	1	220	5
	Water Purifier	1	30	24
	Refrigerator	1	125	24
Mathematics Department	Fan	4	280	5
	LED	6	9	5
	Desktop	6	1320	5
	Printer	1	220	5
Chemistry Department	Fan	12	840	5
	LED	3	45	5
	Tube light	7	280	5
Library	Fan	25	1750	5
	Tube Light	13	520	5
	LED	20	300	5
	Desktop	3	660	5
	Printer	1	220	5
Boys Hostel	Fan	12	840	5
	Tube Light	16	192	5
	LED	11	132	5
Ladies Hostel	Fan	24	1680	5
	Tube Light	25	1000	5

Annual Electricity Bill: 2017-18: Rs 93,844/-

2018-19: Rs 77,582/-

2019-20: Rs 81,681/-

The total energy utilization of the college for different purposes is approximately **17856.97 units/month**. Increased production of solar energy a type of nonconventional category of energy will be a good energy management system for the college. Electricity charges per month are **Rs.100000/month**. Energy saving through the replacement of incandescent bulbs, CFL lamps and tube lights to LED light could be a good option. Energy efficient electrical equipment especially fans and pump sets can be replaced against old ones. Awareness programs for the stakeholders to save energy may also increase sustainability in the utilization of various energy sources.

Availability of solar power with details:

The college has a plan to install luminous PCU 7.5 KVA solar power system since beginning of this session with an agreement with M/s Swarna Tyres to supply electric energy to the main building where main drain of current is carried out. But due to CORONA Pandemic the firm is unable to install it in time. So, the agreement of this firm is canceled and a new process of agreement is going on to install it very soon.

Waste Management

Waste management is important for an eco-friendly campus. In a college different types of wastes are generated, its collection and management are very challenging. The following data provide the details of the waste generated and the disposal method adopted by the college. Annexure -2

Waste Management for the session 2017-18

Approximate quantity of waste generated per day (in kg)

Approx.	Biodegradable	Non-biodegradable	Hazardous	Others
Office				
<1 Kg	√	√	Nil	Nil
2-10 Kg				
>10 Kg				
Laboratories				
<1 Kg	√	√	Nil	Nil

2-10 Kg				
>10 Kg				
Canteen/ Kitchen				
<1 Kg		√	Nil	Nil
2-10 Kg				
>10 Kg	√			

Waste Management for the session 2018-19

Approximate quantity of waste generated per day (in kg)

Approx.	Biodegradable	Non-biodegradable	Hazardous	Others
Office				
<1 Kg	√	√	Nil	Nil
2-10 Kg				
>10 Kg				
Laboratories				
<1 Kg	√	√	Nil	Nil
2-10 Kg				
>10 Kg				
Canteen/ Kitchen				
<1 Kg		√	Nil	Nil
2-10 Kg				
>10 Kg	√			

Waste Management for the session 2019-20

Approximate quantity of waste generated per day (in kg)

Approx.	Biodegradable	Non-biodegradable	Hazardous	Others
Office				
<1 Kg	√	√	Nil	Nil
2-10 Kg				
>10 Kg				
Laboratories				
<1 Kg	√	√	Nil	Nil
2-10 Kg				
>10 Kg				
Canteen/ Kitchen				
<1 Kg		√	Nil	Nil

2-10 Kg				
>10 Kg	√			

How the waste generated in the college are managed

	Yes/ No	Remark
Composting/ Vermicomposting	Yes	
Recycling	Yes	Waste water used for gardening
Reusing		
Other ways		

Waste generated in the College

	Yes/ No	Remark
E-waste	Yes	All the E-Wastes (315 Kg) of the College up to 30-09-2020 have already been disposed to State Pollution Control Board, Odisha in College letter No 946 dated 30-09-2020 with generation of Rs 4094/- towards college fund.
Hazardous waste	Yes	Hazardous wastes generated from different laboratories are well managed by dumping in sealed sump.
Solid waste	Yes	The Biodegradable solid wastes are consumed for Vermi composting purpose and Non- biodegradable wastes are handed over to municipality through its regular collection vehicle.
Dry leaves	Yes	Used for Vermi composting purpose.
Canteen	Yes	The waste generated from the canteen is disposed as mentioned in the above process.
Liquid waste	Yes	All types of liquid wastes are used for gardening, plantation and pond watering.
Glass	Yes	As this is treated as solid waste, it is handed over to

		municipality for its proper disposal.
Unused equipment	Yes	Disposed as E-Waste
Napkins	Yes	Biodegradable and disposed as me
Others (specify)	-	

Green Campus

The institution is sincerely concerned about the environmental pollution too early for which many timber yielding plants as well as medicinal plants were planted in the campus since 1990. This is a continuous practice of this institution for which it has reached around 4000 trees of different kinds. It not only reduces the green house gases but also supplies huge amount of oxygen to create an eco-friendly environment. The Google earth picture and detailed list of plants are given below for the information. As this is a cyclone prone area, almost every year the institution suffers loss of some trees which is used for the generation of funds by selling the broken trees. The details of fund generation in different years are given in annexure- V.



Tree Enumeration by staff and students

List of plants in the campus: 2017-18

Sl.No	Botanical Name	Common Name	Number
1	Ficus benghalensis	Bara	1
2	Cedrus deodara	Debadaru	94
3	Terminalia arjuna	Arjuna	292
4	Syzygium cumini	Jamu	7
5	Emblica officinalis	Amla	6
6	Callistemon citrinus:	Bottle brush	3
7	Alstonia scholaris	Chhatiana	15
8	Azadirachta indica	Nimba	204
9	Millettia pinnata	Karanja	231
10	Bombax ceiba	Simili	7
11	Simarouba glauca	Simrua	103
12	Saraca asoca	Asoka	4
13	Phoenix dactylifera	Khajuri	33
14	Neolamarckia cadamba	Kadamba	5
15	Melia azedarach	Mahanimba	15
16	Cocus nucifera	Nadia	41
17	Syzygium austral	Australian Cherry	6
18	Terminalia bellirica	Bahada	1
19	Swietenia macrophylla	Mahogany	106
20	Artocarpus heterophyllus	Panasa	7
21	Hevea brasiliensis	Rubber	1
22	Mangifera indica	Amba	15
23	Dalbergia sisso	Sisu	39
24	Tectona grandis	Saguan	252
25	Roystonea regia	Areca palm	2
26	Ficus carica	Dimiri	5
27	Acacia auriculiformis	Akasia	8

28	Psidium guava	Pijuli	12
29	Albizia lebeck	Sirisa	21
30	Casuarina equisetifolia	Jhaun	41
31	Magnolia Champaka	Swarna champa	7
32	Dellenia indica	Ou	7
33	Terminallia cattappa	Katha badam	27
34	Streblus asper	Sahada	18
35	Delonix regia	Krushnachuda	17
36	Caesalpinia pulcherrima	Radhachuda	15
37	Mimusops elengi	Baula	14
38	Gmelina arborea	Gambhari	19
39	Aegle marmelos	Bela	6
41	Diospyros melanoxylon	Kendu	5
42	Schleichera oleosa	Kusum	1
43	Annona reticulata	Ata	1
44	Eucalyptus radiata	Eucalyptus	2217
45	Samanea saman	Chakunda	8
46	Annona squamosa	Neua	1

Total= 3940

List of plants in the campus: 2018-19

Sl.No	Botanical Name	Common Name	Number
1	Ficus benghalensis	Bara	1
2	Cedrus deodara	Debadaru	98
3	Terminalia arjuna	Arjuna	284
4	Syzygium cumini	Jamu	7
5	Emblica officinalis	Amla	6
6	Callistemon citrinus:	Bottle brush	3
7	Alstonia scholaris	Chhatiana	18

8	<i>Azadirachta indica</i>	Nimba	204
9	<i>Millettia pinnata</i>	Karanja	248
10	<i>Bombax ceiba</i>	Simili	7
11	<i>Simarouba glauca</i>	Simrua	108
12	<i>Saraca asoca</i>	Asoka	4
13	<i>Phoenix dactylifera</i>	Khajuri	34
14	<i>Neolamarckia cadamba</i>	Kadamba	5
15	<i>Melia azedarach</i>	Mahanimba	15
16	<i>Cocus nucifera</i>	Nadia	41
17	<i>Syzygium austral</i>	Australian Cherry	6
18	<i>Terminalia bellirica</i>	Bahada	1
19	<i>Swietenia macrophylla</i>	Mahogany	118
20	<i>Artocarpus heterophyllus</i>	Panasa	7
21	<i>Hevea brasiliensis</i>	Rubber	1
22	<i>Mangifera indica</i>	Amba	17
23	<i>Dalbergia sisso</i>	Sisu	44
24	<i>Tectona grandis</i>	Saguan	256
25	<i>Roystonea regia</i>	Areca palm	2
26	<i>Ficus carica</i>	Dimiri	5
27	<i>Acacia auriculiformis</i>	Akasia	8
28	<i>Psidium guava</i>	Pijuli	14
29	<i>Albizia lebeck</i>	Sirisa	21
30	<i>Casuarina equisetifolia</i>	Jhaun	41
31	<i>Magnolia Champaka</i>	Swarna champa	7
32	<i>Dellenia indica</i>	Ou	7
33	<i>Terminallia cattappa</i>	Katha badam	27
34	<i>Streblus asper</i>	Sahada	19
35	<i>Delonix regia</i>	Krushnachuda	20

36	Caesalpinia pulcherrima	Radhachuda	16
37	Mimusops elengi	Baula	14
38	Gmelina arborea	Gambhari	20
39	Aegle marmelos	Bela	6
41	Diospyros melanoxylon	Kendu	5
42	Schleichera oleosa	Kusum	1
43	Annona reticulata	Ata	1
44	Eucalyptus radiata	Eucalyptus	2246
45	Samanea saman	Chakunda	8
46	Annona squamosa	Neua	1

Total=4022

List of plants in the campus: 2019- 20

Sl. No	Botanical Name	Common Name	Number
1	Ficus benghalensis	Bara	1
2	Cedrus deodara	Debadaru	107
3	Terminalia arjuna	Arjuna	347
4	Syzygium cumini	Jamu	7
5	Emblica officinalis	Amla	6
6	Callistemon citrinus:	Bottle brush	3
7	Alstonia scholaris	Chhatiana	15
8	Azardichta indica	Nimba	215
9	Millettia pinnata	Karanja	262
10	Bombax ceiba	Simili	7
11	Simarouba glauca	Simrua	124
12	Saraca asoca	Asoka	4
13	Phoenix dactylifera	Khajuri	33
14	Neolamarckia cadamba	Kadamba	5

15	Melia azedarach	Mahanimba	17
16	Cocus nucifera	Nadia	41
17	Syzygium austral	Australian Cherry	6
18	Terminalia bellirica	Bahada	1
19	Swietenia macrophylla	Mahogany	121
20	Artocarpus heterophyllus	Panasa	7
21	Hevea brasiliensis	Rubber	1
22	Mangifera indica	Amba	15
23	Dalbergia sisso	Sisu	41
24	Tectona grandis	Saguan	275
25	Roystonea regia	Areca palm	2
26	Ficus carica	Dimiri	5
27	Acacia auriculiformis	Akasia	8
28	Psidium guava	Pijuli	12
29	Albzia lebbeck	Sirisa	21
30	Casuarina equisetifolia	Jhaun	41
31	Magnolia Champaka	Swarna champa	7
32	Dellenia indica	Ou	7
33	Terminallia cattappa	Katha badam	27
34	Streblus asper	Sahada	18
35	Delonix regia	Krushnachuda	17
36	Caesalpinia pulcherrima	Radhachuda	15
37	Mimusops elengi	Baula	14
38	Gmelina arborea	Gambhari	19
39	Aegle marmelos	Bela	6
41	Diospyros melanoxylon	Kendu	5
42	Schleichera oleosa	Kusum	1
43	Annona reticulata	Ata	1

44	Eucalyptus radiata	Eucalyptus	2297
45	Samanea saman	Chakunda	8
46	Annona squamosa	Neua	1

Total= 4193

No of trees planted:

Session	No. of trees planted	No. of trees broken	Total no. of trees
2017-18	550	Nil	3940
2018-19	127	35(Due to cyclone)	4022
2019-20	194	23(Due to cyclone)	4193

No of gardens:

Garden Types	Number
Ornamental Garden	02
Medicinal Garden	01
Orchards	01
Others	01





College Garden

List of Medicinal plants in herbal garden of Pattamundai College

Sl.No	Common Name	Botanical Name
1	Amla	<i>Phyllanthus emblica</i>
2	Bela	<i>Aegle marmelos</i>
3	Gangasiuli	<i>Nictanthes arbor-tristis</i>
4	Amarpoi	<i>Kalanchoe pinnata</i>
5	Manjuati	<i>Lawsonia inermis</i>
6	Bahada	<i>Terminalia bellirica</i>
7	Mandara	<i>Hibiscus rosa-sinensis</i>
8	Dhanwantari	<i>Cymbopogan flexuosus</i>
9	Pipali	<i>Piper longum</i>
10	Tulasi	<i>Ocimum sanctum</i>
11	Ghritkumari	<i>Aloe vera</i>
12	Badiamla	<i>Phyllanthus fraternus</i>
13	Satabari	<i>Asparagus racemosus</i>
14	Brahmi	<i>Bacopa monnieri</i>
15	Dayana	<i>Artemisia vulgaris</i>
16	Rukuna	<i>Coleus barbatus</i>
17	Banadhania	<i>Eryngium foetidum</i>
18	Karpura tulasi	<i>Ocimum kilimandscharicum</i>
19	Chireita	<i>Andrographis paniculata</i>
20	Pasaruni	<i>Paederia foetida</i>
21	Salaparni	<i>Desmodium gangeticum</i>
22	Ramatulasi	<i>Ocimum gratissimum</i>
23	Satabari	<i>Asparagus racemosus</i>
24	Gugula	<i>Commiphora caudata</i>
25	Agaru bacha	<i>Alpina galanga</i>
26	Ankaranti	<i>Cauroupita guianensis</i>
27	Dalchini	<i>Cinnamomum verum</i>
28	Tejapatra	<i>Cinnamomum tamala</i>
29	Kanchana	<i>Bauhinia variegata</i>
30	Insulin	<i>Costus igneus</i>

31	Thalkudi	<i>Centella asiatica</i>
32	Pana	<i>Piper betle</i>
33	Kanaka champa	<i>Pterospermum acerifolium</i>
34	Kaladudura	<i>Datura metel</i>
35	Anatamula	<i>Hemidesmus indicus</i>
36	Annapurna	<i>Pandanus amaryllifolius</i>
37	Arsha	<i>Crinum asiaticum</i>
38	Aswagandha	<i>Withania somnifera</i>
39	Bacha	<i>Acorus calamus</i>
40	Bajramuli	<i>Sida cordifolia</i>
41	Bhrungaraj	<i>Wedelia chinensis</i>
42	Brudhadaraka	<i>Argyrea nervosa</i>
43	Dhala arakha	<i>Calotropis procera</i>
44	Durlava	<i>Ocimum basilicum</i>
45	Golamaricha	<i>Piper nigrum</i>
46	Guluchi	<i>Tinospora cordifolia</i>
47	Hadajoda	<i>Cissus quadrangularis</i>
48	Hemasagar	<i>Kalanchoe lanceolate</i>
49	Keukeua	<i>Costus speciosus</i>
50	Sarpagandha	<i>Rauwolfia serpentina</i>
51	Pipermint	<i>Mentha arvensis</i>
52	Raktakhai	<i>Ventilago madrasapatana</i>
53	Sadabihari(Dhala)	<i>Catharanthus pusillus</i>
54	Patalagaruda	<i>Rauwolfia tetraphylla</i>
55	Stevia	<i>Stevia rebaudiana</i>
56	Akarakara	<i>Spilanthes calva</i>
57	Amba ada	<i>Curcuma amda</i>
58	Bisalyakarani	<i>Tridax procumbens</i>
59	Ayapan	<i>Eupatorium ayapana</i>
60	Koilikhia	<i>Hygrophylla auriculata</i>
61	Lajakuli	<i>Mimosa pudica</i>
62	Madaranga	<i>Alternanthera sessilis</i>
63	Pitasaga	<i>Glinus oppositifolius</i>
64	Antamula	<i>Hemidesmus indicus</i>
65	Antamuli	<i>Tylophora indica</i>
66	Aparajita(Dhala)	<i>Clitoria ternatea</i>
67	Aparajita(Kala)	<i>Clitoria pusilis</i>
68	Dahadahia	<i>Ipomoea reniformis</i>
69	Gudumari	<i>Gymnema sylvestre</i>
70	Multivitamin green	<i>Sauropus androgynus</i>
71	Loni	<i>Morinda citrifolia</i>
72	Kalama	<i>Ipomoea aquatica</i>
73	Sadabihari(violet)	<i>Catharanthus roseus</i>
74	Apamaranga	<i>Achyranthes aspera</i>

75	Kala arakha	<i>Calotropis gigantea</i>
76	Brahmajasti	<i>Clerodendrum serratum</i>
77	Gayasa	<i>Leucas aspera</i>
78	Raktachita	<i>Plumbago indica</i>
79	Swetachita	<i>Plumbago zeylanica</i>
80	Pauinsia	<i>Aerva lanata</i>
81	Talamuli	<i>Curculigo orchioides</i>
82	Bena	<i>Vetiveria zizanioides</i>
83	Gada	<i>Diospyros sylvatica</i>
84	Krushna parni	<i>Uraria picta</i>
85	Gandhasunthi	<i>Kaempferia galanga</i>
86	Sunusunia	<i>Marsilea quadrifolia</i>
87	Swetachandana	<i>Santalum album</i>
88	Raktachandana	<i>Pterocarpus santalinus</i>
89	Nagachampa	<i>Couropita guianensis</i>
90	Bhadraksya	<i>Gauzuma ulmifolia</i>
91	Banapiaja	<i>Urginea dubius</i>
92	Biribiri	<i>Spilanthes paniculata</i>
93	Kalahaladi	<i>Curcuma caesia</i>
94	Methi	<i>Trigonella foenum-graecum</i>
95	Bathua	<i>Chinopodium album</i>
96	Bhuinamla	<i>Phyllanthus niruri</i>
97	Ambiliti	<i>Oxalis pes-caprae</i>
98	Mashaparni	<i>Teramnus labialis</i>
99	Sankhapushpi	<i>Evolvulus alsinoides</i>
100	Olatakamala	<i>Abroma augustum</i>
101	Kaincha	<i>Mucuna radians</i>
102	Podina	<i>Mentha arvensis</i>
103	Kala tulasi	<i>Ocimum tenuiflorum</i>
104	Queen Pineapple	<i>Ananas comosus</i>
105	Brajamalli	<i>Clerodendron chinense</i>
106	Gobinda garuda	<i>Trewia nudiflora</i>
107	Akadia	-
108	Akalmundi	-
109	-	<i>Aclema radicans</i>



Herbal Garden

Routine Green Practices: Celebration of important days

The institution celebrated the following important days during each year to aware, observe and perform the activities by the different stakeholders.

Sl. No.	Important days	Activities
1	National Youth Day	Awareness
2	Republic Day	Campus Cleaning and Awareness
3	World Sustainable Energy Day	Energy Saving Awareness
4	World Wildlife Day	Plantations and Awareness
5	Gopabandhu Jayanti	Campus Cleaning and Awareness
6	World Water Day	Water Conservation Awareness
7	World Earth Day	Campus Cleaning

8	World Red Cross Day	Blood Donation
9	Netaji Jayanti	Observation & Awareness
10	NSS Day	Campus Cleaning and Social work
11	World Environment Day	Plantations and Awareness
12	International Yoga Day	Yoga Camp & Seminar
13	NCC Day	Parade, Campus Cleaning and Awareness
14	Gandhi Jayanti	Campus Cleaning and Awareness
15	World Aids Day	Observation and Awareness
16	Human Right Day	Observation and Awareness
17	Kargil Vijay Diwas	Observation and Awareness

Carbon footprint analysis

Burning of fossil fuels such as petrol has an impact on the environment through the emission of greenhouse gases into the atmosphere; of these carbon dioxide is the most prominent greenhouse gas, comprising 402 PPM of the Earth's atmosphere. The release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon emissions in which the vehicular emission and burning of natural gas are the main sources in the campus. As this is a rural based institution, maximum stakeholders use public transport as well as own cycle through which realise of green house gases is minimised. A very few numbers of two wheelers and cars are used by students, staff members and other stakeholders coming to the college. The natural gas used by different laboratories, hostels and canteen are very less which contribute very less green house gas for environment pollution. As there are around 4000 of trees are present in the campus this not only balances the green house gases but also supplies a huge amount of oxygen to the atmosphere to make an eco-friendly environment.

Sl No	Particulars	Numbers
1	No of cycles used in college by stakeholders	345
2	No of two wheelers used Average Distance Travelled : Quantity of Fuel Amount used per day	50 5 K.M 5 L Rs 400/-
3	No of cars used Average Distance Travelled : Quantity of Fuel Amount used per day	06 15 K.M 6 L Rs 480/-

4	No of persons using public transportation	920
5	No of persons using college conveyance	-
6	No of generators used per day	Rarely used as institution has inverter systems in different parts.
7	Amount of fuel used for generators per day	-
8	No of LPG cylinders used in canteen/ labs	07 Canteen – 01 Hostel - 02 Lab- 04
9	Use of any other fossil fuels in the college	-
10	Any suggestions/ planning to reduce the use of fuel	

MAJOR AUDIT OBSERVATIONS

- The college has developed its own environmental policy
- The college has developed very good greenery in the campus. Almost all the available spaces have been planted with trees.
- Gardens are well maintained. It is good to have a herbal garden which would boost the knowledge of staff, students and visitors on medicinal plants.
- Purchase policy should be developed to procure environment friendly items.
- Programmes on green initiatives have to be increased.

Water Management

- The water sources are safe in terms of contamination.
- The college at present does not have waste water treatment for waste water generated from laboratories and other sources.
- Per day consumption of water is high.
- Measurement of quantity of water obtained from rain water harvesting should be done.

Energy Management

- Monthly use of electricity in the college is very high. As expansion is going on, the consumption would further increase.
- The communication process for awareness in relation to energy conservation is inadequate.

Waste Management

- The college has proper communication with the local body for regular collection of solid waste from the college.
- E-waste disposal has been done properly as per procedure.
- Hazardous waste management need to be re-visited and local municipal body be consulted for its proper disposal.

Carbon Foot Print Audit

- Motorized vehicles are not more in number in comparison to the strength of staff and students.
- Use of inverters has reduced consumption of fossil fuel for functioning of college.
- Use of gas cylinder is moderate.

Green Campus

- Tree cover in the campus is adequate.
- Regular planting of trees is found adequate.
- Display boards for medicinal plants in the herbal garden have been placed with required information.

SUGGESTIONS AND RECOMMENDATIONS

Water

- Students can be advised to take back the food waste which would help in reducing the consumption of water for washing.
- The wells can be recharged with rainwater from rooftops of buildings.

- Construction of rainwater harvesting structures for each building can be thought of.
- Awareness programmes for water conservation can be arranged with local NGOs/ Municipal Body. Water quality monitoring should be done periodically.
- Water consumption monitoring system for the entire college should be developed.
- Display boards against the misuse of water need to be developed.

Energy

- It is recommended to avoid using of more energy consuming older electrical appliances and to replace with more environment friendly and energy efficient appliances eg. Five star rating appliances in the college.
- Potential for renewable energy sources have to be explored. The advantage of large roof areas of the college can be taken for installing solar grid.
- It is recommended to use solar powered water heater and cooker in the canteens of college/ hostels and solar powered street lights.
- The plan to establish 7.5 KVA solar greed should be materialized soon to reduce electricity consumption.
- Regular monitoring of equipment and immediate rectification of any problem should be done.

Green Campus

- In order to increase the carbon credit and greenery of the campus more indigenous and evergreen trees should be planted in the spaces available and spaces created/ likely to be created due to damage and uprooting of old trees.
- Registry of flora and fauna of the college should be developed.
- Display boards for tree with scientific names in the campus need to be developed for identification and learning.
- Possibility of drip watering system for the gardens can be thought of.

Waste

- Use of plastic should be avoided as far as possible and biodegradable materials should be encouraged as alternatives. The management should try to achieve the goal of plastic free campus.
- Leaf litter from the campus can be effectively used for aerobic/ vermi composting, so that the composted material can also be used as good manure.
- Paper waste can be recycled instead of incineration or burning.
- The canteen waste from college/ hostels can be subjected to aerobic composting by setting-up of few composting yards in the campus. This will provide a chance for the students to learn by seeing and operating such compost yards by themselves. Also a good practice of managing their own waste (from lunch box) instead of carrying them back home they can be trained in operating the compost yard, by using their lunch time waste to produce good organic manure.
- Establishment of a bio-gas plant can be thought of.
- Waste bins should be placed more in number at desired places.
- Green chemistry laboratory practice should be developed.

Carbon Footprint

- College should take initiative for carbon accounting.
- Students should be encouraged to use cycle.
- Efficient cooking system should be established to save cooking gas.

Pravitha
12/01/21
TEAM MEMBERS
Pravitha
12/01/21
Green Audit
Rohini
12/1/2021
Pravitha
12.1.21

Aln DASH
12.1.21
PRINCIPAL
Pattamundai College
Principal
Pattamundai College
(PROF. ALN DASH)

Bikash Rayan Dash
12/01/21
AUDITOR
Green Audit
(Bikash Rayan Dash)
Divisional Forest Officer
Mangrove Forest Division (WL)
Rainagar

TO WHOM IT MAY CONCERN

This is to certify that the energy audit of Pattamundai College, Pattamundai is conducted by me with the help of the audit members of that institution. The data reflected in the report is completely authentic to the best of my knowledge and belief.

on Request

2/3/21.

S.D.O (Elect.) TPCODL
TPCODL
PATTAMUNDAI
PATTAMUNDAI DIVISION

ENERGY AUDIT REPORT



SESSIONS : 2017-18 TO 2020-21



PATTAMUNDAI COLLEGE
PATTAMUNDAI

PREFACE

The energy audit of Pattamundai College was undertaken from the session 2017-18 to access the quantitative and qualitative aspect of energy data collection for energy audit of Pattamundai College, campus was conceded by the team for the period 2017-18 to 2019-20. This audit was over sighted to inquire about convenience to progress the energy competence of the campus. To drop of energy utilization whilst cultivate or humanizing comfort, health and safety were of prime interest of audit team. This audit required to recognize the mainly energy proficient appliances. Besides, several each day processes concerning common appliances have been provided which facilitate reducing the energy expenditure. The energy audit survey was completed by help of Physics department of the institution. All data collected from each classroom, laboratory, office, auditorium etc for the audit work. The work is completed by considering, how much tubes, fan, A. C.s, electronic instruments, etc are used in each room and part of the campus.

Brief introduction of the College

The genesis of Pattamudai College dates back to the sixties of the last century when its foundation was laid on 1st June, 1967, though it started functioning since 5th July of 1970. This locality, a breadbasket of the district turned proverbially backward both socially and economically as it became the continual haunt of natural calamities like cyclone, flood and drought, as it is even now, and there was no scope at all for higher education, the obvious catalyst for socio-economic transformation. The only college at Kendrapara, some 20 kms away and logistically disadvantageous for access then, had limited scope to cater to the academic need of the aspiring young college-goers of this vast locality. At this crucial juncture, a team of education lovers and activists starting with some college students of this land in Cuttack city, to the local activists and enthusiasts from the social gentry, came forward for establishment of a college for the benefit of all concerned.

Launched as an Arts college with only 128 students, it has grown to its present premier position with two other streams of science and commerce and 1475 students on its rolls with 14 programs at UG level.

With an eventful history of 50 years and a picturesque sprawling campus of 14.6 acres, it is indeed a testimony to the dream and sacrifice of our predecessors. Its alumni, globally positioned today are its identity markers and this institution has been playing a pivotal role in development of its satellite localities. Affiliated permanently to Utkal University, this college has been listed under 2(F) and 12(B) of the UGC Act vouchsafing its academic standard and administrative acumen. The addition of new buildings, hostels, library, laboratories and playground over the years has not only given a new dimension to its infrastructure but also has facilitated the expansion of curricular and extra-curricular horizons. Quite ahead of its contemporaries, it has adopted new technology of ICT facilities, library automation, Wi-Fi campus, online classes, green initiatives, etc by adopting the modern change to meet the expectation of its stakeholders.



Location of Pattamundai College

Objective of Energy Audit

The objective is to acquire and analyse the data to find the possible ways of energy Conservation.

It will be useful to calculate the amount of power consumed and wasted in a network of specified location.

To find and implement the solutions that is acceptable and feasible.

Scope:

- ✓ Data Collection - walk through audit.
- ✓ Facility Description - characterize building usage, occupancy, size and construction.
- ✓ Component Inventory - detailed components list including utility, life and efficiency.
- ✓ Energy Conservation Measures – identify and evaluate opportunities for cost savings and economic returns.
- ✓ Renewable /Distributed Energy Measures – evaluate economic viability of various renewable/distributed energy technologies.
- ✓ Energy Purchasing and Procurement Strategies – perform utility tariff analysis and assess potential for savings from energy procurement strategies.
- ✓ Awareness – to create awareness regarding efficient energy consumption and to provide with deserving rewards.

Vision of the College

- To make higher education qualitative and value based for the socio-economic transformation of the nation.
- To instill a sense of discipline and morality among the student's community for the making the students socially responsible citizens.

Mission of the College

- To grow into an institution of excellence and exemplary at the university level
- To provide literary, scientific, professional and technical education to the aspiring rural youth at a minimum cost.
- To be recognized as an institution with proven capacity to provide quality education in Science, Commerce & Humanities.
- To create symbiotic relationship with the society to meet the changing needs
- To introduce self-financing courses in multidisciplinary area.
- To adopt continues measures to improve the quality of the programme.
- To provide need-based career-oriented courses to the needs of the society
- To involve the Alumni for all round development of the college

NAAC Accreditation

Year: 2006

Grade: B+

Courses offered:

The institution offers following programmes which include the different courses as given in the table below.

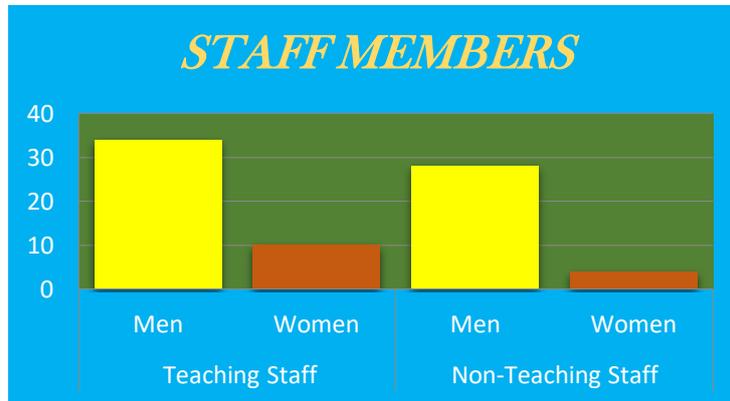
PROGRAMME OFFERED	COURSES OFFERED
Bachelor of Arts	Economics
	Education
	English
	History
	Odia
	Philosophy
	Political science
	Sociology
Bachelor of Science	Botany
	Chemistry

	Mathematics
	Physics
	Zoology
Bachelor of Commerce	Commerce

Strength of Staff (Teaching/ Non-teaching):

Presently this institution runs with 76 Nos of both teaching and non teaching staff members whose continuous effort makes this institution a glorious one. Among the total staff, detailed analysis of men and women of both the categories are given.

Teaching Staff		Non-Teaching Staff	
Men	Women	Men	Women
34	10	28	4



Strength of Students:

Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2017-18	Arts	124	352	88	126	0	0	24	105	0	0	0	5	236	588	824
	Commerce	185	103	34	22	0	0	43	36	0	0	2	3	264	164	428
	Science	97	109	25	16	0	0	26	42	0	0	3	0	151	167	318
	Total	406	564	147	164	0	0	93	183	0	0	5	8	651	919	1570

Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2018-19	Arts	140	392	56	107	0	0	12	61	0	0	0	3	208	563	771
	Commerce	213	120	30	13	0	0	9	13	0	0	4	2	256	148	404
	Science	114	126	22	11	0	0	3	21	0	0	3	0	142	158	300
	Total	467	638	108	131	0	0	24	95	0	0	7	5	606	869	1475

Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2019-20	Arts	93	329	47	114	0	0	23	120	0	0	0	3	163	566	729
	Commerce	159	100	39	12	0	0	49	26	0	0	2	0	249	138	387
	Science	90	102	21	18	0	0	34	21	0	0	2	0	147	141	288
	Total	342	531	107	144	0	0	106	167	0	0	4	3	559	845	1404

Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2017-18	Commerce	185	103	34	22	0	0	43	36	0	0	2	3	264	164	428



Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls			
2017-18	Science	97	109	25	16	0	0	26	42	0	0	3	0	151	167	318

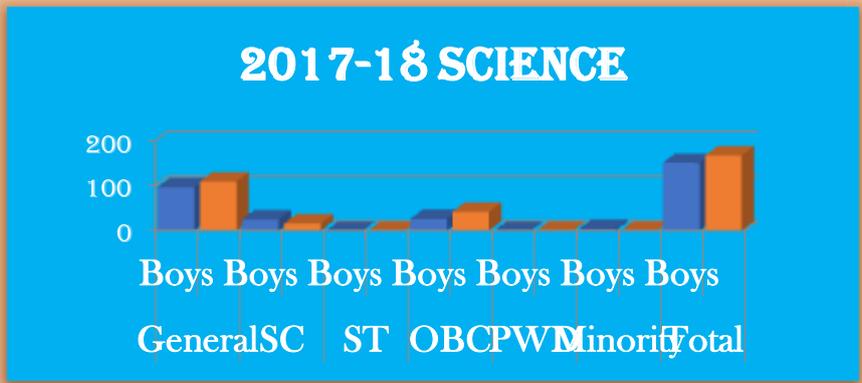


Table -7

Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2017-18	Arts	124	352	88	126	0	0	24	105	0	0	0	5	236	588	824



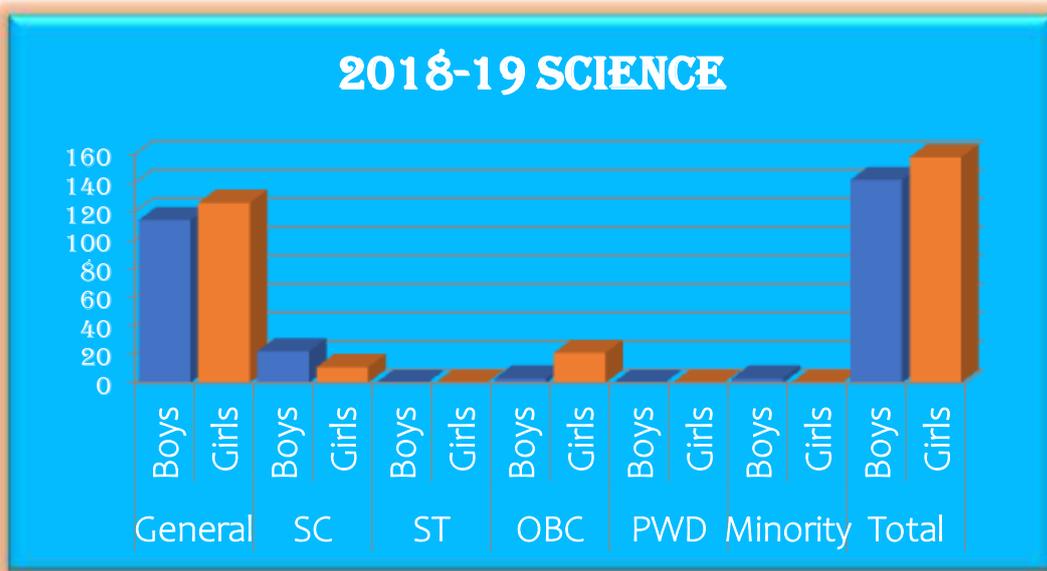
Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2018-19	Arts	140	392	56	107	0	0	12	61	0	0	0	3	208	563	771



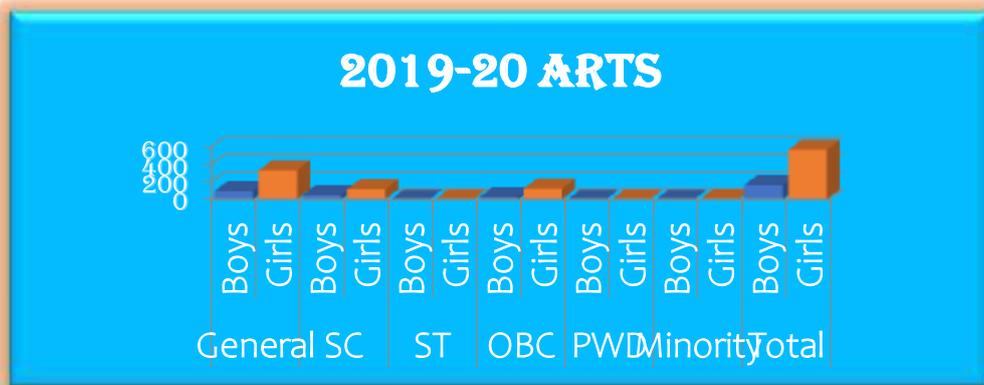
Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2018-19	Commerce	213	120	30	13	0	0	9	13	0	0	4	2	256	148	404



Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2018-19	Science	114	126	22	11	0	0	3	21	0	0	3	0	142	158	300



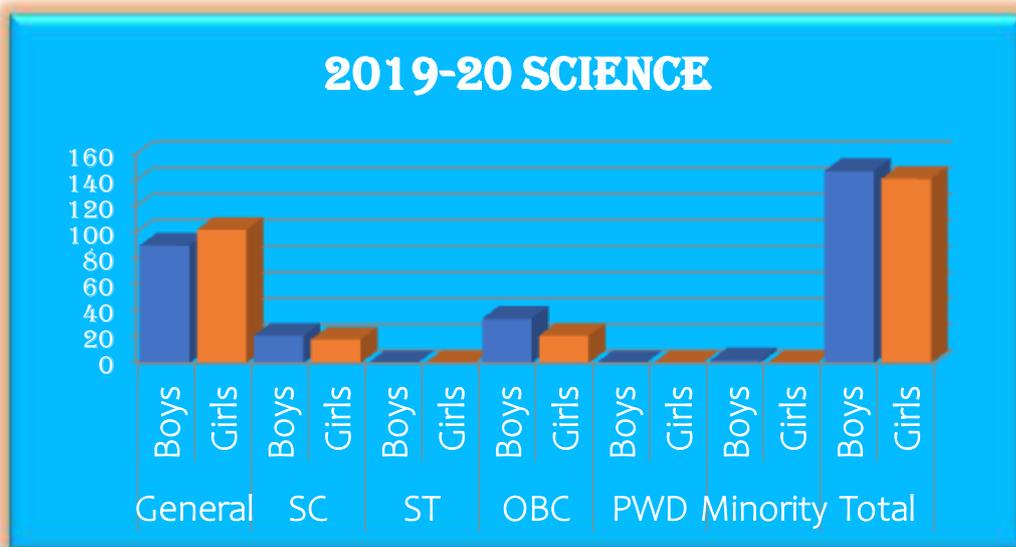
Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2019-20	Arts	93	329	47	114	0	0	23	120	0	0	0	3	163	566	729



Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2019-20	Commerce	159	100	39	12	0	0	49	26	0	0	2	0	249	138	387



Year	Stream	General		SC		ST		OBC		PWD		Minority		Total		Total
		Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
2019-20	Science	90	102	21	18	0	0	34	21	0	0	2	0	147	141	288



Year	Male	Female	Total
2017-18	651	919	1570
2018-19	606	869	1475
2019-20	559	845	1404



Physical structure (Area/ Built up area/ No. of class rooms/ libraries/ administrative rooms/ laboratories/ auditoriums/ conference rooms/ staff common rooms/ students common rooms/ hostels/ canteens/ others)

The institution has a land area of 14.6 acres of its own which is surrounded with pucca boundary fully to check the free access of the trespassers to overcome any kind of huddles in its academic atmosphere. Out of this, the built up area covers 10299.23m² which includes the physical structures given in the list below to cater the need of the students as well as all other stakeholders. The rest part of the total area covers a huge playground with full of green lands of different plants. Different gardens inside the campus add to its beautification in many folds.

. Details of physical structures	
Physical Structure	Area/No
Total Area	14.6 Acre
Built Up Area	10299.23 m ²
Class Rooms	32
Libraries	01
Administrative rooms	05
Laboratories	04
Auditoriums	01
Conference rooms	01
Staff common rooms	01
Students common rooms	02
Hostels	03
Canteens	01
Guest House	01
Post Office	01
Staff Quarter	02
Stadium	01
Security Rooms	03
Principal Quarter	01
Cycle Stand	01
Examination Hall	01
Lavatories	14

Construction Area in Sqft.		
Specific area	Size in ft	Total area in ft².
Staff Common Room to Boys Lavatories	2(200 X 28)	11200
Administrative Block	2(125 X 28)	7000
Zoology Department	89 X 37	3293
Examination Hall	2(115 X 25)	5750
Room No-01 to 06	145 X 26	37770
Room No-26 & 27	64 X 27	1727
Library Hall	2(137 X 38)	10412
Chemistry, Botany & Math Laboratory	100 X 68	6800
Boys Hostel	92 X 67	6164
Principal Quarter	51 X 34	1734
Guest House	62 X 56	3472
Canteen	34 X 23	782
Old Chemistry Block	87 X 42	3650
Post Office	36 X 46	1656
New OBC Hostel	3(94 X 52)	14664
Ladies Hostel	2 (112 X 90)	20160
Staff Quarter	79 X 35	2765
Cycle Stand	35 X 18	630
Stadium	72 X 31	2232
Security 3 Nos. Room	10 X 12.5	125
	25 X 10	250
	10 X 12.5	125
Total		110860 ft² =10,299.23 m²

Auditing for Energy Management

Energy conservation is an important aspect of campus sustainability which is also linked with carbon foot print of the campus. Energy auditing deals with the conservation and methods to reduce its consumption related to environmental degradation. It is therefore essential that any environmentally responsible institution examine its energy use practices.

METHODOLOGY ADOPTED

The methodology adopted to conduct the Energy Audit of the college had the following components

Onsite Visit

Three day field visit was conducted by the Energy Audit Team. The key focus of the visit was on assessing the status of the energy consumption of the college and energy conservation strategies etc.

Group Discussion

The Group discussions were held with the staff members, students and the management focusing various aspects of Energy Audit. The discussion was focused on identifying the attitudes and awareness towards environmental issues at the institutional and local level.

Energy management

With the help of teachers and students, the audit team assessed the energy consumption pattern and waste generation, disposal and treatment facilities of the college. The monitoring was conducted with a detailed questionnaire survey method.

AUDIT STAGE

The Energy auditing began and energy conservation strategies etc. Different facilities at the college were monitored, different types of appliances and utilities (lights, taps, toilets, fridges, etc.) were determined as well as measuring the usage per item (Watts indicated on the appliance or measuring water from a tap) and identifying the relevant consumption patterns (such as how often an appliance is used) and their impacts. The staff were interacted to get details of usage, frequency or general characteristics of certain appliances.

Energy Audit

A detailed data of consumption of electricity of the institution for the sessions 2017-18, 2018-19 and 2019-20 are given elaborately in table separately. The consumption of electricity is varied with the addition / modification of different items/ instruments. The institution is equipped with modern / updated electric appliances such as 5star rated instruments LED tube and bulbs to reduce the energy consumption. It also tried to add solar energy system to further save and use of green energy.

Data Sheet for Energy Audit of the Session: 2017-18

Room No./ Name	Electrical device/ Items (Bulbs: CFL/ Incandescent/ CFL; AC, Fan/ Computer, Instruments, Other appliances)	Number	Power In watt	Usage Time (Hr/Day)
NAAC	Fan	2	140	5
	CFL	2	36	5
	Desktop	8	440	5
	Laptop	1	150	5
	AC	1	1500	2
Principal's Office	Fan	3	210	7
	CFL	3	36	7
	Laptop	1	150	7
Principal's Rest Room	Fan	1	70	5
	CFL	1	36	5
	CCTV DVR	1	220	24
	AC	1	1500	2
	Refrigerator	1	125	24
Account Section	Fan	2	140	7
	CFL	2	48	7
	Desktop	1	220	7
	Printer	2	220	5
Administrative Office	Fan	2	140	7
	CFL	3	96	7
	Printer	1	220	5
Office Veranda	Tube Light	4	48	5
Staff Common Room	Fan	8	560	7
	CFL	6	240	7
	AC	3	4500	3
	Water Purifier	1	30	24
Examination Section	Fan	8	560	5
	Tube Light	9	360	5
	Desktop	1	220	5
SAMS	Fan	1	70	5
	Tube Light	2	80	5
	Desktop	3	220	5
	Xerox	1	350	5
Education Seminar	Fan	3	210	5
	Tube Light	3	120	5
	Laptop	1	150	5
Economics Seminar	Fan	3	210	5
	Tube Light	3	120	5
Sociology Seminar	Fan	2	140	5
	Tube Light	2	80	5
English Seminar	Fan	1	70	5
	Tube Light	1	40	5

	Laptop	1	150	5
	Printer	1	220	5
Philosophy Seminar	Fan	2	140	5
	Tube Light	1	40	5
Vocational Office	Fan	1	70	5
	Tube Light	2	80	5
Odia Seminar	Fan	3	210	5
	Tube Light	2	80	5
History Seminar	Fan	3	210	5
	Tube Light	3	120	5
Political Sc Seminar	Fan	3	210	5
	Tube Light	3	120	5
Commerce Seminar	Fan	3	210	5
	Tube Light	4	160	5
Ladies Common Room	Fan	2	14	5
	Tube Light	6	240	5
	Water Purifier	1	30	24
Zoology Department	Fan	9	630	5
	Tube Light	10	400	5
	CFL	3	72	5
Motor Room	Motor	1	1492	4
	Bulb	1	40	4
Class Room No 08	Fan	8	560	5
	CFL	3	60	5
Class Room No 10	Fan	4	280	5
	CFL	2	45	5
Class Room No 09	Fan	1	70	5
	CFL	1	15	5
Class Room No 07	Fan	2	140	5
	CFL	1	30	5
Class Room No 14	Fan	1	70	5
	CFL	1	15	5
Class Room No 15	Fan	1	70	5
	CFL	1	15	5
Class Room No 16	Fan	6	210	5
	CFL	2	45	5
Class Room No 17	Fan	1	70	5
	CFL	1	15	5
Class Room No 18	Fan	1	70	5
	CFL	1	15	5
Class Room No 19	Fan	1	70	5
	CFL	1	15	5
Class Room No 20	Fan	6	420	5
	CFL	2	45	5
Class Room No 21	Fan	8	560	5
	CFL	2	60	5
Class Room No 23	Fan	6	420	5
	CFL	2	45	5
Class Room No 24	Fan	2	140	5
	CFL	2	30	5

Class Room No 25	Fan	10	700	5
	CFL	2	75	5
Physics Department	Fan	9	630	5
	CFL	10	295	5
	Desktop	1	220	5
	Water Purifier	1	30	24
	Refrigerator	1	125	24
	Printer	1	220	5
Botany Department	Fan	11	770	5
	CFL	7	140	5
	Desktop	1	220	5
	Printer	1	220	5
	Refrigerator	1	125	24
Mathematics Department	Fan	4	280	5
	CFL	6	90	5
	Desktop	1	1320	5
	Printer	1	220	5
Chemistry Department	Fan	12	840	5
	CFL	3	45	5
	Refrigerator	1	125	24
	Tube light	7	280	5
Library	Fan	25	1750	5
	Tube Light	13	520	5
	CFL	20	300	5
	Desktop	3	660	5
	Water Purifier	1	30	24
	Printer	1	220	5
	Xerox	1	350	5
Boys Hostel	Fan	12	840	5
	Tube Light	16	192	5
	Water Purifier	1	30	24
	CFL	3	132	5
Ladies Hostel	Fan	24	1680	5
	Water Purifier	1	30	24
	Tube Light	25	1000	5

Data Sheet for Energy Audit of the Session: 2018-19

Room No./ Name	Electrical device/ Items (Bulbs: CFL/ Incandescent/ CFL; AC, Fan/ Computer, Instruments, Other appliances)	Number	Power In watt	Usage Time (Hr/Day)
NAAC	Fan	2	140	5
	LED	2	18	5
	Desktop	8	440	5
	Laptop	1	150	5

	AC	1	1500	2
Principal's Office	Fan	5	210	7
	LED	3	27	7
	Laptop	1	150	7
Principal's Rest Room	Fan	1	70	5
	LED	2	18	5
	CCTV DVR	1	220	24
	AC	1	1500	2
	Refrigerator	1	125	24
Account Section	Fan	2	140	7
	LED	3	27	7
	Desktop	1	220	7
	Printer	2	220	5
Administrative Office	Fan	2	140	7
	LED	5	45	7
	Printer	1	220	5
Office Veranda	Tube Light	4	48	5
Staff Common Room	Fan	8	560	7
	LED	8	72	7
	AC	3	4500	3
	Water Purifier	1	30	24
Examination Section	Fan	8	560	5
	Tube Light	9	360	5
	Desktop	1	220	5
	LED	3	27	7
SAMS	Fan	1	70	5
	Tube Light	2	80	5
	Desktop	3	220	5
	Xerox	1	350	5
Education Seminar	Fan	3	210	5
	Tube Light	3	120	5
	Laptop	1	150	5
Economics Seminar	Fan	3	210	5
	Tube Light	3	120	5
Sociology Seminar	Fan	2	140	5
	Tube Light	2	80	5
English Seminar	Fan	1	70	5
	Tube Light	1	40	5
	Laptop	1	150	5
	Printer	1	220	5
Philosophy Seminar	Fan	2	140	5
	Tube Light	1	40	5
Vocational Office	Fan	1	70	5
	Tube Light	2	80	5

Odia Seminar	Fan	3	210	5
	Tube Light	2	80	5
History Seminar	Fan	3	210	5
	Tube Light	3	120	5
Political Seminar Sc	Fan	3	210	5
	Tube Light	3	120	5
Commerce Seminar	Fan	3	210	5
	Tube Light	4	160	5
Ladies Common Room	Fan	2	14	5
	Tube Light	6	240	5
	Water Purifier	1	30	24
Zoology Department	Fan	9	630	5
	Tube Light	10	400	5
	LED	5	45	5
Motor Room	Motor	1	1492	4
	LED	1	9	6
Class Room No 08	Fan	8	560	5
	LED	5	45	5
Class Room No 10	Fan	4	280	5
	LED	3	27	5
Class Room No 09	Fan	1	70	5
	LED	1	9	5
Class Room No 07	Fan	2	140	5
	LED	1	9	5
Class Room No 14	Fan	1	70	5
	LED	1	9	5
Class Room No 15	Fan	1	70	5
	LED	1	9	5
Class Room No 16	Fan	6	210	5
	LED	4	36	5
Class Room No 17	Fan	1	70	5
	LED	1	9	5
Class Room No 18	Fan	1	70	5
	LED	1	9	5
Class Room No 19	Fan	1	70	5
	LED	1	9	5
Class Room No 20	Fan	6	420	5
	LED	4	36	5
Class Room No 21	Fan	8	560	5
	LED	4	36	5
Class Room No 23	Fan	6	420	5
	LED	4	36	5
Class Room No 24	Fan	2	140	5
	LED	2	18	5

Class Room No 25	Fan	10	700	5
	LED	4	36	5
Physics Department	Fan	9	630	5
	LED	10	90	5
	Desktop	1	220	5
	Water Purifier	1	30	24
	Refrigerator	1	125	24
	Printer	1	220	5
Botany Department	Fan	11	770	5
	LED	7	63	5
	Desktop	1	220	5
	Printer	1	220	5
	Refrigerator	1	125	24
Mathematics Department	Fan	4	280	5
	LED	6	54	5
	Desktop	1	1320	5
	Printer	1	220	5
Chemistry Department	Fan	12	840	5
	LED	8	72	5
	Refrigerator	1	125	24
	Tube light	7	280	5
Library	Fan	25	1750	5
	Tube Light	13	520	5
	LED	20	180	5
	Desktop	3	660	5
	Water Purifier	1	30	24
	Printer	1	220	5
	Xerox	1	350	5
Boys Hostel	Fan	12	840	5
	Tube Light	16	192	5
	Water Purifier	1	30	24
	LED	3	27	5
Ladies Hostel	Fan	24	1680	5
	Water Purifier	1	30	24
	Tube Light	25	1000	5

Data Sheet for Energy Audit of the Session: 2019-20

Room No./ Name	Electrical device/ Items (Bulbs: CFL/ Incandescent/ CFL; AC, Fan/ Computer, Instruments, Other appliances)	Number	Power	Usage Time (Hr/Day)
NAAC	Fan	2	140	5
	LED	3	36	5
	Desktop	2	440	5
	Laptop	1	150	5
	AC	1	1500	2
	Printer	2	440	5
Principal's Office	Fan	3	210	7
	LED	3	36	7
	Laptop	1	150	7
Principal's Rest Room	Fan	1	70	5
	LED	3	36	5
	Desktop	1	220	5
	CCTV DVR	1	220	24
	AC	1	1500	2
	Printer	1	220	5
	Refrigerator	1	125	24
Account Section	Fan	2	140	7
	LED	4	48	7
	Desktop	1	220	7
	Printer	2	220	5
Administrative Office	Fan	2	140	7
	LED	8	96	7
	Desktop	1	220	7
	Printer	1	220	5
Office Veranda	Tube Light	4	48	5
Staff Common Room	Fan	8	560	7
	LED	16	240	7
	AC	3	4500	3
	Water Purifier	1	30	24
Examination Section	Fan	8	560	5
	Tube Light	9	360	5
	Desktop	1	220	5
SAMS	Fan	1	70	5
	Tube Light	2	80	5
	Desktop	3	220	5
	Xerox	1	350	5

Education Seminar	Fan	3	210	5
	Tube Light	3	120	5
	Laptop	1	150	5
Economics Seminar	Fan	3	210	5
	Tube Light	3	120	5
	Laptop	1	150	5
	Printer	1	220	5
Sociology Seminar	Fan	2	140	5
	Tube Light	2	80	5
	Laptop	1	150	5
English Seminar	Fan	1	70	5
	Tube Light	1	40	5
	Laptop	1	150	5
	Printer	1	220	5
Philosophy Seminar	Fan	2	140	5
	Tube Light	1	40	5
	Laptop	1	150	5
Vocational Office	Fan	1	70	5
	Tube Light	2	80	5
Odia Seminar	Fan	3	210	5
	Tube Light	2	80	5
History Seminar	Fan	3	210	5
	Tube Light	3	120	5
	Desktop	1	220	5
Political Seminar Sc	Fan	3	210	5
	Tube Light	3	120	5
	Laptop	1	150	5
Commerce Seminar	Fan	3	210	5
	Tube Light	4	160	5
	Laptop	1	150	5
Ladies Common Room	Fan	2	14	5
	Tube Light	6	240	5
	Fan	9	630	5
Zoology Department	Tube Light	10	400	5
	Laptop	1	150	5
	LED	6	72	5
Motor Room	Motor	1	1492	4
	Bulb	1	40	4
Class Room No 08	Fan	8	560	5
	LED	4	60	5
Class Room No 10	Fan	4	280	5
	LED	3	45	5
Class Room No 09	Fan	1	70	5
	LED	1	15	5

Class Room No 07	Fan	2	140	5
	LED	2	30	5
Class Room No 14	Fan	1	70	5
	LED	1	15	5
Class Room No 15	Fan	1	70	5
	LED	1	15	5
Class Room No 16	Fan	6	210	5
	LED	3	45	5
Class Room No 17	Fan	1	70	5
	LED	1	15	5
Class Room No 18	Fan	1	70	5
	LED	1	15	5
Class Room No 19	Fan	1	70	5
	LED	1	15	5
Class Room No 20	Fan	6	420	5
	LED	3	45	5
Class Room No 21	Fan	8	560	5
	LED	4	60	5
Class Room No 23	Fan	6	420	5
	LED	3	45	5
Class Room No 24	Fan	2	140	5
	LED	2	30	5
Class Room No 25	Fan	10	700	5
	LED	5	75	5
Physics Department	Fan	9	630	5
	LED	13	295	5
	Desktop	1	220	5
	Water Purifier	1	30	24
	Refrigerator	1	125	24
	Printer	1	220	5
Botany Department	Fan	11	770	5
	LED	7	140	5
	Desktop	1	220	5
	Water Purifier	1	30	24
	Refrigerator	1	125	24
Mathematics Department	Fan	4	280	5
	LED	6	9	5
	Desktop	6	1320	5
	Printer	1	220	5
Chemistry Department	Fan	12	840	5
	LED	3	45	5
	Tube light	7	280	5
Library	Fan	25	1750	5
	Tube Light	13	520	5

	LED	20	300	5
	Desktop	3	660	5
	Printer	1	220	5
Boys Hostel	Fan	12	840	5
	Tube Light	16	192	5
	LED	11	132	5
Ladies Hostel	Fan	24	1680	5
	Tube Light	25	1000	5

Annual Electricity Bill: 2017-18: Rs 93,844/-

2018-19: Rs 77,582/-

2019-20: Rs 81,681/-

The total energy utilization of the college for different purposes is approximately **17856.97 units/month**. Increased production of solar energy a type of nonconventional category of energy will be a good energy management system for the college. Electricity charges per month are **Rs.100000/month**. Energy saving through the replacement of incandescent bulbs, CFL lamps and tube lights to LED light could be a good option. Energy efficient electrical equipment especially fans and pump sets can be replaced against old ones. Awareness programs for the stakeholders to save energy may also increase sustainability in the utilization of various energy sources.

Availability of solar power with details:

The college has a installed luminous PCU 7.5 KVA solar power system in view of conserving conventional energy and switched over to green energy to create not only eco-friendly campus but also generate revenue for the institution. Since beginning of this session with an agreement with M/s Swarna Tyres to supply electric energy to the main building where main drain of current is carried out.



Solar Power Panels installed in the college campus



Control unit of electric energy

MAJOR AUDIT OBSERVATIONS

Energy Management

- Monthly use of electricity in the college is high. As expansion is going on, the consumption would further increase.
- The communication process for awareness in relation to energy conservation is inadequate.

SUGGESTIONS AND RECOMMENDATIONS

- It is recommended to avoid using of more energy consuming older electrical appliances and to replace with more environment friendly and energy efficient appliances like five star rating appliances in the college.
- Potential for renewable energy sources have to be explored. The advantage of large roof areas of the college can be taken for installing solar grid.
- It is recommended to use solar powered water heater and cooker in the canteens of college/ hostels and solar powered street lights.
- Regular monitoring of equipment and immediate rectification of any problem should be done.
- Switch off the electrical appliances used in different rooms immediately after the completion of classes/seminars.

Ramesh Kumar Sahu
Dushasa Paul

TEAM MEMBERS

Energy Audit

Praveen Kumar Bhatnagar
Sarojikaanta Nayak
Subhasis Mishra



PRINCIPAL

Pattamundai College

Principal
Pattamundai College

On Request


S.D.O (Elect.) TPCODL
PATTAMUNDAI

Energy Audit

**AN IQAC SEMINAR HELD ON 3RD JANUARY ,2019
ON THE TOPIC**

**"CONSERVATION OF MANGROOVE ECO-SYSTEM
FOR THE PROTECTION OF COASTAL ENVIRONMENT "**



RESOURCE PERSON

PROF.DR. SHARAT KUMAR PALITA

**PROF & DEAN ,SCHOOL OF BIO-DIVERSITY &
CONSERVATION OF NATURAL RESOURCES .
CENTRAL UNIVERSITY , KORAPUR .**

ORGANISED BY

**IQAC, PATTAMUNDAI COLLEGE.
PATTAMUNDAI**

REPORT

An IQAC seminar was held on 3rd January 2019 at 11 a.m. in hall No-25 on the topic 'CONSERVATION OF MANGROOVE ECO-SYSTEM FOR THE PROTECTION OF COASTAL ENVIRONMENT'. The resource person on this occasion was PROF.DR. SHARAT KUMAR PALITA, Prof & Dean, School Of Bio-Diversity & Conservation Of Natural Resources, Central University, Koraput. The seminar was inaugurated by Prof. Ramesh Chandra Shoo, Principal of this college. He gave the warmth welcome to resource person, staff & Students. Prof. Dr. Dushasan Parida, IQAC Coordinator, gave brief introduction of the guest and the topic. Prof. Dr. Palita delivered the topic through power point presentation very nicely. At the end, Prof. Manas Kumar Nayak tendered a vote of thanks to all present in this seminar.

Internal Quality Assurance Cell (IQAC)
Pattamunadai College, Pattamundai
Invited Extramural Talk
Date : 03.01.2019; Time : 11:00 AM

Conservation of Mangrove Ecosystem for Protection of Coastal Environment

By

Prof. Sharat Kumar Palita

Dean, School of Biodiversity and Conservation of Natural Resources

Central University of Orissa, Koraput-764021

e-mail : skpalita@gmail.com; skpalita@cuo.ac.in

Mangrove Ecosystem

- Mangroves are trees or shrubs that have the common trait of growing in shallow and muddy salt water or brackish waters, especially along quiet shorelines, estuaries, tidal creeks, backwaters, lagoons, marshes and mud flats in the tropical and sub-tropical regions of the world. .



- The mangroves are otherwise known as "Mangals".
- These plants exist under very hostile and inhospitable conditions.
- Mangrove plants have to encounter higher salinity, tidal extremes, heavy winds, high temperature and anaerobic soil substrates.

Mangroves of the World

- Mangroves are salt-tolerant forest ecosystems found mainly in tropical and sub-tropical inter-tidal regions of the world (mainly between latitudes 25° N and 25° S).
- Mangroves are salt-tolerant forest ecosystems found mainly in tropical and sub-tropical inter-tidal regions of the world (mainly between latitudes 25° N and 25° S).



- Mangroves are of two types, the eastern group that grow in the Malay peninsular region, occurring along the Indian and western pacific Ocean, including some parts of Australia.
- The western groups or new world mangroves are confined to the coast of America, West-indies and west Africa .

MANGROVE ECOSYSTEM

- Mangroves are periodically inundated by salt water from sea and fresh water from the rivers.
- They are generally subjected to twice daily tides: High and Low tides as well as fortnightly by Spring and Neap tides.
- These plants are developing peculiar adoptive morphological features and physiological mechanism's such as supporting and breathing roots (stilt roots and pneumatophores).

Mangrove Plants

- The mangrove plants are characterised by salt excreting leaves.
- This vegetation is characterized by dark-green waxy, shiny foliage.
- They show viviparous germination.

Mangrove : A Dynamic Coastal Ecosystem

- Mangroves and their associates together constitute a dynamic coastal ecosystem supporting rich microbial, floral and faunal components.
- The term "mangrove" comes to English from Spanish (perhaps by way of Portuguese), and is likely to originate from Guarani.
- It was earlier "mangrow" (from Portuguese *mangue* or Spanish *mangle*), but this word was corrupted via folk etymology influence of the word "grove".

Food Chain in Mangrove Ecosystem

- The food chain in mangrove relies on the recycling of the detritus, made by the falling leaves of the trees.
- Recycling is done by the smaller creatures, such as the burrowing crab and the shrimp.
- These species are considered as the primary consumers of the ecosystem and the mangroves are the main producers.

- One step above these creatures is the smaller fish of the mangrove forests.
- The top level of this food chain are the wading birds, such as egrets or ospreys.

Mangrove Ecosystem of India

- India covers about 4,445 km area of Mangroves
- West Bengal has the greatest area of mangroves cover in the country followed by Gujarat & Andaman Nikobar island.
- About 60% of the mangroves cover is found on the east coast of India.
- The largest mangroves occur along the Gangetic Sundarban on the Bay of Bengal.
- Mangroves of Bhitarkanika, though small in area is rich in Biodiversity



Mangroves of Sundarban

- The Sundarbans represent the largest mangrove forest in the Indian subcontinent.
- The name *Sundarban* has been derived from the *Sundari* trees (the mangrove species *Heritiera fomes*) that are found in Sundarbans in large numbers.
- The Indian part of Sundarbans is estimated to be about 4266.40 km².
- 69 intertidal plant species are found in Indian Sundarbans, of which 30 species belong to true mangrove, 32 species are mangrove associate (Mandal, 2008).
- Sundarban mangroves are important habitats for the endangered Bengal tiger (*Panthera tigris*), salt water crocodiles (*Crocodylus porosus*), Gangetic Dolphin (*Plantasita gangetica*) and River Terrapin (*Batagur baska*)

Mangrove Forest of Odisha

- Mangroves of Odisha cover an area of 215 km² and distributed along river mouths of Subarnarekha, Bhudhabalanga, Bramhani-Baitarani and Mahanadi and Devi.
- Bhitarkanika mangrove forest situated in the Bramhani, Baitarani deltatic region in the district of Kendrapara in the east coast of Odisha.
- It is the second largest mangroves ecosystem in India.
- Bhitarkanika mangrove ecosystem is a hot-spot of biodiversity. It's home to largest population of giant salt water crocodile (*Crocodylus porosus*) in India.
- Also home to more than 215 species of avifauna including amazing 08 variety of Kingfishers.
- It is the second largest viable Mangrove Ecosystem in India and harbours more than 70 species of Mangrove and its associates (31 species of true mangroves).

- Gahirmatha is known to be one of the largest rookery for Olive Ridley Sea Turtles (*Lepidochelys olivacea*).
- "Bagagahana", the heronry provides nesting and living space to about 80,000 resident and migratory birds.
- Also the numerous wetlands scattered throughout the Sanctuary serve as feeding and wintering grounds for more than 50,000 migratory birds during winter and early summer months.
- Mudskippers are amphibious fishes and are seen in mudflats of Bhitarkanika.
- Out of the four species of horse shoe crabs of the World, two species are found in India viz; *Tachypleus gigas* and *Carcinoscorpius rotundicauda*.
- Both these species are found in Bhitarkanika along Gahirmatha coast. Very important from medicinal point of view- the blood of horseshoe crab is used for detection of bacterial endotoxins.
- Mangrove ecosystem supports a variety of fish fauna.
- Some of the commercially important fishes are illisha (*Hilsa illisha*), Khainga (*Mullet Spp.*), Bhakti (*Lates calcifer*), Kantia (*Mustus qulio*), Kokill or Anchovy (*Coilia dussumier*) etc.

Salt water crocodile project at Dangmal-Bhitarkanika National Park

- In Odisha, by the time of mid seventies, the population of salt water crocodiles (*Crocodylus porosus*) declined due to over exploitation, poaching and indiscriminate hunting.
- To save these greatly endangered species from extinction, a conservation programme was launched by the State Govt., under the guidance of Dr. H.R. Bustard, FAO/UNDP expert.
- The entire mangrove habitat was declared as Bhitarkanika Wildlife Sanctuary in 1975 and the conservation programme for protecting salt water crocodile started at Dangmal.
- The practice of collection of eggs from the Wild and their subsequent incubation technique was preferred to build up the depleted population.
- The reared crocodiles of 1.2 meter length were released into the creeks and creeklets.
- Now this rear and release programme has become highly successful and there is a stable population of crocodiles.

Gahirmatha and Mass Nesting of Sea Turtles

- Gahirmatha is declared as the first and the only Marine Sanctuary of Odisha in 1997.
- The sandy beaches of Gahirmatha has been frequented by Olive ridley sea turtles, *Lepidochelys olivacea* since time immemorial, migrating over thousand kilometers for mass nesting.

- During the breeding period of about eight months, from October to May, these turtles spend considerable amount of time in the shallow waters near Gahirmatha.
- Olive Ridley sea turtles feed on marine snails, smaller forms of fish, fish eggs, crustaceans and jellyfish. They lay eggs in Gahirmatha coast in large numbers.



Benefits of Mangrove Ecosystem

- Direct Benefits

- ☐ Food and fodder
- ☐ Fuel wood for cooking
- ☐ Timber for shelter construction
- ☐ Thatching material
- ☐ Charcoal, honey and wax
- ☐ Medicines from mangrove plants
- ☐ Mangrove areas are nurseries of numerous marine and brackish water species and their juveniles grow in ecosystem
- ☐ Mangrove ecosystem are favourable environment for a variety of economically important fish fauna (*Etrophus, Mugil, lates, Sillago, Chanos, Macrobrachium, Seylla etc.*), which boosts livelihood for fisherman

Mangrove wetlands provide

- ☐ *nursery grounds for commercially important prawns, fishes and crabs.*
- ☐ *enhance productivity of the fish in adjacent coastal waters by providing large quantities of organic and inorganic nutrients.*
- ☐ *provide habitats for wildlife ranging from migratory birds to estuarine crocodiles.*
- ☐ Tanin liberated by the mangrove vegetation hardens egg case of fin and shell fishes and ensure better survival for hatchlings.
- ☐ The wax from mangrove leaves and hymenopteran's hives controls predatory aquatic insects.
- ☐ Mangroves are rich in yeast concentration and their enzymatic activities breakdown the cellulose and the hemicellulose from the mangrove litters and pectin from shells of dead crustaceans respectively making carbohydrates, protein etc. readily available to the juveniles of finfish, shellfish and crustaceans which feed on detritus.
- ☐ Mangroves also purify the aquatic systems from hydrocarbon pollution.
- ☐ *In general mangroves indeed enriches the coastal productivity.*

Mangrove forests are among the most productive ecosystems and play an important role in

- ☐ protection of the coastal areas, as it acts as a barrier against cyclonic storms,
- ☐ restrict the inland entry of saline water during storm surges and
- ☐ act as a buffer against floods, thereby averting soil erosion in the coastal zone
- ☐ Helps in dissipating winds, tidal and wave energy
- ☐ Acts as a bioshield which can to a certain extent reduce the giant waves of tsunami
- ☐ The green belt is more economical than stone walls
- ☐ Play significant role in coastal stabilisation promoting land accretion and fixation of mud banks etc.

Pichavaram Mangrove : A success Story against 2004 Tsunami

- ☐ Scientists have already proven that dense mangrove forests can help reduce the devastating impact of tsunamis and coastal storms by absorbing some of the waves' energy.
- ☐ When tsunami struck Tamil Nadu in 2004, areas in Pichavaram and Muthupet with dense mangroves suffered fewer human casualties and less damage to property compared to areas without mangroves.

Bhitarkanika Mangrove : A success Story against 1999 Super Cyclone

- ☐ During 1999 Super Cyclone, while coastal areas of Jgatsinghpur district was worst hit, as mangrove in the coastal areas were almost gone or degraded, areas close to Bhitarkanika suffered fewer casualties.

Carbon Sequestration Potential of Mangrove Forest

- ☐ Mangroves have an enormous capacity for sucking up carbon dioxide and other greenhouse gases from the atmosphere. For this reason mangroves are known as natural carbon sinks as they take CO₂ out of the atmosphere and store it in their biomass for many years.
- ☐ They are among the most carbon-rich tropical forests and during normal growth, mangroves rapidly convert carbon dioxide into biomass.
- ☐ The saturated soils in which they grow contain low levels of oxygen, which bacteria and fungi need as fuel to break down dead plant matter. Instead, this dead material is stored in the soil.
- ☐ Mangroves account for only approximately 1% (13.5 Gt year⁻¹) of carbon sequestration by the world's forests, but as coastal habitats they account for 14% of carbon sequestration by the global ocean.
- ☐ If mangrove carbon stocks are disturbed, resultant gas emissions may be very high.

Mangrove and Climate Change

- [RE]** Mangroves line the world's coastlines and prefer warm temperatures, so they have traditionally been restricted to subtropical and tropical environments.
- [RE]** But they have many features that have enabled them to survive major climate shifts in the past.
- [RE]** Now, in a harbinger of climate change, mangroves are expanding from tropical zones into temperate areas.
- [RE]** Scientists are finding them at higher and higher latitudes in North America, South America, Asia, Africa, Australia and Latin America.

Threats to Mangroves

- Mangroves around the world have been severely reduced by human activities, particularly clearance for agriculture, aquaculture and urban development.
- The development of shrimp aquaculture ponds accounts for the loss of 20–50% of the mangrove ecosystem worldwide.
- It is estimated that mangrove deforestation rates in recent decades have been three to five times faster than other forests around the globe.
- It has been projected that the mangroves are supposed to decline by another 25% by 2025 in developing countries

Reversing the Trend: Conservation & Management of Mangroves

- Mangrove forests are of great importance to coastal communities, providing not only a source of food and resources but also protecting coastlines, preventing erosion and regulating our climate.
- Yet, mangroves are also one of the most threatened ecosystems and continue to be cleared at an alarming rate.
- Understanding the above importance of mangroves, strategies and actions for their conservation and sustainable use must be integrated within broader development planning frameworks.
- Government must recognise the strong link between mangrove ecosystem degradation and persistence of poverty in many rural coastal communities.
- Sustainable management and restoration of mangrove ecosystems is an achievable, but in can be really practically possible when local communities become aware, rise to the occasion and make it a socio-political issue, as it is linked to the life and livelihood of coastal communities.
- We the academic institutions (both teacher and students) have great role in spreading the message of mangroves in coastal protection.

environments

Pattamundai College, Pattamundai

Sl No	Name	Class	Roll No	Signature
1	Ratnakar Sahoo	+3 2nd year	BS-16-081	Ratnakar Sahoo
2	Rahas behari muduli	+3 2nd year	BS-16-124	Rahas behari muduli
3	Utkal keshari Das	+3 2nd year	BS-16-124	Utkal keshari Das
4	Abinash Das	+3 2nd year	BS-16-232	Abinash Das
5	Madhusudan Behara	+3 1st year	BS18-058	Madhusudan Behara
6	Bibhaddatta Panda.	+3 1st year	BS18-109	Bibhaddatta Panda.
7	Narendra sethi	+2 1st year	BA18-231	Narendra sethi
8	Trilochan Das	+2 1st year	BA18-208	Trilochan Das
9	Shankaran Behara	+2 1st year	BA18-73	Shankaran Behara
10	Rajnikanta Jena	+3 2nd year	BS-17-089	Rajnikanta Jena
11	Debabrata Mahapatra	+3 2nd year	BS17-158	Debabrata Mahapatra
12	Jayanta Kumar Das	+3 2nd year	BS-16-012	Jayanta Kumar Das
13	Priyaprasad Sahoo	+3 2nd year	BS-16-016	Priyaprasad Sahoo
14	Nihar ranjan Tripathy	+3 2nd year	BS-16-024	Nihar ranjan Tripathy
15	Prabira Kumar Sethy	+3 2nd year	BS-16-031	Prabira Kumar Sethy
16	Somir ranjan Khatao	+3 2nd year	BS-16-064	Somir ranjan Khatao
17	Sandeep Kumar Behara	+3 2nd year	BS-17-070	Sandeep Kumar Behara
18	Nowad Khan	+3 2nd year	BS17-007	Nowad Khan
19	Ajit Kumar Gahem	+3 2nd year	BS17-109	Ajit Kumar Gahem
20	Rakesh Chandra Das	+3 1st year	BA18-123	Rakesh Chandra Das
21	Lalshmi Behera Das	+3 2nd year	BA17-221	Lalshmi Behera Das

Sl No	Name	Class	Roll No	Signature
22	Akankshya Patra	+3 2nd yr Arts	BA-17-151	Akankshya Patra
23	Soumyashree Parida	+3 1st yr Arts	BA-18-049	Soumyashree Parida
24	Sankhara Rout	+3 1st yr Arts	BA-18-246	Sankhara Rout
25	Tanushree Parida	+3 3rd yr sci.	BS-16-147	Tanushree Parida
26	Sarmita Sahoo	+3 3rd yr sci.	BS-16-156	Sarmita Sahoo
27	Priganka Keraf	+3 3rd yr sci.	BS-16-146	Priganka Keraf
28	Shivagini Sahoo	+3 2nd yr. sc.	BS 16 - 004	Shivagini Sahoo
29	Satyabadi Sahoo	+3 3rd yr. sc.	BS 16 - 045	Satyabadi Sahoo
30	Anjali kv. Rout	+3 3rd yr. sc.	BS-16-147	Anjali kv. Rout
31	Dilip Day	+3 3rd yr. sc.	BS-16-054	Dilip Day
32	Subham Kumar Lenka	+3, 3rd year sc	BS16-048.	Subham Kumar Lenka.
33	Aparajita Prasad	+3 3rd yr. sc.	BS 16 - 006	Aparajita Prasad.
34	Suhanta K. B. B. B.	+3 3rd yr. sc.	BS16-117	Suhanta K. B. B.
35	Amita Nayak	+3 3rd yr. sc.	BS-16-008	Amita Nayak
36	Arpita Sahoo	+3 1st year	BA 18 - 126	Arpita Sahoo
37	Sanghamitra Das	+3 1st year	BA 18 - 234	Sanghamitra Das
38	Kirita Malin Das	+3 1st year	BA 18 - 109	Kirita Malin Das
39	Ayazgata Das	+3 3rd year	BS16-009	Ayazgata Das
40	Madhumita Padhi	+3 3rd year	BS16-065	Madhumita Padhi
41	Ratana Parida	+3 3rd year	BS16-153	Ratana Parida
42	Princepriya Bhuyan	+3 3rd year	BS16-052	Princepriya Bhuyan.
43	Manalika Sharma	+3 3rd year	BS16-038	Manalika Sharma
44	Ankita Bhuyan	+3 3rd year	BS16-056	Ankita Bhuyan
45	Smitika Parida	+3 3rd year	BS16-072	Smitika Parida

Sl No	Name	Class	Roll No	Signature
46	Nibedita Patra	+3 2nd yr.	BS 17-120	Nibedita Patra
47	Archana Mallik	+3 2nd yr	BS 17-114	Archana Mallik
48	Arkita Sahoo	+3 3rd yr	BS 16-017	Arkita Sahoo
49	Sabitri Rout	+3 3rd yr	BS 16-070	Sabitri Rout
50	Sowini Dash	+2 1st yr	138	Sowini Dash
51	Sabita Kowika	+2 1st yr	24	Sabita Kowika
52	Bhagabati Sethi	+2 1st yr	226	Bhagabati Sethi
53	Swagatika Das	+3 1st yr	BS-18-103	Swagatika Das
54	Monalisa Dash	+3 1st yr	BS-18-039	Monalisa Dash
55	Elina Swain	+3 1st yr	BS-18-138	Elina Swain
56	Manisha Swain	+3 1st yr	BS-18-139	Manisha Swain
57	Sumitra Bala	+3 1st yr	BS-18-111	Sumitra Bala
58	Sushasmata Priyadarshini	+3 3rd yr	BS 16-107	Sushasmata Priyadarshini
59	Lipso Jena	+3 3rd yr	BS 16-132	Lipso Jena
60	Rajashree Prasadarani Sahoo	+3 3rd yr	BS 16-155	Rajashree Prasadarani Sahoo
61	Nibedita Swain	+3 3rd yr	BS 16-007	Nibedita Swain
62	Manisha Parida	+3 3rd yr	BS 16-133	Manisha Parida
63	Trishnamayee Jain	+3 3rd yr	BS-16-131	Trishnamayee Jain
64	Baishachi Mahapatra	+3 3rd yr	BS-16-119	Baishachi Mahapatra
65	Sushree Subhasmita Panda	+3 3rd yr	BS-16-140	Sushree Subhasmita Panda
66	Arata Biswal	+3 3rd yr	BS-16-033	Arata Biswal
67	Swati Prava Sahoo	+2 2nd yr	BS 16-001	Swati Prava Sahoo
68	Tyoti Mayee Nath Sharma	+3 3rd yr	BS-16-050	Tyoti Mayee Nath Sharma
69				

Sl No	Name	Class	Roll No	Signature
70	Smriti Prayadarajini Rouf	+3 3rd yr	BS-16-023	Smriti Prayadarajini Rouf
71	Pragathi Rouf	+3 3rd yr	BS-16-011	Pragathi Rouf
72	Nitha Parida	+3 3rd yr	BS16-009	Nitha Parida
73	Sushree Swapalika Rouf	+3 3rd yr	BS-16-095	Sushree Swapalika Rouf
74	Pradeyamma Ketan Rouf	+3 3rd yr	BS-16-005	Pradeyamma Ketan Rouf
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ହେଡ଼ାଳବଣ ସୁରକ୍ଷା ସମ୍ପର୍କିତ ଆଲୋଚନାଚକ୍ର

ପଞ୍ଚାମ୍ରାତ, ୫/୧(କମିସ): ହେଡ଼ାଳବଣର ସୁରକ୍ଷା ଓ ନୂତନ ହେଡ଼ାଳବଣ ସୃଷ୍ଟି କ'ଣ ହେବ ତାହା ନିଶ୍ଚୟ କରିଥିବା ବିଧିବିଧିରେ ଉପରୁ ଆଦେଶ ପ୍ରତି ପୋର ବିପର ହୋଇଥିବେ। ଏହା ଉପରେ ନିରୀକ୍ଷକଙ୍କର ଉଚ୍ଚ ଶାସ୍ତ୍ରାଧିକାରୀଙ୍କ ପ୍ରମୁଖ ଭୂମିକା ରହିବ ବୋଲି ପଞ୍ଚାମ୍ରାତ ମହାବିଦ୍ୟାଳୟରେ ଆଜିକାଲି ପଞ୍ଚାମ୍ରାତ 'ଉପରୁ ଆଦେଶ ପୂର୍ଣ୍ଣ ପାଇଁ ହେଡ଼ାଳବଣର ସୁରକ୍ଷା' ଶୀର୍ଷକ ଆଲୋଚନା କ୍ରମରେ ଯୋଗଦେଇ କେନ୍ଦ୍ରୀୟ ବିଶ୍ୱବିଦ୍ୟାଳୟ ବିଭାଗର ବିଭାଗୀୟ ପ୍ରଫେସର ଶରତ କୁମାର ପାଲିତ ମତ ରଖିଥିଲେ। ପଞ୍ଚାମ୍ରାତ ମହାବିଦ୍ୟାଳୟ ଅଧ୍ୟକ୍ଷ ପ୍ରଫେସର ରମେଶ କୁମାର ପାଲିତ ଉପସ୍ଥାପନାରେ ଆଲୋଚନାଚକ୍ରରେ ପ୍ରଫେସର ପାଲିତ ବକ୍ତବ୍ୟ ରଖିଥିଲେ। ଆଲୋଚନା କ୍ରମରେ ଡ. ପ୍ରଶାନ୍ତ ପରିଜା ଆଲୋଚନାଚକ୍ର ଆଭିମୁଖ୍ୟ ସଂପର୍କରେ ମତ ରଖିବା ସହ ଅତିଥିପରିଚୟ ପ୍ରଦାନ କରିଥିଲେ। କାର୍ଯ୍ୟକ୍ରମରୁ ଡ. ଅକ୍ଷୟ ଦାଶ ସଂଯୋଜକ ଭାବେ କାର୍ଯ୍ୟକ୍ରମରେ ଅଧ୍ୟକ୍ଷଙ୍କ ମାତ୍ର କୁମାର ମାତ୍ର ଧନ୍ୟବାଦ ଅର୍ପଣ କରିଥିଲେ। ବିଭାଗୀୟ ଅଧିକାରୀଙ୍କର କେବଳ ଅଧ୍ୟକ୍ଷ, ଅଧ୍ୟାପକ ଓ କର୍ମଚାରୀମାନଙ୍କୁ ନେଇ 'ନାମ' ଉପରେ ଏକ କର୍ମଶାଳା ଆୟୋଜିତ ହୋଇଥିଲା। ମହାବିଦ୍ୟାଳୟ ଯୁଗିନି ଭେଦରେ ପ୍ରଫେସର ଅଧିକାରୀ ଲକ୍ଷ୍ମୀନାରାୟଣ ଦାସ ମହାବିଦ୍ୟାଳୟର ନାମ ଅଧିକାରୀଙ୍କ ପାଇଁ ଥିବା ବିଭିନ୍ନ କାର୍ଯ୍ୟକ୍ରମ ଉପରେ ମତଦାୟକ କରିଥିଲେ। କର୍ମଶାଳାରେ ପ୍ରଫେସର ଶରତ କୁମାର ପାଲିତ ଯୋଗଦେଇ ୨୦୧୭ରେ ଯୁଗିନି କରିଥିବା ନାମ ପାଇଁ ନୂତନ ନିୟମାବଳୀ ଉପରେ ଆଲୋଚନା କରିଥିଲେ। ଶୁଭାଶିଷ ମିଶ୍ର ଧନ୍ୟବାଦ ଅର୍ପଣ କରିଥିଲେ। କାର୍ଯ୍ୟକ୍ରମରେ ଅଧ୍ୟକ୍ଷ ଅରବିନ୍ଦ ପାଣ୍ଡବ, ରମେଶ କୁମାର ସାହୁ, ବିଭେନ୍ଦ୍ର ମଲ୍ଲିକ, ବାକିତ କୁମାର ସେନାପତି, ଆର-ଏନ ମଧୁସୂତା ପରିଜା, ସଂଯୋଜକ ଦାଶ, ରବିନ୍ଦ୍ର କୁମାର ପଣ୍ଡା, ପ୍ରମୋଦ କୁମାର ସ୍ୱାଇଁ, ସରୋଜ ନାୟକ, ପ୍ରଦ୍ୟୁମ୍ନ ପ୍ରଧାନ, ପ୍ରେମଜନ ରାଉତଙ୍କ ସମେତ ଆଗ୍ର ଅଧ୍ୟାପକ ଅଧ୍ୟାପିକାମାନେ ଉପସ୍ଥିତ ଥିଲେ।

SAMBAD : 06.01.2019

MOTTO OF NSS UNITS OF PATTAMUNDAI COLLEGE

The motto of NSS "Not Me but You" reflects the essence of democratic living and upholds the need for self-less service. NSS helps the student's development and appreciation to other person's point of view and also show consideration towards other living beings. The philosophy of the NSS is a good doctrine in this motto, which underlines on the belief that the welfare of the society as a whole and therefore, the NSS volunteers of Pattamundai College are striving had to induce the students spirit for the active involvement in the service of the community by organising several camps and programmes on its premises.

A REPORT ON PLANTATION PROGRAMME

A plantation Programme was organised by both NSS (Boys Unit) and (Girls Unit) of Pattamundai College, on 07.08.2019 in the college premises. Volunteers of both NSS (Boys Unit) and (Girls Unit) have actively participated in the programme under the guidance and supervision of programme officer, NSS (Boys Unit), Mr. Pradyumna Pradhan and Programme officer, NSS (Girls Unit), Mrs. Sarojini Mishra. Total 50 Numbers of seedlings of Acasia and Neem plants were planted inside the college campus.

**LECTURERS PARTICIPATED IN THE PLANTATION PROGRAMME
ORGANISED BY :- NSS UNITS
PATTAMUNAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA
07th August 2019**

Sl.No	Name	Designation	Phone No	Signature
1	Pradyumn Pradhan	head of Economics	9776010619	P. Pradhan
2	Dr. Miss A.K. Dash	Lect. Botany (H.O.D)	9861476642	Miss A.K. Dash
3	Sarojini Mishra	Lect. in Zoology	9437920782	S Mishra
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VOLUNTEERS PARTICIPATED IN THE PLANTATION PROGRAMME
ORGANISED BY :- NSS UNITS
PATTAMUNAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA
07th August 2019

Sl.No	Name	Roll No	Class	Signature
1	Prakash Sethy	BA-17-166	+3 2nd yr Arts	Prakash Sethy
2	Suprit Barik	BA-17-147	+3 2nd yr Arts	Suprit Barik
3	Surraj Ku Sethi	BS-17-038	+3 2nd yr Arts	Surraj Ku Sethi
4	Kiran Ku Das	BA-17-058	+3 2nd yr Arts	Kiran Ku Das
5	Abhinna Padhy	BA-17-061	+3 2nd yr Arts	Abhinna Padhi
6	Anshuman Behura	BE-17-078	+3 2nd yr com.	Anshuman Behura
7	Rupali Kunder	BS-19-093	+3 1st yr sc	Rupali Kunder
8	Saornisbha Das	BS-17-156	+3 2nd yr sc	Tilottama malik
9	Tilottama Malik	BS-19-123	+3 1st yr sc	Tilottama Malik
10	Satyabrata Padhy	BA-17-120	+3 2nd yr Arts	Satyabrata Padhy
11	Priyanka Barik	BA-19-152	+3 1st yr Arts	Priyanka Barik
12	Malaya Sahoo	BS-17-035	+3 3rd yr sc	Malaya Sahoo
13	Parbati Sethy	BS-17-048	+3 3rd yr sc	Parbati Sethy
14	Chinmaya Sahoo	BS-18-009	+3 2nd yr sc	Chinmaya Sahoo

Sl.No	Name	Roll No	Class	Signature
15	Subhashree Sethy	BS-17-098	+3 2nd yr sc	Subhashree Sethy
16	Itishree Sethy	BS-17-067	+3 2nd yr sc	Itishree Sethy
17	Debashis Gani	BS-18-103	+2 1st yr Science	Debashis Gani
18	Ashis Mohanfy	BS-17-007	+3 2nd yr sc	Ashis Mohanfy
19	Asherman Behura	BS-17-078	+3 2nd yr Com	Asherman Behura
20	Subhasmita Rout	BS-17-044	+3 2nd yr Arts	Subhasmita Rout
21	Ashis Ku. Sahoo	BS-18-037	+2 1st yr Science	Ashis Kuman Sahoo
22	Mohesh Jagati	TS-19-011	+2 1st yr Science	Mohesh Jagati
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NEWS PAPER CLIP

ପଞ୍ଜାବୀୟାଳ କଲେଜରେ ଚାରାରୋପଣ

ପଞ୍ଜାବୀୟାଳ, ୯।୮ (ନି.ପ୍ର.): ପଞ୍ଜାବୀୟାଳ କଲେଜ ଜାତୀୟ ସେବା ସଂସ୍ଥା ପକ୍ଷରୁ ପରିବେଶ ସୁରକ୍ଷା ପାଇଁ ବ୍ୟାପକ କାର୍ଯ୍ୟକ୍ରମ ଗ୍ରହଣ କରାଯାଇଛି । ଏହି ଉପଲକ୍ଷେ ଜନସଚେତନତା ସୃଷ୍ଟି ପାଇଁ କଲେଜ ପରିସରରେ ଚାରାରୋପଣ କରାଯାଇଛି ।



କଲେଜ ଜାତୀୟ ସେବା ସଂସ୍ଥାର କାର୍ଯ୍ୟକ୍ରମ ଅଧିକାରୀ ଅଧ୍ୟାପକ ପ୍ରଦ୍ୟୁମ୍ନ ପ୍ରଧାନଙ୍କ ନେତୃତ୍ୱରେ ପ୍ରଧାନିକା ଡ. ଅଞ୍ଜଳି ଦାଶ, ଅଧ୍ୟାପିକା ପୁଷ୍ପିତା ବିଶ୍ୱାଳ, ଡେମନଷ୍ଟ୍ରେଟର ଅଭିନନ୍ଦ୍ୟ ମହାନ୍ତି, ସରୋଜିତ ପାତ୍ର, ଅଭିନୁ ସୁନ୍ଦର ପାତ୍ର, ଅଂଶୁମାନ ବେହେରା, ଅମୀୟ କୁମାର ଦାସ, ବିକ୍ରମ ପ୍ରଧାନ, ରାଜେଶ କୁମାର ଦାସ ଓ ସାଲିନ ପରିଡା ପ୍ରମୁଖ କଲେଜର ଅଧ୍ୟାପକ/ଅଧ୍ୟାପିକା, ଛାତ୍ରଛାତ୍ରୀ ଓ ସେଲ୍‌ସେବା ନିମ୍ନ, ଦେବଦାସ୍ ପଣସ, ଆକାଶୀ ଆଦି ବିଭିନ୍ନ ପ୍ରକାର ଚାରାରୋପଣ କରିଥିଲେ ।

A REPORT ON PLANTATION PROGRAMME

A plantation programme was organized under the collaboration of NSS, NCC and YRC Units of Pattamundai College on 13.08.2019 inside the college premises. Volunteers of all NSS, NCC and YRC Units of Pattamundai College were actively participated in the programme. The programme was coordinated by Mr. Pradyumna Pradhan, Programme Officer, NSS (Boys Unit).

Total 100 Numbers of Seedlings of Medicinal plants (Neem, Ocium, Aolevera) and other varieties (Acasia, Sandalwood) have planted inside college campus. All the volunteers have promised to take care of the seedlings and make the college campus pollution free. The programme was successfully ended.

**LECTURERS PARTICIPATED IN THE PLANTATION PROGRAMME
ORGANISED BY :- NCC, NSS AND YRC UNITS
PATTAMUNAI COLLEGE, PATTAMUNDAL, KENDRAPARA, ODISHA
13th August 2019**

Sl.No	Name	Designation	Phone No	Signature
1	Pradyumna Pradhan	Lect. in Economics	9476010619	P. Pradhan
2	U. Manoj Ku Panda	Lect. in Sociology	6370050949	
3	Sarojini Mishra	Lect. in Zoology	9437920782	S. Mishra
4	Suchismita Behera	Lect. in Botany	7978349618	S. Behera
5	Dr. Anjali Kumari Dash	H.O.D in Botany	9861476642	Miss A.K. Dash
6	Sanku Kumar Nayak	Lect. in English	7008364023	S. K. Nayak
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**VOLUNTEERS PARTICIPATED IN THE PLANTATION PROGRAMME
ORGANISED BY :- NCC, NSS AND YRC UNITS
PATTAMUNAI COLLEGE, PATTAMUNDALAI, KENDRAPARA, ODISHA
13-Aug-19**

Sl.No	Name	Roll No	Class	Signature
1	Prakash Satoe	BA12-155	+3 2nd yr Arts	Prakash Satoe
2	Sreerif Barik	BA12-147	+3 2nd yr Arts	Sreerif Barik
3	Suraj Ku. Sethi	BS-17-038	+3 2nd yr Arts	Suraj Ku. Sethi
4	Kiran Ku. Das	BA 17-058	+3 2nd yr. Arts	Kiran Ku. Das
5	Prityanna Tripathy	1A19-252	+2 1st yr Arts	Prityanna Tripathy
6	Debashis Giri	15-18-103	+2 1st yr Sc	Debashis Giri
7	Abhinna Padhi	BA-17-061	+3 2nd yr Arts	Abhinna Padhi
8	Anshuman Behena	BA-17-078	+3 2nd yr com	Anshuman Behena
9	Abhijeet Sahoo	1C-18-96	+2 1st yr com.	Abhijeet Sahoo
10	Monali Barua	BS-19-004	+3 1st yr sc	Monali Barua
11	Rupai Kundu	BS-19-93	+3 1st yr sc	Rupai Kundu
12	Tilottama Malik	BS-19-123	+3 1st yr sc	Tilottama Malik
13	Sarmisha Das	BS-17-156	+3 2nd yr sc	Sarmisha Das
14	Subhashree Setty	BS-18-019	+5 2nd yr sc	Subhashree Setty

Sl.No	Name	Roll No	Class	Signature
15	Parbati Sethy	BS-17-048	+3 2nd yr sc	Parbati Sethy
16	Shradhanjali Lenka	BS-17-061	+3 2nd yr sc	Shradhanjali Lenka
17	Rajashree Mohanty	BS-17-038	+3 2nd yr sc	Rajashree Mohanty
18	Malaya Sahoo	BS-18-035	+3 2nd yr sc	Malaya Sahoo
19	Subhashree Das	BS-17-066	+3 2nd yr sc	Subhashree Das
20	Chinmaya Sahoo	BS-18-009	+3 2nd yr sc	Chinmaya Sahoo
21	Ashis Mohanty	BS-17-007	+3 3rd yr sc	Ashis Mohanty
22	Tapaswini Panda	BS-17-130	+3 2nd yr sc	Tapaswini Panda
23	Sandeep Mahanta	BS-17-129	+3 3rd yr sc	Sandeep Mahanta
24	Laxmipriya Das	BS-17-046	+3 3rd yr sc	Laxmipriya Das
25	Swagat Das	BS-17-119	+3 2nd yr sc	Swagat Das
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the organizer to make the meeting a successful one. He advised the gathering to make the college and surrounding a plastic free zone. The winners of different competitions were awarded by the guest and principal. The meeting was ended with a vote of thanks by Dr. Anjali Das, H.O.D Department of Botany.

A REPORT ON OBSERVATION OF NSS DAY

A meeting was organized by both NSS (Boys and Girls) Units of Pattamundai College for the Observation of NSS Day on 24.09.2029 in Room No. 25. Total 50 students with 5 staff members were present in the meeting. Capt. Manoj Kumar Parida, Head department of Sociology, Pattamundai College presided over the meeting. Mr. Saroja Kanta Nayak, R.K Behera were present in the meeting. Mrs. Sarojini Mishra, Programme Officer, NSS Girls Unit gave an inspirational speech on NSS Day and Motto of the National Service Scheme. Other staff members were also delivered speech on the occasion by citing many stories of social workers.

At last, Mr. Pradyumna Pradhan, Programme Officer of NSS Boys Unit gave vote of thanks. The meeting was ended successfully.

**FACULTIES PARTICIPATED IN THE OBSERVATION OF NSS DAY
ORGANISED BY :- NSS UNITS
PATTAMUNAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA
24-Sep-19**

Sl.No	Name	Designation	Phone No	Signature
1	Sarojini Mishra	Lect. in Zoology	9437920782	Sushra
2	Lt. Manoj Ku. Parida	H.O.D, Sociology	6370050949	MParida
3	Pradyumn Pradhan	Lect in Economics	977601009	P. Pradhan.
4	Rangam Kumar Behara.	Lect in Commerce	9090935375	R. K. Behara
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STUDENTS PARTICIPATED IN THE OBSERVATION OF NSS DAY
ORGANISED BY :- NSS UNITS

PATTAMUNAI COLLEGE, PATTAMUNDALAI, KENDRAPARA, ODISHA

24-Sep-19

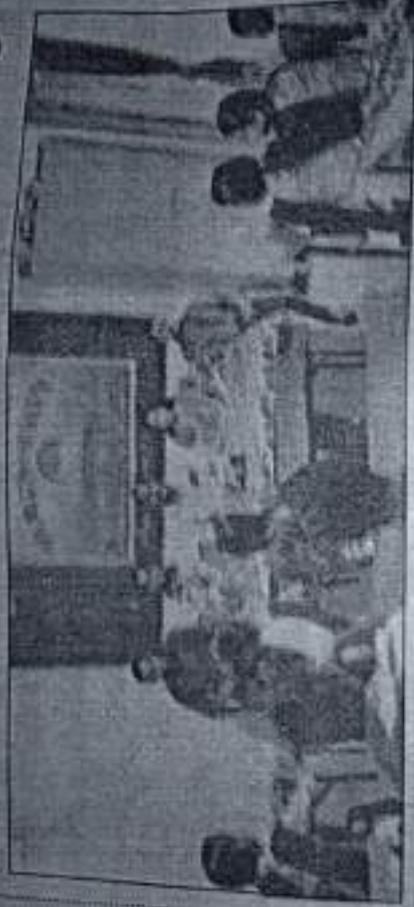
Sl.No	Name	Roll No	Class	Signature
1	Nibedita Patra	BS-17-008	+3 2nd Year Science	Nibedita Patra
2	Tejya Parida	BS-17-023	+3 1st Year Science	Tejya Parida
3	Debarshi Chini	BA-17-005	+3 2nd Year Arts	Debarshi Chini
4	Shradhanjali Lenna	BS-18-013	+3 2nd Year Science	Shradhanjali Lenna
5	Deepa Choudhury	BS-18-015	+3 2nd Year Science	Deepa Choudhury
6	Manali Baral	BS-19-004	+3 1st Year Science	Manali Baral
7	Anvita Behura	BS-19-002	+3 1st Year Sc.	Anvita Behura
8	Chandra Sekhar Mishra	BS-19-007	+3 1st Year Sc.	Chandra Sekhar Mishra
9	Biswajeet Barik	BS-19-008	+3 1st Year Sc.	Biswajeet Barik
10	Anshuman Behura	BS-17-078	+3 1st Year Com.	Anshuman Behura
11	Rohit Deepak Swain	BC-17-128	+3 2nd Yr Com.	Rohit Deepak Swain
12	Satyabrata Padhy	BA-17-104	+3 2nd Yr Arts	Satyabrata Padhy
13	Bikram Prasad Pradhan	BA-17-233	+3 2nd Yr Arts	Bikram Prasad Pradhan
14	Anshuman Behura	BC-17-078	+3 2nd Yr Com	Anshuman Behura

Sl.No	Name	Roll No	Class	Signature
15	Amiya Ranjan Das	BS-18-101	+3 2nd yr. Sc	Amiya Ranjan Das,
16	Kaushalya Patil	BA-18-089	+3 1 st 2 nd yr. Arts	Kaushalya Patil
17	Archana Tripathy	BA-18-203	+3 2nd yr. Arts	Archana Tripathy
18	Ashis K. Sahoo	IS-18-037	+2 1st yr CC.	Ashis K. Sahoo
19	Tannaya Nayak	BC-18-133	+3 2nd yr com.	Tannaya Nayak
20	Achejot Sahoo	IS-18-088	+2 1st year science	Achejot Sahoo
21	Subhansu Rout	BS-17-044	+3 2nd yr sc	Subhansu Rout
22	Archana Bai	BA-18-038	+3 2nd yr Arts	Archana Bai
23	Sushanta Rout	BS-19-011	+3 1st yr sc.	Sushanta Rout
24	Laxmi Priya Malik	BS-19-056	+3 1st yr sc.	Laxmi Priya Malik
25	Trilottama Malik	BS-19-048	+3 1st yr sc	Trilottama Malik
26	Dhanajaya Samal	BS-17-130	+3 2nd yr sc	Dhanajaya Samal
27	Subrat Behara	BS-17-002	+3 2nd yr sc	Subrat Behara
28	Nibedita Patra	B.S-17-120	+3 3rd yr. sc	Nibedita Patra
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ନିଜ । ତାହା ପାଠ ପଢ଼ାଏବଂ ପଢ଼ାଏବଂ ତାହା । ପଢ଼ାଏବଂ ପଢ଼ାଏବଂ ପଢ଼ାଏବଂ ।
 ଶୁକ ପ୍ରକାଶନ ପର୍ଯ୍ୟନ୍ତ କେତେକଦାରେ ସମସ୍ତ ସରକାରୀ ସାହାଯ୍ୟ ଯୋଗାଇ
 ପାରିବେନି କରିଥିଲେ ମଧ୍ୟ ତାକୁ ଏହି ପିଆଇଟି ଦେଖାଇ କରିଛନ୍ତି ।

ଏକ ଏସଏସ ବିବସ୍ତା ପାଳିତ



• ପଟ୍ଟାମୁଖାଇ, (ପିଏନଏସ):
 ପଟ୍ଟାମୁଖାଇ କଲେଜ କାର୍ଯ୍ୟାଳୟରେ ଯୋଜନା ସୂଚିତ ପଞ୍ଚମ ଶ୍ରେଣୀର ଶିକ୍ଷା ପ୍ରଦାନ
 କରାଯାଇ ଅବସରରେ ଏକ ଆଲୋଚନା ଚକ୍ର କଲେଜ ପରିସରରେ ଅନୁଷ୍ଠିତ ହୋଇପାରିଛି ।
 ପଟ୍ଟାମୁଖାଇ କଲେଜ ଅଧ୍ୟାପକ ଲେମ୍ବୁନାଥ ମହାନ୍ତିଙ୍କ ପରିଚାଳନା ଅଧୀନରେ ଯୋଗଦେଇ
 ସମାଜ ପ୍ରତି ଛାତ୍ରଛାତ୍ରୀମାନଙ୍କ ଦାୟିତ୍ଵ ଓ ଏକ ଏସଏସର ଲକ୍ଷ୍ୟ ଓ ଆଭିମୁଖ୍ୟ ସମ୍ବନ୍ଧରେ
 ଆଲୋଚନା କରାଯାଇଛି । ଏହି ଆଲୋଚନା ଚକ୍ରରେ ଅଧ୍ୟାପକ ସରୋଜକାନ୍ତ ନାୟକ,
 ରଞ୍ଜନ କେଶେରୀ, ପ୍ରଦ୍ୟୁମ୍ନ ପ୍ରଧାନ ଓ ଅଧ୍ୟାପିକା ଡ. ସରୋଜିନୀ ମିଶ୍ର ସମ୍ମାନୀତ ଅତିଥି ଭାବେ
 ଯୋଗ ଦେଇ କାର୍ଯ୍ୟାଳୟରେ ଆଲୋଚନା କାର୍ଯ୍ୟକ୍ରମ ସମ୍ପର୍କରେ ସୂଚନା ଦେଇଥିଲେ ।
 ଅଧ୍ୟାପକ ପ୍ରଦ୍ୟୁମ୍ନ ପ୍ରଧାନ ସାଗରବାଣୀ ଓ ଅତିଥି ପରିଷଦ ପ୍ରଦାନ କରିଥିଲେ । କେଶେରୀ
 ଅଧ୍ୟାପିକା ଡ. ସରୋଜିନୀ ମିଶ୍ର ଧନ୍ୟବାଦ ଦେଇଥିଲେ । ଏହି କାର୍ଯ୍ୟକ୍ରମରେ ପଟ୍ଟାମୁଖାଇ
 କଲେଜ କାର୍ଯ୍ୟାଳୟରେ ଆସ୍ଥାନ ଚକ୍ର ଛାତ୍ରଛାତ୍ରୀ ଯୋଗ ଦେଇଥିଲେ ।

ପଢ଼ା ଆଲୋଚନା ପଢ଼ା ଆଲୋଚନା

Sambalpur
 27/07/2019

REPORT ON SWACHHATA HI SEVA PROGRAMME

A programme on "Swachhata Hi Seva" was organised by both NSS and NCC Units of Pattamundai College on Dt. 30.09.2019 inside the campus of Primary Health Care of Pattamundai. Total 50 no. of volunteers of NSS and NCC Units have participated in the programme. Dr. Nirakar Sethi of Pattamundai P.H.C gave a motivational speech on Sanitation and maintenance of proper Hygiene. Lt. Manoj Parida was monitored the programme. Mr. Pradyumna Pradhan, P.O. of NSS Boys unit gave vote of thanks on the occasion and the programme was ended successfully.

**FACULTIES PARTICIPATED IN THE SWACHHATA HI SEVA PROGRAMME
ORGANISED BY :- NSS & NCC UNITS
PATTAMUNAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA
30TH SEPTEMBER 2019**

Sl.No	Name	Designation	Phone No	Signature
1	Pradyumn Pradhan	Lead in Economics	9776010619	P. Pradhan
2	Nirakar Sethy	Lead in Sociology	6370050944	Nirakar Sethy
3	Nirakar Sethy	Medical officer Pattamundai PHC	9776884959	Nirakar Sethy
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**STUDENTS PARTICIPATED IN THE SWACHHATA HI SEVA PROGRAMME
ORGANISED BY :- NSS & NCC UNITS
PATTAMUNAI COLLEGE, PATTAMUNDALAI, KENDRAPARA, ODISHA
30TH SEPTEMBER 2019**

Sl.No	Name	Roll No	Class	Signature
1	Prakesh Sutar	BA-17-166	+3 2nd yr Arts	Prakesh Sutar
2	Abhinna Sundar padhu	BA-17-061	+3 2nd yr Arts	Abhinna Sundar Padhu
3	Bikram K. Pradhan	BA-17-231	+3 2nd yr Arts	Bikram K. Pradhan
4	Soni Nayak	BA-17-247	+3 2nd yr Arts	Soni Nayak
5	Satyabrata Padhy	BA-17-104	+3 2nd yr Arts	Satyabrata Padhy
6	Bikram K. ^{Lenka} Pradhan	BA-17-128	+3 2nd yr Arts	Bikram K. Lenka
7	Arpita Sahoo	BA-18-126	+3 2nd yr Arts	Arpita Sahoo
8	Preja Satapathy	BS-18-115	+3 2nd yr Arts	Debasmita Sahoo
9	Debasmita Sahoo	BA-18-13	+3 2nd yr Arts	Puja Satapathy
10	Pratikshya Jena	BA-18-264	+3 2nd yr Arts	Pratikshya Jena
11	Madhusmita Behara	BA-17-274	+3 2nd yr Arts	Madhusmita Behara
12	Babula Jena	BA-18-007	+3 2nd yr Arts	Babula Jena
13	Rashmita Rout	BA-17-146	+3 2nd yr Arts	Rashmita Rout
14	Deepshikha Mallik	BC-17-090	+3 2nd yr Arts	Deepshikha Mallik

Sl.No	Name	Roll No	Class	Signature
15	Kajal Pathy	IA-19-67	+3 1st Yr Arts	Kajal Pathy
16	Suryakanta Sethi	BA-17-114	+3 2nd Yr Arts	Suryakanta Sethi
17	Biswojeet Patra	IA-18-031	+2 1st Yr Arts	Biswojeet Patra
18	Bikash Ku. Nayak	BA-18-004	+3 1st Yr Arts	Bikash Kumar Nayak
19	Sushanta Behera	IA-18-018	+2 1st Yr Arts	Sushanta Behera
20	Prashanta Ku. Mandal	IA-18-146	+2 1st Yr Arts	Prashanta Mandal
21	Soubhagya Mishra	IA-18-063	+2 1st Yr Arts	Soubhagya Mishra
22	Biswaranjan Sahoo	BS-17-155	+3 2nd Yr Arts	Biswaranjan Sahoo
23	Saroj Ku. Sethi	BS-17-038	+3 2nd Yr Arts	Ashish Mishra
24	Abhijeet Sahoo	IC-18-096	+3 2nd Yr Arts	Abhijeet Sahoo
25	Sarmistha Dash	BS-17-156	+3 2nd Yr Arts	Sarmistha Dash
26	Priyanka Tripathy	BA-18-203	+3 2nd Yr Arts	Priyanka Tripathy
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A REPORT ON OBSERVATION OF WORLD HUMAN RIGHTS DAY

A world Human Rights Day was observed with the joint collaboration of YRC and NSS unit of the college on 10th December 2019 at 10 am. The programme was inaugurated by Dr. Nilamani Lenka, the honourable HOD of Odia with the presence of some teaching and non teaching staff along with the students. After the inauguration Dr. Lenka delivered a detailed lecture on fundamental rights and fundamental duties of human reflected in Indian constitution. On this auspicious occasion, the NSS coordinator Mr. Pradyumna Pradhan explained the students about the importance of the day. Among other guests Mr. Subhasis Mishra, lect. in Economics and Mr. Ranjan Kumar Behera, lect. in Commerce emphasized on the concepts of equality, liberty and fraternity through the cases expounded by the honourable Supreme Court of India. The meeting ended with a vote of thanks by Mr. Sarojakanta Nayak, counsellor of YRC. As a part of the programme, students in large numbers sloganeered on the importance of human rights with the placards in their hands. This effort of students were highly praised among local people.

**FACULTIES PARTICIPATED IN THE OBSERVATION OF WORLD HUMAN RIGHTS DAY
ORGANISED BY :- NSS & YRC UNITS
PATTAMUNAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA
10TH-DECEMBER-2019**

Sl.No	Name	Designation	Phone No	Signature
1	Pradyumna Pradhan	Lecturer in Economics	9776010619	P. Pradhan
2	Subhas Mishra	Lecturer in Economics	7205425848	S. Mishra
3	Rajison Kumar Behera	Head in Commerce	7077071508	R. K. Behera
4	Dr. Nilamari Lenka	Reader in Odia	9438329950	N. Lenka
5	Sarojakeunda Nayak	Lecturer in English	9573371671	Sarow
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**STUDENTS PARTICIPATED IN THE OBSERVATION OF WORLD HUMAN RIGHTS DAY
ORGANISED BY :- NSS & YRC UNITS
PATTAMUNAI COLLEGE, PATTAMUNDALAI, KENDRAPARA, ODISHA
10TH-DECEMBER-2019**

Sl.No	Name	Roll No	Class	Signature
1	Ompalakesh Panda	BA-18-008	+3 2nd year	Ompalakesh Panda
2	Jyoti bhusan Biswal	BA-18-111	+3 2nd year	Jyoti bhusan Biswal
3	Sachana Rout	BA18-246	+3 2nd Year	Sachana Rout
4	Arpita Biswal	BA17-067	+3 3rd Year	Arpita Biswal
5	Sudipta Das	BA17-083	+3 3rd Year	Sudipta Das
6	Satyajyoti Padhi	BA17-104	+3 3rd year	Satyajyoti Padhi
7	Bikram Prasad Pradhan	BA17-131	+3 3rd year	Bikram Prasad Pradhan
8	Jyotirmayee Malik	BA-17-055	+3 3rd year	Jyotirmayee Malik
9	Abhina Sunda Padhi	BA-17-061	+3 3rd year	Abhina Sunda Padhi
10	Ashwanjy Behara	BA17-078	+3 3rd year	Ashwanjy Behara
11	Sahini Panda	BA17-010	+3 3rd year	Sahini Panda
12	Itishree Malik	BA17-194	+3 2nd year	Itishree Malik
13	Baisakhi Das	BA17-201	+3 3rd year	Baisakhi Das
14	Ramesh Ch Das	BA17-122	+3 3rd yr	Ramesh Ch Das

Sl.No	Name	Roll No	Class	Signature
15	Somyajit Parida	BA-14-256	+3 3rd $\frac{1}{4}$ Arts	Somyajit Parida
16	Sachin Rout	BA-14-126	+3 3rd $\frac{1}{4}$ Arts	Sachin Rout
17	Sabitri Sahoo	BA-18-159	+3 2nd $\frac{1}{2}$ Arts	Sabitri Sahoo
18	Satyajit Parida	B.C.M.-122	+3 2nd $\frac{1}{4}$ Commerce	Satyajit Parida
19	Hemesh Dash	BA-18-138	+3 3rd $\frac{1}{2}$ Arts	Hemesh Dash
20	Bikash Kumar Nayak	BA-18-004	+3 2nd year Arts	Bikash Kumar Nayak
21	Satyajit Rout	BA-18-151	+3 2nd year Arts	Satyajit Rout
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LECTURES PARTICIPATED IN THE DISTRIBUTION OF RELIEF TO FIRE BURNED HOUSE

AT GUNTHI

ORGANISED BY :- NSS & YRC UNITS
PATTAMUNAI COLLEGE, PATTAMUNDALAI, KENDRAPARA, ODISHA

23RD-DECEMBER-2019

Sl.No	Name	Designation	Phone No	Signature
1	Sarajakanta Nayak	Lecturer in English	95-83371671	<i>Sarajakanta</i>
2	Pradyuman Pradhan	Lect in Economics	9776010619	<i>P. Pradhan</i>
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STUDENTS PARTICIPATED IN THE DISTRIBUTION OF RELIEF TO FIRE BURNED HOUSE
AT GUNTHI

ORGANISED BY :- NSS & YRC UNITS
PATTAMUNAI COLLEGE, PATTAMUNDAL, KENDRAPARA, ODISHA
23RD-DECEMBER-2019

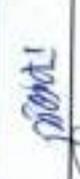
Sl.No	Name	Roll No	Class	Signature
1	Satyabrita Padhi	BA 17-104	+3 3rd year	Satyabrita Padhi
2	Abhina Sundar Padhi	BA 17-061	+3 3rd year	Abhina Sundar Padhi
3	Amiya Kumar Das	BA 17-208	+3 3rd year	Amiya Kumar Das
4	Bikram Kumar Pradhan	BA 17-231	+3 3rd year	Bikram Kumar Pradhan
5	Amay Kumar Pradhan	BA 18-170	+3 3rd year	Amay Kumar Pradhan
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Sl.No	Name	Roll No	Class	Signature
15	Koushalaya pal	BA-18-089	+3 1st yr Arts	Koushalaya Pal
16	Archana Tripathy	BA-18-203	+3 1st yr Arts	Archana Tripathy
17	Debaghis Giri	IS-18-103	+3 1st yr Arts	Debaghis Giri
18	Ashis Ku. Sahoo	IS-18-037	+3 1st yr Arts	Ashis Ku. Sahoo
19	Prinyanka Tripathy	IA-19-252	+3 1st yr Arts	Prinyanka Tripathy
20	Sarmistha Dasg	BS-17-056	+3 1st yr Arts	Sarmistha Dasg
21	Nibedita Patra	BS-17-120	+3 1st yr Arts	Nibedita Patra
22	Satya Prakash Padhy	BA-17-104	+3 Arts Yes Arts	Satya Prakash Padhy
23	Bikram Prasad Pradhan	BA-17-233	+3 Arts Arts	Bikram Pradhan
24	Anuman Behura	BS-17-078	+3 Arts Arts	Anuman Behura
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**FACULTIES PARTICIPATED IN THE OBSERVATION OF NETAJI JAYANTI
ORGANISED BY :- NSS & YRC UNITS
PATTAMUNAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA
23RD JANUARY 2020**

Sl.No	Name	Designation	Phone No	Signature
1	RANJAN KUMAR BEHURA	Lecturer in History	9668830365	
2	Sarajakanta Nayak	Lecturer in English	9583371671	
3	Prabir Panda	Lect in Sociology	980329944	
4	Nirmala Kumar Sahoo	Lect in Math	8974405754	
5	Pradyumn Pradhan	Lect in Economics	9776016119	
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**STUDENTS PARTICIPATED IN THE OBSERVATION OF NETAJI JAYANTI
ORGANISED BY :- NSS & YRC UNITS
PATTAMUNAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA
23RD JANUARY 2020**

Sl.No	Name	Roll No	Class	Signature
1	Prakash Sutar	BA-17-166	+3 3rd year	Prakash Sutar
2	Supriti Barik	BA-17-147	+3 3rd year	Supriti Barik
3	Abhina Sundar Padhi	BA-17-661	+3 3rd year	Abhina Sundar Padhi
4	Bikram Kumar Mohanty	BA-17-291	+3 3rd year	Bikram K. Mohanty
5	Soni Nayak	BA-17-265	+3 3rd year	Soni Nayak
6	Supriya Sethi	BA-17-247	+3 3rd year	Supriya Sethi
7	Satyabrata Padhi	BA-17-104	+3 3rd year	Satyabrata Padhi
8	Debabrata Panda	BA-17-266	+3 3rd year	Debabrata Panda
9	Laxmirekha Das	BA-17-221	+3 3rd year	Laxmirekha Das
10	Arpita Biswal	BA-17-067	+3 3rd year	Arpita Biswal
11	Subhashree Subhagnita Tena	BA-17-059	+3 3rd year	Subhashree Subhagnita Tena
12	Sabita Dalai	BA-18-090	+3 2 nd year	Sabita Dalai
13	Lalima Prayadanki Das	BA-18-257	+3 2 nd year	Lalima Prayadanki Das
14	Sipna Sethi	BA-18-96	+3 2 nd year	Sipna Sethi

Sl.No	Name	Roll No	Class	Signature
15	Surendra malik	BA 18-177	+3, 2nd yr	Surendra malik
16	Anshuman Behera	BC-17-078	+3 2nd yr.	Anshuman Behera
17	Dikran Kumar Anandhan	DB-17-231	+3 2nd yr.	Dikran Kumar Anandhan
18	om prakash Bander	BA 18-028	+3, 2nd yr	om prakash Bander
19	Sanjita Behera	BA 17-161	+3 3rd year	Sanjita Behera
20	Amiya Kumar Das	BA 17-208	+3 3rd year	Amiya Kumar Das
21	Prakash Sutar	BA 17-166	+3 rd year	Prakash Sutar
22	Sandip Kumar Mohanty	BA 17-290	+3 3rd year	Sandip Kumar Mohanty
23	Susmita Swain	BA 18-129	+3 2nd year	Susmita Swain
24	madhusmita Sahoo	BA-18-012	+3, 2nd yr	madhusmita Sahoo
25	Sucharita malik	BA-17-099	+3, 3rd year	Sucharita malik
26	Barqa malik	BA 17-174	+3 2nd year	Barqa malik
27	Supriya Barik	BA 17-247	+3 3rd year	Supriya Barik
28	Soni Nayak	BA-17-265	+3, 3rd yr	Soni Nayak
29	Pateesh Ku. Das	BA 18-069	+3 2nd year	Pateesh Cu. Das
30	Jaynaseni malik	BA-17-05	+3rd year	Jaynaseni malik







ପଢ଼ାମୁଣ୍ଡାଇ

ପଢ଼ାମୁଣ୍ଡାଇ, (ନି.ପ୍ର): ପଢ଼ାମୁଣ୍ଡାଇ ବ୍ଲୋକରେ ନେତାଜୀ ସୁଦାସ ଦୋଷକ
 ହରଣୀ ପବିତ୍ର ହୋଇପାରିଛି । ଏହି ଉପଲକ୍ଷେ ଅଧ୍ୟାପକ
 ଅଲୋକପାତ୍ରରେ ଓଡ଼ିଆ ବିଭାଗ ପୂଜ୍ୟ ଡ. ନୀଳମଣି ଲେଙ୍କା ପୈତୃକ୍ୟ
 କରିଥିଲେ । ଏଥିରେ କ୍ୟାମ୍ପରେନ ମନନୀୟ ପରିତା ମୁଖ୍ୟଅତିଥି ଅଧ୍ୟାପକ
 ଶେର କୁମାର ବେହେରା ମୁଖ୍ୟଅତିଥି ଓ ଅଧ୍ୟାପିକା ନିରୁପମା ବାରି, ଅଧ୍ୟାପକ
 ପ୍ରଦ୍ୟୁମ୍ନ ପ୍ରଧାନ, ଅଧ୍ୟାପକ କୁରାଣୀଶ ମିଶ୍ର, ଅଧ୍ୟାପିକା ନିବେଦିତା ନାୟକ,
 ଅଧ୍ୟାପକ ସରୋଜକାନ୍ତ ନାୟକ, ଅଧ୍ୟାପକ ଡ. ମାନସ କୁମାର ନାୟକ ପ୍ରମୁଖ



ସମ୍ମାନିତ ଅତିଥି ଭାବେ ଯୋଗ ଦେଇ ନେତାଜୀଙ୍କ କମଳାଜାଳୀନ ଉପରେ
 ଅଲୋକପାତ୍ର କରିଥିଲେ । ଅଭିମ୍ବ ଦୁଇର ପାଠା ସ୍ଵାଗତକାରଣ, ଅଂଶୁମାନ
 ବେହେରା ଅତିଥି ପରିଚୟ ପ୍ରଦାନ କରିଥିଲେ । ଗାତାଞ୍ଜଳି ଲେଙ୍କା ଧନ୍ୟବାଦ
 ଦେଇଥିଲେ । ଏହି କାର୍ଯ୍ୟକ୍ରମକୁ ନିଚାଲି ବାରି, କୁରାଣୀ ବାରି, ଅନନ୍ୟା
 ତ୍ରିପାଠୀ ପରିଚାଳନା କରିଥିଲେ ।

ପଢ଼ାମୁଣ୍ଡାଇ କଲେଜରେ ନେତାଜୀ ଜୟନ୍ତୀ



• ପଢ଼ାମୁଣ୍ଡାଇ (ପି-ଏନ-ଏସ):

ପଢ଼ାମୁଣ୍ଡାଇ କଲେଜ ଠାରେ ନେତାଜୀ ପୂରାଷତୋଷକ ୧୨୩ତମ ଜୟନ୍ତୀ ସମାରୋହରେ ପାଳିତ ହୋଇଯାଇଛି । ଏହି ଉପଲକ୍ଷେ ଆଲୋଚିତ ଆଲୋଚନାବୃତ୍ତରେ ଶ୍ରୀମତୀ ବିଭାଗ ମୁଖ୍ୟ ଡ. ନୀଳମଣି ଲେଙ୍କା ପୌରପିତା କରିଥିଲେ । ଏଥିରେ ବ୍ୟବହୃତ ମନୋଜ ପରିଡ଼ା ମୁଖ୍ୟଅତିଥି, ଅଧ୍ୟାପକ ରଞ୍ଜନ କୁମାର ବେହେରା ମୁଖ୍ୟବକ୍ତା ଓ ଅଧ୍ୟାପିକା ନିରୁପମା ସାହି, ଅଧ୍ୟାପକ ପ୍ରଦ୍ୟୁମ୍ନ ପ୍ରଧାନ, ଅଧ୍ୟାପକ ଶୁଭାଶାସ

ମିଶ୍ର, ଅଧ୍ୟାପିକା ନିବେଦିତା ନାୟକ, ଅଧ୍ୟାପକ ସରୋଜକାନ୍ତ ନାୟକ, ଅଧ୍ୟାପକ ମାନସ କୁମାର ନାୟକ ପ୍ରମୁଖ ବକ୍ତାମାନ ଅତିଥି ଭାବେ ଯୋଗ ଦେଇ ନେତାଜୀଙ୍କ ବର୍ମିତର ଜୀବନ ଉପରେ ଆଲୋଚନାତ କରିଥିଲେ । ଅଭିଳ ସୁନ୍ଦର ପାଠୀ ସାମ୍ବରଜାଣଣ, ଅଶ୍ରୁମାନ ବେହେରା ଅତିଥି ପରିଚୟ ପ୍ରଦାନ କରିଥିଲେ । ଶେଷରେ ଶାନ୍ତାଜି ଲେଙ୍କା ଧନ୍ୟବାଦ ଦେଇଥିଲେ । ଏହି କାର୍ଯ୍ୟକ୍ରମକୁ ନିର୍ବାହି ସାହି, ଛାତ୍ରୀମାନ ଉତ୍ତମ, ଅନନ୍ୟା ପ୍ରିୟା ପରିଚାଳନା କରିଥିଲେ ।

 *Digitized by*