

USE OF ICT ENABLED TOOLS BY TEACHER AND STUDENT



USE OF ICT ENABLED TOOLS BY TEACHER AND STUDENT



Pattamundai, Odisha, India

HHGF+276, Pattamundai, Odisha 754215, India

Lat 20.574884°

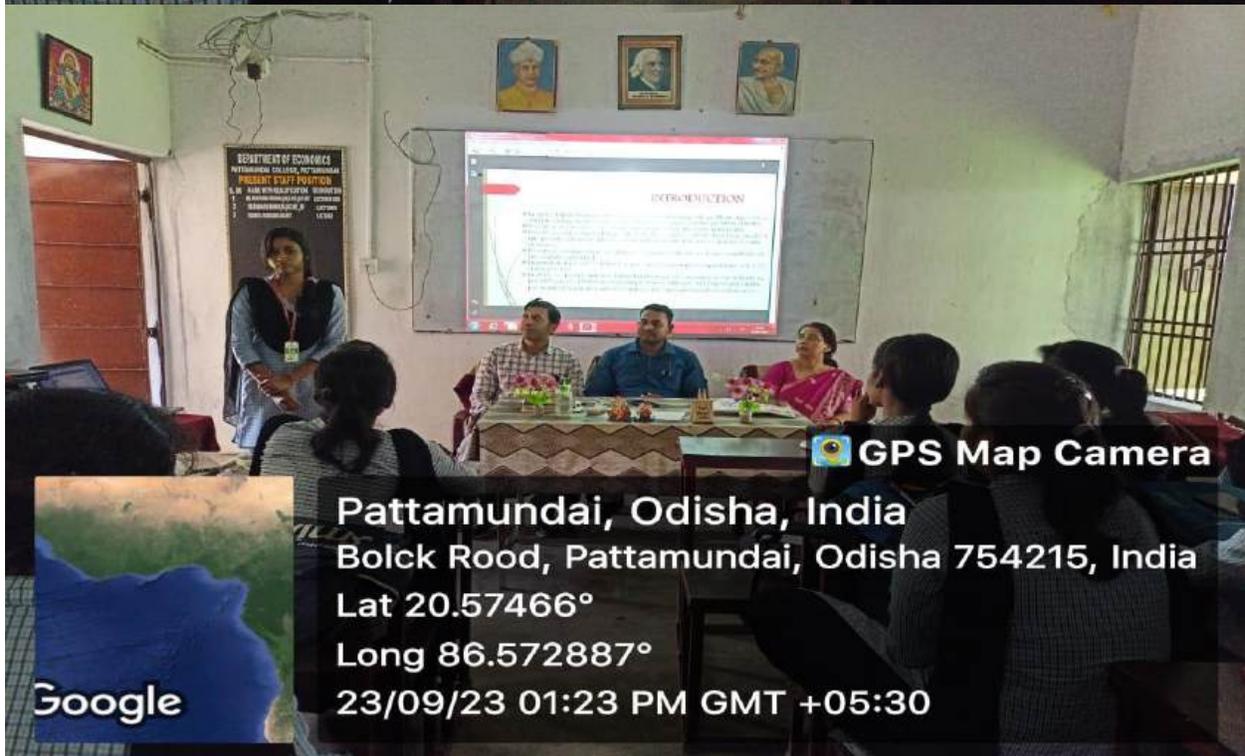
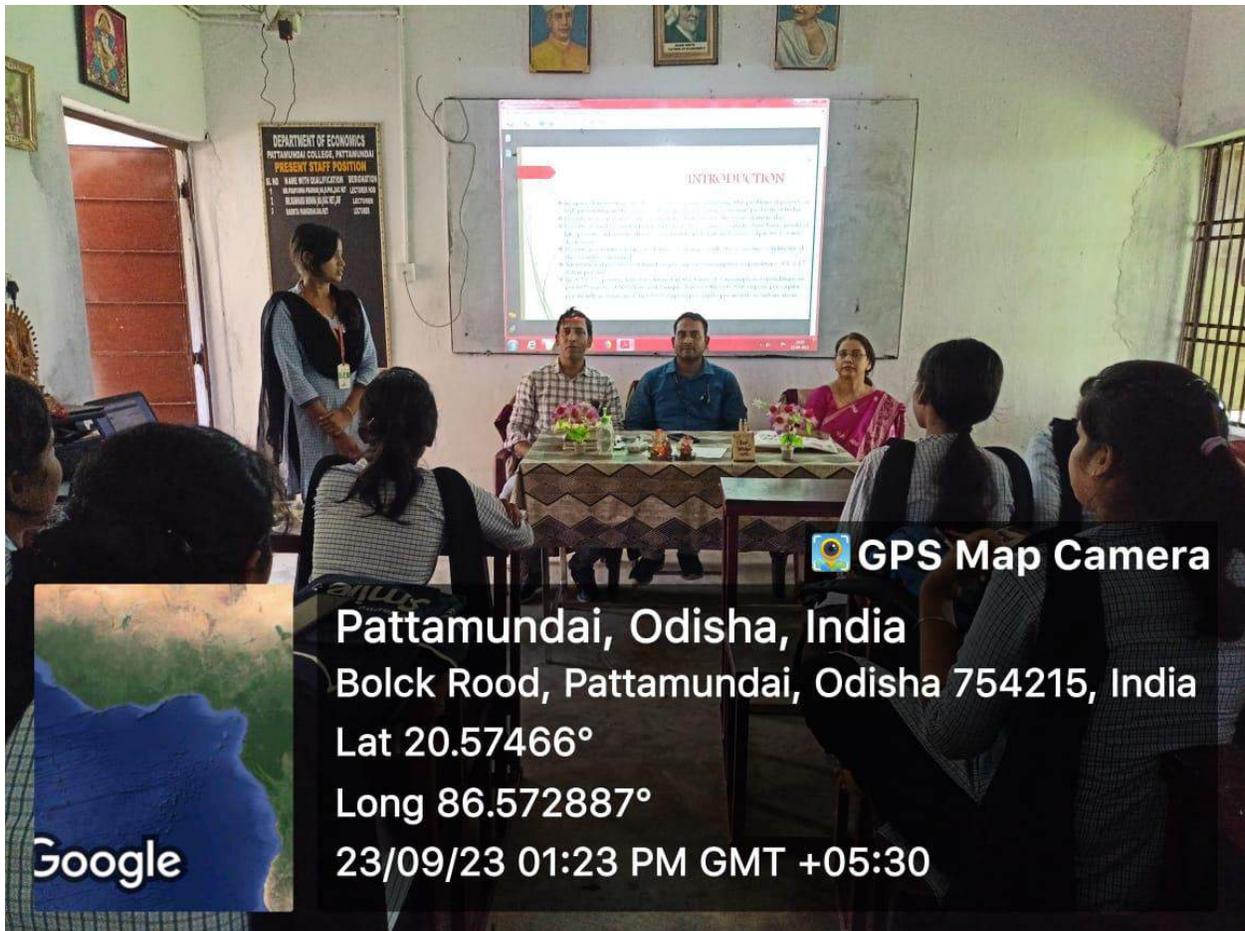
Long 86.573504°

22/03/22 11:01 AM

USE OF ICT ENABLED TOOLS BY TEACHER AND STUDENT



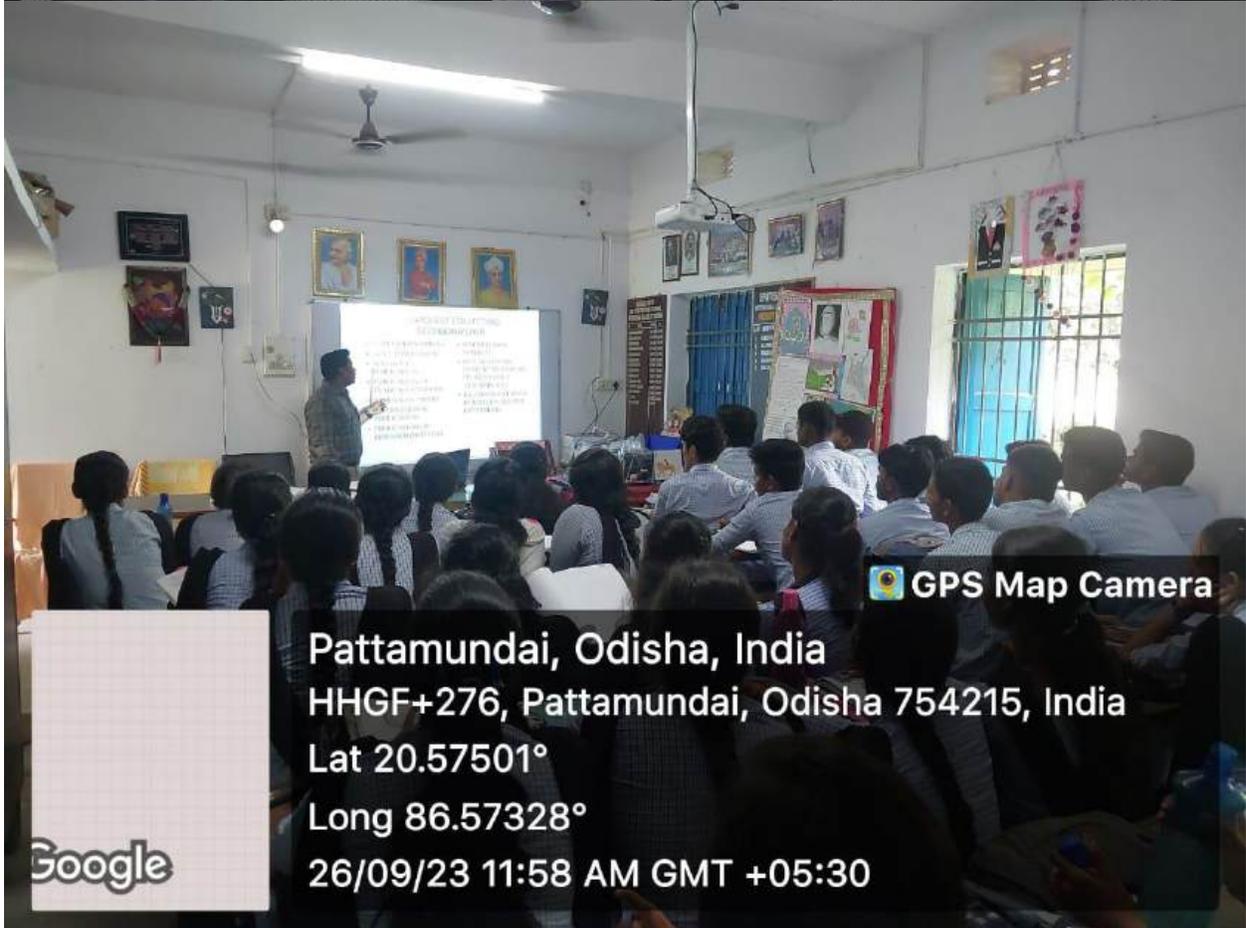
USE OF ICT ENABLED TOOLS BY TEACHER AND STUDENT



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USE OF ICT ENABLED TOOLS BY TEACHER AND STUDENT



USE OF ICT ENABLED TOOLS BY TEACHER AND STUDENT



USE OF ICT ENABLED TOOLS BY TEACHER AND STUDENT



BOTANY
Bindu

**ACCOUNT
BOOK**

STUDENTS
SEMINAR

12

STUDENTS SEMINAR REPORT

DEPARTMENT OF BOTANY

PATTAMUNDAI COLLEGE, PATTAMUNDAI

SESSION:2022-23

DATE-03.12.2022

TIME-11.30 A.M

A student's seminar was organised by the Department of Botany, Pattamundai College, Pattamundai on 03.12.2022 at 11.30 A.M in the Botany seminar hall under the chairmanship of Dr. Anjali Kumari Dash, Head, Department of Botany. Mrs. Suchismita Biswal, Lecturer in Botany, gave the welcome address and spoke about the purpose of the seminar. Two students of Botany Hons, presented their seminar paper. Then, a question answer session was held. Teachers interacted with the paper presenters and appreciated their work. All the teachers of Botany Department and 21 students were participated in the seminar. The seminar was ended at 1.00 PM with a vote of thanks by Mr. Abhimanyu Mohanty, Demonstrator, Department of Botany.

Name of the paper presenters	Roll No	Topic	Signature
ANISHA BISWAL	BS(B)22-027	TMV	Anisha Biswal
SMRUTI SONALIKA PATRA	BS(B)20-012	MICROSPOROGENESIS	Smruti Sonalika patra

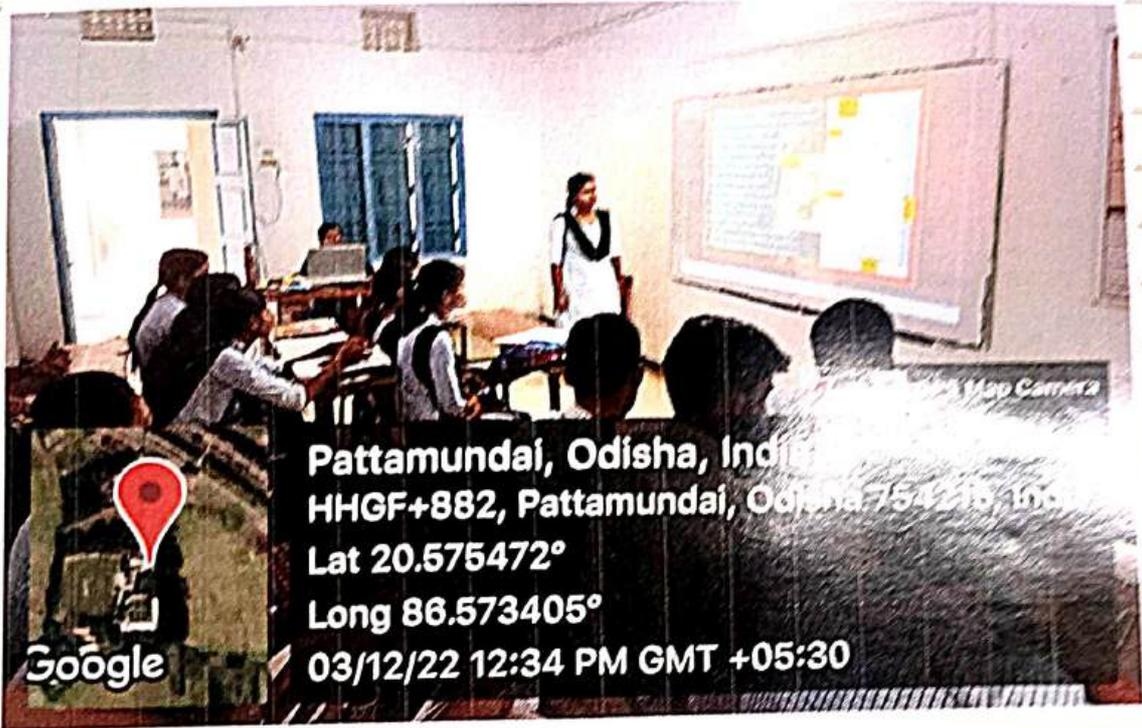
Signature of Teachers

Anjali Kumari Dash

Abhimanyu Mohanty

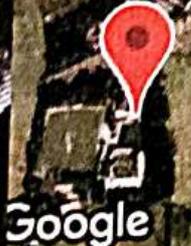
Suchismita Biswal

HOD, BOTANY
H.O.D Botany
Pattamundai college
pattamundai



Google

Pattamundai, Odisha, India
HHGF+882, Pattamundai, Odisha 754215, India
Lat 20.575472°
Long 86.573405°
03/12/22 12:34 PM GMT +05:30



Google

Pattamundai, Odisha, India
HHGF+882, Pattamundai, Odisha 754215, India
Lat 20.575485°
Long 86.573418°
03/12/22 12:54 PM GMT +05:30

GPS Map Camera

Department of Botany
PATTAMUNAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA
ATTENDANCE SHEET OF STUDENTS

Date - 03.12.2022

Sl.No	Roll No	Signature
1	BS(B)-22-024	Puja Priyadarshini Kori
2	BS(B)-20-019	Priyankush Kari
3	BS(B) 20-012	Smrutizi Sonalika Patra
4	BS(B)20-007	Debraj Gethy
5	BS(B)21-006	Manisha Das
6	B.S.(B)-22-15	Dinesh Ku. Rout
7	BS(B)21-039	Pankul Pradhan
8	BS(B)-21-005	Biswepriyadeep Rout
9	BS-(B)-22-12	Anshuman Chhoo
10	BS(B)20-011	Purnima Tarai
11	BS(B)22-36	Subhashree Swain
12	BSC(B)21-012	Ashika Tarai
13	BS(B)20-016	Swapnarani Rout
14	BS(B)20-007	Debraj Gethy
15	BS(B)20-047	Nisurani Pradhan
16	BS(B)20-034	Lipishree Rout
17	BS(B)2-027	Tarangini Biswal
18	BS(B)21-034	Lipishree Rout
19	BS(B)20-032	Aditya Rout
20	BS(B)22-027	Anisha Biswal
21	BS(B)20-029	Anulipsa Dash
22	BS(B)22-022	Nilam Jena
23		
24		

STUDENTS SEMINAR REPORT

DEPARTMENT OF BOTANY

PATTAMUNDAI COLLEGE, PATTAMUNDAI

SESSION:2022-23

DATE-17.12.2022

TIME-12.15 P.M

A student's seminar was organised by the Department of Botany, Pattamundai College, Pattamundai on 17.12.2022 at 12.15 P.M in the Botany seminar hall under the chairmanship of Dr. Anjali Kumari Dash, Head, Department of Botany. Mrs Suchismita Biswal, Lecturer in Botany, gave the welcome address and spoke about the purpose of the seminar. Two students of Botany Hons, presented their seminar paper. Then, a question answer session was held. Teachers interacted with the paper presenters and appreciated their work. All the teachers of Botany department and 20 students were participated in the seminar. The seminar was ended at 1.20 PM with a vote of thanks by Mr. Abhimanyu Mohanty, Demonstrator, Department of Botany

Name of the paper presenters	Roll No	Topic	Signature
RAALAXMI MISHRA	BS(B)20-027	MEGASPOROGENESIS	Rajalaxmi Mishra
SUBHALAXMI DAS	BS(B)21-014	POTATO	Subhalaxmi Das

Signature of Teachers Present

Anjali Kumari Dash

Abhimanyu Mohanty

Suchismita Biswal



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H.O.D Botany
Pattamundai college
Pattamundai



GPS Map Camera



Pattamundai, Odisha, India
HHGF+882, Pattamundai, Odisha 754215, India
Lat 20.575741°
Long 86.573709°
17/12/22 12:50 PM GMT +05:30

Google



GPS Map Camera



Pattamundai, Odisha, India
HHFC+QX5, Pattamundai, Odisha 754215, India
Lat 20.574553°
Long 86.572808°
17/12/22 12:27 PM GMT +05:30

Google

Department of Botany
PATTAMUNAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA
ATTENDANCE SHEET OF STUDENTS

Date - 17.12.2022

I.No	Roll No	Signature
1	BS(B)-20-012	Smriti Sonarika Patra
2	BS(B)20-007	Debrat Sethy
3	BS(B)-022-024	Puja Priyadarshini Rout
4	B.S-(B)-22-15	Dinesh Ku. Rout
5	BS(B)-20-011	Purnima Tarai
5	BS(B)21-006	Manisha Das
7	B.S-(B)-22-12	Anshuman Sahoo
	BS(B)-21-005	Biswaprajadeep Rout
	BS(B)22-036	Subhanshu Sahoo
	BS(B)20-007	Debaraj Sethy
	BS(B)-20-019	Pradyumn Rout
	BSC(B)21-0012	Ashis Tarai
	BS(B)20-018	Swapnarani Rout
	BS(B)20-047	Niharani Pradhan
	BS(B)20-024	Lipishree Rout
	BS(B)21-027	Tanargini Biswal
	BSC(B)21-034	Lipishree Rout
	BS(B)-21-039	Pinkul Pradhan
	BS(B)20-029	Anjulipsa Dash
	BS(B)22-022	Nilanjan Jena

STUDENTS SEMINAR REPORT

DEPARTMENT OF BOTANY

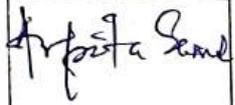
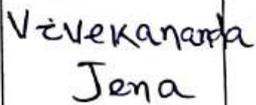
PATTAMUNDAI COLLEGE, PATTAMUNDAI

SESSION:2022-23

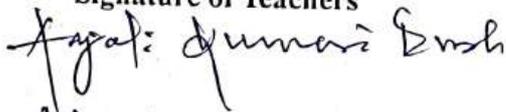
DATE-21.01.2023

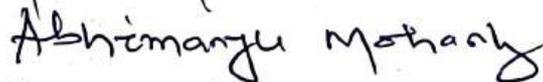
TIME-11.30 A.M

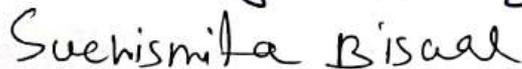
A student's seminar was organised by the Department of Botany, Pattamundai College, Pattamundai on 21.01.2023 at 11.30 A.M in the Botany seminar hall under the chairmanship of Dr. Anjali Kumari Dash, Head, Department of Botany. Mrs. Suchismita Biswal, Lecturer in Botany, gave the welcome address and spoke about the purpose of the seminar. Two students of Botany Hons, presented their seminar paper. Then, a question answer session was held. Teachers interacted with the paper presenters and appreciated their work. All the teachers of Botany department and 22 students were participated in the seminar. The seminar was ended at 1.30 PM with a vote of thanks by Mr. Abhimanyu Mohanty, Demonstrator, Department of Botany.

Name of the paper presenters	Roll No	Topic	Signature
ARPITA SAMAL	BS(B)22-035	BACTERIOPHAGE	
VIVEKANANDA JENA	BS(B)21-035	TRANSLOCATION IN PHLOEM	

Signature of Teachers







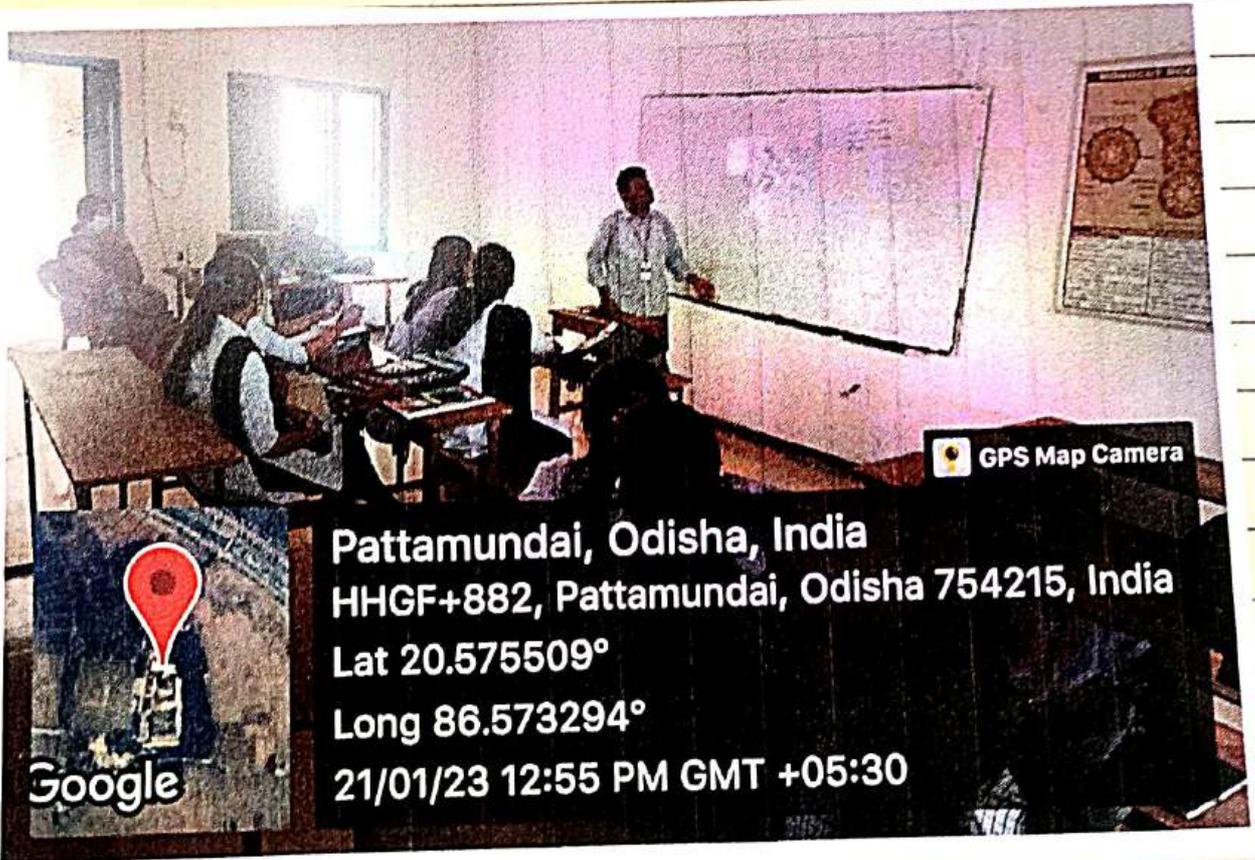


HOD, BOTANY
H.O.D Botany
Pattamundai college
pattamundai



Google

Pattamundai, Odisha, India
HHGF+882, Pattamundai, Odisha
Lat 20.576028°
Long 86.573959°
21/01/23 12:43 PM GMT +05:30



Google

Pattamundai, Odisha, India
HHGF+882, Pattamundai, Odisha 754215, India
Lat 20.575509°
Long 86.573294°
21/01/23 12:55 PM GMT +05:30

Department of Botany
PATTAMUNAI COLLEGE, PATTAMUNDAI, KENDRAPARA, ODISHA
ATTENDANCE SHEET OF STUDENTS

Date - 21.01.2023

Sl.No	Roll No	Signature
1	BS(B)-22-12	Anshuman Sahoo
2	BS(B)-22-15	Dinesh ku. Rout
3	BS(B)-22-024	Puja Priyadarshini Kar
4	BS(B)22-36	Subhashree Jwaini
5	BS(B)-21-005	Biswaprajnadeep Roul
6	BS(B)20-007	Debraj sethi
7	BS(B)-20-011	Purnima Tarai
8	BS(B)-20-019	Prakash Kar
9	BS(B)21-005	Manisha Das
10	BS(B)21-012	Ashisa Tanai
11	BS(B)-20-012	Smriti Sonarika patra
12	BS(B)20-007	Debraj sethy
13	BS(B)20-047	Nisarani Pradhan
14	BS(B)20-034	Lipishree Rout
15	BS(B)20-016	Swapna rani Rout
16	BS(B)21-039	Pinkul Pradhan
17	BS(B)21-027	Tarangini Biswal
18	BS(B)21-034	Lipishree Rout
19	BS(B)22-022	Nilam Jena
20	BS(B)20-029	Angulipsa Dash
21	BS(B)22-022	Anisha Biswal
22	BS(B)20-032	Aditya Roul
23		
24		

STUDENTS SEMINAR REPORT

DEPARTMENT OF ECONOMICS

PATTAMUNDAI COLLEGE, PATTAMUNDAI

SESSION:2022-23

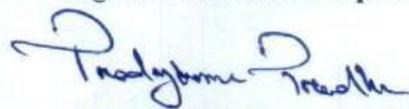
DATE-26.11.2022

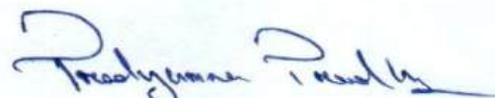
TIME-12.15P.M

A student's seminar was organised by the Department of Economics, Pattamundai College, Pattamundai on 26.11.2022 at 12.15P.M in the Economics seminar hall under the chairmanship of Mr. Pradyumna Pradhan, Head, Department of Economics. Mr. Subhasis Mishra, Lecturer in Economics, gave the welcome address and spoke about the purpose of the seminar. Two students of +3 final year Economics Honours, presented their seminar paper. Then, a question answer session was held. Teachers interacted with the paper presenters and appreciated their work. All the teachers of Economics department and 31 students were participated in the seminar. The seminar was ended at 1.30 PM with vote of thanks by Miss Smrutimayee Pradhan, Seminar Secretary, Department of Economics.

Name of the paper presenters	Roll No	Topic	Signature
SOUBHAGYA KUMAR MISHRA	BA 20-002	Agricultural Marketing System in India	Soubhagya Kumar Mishra 26.11.2022
SOVASINI DASH	BA22-012	Role of Agriculture in Economic Development.	Sovasini Dash 26.11.2022

Signature of Teachers present


Subhasis Mishra
Rasmita Panigrahi



HOD, ECONOMICS

HOD ECONOMICS
PATTAMUNDAI COLLEGE

STUDENTS SEMINAR OF DEPT. OF ECONOMICS

PATTAMUNDAI COLLEGE, PATTAMUNDAI

DATE:26.11.2022

STUDENT ATTENDANCE SHEET

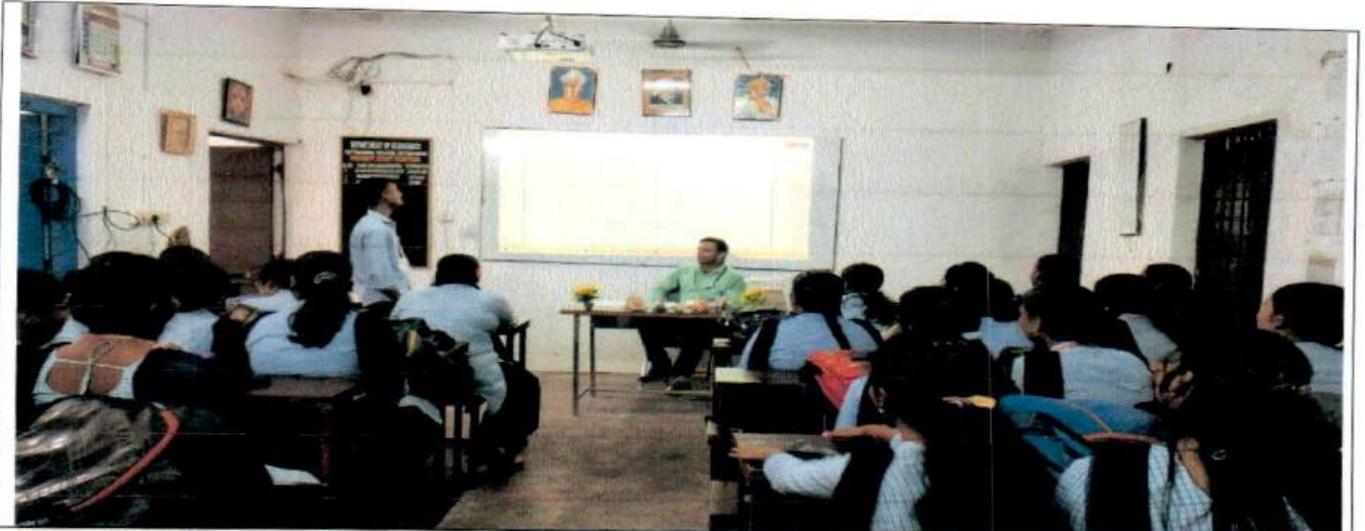
ROLL NO	SIGNATURE	ROLL NO	SIGNATURE
BA-22-001	Satyabhama Biswal	BA-20-109	Subharat Kumar Behera
BA-22-251	Bhagyashree Patra	BA-20-58	Sourabhinaayee Pradhan
BA-22-002	Madhurmita Adhikari	BA-21-149	Rasmita Malik
BA-22-186	Bichitra Swain	BA21-023	Stemitra Parida
BA-22-076	Lopita Sahoo	BA21-105	Bisukha Mathi
BA-22-101	Shreeban Dhal	BA-21-196	Bikram Das
BA-22-200	Shreyas Swain	BA20-046	Shankarson Behera
BA22-177	Pujarani Das	BA21-275	Sareita Malik
BA-22-214	Parulhati Panda	BA21-043	Suchitra Behera
BA-22-009	Prabhraj Singh		
BA-22-280	Soumya Ranjan Behera		
BA20-002	Soubhagya Kumar Mishra		
BA-20-012	Bovasini Dash		
BA20-023	Sushree Subhasantra Samal		
BA-20-260	Serees Kanter Behera		
BA-20-226	Ashutosh Malik		
BA-20-122	Mansasi Tarai		
BA20-025	Soumyashree Sahoo		
BA20-041	Lizantani Sethi		
BA20-013	Monalisha Karu		
BA20-199	Satyabrata Nayak		
BA-20-168	Ankita Nath		

Pradyumna Nayak
H.O.D ECONOMICS
PATTAMUNDAI COLLEGE

STUDENTS SEMINAR REPORT

DEPARTMENT OF ECONOMICS
PATTAMUNDAI COLLEGE, PATTAMUNDAI

DATE: 26.11.2022



HHF7+QV3, Pattamundai, Odisha 754215, India

Latitude
20.5745814°

Longitude
86.56452°

Local 12:44:15 PM
GMT 07:14:15 AM

Altitude 10 meters
Saturday, 26.11.2022



HHF7+QV3, Pattamundai, Odisha 754215, India

Latitude
20.5745814°

Longitude
86.56452°

Local 12:51:33 PM
GMT 07:21:33 AM

Altitude 10 meters
Saturday, 26.11.2022

STUDENTS SEMINAR REPORT

DEPARTMENT OF ECONOMICS

PATTAMUNDAI COLLEGE, PATTAMUNDAI

SESSION: 2022-23

DATE-03.12.2022

TIME-11.30 A.M

A student's seminar was organised by the Department of Economics, Pattamundai College, Pattamundai on 03.12.2022 at 11.30 A.M in the Economics seminar hall under the chairmanship of Mr. Pradyumna Pradhan, Head, Department of Economics. Mr. Subhasis Mishra, Lecturer in Economics, gave the welcome address and spoke about the purpose of the seminar. Two students of +3 final year Economics Honours, presented their seminar paper. Then, a question answer session was held. Teachers interacted with the paper presenters and appreciated their work. All the teachers of Economics department and 37 students were participated in the seminar. The seminar was ended at 1.00 PM with vote of thanks by Miss Smrutimayee Pradhan, Seminar Secretary, Department of Economics.

Name of the paper presenters	Roll No	Topic	Signature
SANJIB KUMAR GAIPAI	BA 20-005	COLONIALISM AND ITS IMPACT ON INDIA ECONOMY	Sanjib Kumar Gaipai 03.12.2022
ARPITA PRITI PRIYAMBADA	BA20-020	GREEN REVOLUTION AND ITS IMPACT ON INDIA ECONOMY	Arpita priti Priyambada 03.12.2022

Signature of Teachers

Pradyumna Pradhan
Rasmika Panigrahi
Subhasis Mishra
03.12.2022

Pradyumna Pradhan
HOD, ECONOMICS
03.12.2022
HOD ECONOMICS
PATTAMUNDAI COLLEGE

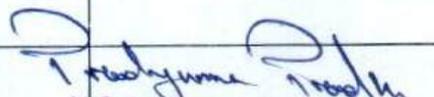
STUDENTS SEMINAR OF DEPT. OF ECONOMICS

PATTAMUNDAI COLLEGE, PATTAMUNDAI

DATE:03.12.2022

STUDENT ATTENDANCE SHEET

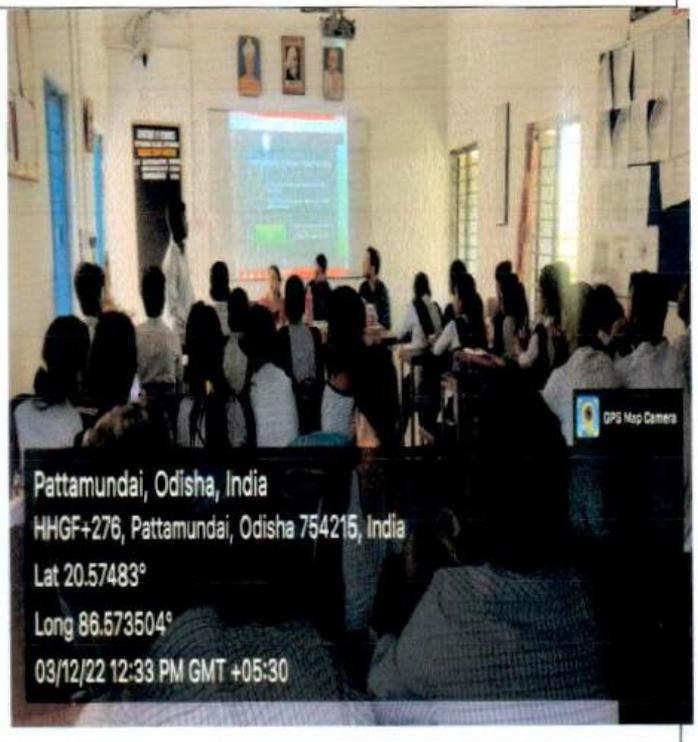
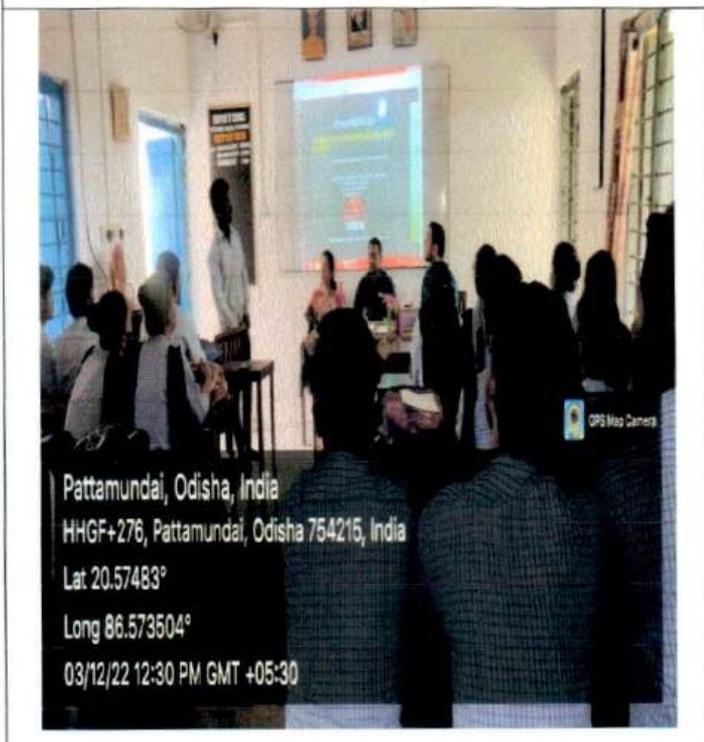
ROLL NO	SIGNATURE	ROLL NO	SIGNATURE
BA20-260	Saroj kanta behera	BA-22-030	Deepshikha Parida
BA20-041	Lizarani Sethi	BA-22-074	Mousumi Parida
BA20-025	Soumyashree Sahoo	BA-22-021	Tribeni Malik
BA-21-023	Sumittra Parida	BA-22-200	Shreya Swain
BA-20-168	Ankita Nath	BA-22-177	Pujarani Nayak
BA-20-138	Manasi Tarai	BA-22-006	Sushree Sangita Nayak
BA-20-199	Satyabrata Nayak	BA-22-047	Kapita Sahoo
BA-21-055	Laxmi Priya Nayak	BA-20-170	Monalisha Nath
BA20-241	Sonal Sangita Sahoo	BA21-043	Suchitra Behera
BA-21-139	Lizarani Sethi	BA-20-212	Nitesh Kumar Nath
BA-20-190	monalisha kar	BA-21-226	Prianka shoo
BA20-012	Sovasini Dash	BA-21-196	Bikram Das
BA-20-005	Santib kumar garai	BA-20-067	Barakantani Samal
BA20-020	Arpita Prithi Priyambada	BA-21-096	Madhusmita Rout
BA-22-004	Pruthinaj Singh	BA-21-275	Sarita Malik
BA-22-060	Reshmi Narayan Jena		
BA-22-214	Parulabi Panda		
BA-22-158	Rashmi Kanta Pradhan		
BA-22-280	Soumya ranjan Behera		
BA-22-186	Bichitra Swain		
BA-22-016	Lopita Sahoo		
BA-22-101	Shrabani Dhar		


 H.O.D. ECONOMICS
 PATTAMUNDAI COLLEGE

STUDENTS SEMINAR REPORT

DEPARTMENT OF ECONOMICS
PATTAMUNDAI COLLEGE, PATTAMUNDAI

DATE: 03.12.2022



STUDENTS SEMINAR REPORT

DEPARTMENT OF ECONOMICS

PATTAMUNDAI COLLEGE, PATTAMUNDAI

SESSION:2022-23

DATE-17.12.2022

TIME-12.15 P.M

A student's seminar was organised by the Department of Economics, Pattamundai College, Pattamundai on 17.12.2022 at 12.15PM in the Economics seminar hall under the chairmanship of Mr. Pradyumna Pradhan, Head, Department of Economics. Mr. Subhasis Mishra, Lecturer in Economics, gave the welcome address and spoke about the purpose of the seminar. Two students of +3 final year Economics Honours, presented their seminar paper. Then, a question answer session was held. Teachers interacted with the paper presenters and appreciated their work. All the teachers of Economics department and 32 students were participated in the seminar. The seminar was ended at 1.40 PM with vote of thanks by Miss Smrutimayee Pradhan, Seminar Secretary, Department of Economics.

Name of the paper presenters	Roll No	Topic	Signature
MONALISHA KAR	BA 20-013	Green revolution and trends of farm mechanization in India.	Monalisha kar Dt- 17/12/2022
SUSHREE SUBHASANDHYA SAMAL	BA22-023	Agricultural price policy for a developing economy.	Sushree Subhasandhya Samal

Signature of Teachers present

Pradyumna Pradhan
Subhasis Mishra
Rasmita Panigrahi

Pradyumna Pradhan

HOD, ECONOMICS

H O D ECONOMICS
PATTAMUNDAI COLLEGE

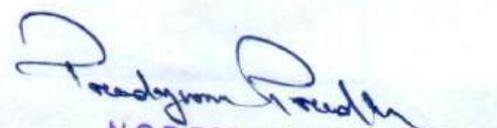
STUDENTS SEMINAR OF DEPT. OF ECONOMICS

PATTAMUNDAI COLLEGE, PATTAMUNDAI

DATE:17.12.2022

STUDENT ATTENDANCE SHEET

ROLL NO	SIGNATURE	ROLL NO	SIGNATURE
BA22-021	Tribeni Malik	BA20-199	Satyabanta Nayak
BA-22-001	Satyabhama Biswas	BA-20-168	Ankita Nath
BA-22-251	Bhagyashree Patra	BA-20-138	Manasi Tarai
BA-22-200	Shreya Swain	BA-20-109	Subharat Kumar Behera
BA-22-186	Bichitra Swain	BA20-58	Somrentimayee pradhan
BA-22-161	Shrabani Dey	BA20-046	Shankarson Behera
BA22-177	Pujarani Nayak	BA-21-196	Bikram Das
BA-22-214	Parthabi Panda	BA21-023	Sumitra Parida
BA22-006	Sashree Sangita Nayak	BA21-043	Suchitra Behera
BA22-002	Madhusmita Tehkeru	BA21-105	Bisakha Mashi
BA-22-076	Lopita Sahoo		
BA-22-214	Parthabi Panda		
BA-22-004	Prabhiraj Singh		
BA-22-280	Soumyarajon Behera		
BA-20-012	Sorvasini Dash		
BA20-002	Soubhagya Kumar Mishra		
BA20-025	Soumyashree Sahoo		
BA20-041	Lizamani Sethi		
BA20-013	Monalisha Kar		
BA20-022	Sushree Subhasishya Samal		
BA-20-260	Saroj Kanta Behera		
BA-20-226	Ashutosh Malik		


 H O D ECONOMICS
 PATTAMUNDAI COLLEGE

STUDENTS SEMINAR REPORT

DEPARTMENT OF ECONOMICS
PATTAMUNDAI COLLEGE, PATTAMUNDAI

DATE: 17.12.2022



GPS Map
Camera Lite

HHF7+QV3, Pattamundai, Odisha 754215, India

Latitude
20.5745814°

Longitude
86.56452°

Local 12:29:45 PM
GMT 06:59:45 AM

Altitude 10 meters
Saturday, 17.12.2022



GPS Map
Camera Lite

HHF7+QV3, Pattamundai, Odisha 754215, India

Latitude
20.5745814°

Longitude
86.56452°

Local 12:50:58 PM
GMT 07:20:58 AM

Altitude 10 meters
Saturday, 17.12.2022



GPS Map
Camera Lite

HHF7+QV3, Pattamundai, Odisha 754215, India

Latitude
20.5745814°

Longitude
86.56452°

Local 12:29:14 PM
GMT 06:59:14 AM

Altitude 10 meters
Saturday, 17.12.2022

STUDENTS SEMINAR REPORT

DEPARTMENT OF ECONOMICS

PATTAMUNDAI COLLEGE, PATTAMUNDAI

SESSION:2022-23

DATE-21.01.2023

TIME-12.15 P.M

A student's seminar was organised by the Department of Economics, Pattamundai College, Pattamundai on 21.01.2023 at 12.15P.M in the Economics seminar hall under the chairmanship of Mr. Pradyumna Pradhan, Head, Department of Economics. Mr. Subhasis Mishra, Lecturer in Economics, gave the welcome address and spoke about the purpose of the seminar. Two students of +3 final year Economics Honours, presented their seminar paper. Then, a question answer session was held. Teachers interacted with the paper presenters and appreciated their work. All the teachers of Economics department and 30 students were participated in the seminar. The seminar was ended at 1.20 PM with vote of thanks by Miss Smrutimayee Pradhan, Seminar Secretary, Department of Economics.

Name of the paper presenters	Roll No	Topic	Signature
SOUMYASREE SAHOO	BA 20-025	WTO AND INDIA'S TRADE IN AGRICULTURAL COMMODITIES	Soumyashree Sahoo Dt-21.01.23
LIZARANI SETHI	BA22-041	RISK AND UNCERTAINTY IN AGRICULTURE.	Lizarani Sethi DT-21.01.23

Signature of Teachers present

Pradyumna Pradhan
Subhasis Mishra
Kasmita Panigrahi

Pradyumna Pradhan
HOD, ECONOMICS

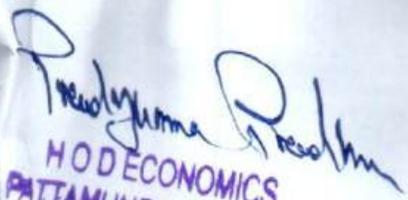
HOD ECONOMICS
PATTAMUNDAI COLLEGE

**STUDENTS SEMINAR OF DEPT. OF ECONOMICS
PATTAMUNDAI COLLEGE, PATTAMUNDAI**

DATE:21.01.2023

STUDENT ATTENDANCE SHEET

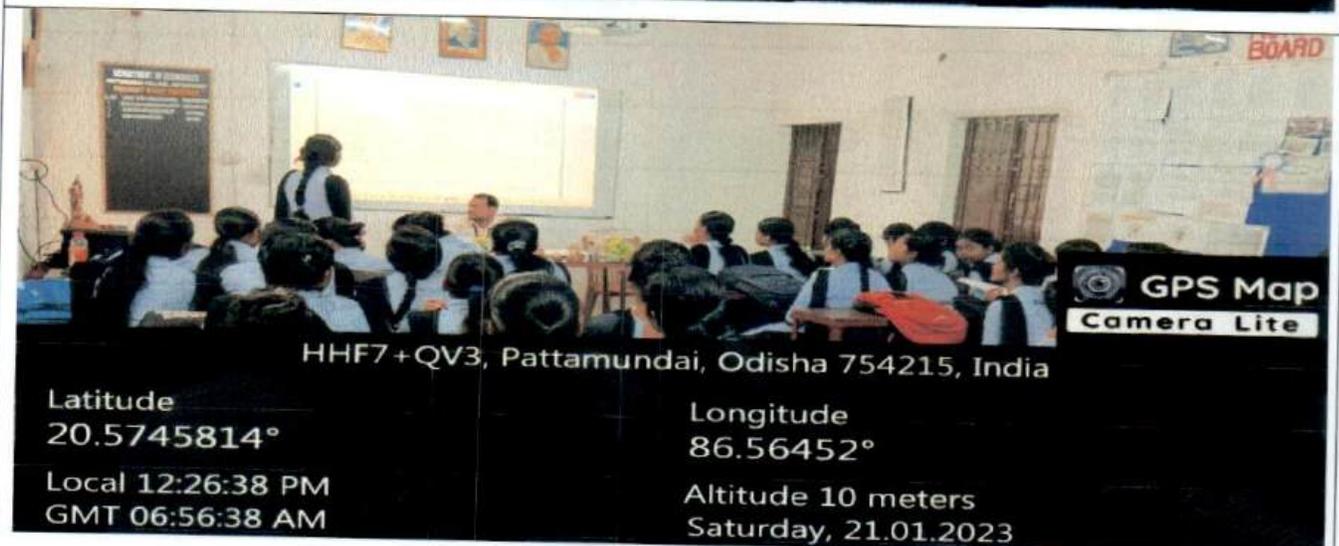
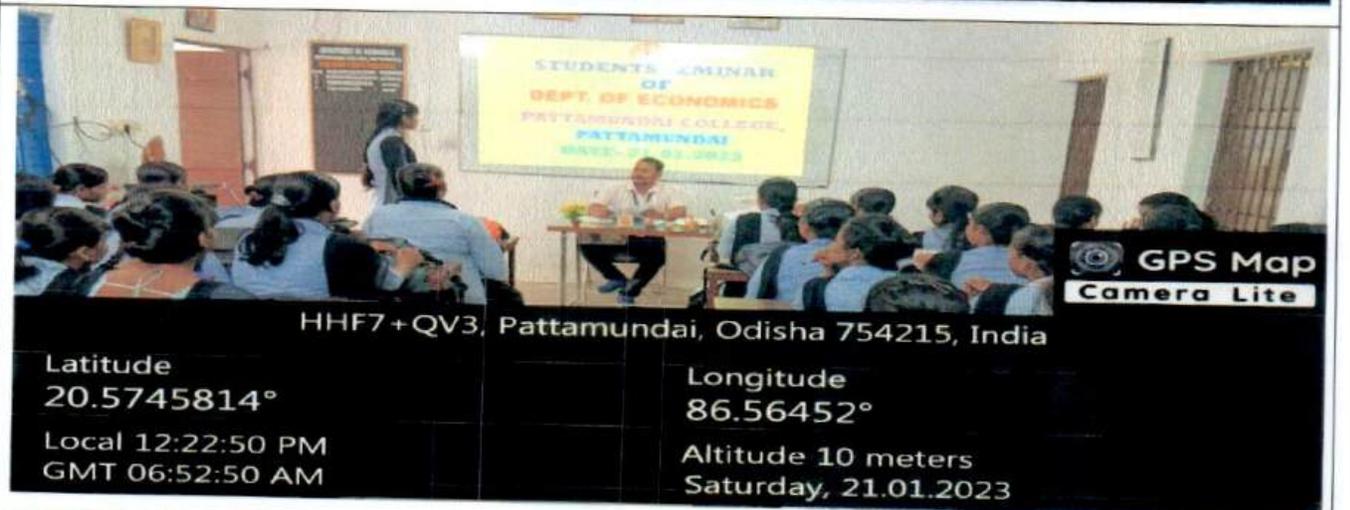
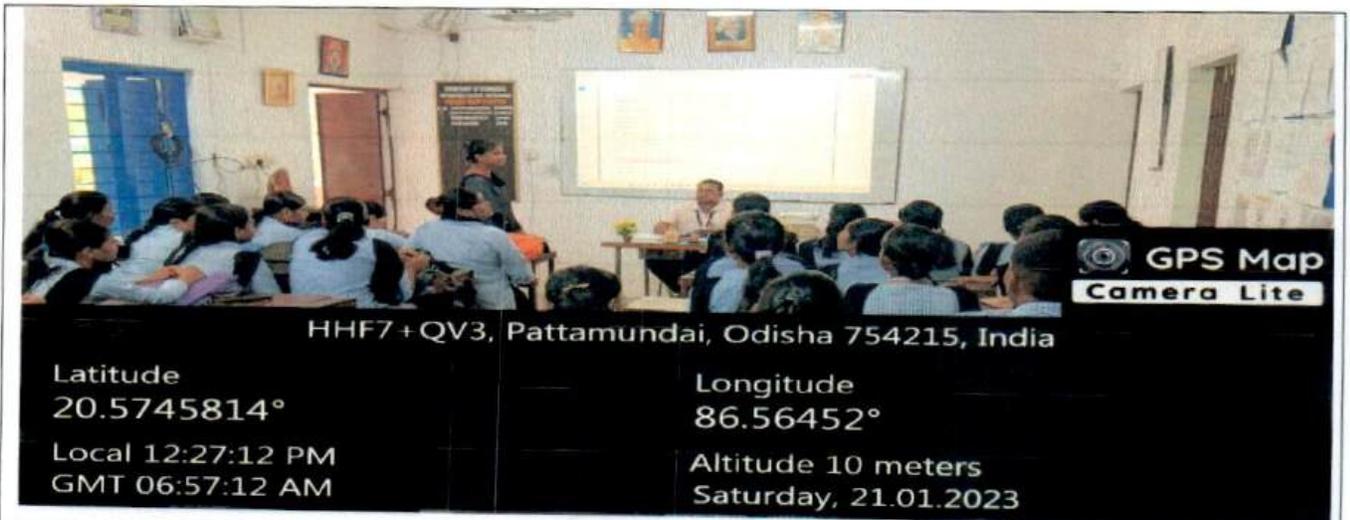
ROLL NO	SIGNATURE	ROLL NO	SIGNATURE
BA22-006	Shreee Sangita Nayak	BA-20-168	Ankita Nath
BA-22-251	Bhagyashree Patre	BA-20-138	Manasi Tarcai
BA-22-001	Satyabhama Nayak	BA-20-109	Subhanshu Kumar Behera
BA-22-177	Pujarani Nayak	BA-20-58	Sonamukherjee Pradhan
BA-22-021	Tribeni Malik	BA-20-046	Shankar San Behera
BA-22-002	Madhusmita Adhikari	BA-21-023	Samitra Parida
BA-22-186	Bichitra Swain	BA-21-043	Suchitra Behera
BA-22-101	Shreebani Dhal	BA-21-105	Bisaha Majhi
BA-22-076	Jopita Sahoo		
BA-22-200	Shreya Swain		
BA-22-004	Pruthi Singh		
BA-22-214	Parthabi Pandey		
BA-22-280	Sanyasani Behera		
BA-20-012	Sorani Dash		
BA-20-002	Soubhagya Kumar Mishra		
BA-20-041	Lizacani Sethi		
BA-20-023	Subhree Subhasantra Samal		
BA-20-260	Sarankanta Behera		
BA-20-226	Aashutosh Malik		
BA-20-199	Satyabrata Nayak		
BA-20-013	Monalish Kar		
BA-20-025	Somyashree Sahoo		


 HO DE ECONOMICS
 PATTAMUNDAI COLLEGE

STUDENTS SEMINAR REPORT

DEPARTMENT OF ECONOMICS
PATTAMUNDAI COLLEGE, PATTAMUNDAI

DATE: 21.01.2023



A
SEMINAR ON
“THE INTERDISCIPLINARITY
OF ECONOMICS”

ON

Dt. 27.12.2022

RESOURCE PERSON

Dr. Diptimayee Nayak
Asst. Professor
Department of Humanities & Social Sciences
IIT, Roorkee



Organised by

DEPARTMENT OF ECONOMICS

PATTAMUNDAI COLLEGE, PATTAMUNDAI

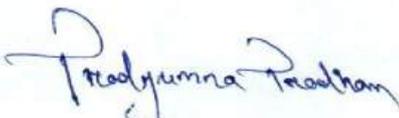
DIST-KENDRAPARA, ODISHA, PIN-754215

REPORT

A departmental seminar for the session 2022-2023 was organized by the Department of Economics, Pattamundai College, Pattamundai on dated 27-12-2022 on the topic "*The Interdisciplinarity of Economics*". Dr. Diptimayee Nayak, Assistant Professor, Department of Humanities and Social Sciences, IIT Roorkee joined the seminar as the resource person.

The meeting was presided over by Prof. Dilip Kumar Bhuyan, Administrative Bursar, Pattamundai College, Pattamundai. The meeting was commenced at 11.30 A.M. with the lighting of candle by our respected guest. Mr. Pradyumna Pradhan, Head Department of Economics gave a key note address of the topic and Mr. Subhasis Mishra, lecturer in Economics, Pattamundai College, welcomes and introduced guest of honour on this occasion.

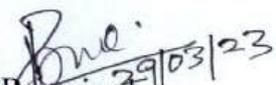
The meeting was ended with vote of thanks by Mrs Rasmita Panigrahi, Lecturer in Economics.


HOD

Economics
HOD ECONOMICS
PATTAMUNDAI COLLEGE


IQAC Co-ordinator

Pattamundai College
IQAC Co-ordinator
Pattamundai College


Principal 29/12/23

Pattamundai College

Principal
Pattamundai College



OFFICE OF THE PRINCIPAL

Mobile : 9437376724

PATTAMUNDAI COLLEGE

NAAC ACCREDITED B GRADE

PATTAMUNDAI, KENDRAPARA, ODISHA - 754215

Ref No. : 1309

, Date..... 26/12/2022

To

Dr. Diptimayee Nayak
Asst. Professor
Department of Humanities & Social Sciences
IIT, Roorkee.

Sub:- Request to be a Resource person in the Seminar on the topic “**The interdisciplinarity of Economics: Lessons from two projects**” to be organised by Department of Economics , Pattamundai College.

Madam,

It is my pleasure to invite you to be a **Resource person** in the **Seminar** on the topic “**The interdisciplinarity of Economics: Lessons from two projects**” going to be organised by **Department of Economics** Pattamundai College, Pattamundai at 10.00A.M. on 27th December 2022 .

Your kind consent is eagerly awaited.


Principal

Pattamundai College

To

Dt: 26/12/2022

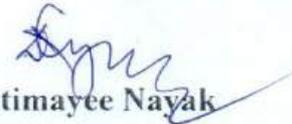
The Principal
Pattamundai College
Pattamundai

Sub: Consent letter for the seminar on **“The interdisciplinarity of Economics: Lessons from two projects”**.

Sir,

In response to letter no **1309, dt: 26/12/ 2022**, It is my pleasure to accept your invitation for the seminar on **“The interdisciplinarity of Economics: Lessons from two projects”**. I will join the said programme on 27th December 2022 at 10.00 a.m.

Thank You



Dr. Diptimayee Nayak
Asst. Professor
Dept. of Humanities & Social Sciences
IIT, Roorkee.

Office of the Principal
Pattamundai College, Pattamundai

NOTICE

No 13/0

Dt 26/12/22

All the staff members are requested to participate and cooperate in the Seminar on "**The interdisciplinarity of Economics: Lessons from two projects**" to be organised by Department of Economics, at 10.00 A.M on 27th December 2022 in our institution.


Principal
Pattamundai College

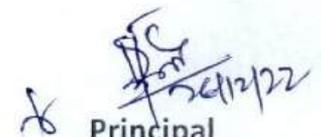
Office of the Principal
Pattamundai College, Pattamundai

NOTICE

No 13/0

Dt 26/12/22

All the staff members are requested to participate and cooperate in the Seminar on "**The interdisciplinarity of Economics: Lessons from two projects**" to be organised by Department of Economics, at 10.00 A.M on 27th December 2022 in our institution.


Principal
Pattamundai College

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

Interdisciplinarity of Economics: Lessons from two projects

Diptimayee Nayak, Ph.D
 Department of Humanities and Social Sciences
 Indian Institute of Technology Roorkee
 Email: dipti.nayak@hs.iitr.ac.in
 27 December 2022



Contents

- Why interdisciplinarity in Economic Sciences?
- Policy requirements: NEP 2020 and Multidisciplinary approach
- Two cases
 - NPV of foregone ecosystem services due to illegal sand mining
 - Monetary losses due to change in hydrological behaviour because of forest fire
- Conclusion



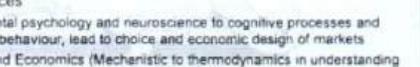
Why interdisciplinarity in Economic Sciences?

- Contiguous disciplines
 - Beyond Amateur interest
 - Imperialism of Economics
- Epistemology: Constituents of interdisciplinarity in Economics
 - Multidisciplinary models
 - Interchange with contiguous disciplines
 - Better understanding of economic systems
 - Maintaining disciplinary autonomy
 - Transdisciplinary model
 - More radical
 - Pluralist understanding
 - Moving towards a unified science/social science



Contd...

- Challenges
 - Institutions
 - Pedigree and training
 - Boundaries of mind, habit and perception
 - The Nature of problem: Purely economic problem??
- **Economy cannot be left to Economists alone, rather to be more pluralist in approach**
- Some Instances
 - Experimental psychology and neuroscience to cognitive processes and economic behaviour, lead to choice and economic design of markets
 - Physics and Economics (Mechanistic to thermodynamics in understanding complexity of ecosystems and economy)
 - Game theory to studies on cooperation and strategic behaviour: conflict



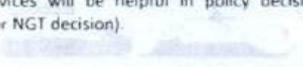
The New Education Policy 2020

- Liberal education
 - Holistic and Multidisciplinary education
 - Collaborative approach
 - Flexible and innovative curriculum
 - Credit-based courses
 - Electives from within and across disciplines



Ecological damages and NPV of future ESS foregone due to illegal sand mining

- The sand mining may impact in decreasing qualities/quantities in some of the ecosystem services.
- Some of the other ecosystem goods and services may be **lost completely**
- Examining the ecological damage caused by sand mining and estimating the net present value (NPV) of the impacted ecosystem good and services will be helpful in policy decision making (a requirement for NGT decision).



Impacts of illegal sand mining

Sl. No.	River Impact	Impact	Impact sub categories	Severity of Impacts (1= Mild, 2= Moderate, 3= Significant, 4= Severe)
1	Morphology	Stability of channel banks	1. Bank settlements 2. Channel adjustment	
2	Hydrology	1. OW level 2. Change in river flow	1. Bank erosion 2. Change in groundwater table in adjacent areas 3. Variation in flow	
3	Ecology	Loss of local ecological resources	1. Non-density of Fish 2. Non-Diversity of Fauna 3. Habitat	
4	River structures	Integrity of hydraulic structure	1. Damage to hydraulic structures and its surroundings	
5	River Ecosystem	River Ecosystem Services	1. Provisioning ESS 2. Cultural ESS 3. Regulating ESS	

Tools Used

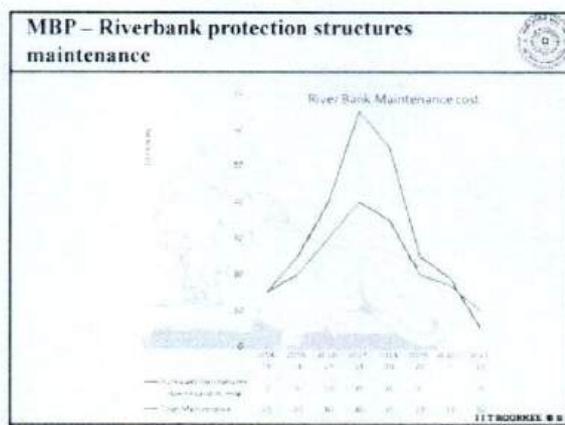
- Data generation/ capturing/ collection process
- Secondary data
- Primary data
- Pilot study
- Focus Group Discussions (FGDs) and Stakeholder engagement
- Semi-structured Questionnaire
- Sampling
- GIS and remote sensing



Variables used for NPV Calculations

- Damages due to illegal sand mining is based on the present value of **forgone ecological values** which is measured over a period of 5 years.
- In addition, losses occurred to exchequer in the form of increased maintenance and repair due to illegal sand mining is captured in these estimates.
- Ecological losses due to illegal sand mining = $\sum_{t=0}^5 \frac{(RRC)}{(1+r)^t} + \sum_{t=0}^5 \frac{(MBP)}{(1+r)^t} + \sum_{t=1}^5 \frac{(D \cdot RF)}{(1+r)^t}$

Where
 RRC = increased road repair cost (RRC) due to illegal sand mining
 MBP = increased maintenance cost of bank protection structures due to illegal sand mining
 D = market value of illegally mined sand
 RF = Risk Factor
 r = Discount rate
 t = time in years



Market value of illegal sand mining (D)

Year	Illegal Quantity	Market Price per M ³	Current market value of total exacted sand (INR)
2018-19	51,986	400	2,07,94,400
2019-20	1,11,279	480	55,41,39,200
2020-21	74,589	1000	74,58,90,000

Risk Factor

Based on the severity level, risk level and risk factor are assigned as in the following table

Severity of Impact	Mild	Moderate	Significant	Severe
Risk Level	1	2	3	4
Risk Factor	0.25	0.5	0.75	1

Discount rate - r

- Discount rate for NPV varies from 5% to 8% based on the severity level of Impact
- If the severity level is severe, the discount rate is lowest at 5%, whereas if the severity level is mild, the discount rate is highest at 8%.

Severity of Impact	Mild	Moderate	Significant	Severe
Risk Level	1	2	3	4
Risk Factor	0.25	0.5	0.75	1
Discount rate	8%	7%	6%	5%

Calculations of NPV 2018-19 illegal mining

- Total benefits= Fines + Penalty = 3,19,600
- Total Cost of ecological values for the year = D x RF
- Market Value of Excess extracted material (D) = Excess extraction x market price = 51,986 x 400 = 2,07,94,400
- Total Cost of ecological values for the year 2018-19 = D x RF = 2,07,94,400 x 0.25 = 5198600
- Present Value of forgone ecological values (@ 8% discount rate as severity is mild and over 5 years)

Contd...

- Total legal mining in 2018-19 = 390133m³
- Total illegal mining, in 2018-19 = 51,986 m³
- Total Mining in 2018-19 = 442119m³
- Total illegal mining as percentage = 51,986 / 442119 * 100 = 11.8%
- Road repair cost (RRC) towards illegal sand mining/yr = 10,00,000 * 11.8% = Rs 118000
- Maintenance of river bank protection (MBP) structures/yr = 20,00,00,000 * 11.8% = 23603030

Contd.

- $$PV(C) = \sum_{t=0} \frac{RRC}{(1+r)^t} + \sum_{t=0} \frac{MBP}{(1+r)^t} + \sum_{t=1}^5 \frac{D-RF}{(1+r)^t}$$
- $$= \frac{118000}{(1+0.08)^0} + \frac{23603030}{(1+0.08)^0} + \frac{5198600}{(1+0.08)^1} + \frac{5198600}{(1+0.08)^2} + \frac{5198600}{(1+0.08)^3} + \frac{5198600}{(1+0.08)^4} + \frac{5198600}{(1+0.08)^5} = 44157932$$
- Net Present Value = Total Cost - Total Benefits
- NPV of Illegal Sand Mining 2018-19 = NPV (C) = Rs. 44157932 - Rs. 3,19,600 = Rs. 4,41,57,932

Disciplinary knowledge used

Monetary losses due to change in hydrological behaviour because of forest fire

Impact of Forest Fire: Catchment and Hydrological Processes

Impact of Forest Fire on Hydrology

- Water Cycle**
 - Interception
 - Infiltration
 - Water holding
 - Snow accumulation and melting
 - Surface Runoff at spatial scales
- Flow and Deposit**
 - River deposit/ sediment
 - River flow
 - Downstream water quality
 - Aquatic life

Source: Nyamadzawo et al., 2013

Impact of Forest Fire on Hydrology and Potential Economic Losses

Consequences/ Impacted Areas	Impacted	Sign	Ground water	Surface water	Identification of loss/gain	Economic assessment (Feasible, Not Feasible)	Approach/ Method
Water Cycle	Interception	(-)			Effect on agriculture and NTFP	F	Modeling and empirical value method
	Infiltration	(-)			Effect on irrigation loss of water yield	F	SW
	Water holding	(-)			Effect on spring and drinking water	F	Quantitative and Qualitative methods
	Snow accumulation and melting	(+)				F	"Mira" etc.
	Surface Runoff	(-)			Socio-economic impact of flood as abraded bank erosion and erosion (biological, sub-catchment, catchment and watershed scales)	F	Primary survey based approach and historical data
Soil erosion	(-)			Socio-economic impact	F	Primary survey based approach	

Legend: (+) indicates increase, and (-) indicates decrease in certain variables and situations. * indicates increase, (decrease), and (no change)

Impact of Forest Fire on Hydrology and Potential Economic Losses

Consequences/ Impacted Areas	Impacted	Sign	Ground water	Surface water	Identification of loss/gain	Economic assessment (Feasible, Not Feasible)	Approach/ Method
Flow and Deposit	River deposit/ sediment	(-)			- Depreciation or restoration of heritage sites: vital Benefits in terms of sand mining - Vulnerability of downstream population due to peak flood and loss of assets	F	Market value approach and cost approach
	River flow	(-)					
Downstream water quality		(-)			Impact on health and livestock	F	Market value and surveying approach
Aquatic life		(-)			Loss of fishery	F	Market value approach

Legend: (+) indicates increase, and (-) indicates decrease in certain variables and situations. * indicates increase, (decrease), and (no change)

Contd...

Physical Impacts of FF on Hydrological Processes and Variables

Impacted Variables/Services

- Run off
- Sediment
- Evapotranspiration
- Storage

Source: Nyamadzawo et al., 2013

Methods to calculate Monetary Value

- Replacement cost**: Estimates economic values based on costs of replacing or restoring a damaged system/asset/resource/services to its original state and treats this costs as a measure of the benefits of restoration.
- Assumptions**: if people incur costs to replace/regain/restore the services of ecosystem then those services must be worth at least what beneficiaries paid to replace/restore them.
 - This method is mostly applied in cases where replacement expenditure have actually been incurred or will be made to regain/restore ecosystem services.
 - (Although in this case hydrological processes cannot be directly replaced but the costs are incurred to restore/regain the ecosystem services which generate from these hydrological processes)

Capturing relevant data

Identification of SS (hydrological variables)	Types of ESS	Early Method for economic valuation	Proxy data captured
Run off regulation	Regulating	Replacement	Therefore, we have taken the data like perception on run off, impact of run off in terms of soil erosion, actions taken and their expenditures incurred to combat soil erosion.
Sediment regulation	Provisioning (when sand raised) / Regulating	Replacement cost/benefit transfer	Cost of extracting sediments by the major dam/irrigation canal R_C of Sand raising
Evapotranspiration regulation (soil moisture, soil functions and soil erosion)	Regulating	Replacement	Cost incurred for increasing soil moisture in the adjacent agricultural land by using/leaving water to agricultural land. Cost of crop and its lost value.
Screen (soil moisture and GW recharge) regulation	Regulating	Replacement	Expenditure incurred to increase the length of your tube well pipe Time value of fetching water from new water source

Disciplinary knowledge used



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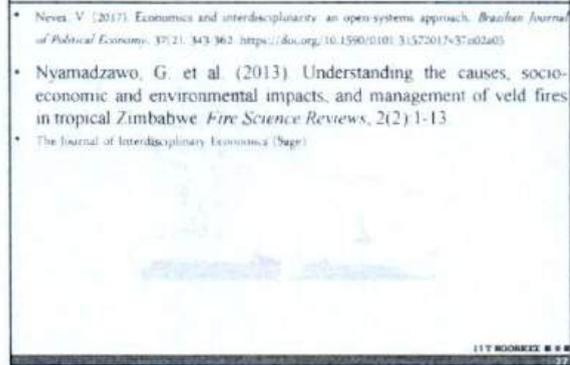
Conclusion



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References

- Neves, V. (2017). Economics and interdisciplinarity: an open systems approach. *Brazilian Journal of Political Economy*, 37(2), 343-362. <https://doi.org/10.1590/0101-31572017-37-02a03>
- Nyamadzawo, G. et al. (2013). Understanding the causes, socio-economic and environmental impacts, and management of veld fires in tropical Zimbabwe. *Fire Science Reviews*, 2(2) 1-13.
- The Journal of Interdisciplinary Economics (Sage)



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Thank you

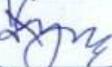
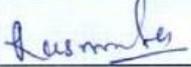


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Seminar on "The interdisciplinarity of Economics : Lessons from two projects"

Organised By: Department of Economics,
Pattamundai College, Pattamundai

Date: 27th December 2022

SLNO.	Name	Designation and Mobile No.	Signature
1	Dilip Bheyan	Administrative, Bargarh P.M.T. College.	
2	D. Naym	Asst. Prof. P. K. Patil P. K. Patil	
3	Dr S.K. Pradhan	Reader in Chemistry 9927193076	
4	Prof. Debabrata Panda	Former Principal, Pattamundai College	 9437276344
5	Ranjana Kumar Behera	Lecturer in History 9668830365	
6	Pradyumn Pradhan	Lecturer in Economics, 9776010619	P. Pradhan
7	Rasmika Panigrahi	Lecturer in Economics 9643271982	
8	Subhasis Mishra	Lecturer in Economics 7205425848	S. Mishra
9			
10			
11			
12			
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14			
15			
16			

Seminar on "The interdisciplinarity of Economics : Lessons from two projects"

Organised By: Department of Economics,
Pattamundai College, Pattamundai

Date: 27th December 2022

SLNO.	ROLL NO.	NAME OF THE PARTICIPANT	MOBILE NO.
1	BA-22-21	Tribeni Malik	8984353156
2	BA-22-30	Deepshikha Parida	9124812398
3	BA-22-06	Sushree sangita Nayak	7381132318
4	BA-22-177	Pejarani Nayak	9668013842
5	BA-22-074	Mausumi Parida	7325985368
6	BA-22-081	Sonali Das	7846822623
7	BA-22-186	Bichitra Swain	9336783942
8	BA-22-211	Parthab Panda	6312829915
9	BA-22-200	Shreya Swain	9205497060
10	BA-22-076	Lopita Sahoo	7752033089
11	BA-22-002	Madhusmita Adhikari	8114733445
12	BA-22-001	Satyabhama Biswal	8456933410
13	BA-20-063	Sucharita Rotel	9777841731
14	BA-20-190	Monalisa Kar	9556844267
15	BA-20-013	Monalisha Kar	7684970788
16	BA-20-241	Sonali Sangita Sahoo	9018865394
17	BA-20-025	Soumyashree Sahoo	6371746271
18	BA-20-139	Manasi Tarai	7327864749
19	BA-20-058	Priyanka Priyadarshani Saha	7325820072
20	BA-20-020	Arpita Prati Prigambada Behera	9078636558
21			

SLNO.	ROLL NO.	NAME OF THE PARTICIPANT	MOBILE NO
22	BA-20-667	Bansarani Samal	7894905364
23	BA-20-069	Tamishra Priyadarshini Sethi.	8093619615
24	BA-20-041	Lizarani Sethi	7848845235
25	BA-20-023	Sushree Satharandhya Samal	7077624110
26	BA-21-096	Madhusmita Rout	9938711795
27	BA-21-028	Subarna Swadarshini Patra	8457016569
28	BA-21-062	Rasmi Rekha Das	9556490330
29	BA-21-023	Sumitra parida	9668253929
30	BA-21-227	Laxmi priya Rout	9178435405
31	BA-21-105	Bisakha Majhi	8114946520
32	BA-21-254	Priyanka Priyadarshini Sahoo	7847089513
33	BA-21-109	Subhashree Das	7735134496
34	BA21-055	Laxmi Priya Nayak	9827713752
35	BA21-181	Anita Bhuyan	8118067851
36	BA-21-108	Hishree Nayak	9348809360
37	BA-21-139	Lizarani Sethi	7847942001
38	BA-21-214	Lucky Ojha	8144632357
39	BA-21-211	Smriti Smita Jena	7684983934
40	BA-21-167	Abantina Pradhan	9668268289
41	BA-21-092	Swopna ranee Mohanty	8658810147
42	BA-21-149	Rasmita Malik	7205864522
43	BA-21-43	Suchitra Behera	8658945510
44	BA-21-042	Rupali Priyadarshini Sethi	8114652188
45	BA-20-170	Momali Shree Nath	8984722894
46	BA-20-168	Ankita Nath	7077254078
47			
48			
49			
50			

SLNO.	ROLL NO.	NAME OF THE PARTICIPANT	MOBILE NO
51	BA22-261	Soubhagya Das	6372631093
52	BA23-248	Siddhanta Keshari Parida	9114439080
53	BA22-060	Rudra Narajana Jena	7606049653
54	BA21-215	Satya prasanna parida	789443554
55	BA21-015	manash raman das	983201989583280195
56	BA22-227	Kumar Bissal	7205887783
57	BA22-280	Soumya ranjan Behera	7606880054
58	BA22-004	Pruthiraj Singh	9668811033
59	BA20-046	Shankaran Behera	7855915534
60	BA20-005	Sanjit Kumar Singh	9348542652
61	BA20-191	Narenbra Ku. Behera	9348890619
62	BA20-058	Smrutimayee Pradhan	8984086343
63	BA20-002	Soubhagya Kumari Mishra	7077318232
64	BA21-248	Satyapriya Sahoo	7381130033
65	BA21-165	Manojanjan Mishra	7735581254
66	BA20-196	Aakash Kumar Patra	7894962519
67	BA20-109	Subrat Kumar Behera	6371108563
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GPS Map Camera

Pattamundai, Odisha, India

HHGF+882, Pattamundai, Odisha

754215, India

Lat 20.575546°

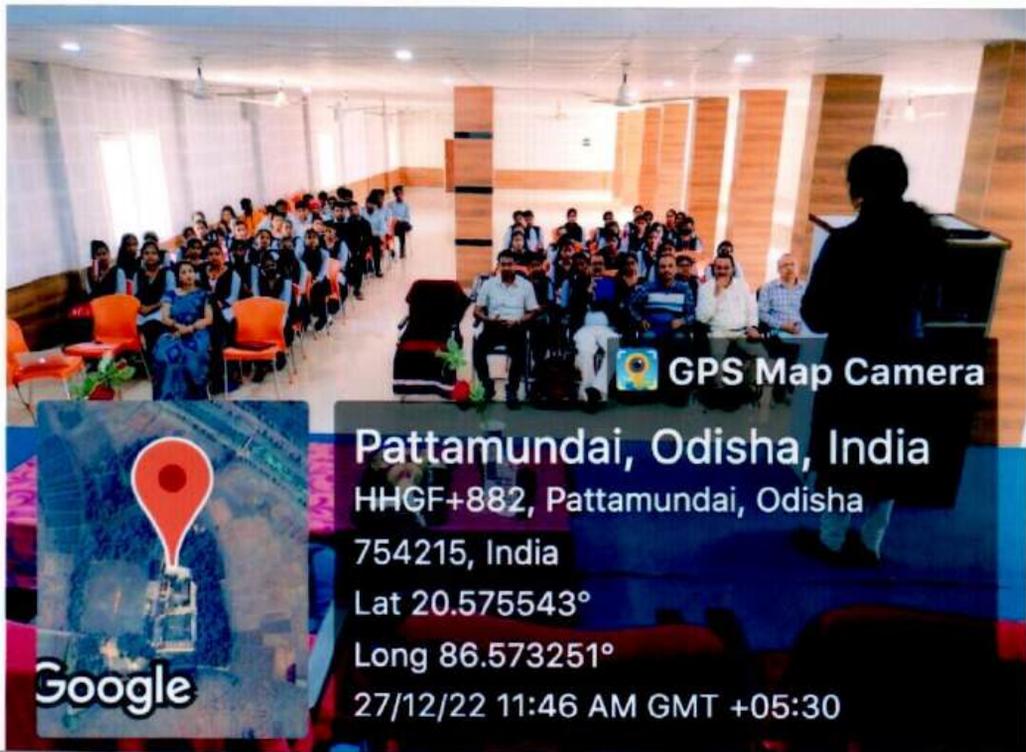
Long 86.573242°

27/12/22 11:45 AM GMT +05:30



Google

27/12/22 11:46 AM GMT +05:30



ପଟ୍ଟାମୁଣ୍ଡାଇ କଲେଜ ଅର୍ଥନୀତି ବିଜ୍ଞାନ ଆଲୋଚନାଚକ୍ର



ପଟ୍ଟାମୁଣ୍ଡାଇ, ୨୯/୧୨(ନି.ପ୍ର): ପଟ୍ଟାମୁଣ୍ଡାଇ କଲେଜ ଅର୍ଥନୀତି ବିଜ୍ଞାନ ବିଭାଗ ପକ୍ଷରୁ ପରିବେଶ ସୁରକ୍ଷାର ନିରନ୍ତର ବିକାଶ ଶାସ୍ତ୍ରୀୟ ରାଜ୍ୟସ୍ତରୀୟ ଆଲୋଚନାଚକ୍ର ଅନୁଷ୍ଠିତ ହୋଇଯାଇଛି । ପ୍ରଧାନ ବିକାପ କୁର୍ଯ୍ୟକ ପୌରୋହିତ୍ୟରେ ଆୟୋଜିତ ଆଇ ଆଇ ଟି ରୁକାର ପ୍ରଫେସର ଡ଼ ଦାସ୍ତମୟା ନାୟକ ପରିବେଶ ସୁରକ୍ଷାର ନିରନ୍ତର ବିକାଶ ଓ ଅନ୍ତର୍ବିଷୟକ ଆଲୋଚନା କରିଥିଲେ । ଅର୍ଥନୀତି ବିଜ୍ଞାନ ବିଭାଗ ପୁଖ୍ୟଅଧ୍ୟାପକ ପ୍ରଦ୍ୟୁମ୍ନ ପ୍ରଧାନ ସାଗର ଭାଷଣ ଓ ଅଧ୍ୟାପକ ସୁଭାଷିଷ ମିଶ୍ର ଅତିଥିପରିଚୟ ପ୍ରଦାନ କରିଥିଲେ । ଅଧ୍ୟାପକ ରଞ୍ଜିତା ପାଣିଗ୍ରାହୀ ଧନ୍ୟବାଦ ଦେଇଥିଲେ । କଲେଜ ଆଇକ୍ୟୁଏସି ସଂଯୋଜକ ପ୍ରଧାପକ ଡ଼ ସୁନୀଲ ପ୍ରଧାନ, ଅଧ୍ୟାପକ ରଞ୍ଜନ ବେହେରା ପରିଚାଳନା କରିଥିଲେ ।

