

A WEBINAR

ON

***"ENVIRONMENTAL POLLUTION VERSUS INDUSTRIAL
DEVELOPMENT"***

Resource Person

Dr.Surabhi Depali Muduli

Young scientist

IMMT,BBSR

On

31st August 2020

DEPARTMENT OF BOTANY

PATTAMUNDAI COLLEGE

PATTAMUNDAI

KENDRAPARA

754215

REPORT

A webinar was organized by Department of Botany, Pattamundai College, Pattamundai on dated 31.08.2020 on the topic "**Environmental pollution versus Industrial Development**". Dr. Surabhi Dipali Muduli, Young Scientist, IMMT, Bhubaneswar graced the webinar as resource person.

The webinar was started at 11.00 am with the welcome address by our Honorable Principal Prof. Adhikari Laxminarayan Dash which was followed by guest introduction by Dr. Anjali Kumari Dash, Head of the Department of Botany. She also explained the aim and objectives of the webinar and the aim of the topic to be discussed. 70 participants were participated in this webinar all over the state including faculty, academicians, researchers and students. The resource person broadly explained the hazardous effects of pollution on environment and the way to overcome such situations. There was a question-answer session at the end of the session.

The webinar was ended with a vote of thanks by Mrs. Suchismita Biswal, Lecturer in Botany at 1 p.m.

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Environmental pollution versus Industrial development

Dr. Surabhi Dipali Muduli
Young Scientist, Environment & Sustainability Department

environmental factors

Physical, Chemical, Biological, Social factors

COMPONENTS OF ENVIRONMENT

Air, Water, Soil, Flora, Fauna

IMPACT OF ENVIRONMENTAL POLLUTION

Global warming, Melting of ice in glacier, Drought, Dead trees on land, Climate change, Point & non-point sources, Artificial sources, Metallurgical industry, Building material industry, Green house effect, Thermal radiation to space, Directly radiated from the surface, Solar radiation absorbed by earth, Heat & energy in the atmosphere, Green house gas absorption, Green house effect

Involves a number of relevant climatic variables:

Temperature, Water Vapor, Trace Gases (carbon dioxide, methane, nitrous oxide and ozone), Green house gases, water vapour 36–70%, carbon dioxide: 9–26%, methane: 4–9%, Ozone: 3–7%, Carbon Dioxide (CO₂), Fossil fuel burning, deforestation, Anthropogenic increase: 30%, Average atmospheric residence time: 500 years, Methane (CH₄), Rice cultivation, cattle & sheep ranching, decay from landfills, mining, Anthropogenic increase: 145%, Average atmospheric residence time: 7-10 years Nitrous oxide (N₂O), Industry and agriculture (fertilizers), Anthropogenic increase: 15%, Average atmospheric residence time: 140-190 years

Green house to global warming

The "*greenhouse effect*" & *global warming* are not same. Global warming refers to a rise in the temperature of the surface of the earth. An increase in the *concentration of greenhouse gases* leads to an increase in the *magnitude of the greenhouse effect*. (Called enhanced greenhouse effect). This results in to global warming

Impact of green house effect

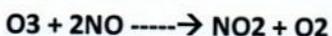
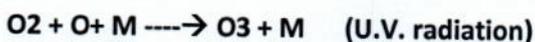
Sps. Becoming endangered/extinct, Heavy drought, Spread of disease, Change in weather pattern, Consequence of global warming, Climate change, Melting of polar ice caps, Increase in sea level, Increase in air & ocean temperature

Photochemical smog

Oxidising smog (Los Angeles smog), Reducing smog (London smog), Sulphurous smog, Urban fog, Los Angeles California 1940, Happened in Dec, 1930 in Meuse valley of London in 5th December of 1952. 600 people died

Oxidising (Los Angeles) smog (Some of H₂O₂)

Double bonded hydrocarbon, Organic peroxides released from automobiles, Inorganic gases (CO, O₃), Secondary pollutants, NO₂ is responsible for initiation of oxidising smog.



Smog & health

According to the American Lung Association, lungs and heart can be permanently affected by smog. Young and the elderly are particularly susceptible to the effects with both short and long term exposure can suffer ill health effects. Problems include shortness of breath, coughing, wheezing, bronchitis, pneumonia, inflammation of pulmonary tissues, heart attacks, lung cancer, increased asthma-related symptoms, fatigue, heart palpitations, and even premature aging of the lungs and death.

causes and effects of air pollution

Greenhouse effect, Particulate contamination, Increased UV radiation, Acid rain, Increased ground level ozone concentration, Increased levels of nitrogen oxides

ozone layer depletion

Ozone is present in higher troposphere and lower stratosphere. (15 - 55km) above earth surface. It is formed by photochemical reaction.

Powerful oxidizing agent Oxidize many organic compounds Used commercially as a bleach for waxes, oils, and textiles, and as a deodorizing agent. Because it is a powerful germicide, Used to sterilize air and drinking water.

acid rain

Any other form of precipitation that is unusually acidic (low pH), caused by emissions of oxides of sulphur, carbon and nitrogen which react with the water molecules in the atmosphere to produce acids. pH is acidic < 5.7 (because carbon dioxide and water in the air react together to form carbonic acid, nitric acid and sulphuric acid etc.

- Oxides of sulfur
- $\text{SO}_2 + \text{OH}\cdot \rightarrow \text{HOSO}_2\cdot$
- $\text{HOSO}_2\cdot + \text{O}_2 \rightarrow \text{HO}_2\cdot + \text{SO}_3$
- Presence of water $\text{SO}_3 (\text{g}) + \text{H}_2\text{O} (\text{l}) \rightarrow \text{H}_2\text{SO}_4 (\text{l})$
- Oxides of nitrogen reacts with OH to form nitric acid:
- $\text{NO}_2 + \text{OH}\cdot \rightarrow \text{HNO}_3$
- Oxides of carbon reacts with water to form carbonic acid
- $\text{CO}_2 + \text{H}_2\text{O} \rightarrow \text{H}_2\text{CO}_3$
- $\text{H}_2\text{CO}_3 \rightarrow \text{H}^+ \text{HCO}_3^-$

Eutrophication

The process of nutrient enrichment and gradual filling in of a lake in a natural process is called eutrophication.

Oligotrophic: Deep, clear, cold, nutrient poor water with very little aquatic life. **Mesotrophic:** Nutrients and sediment begin to accumulate increasing populations of aquatic life appear. **Eutrophic:** Nutrient rich, relatively shallow, warm water, with much plant growth and other aquatic organisms: algal blooms. **Senescent:** Oldest stage of a lake, very shallow, overgrown with emerging rooted plant life. **Heavy metals** are chemical elements with a specific gravity that is at least 5 times the specific gravity of water. The specific gravity of water is 1 at 4°C (39°F). (As 5.7; Cd 8.65; Fe 7.9; Pb 11.34; & Hg 13.546). **Toxic metals** are metals that form poisonous soluble compounds and have no biological role, i.e. are not essential minerals or are in the wrong form

Result of environmental pollution

Green house effect, Ozone layer depletion, Acid rain, Photochemical smog

What is Waste

Waste is defined by the Act as any matter, whether solid, liquid, gaseous or radioactive, which is discharged, emitted or deposited in the environment in such volume, constituency or manner as to cause an alteration of the environment.

philosophy of waste management

Waste avoidance, Waste stream reduction, Responsible waste disposal

Hazardous Waste

It is a solid waste or a combination of solid waste which because of its quantity, concentration, physical, chemical or infectious characteristics may: An increase in mortality or an increase in serious irreversible or incapacitating reversible illness when improperly treated, stored, transported, disposed of or managed may present potential hazard to human health or the environment

Identification of hazardous waste

Ignitable hazardous – Flammable, Reactive hazardous- Oxidizer, Toxic hazardous- Poison

Corrosive hazardous -Corrosion

Hazardous waste may result from manufacturing or other industrial processes. Non-hazardous industrial waste are those that do not meet the EPA's .Management of solid waste is essential for a pollution free environment

Need of approach

Compliance with Regulations, Reduce Waste Streams ,Reduce Energy Consumption, Recycle/Reuse, Green Purchasing, Pollution Prevention, Use ECO mark.

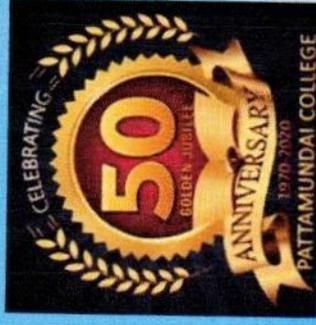
It is a hard truth to swallow, but nature does not care if we live or die. We cannot survive without the water, soil and air but they can do just fine without us.



DEPARTMENT OF BOTANY PATTAMUNDAI COLLEGE

PATTAMUNDAI

Affiliated to Utkal University, Bhubaneswar, Odisha



Certificate of Participation

This is to certify that Mr./Ms./Mrs. DR. ANJALI KUMARI DASH of PATTAMUNDAI COLLEGE has actively participated in the Webinar on "Environmental Pollution Versus Industrial Development" organized by Department of Botany, Pattamundai College, Pattamundai, Kendrapara, Odisha.

Date: 31st August 2020, Certificate No-SS7A4I-CE000008

Dr. Anjali Dash
H.O.D., Botany

Prof. A.L.N. Dash
Principal

Timestamp	Email Address	NAME	DESIGNATION	DEPARTMENT	MOBILE NO
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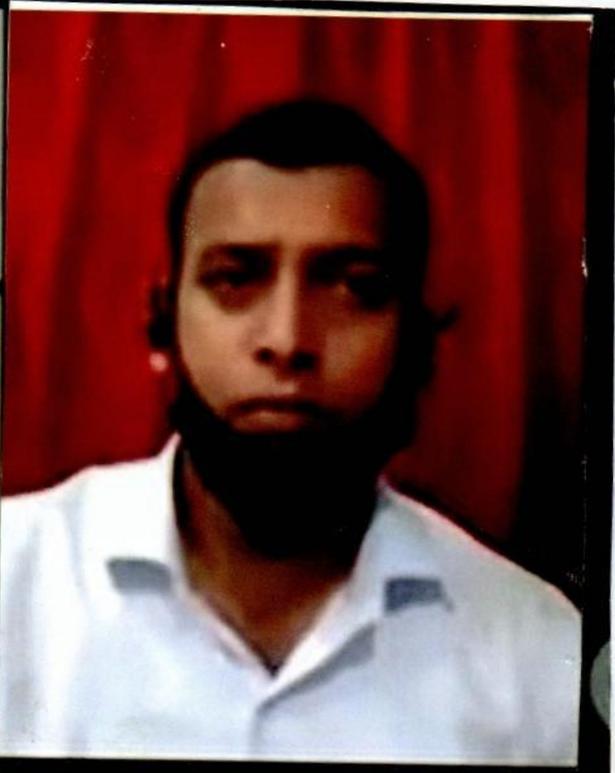
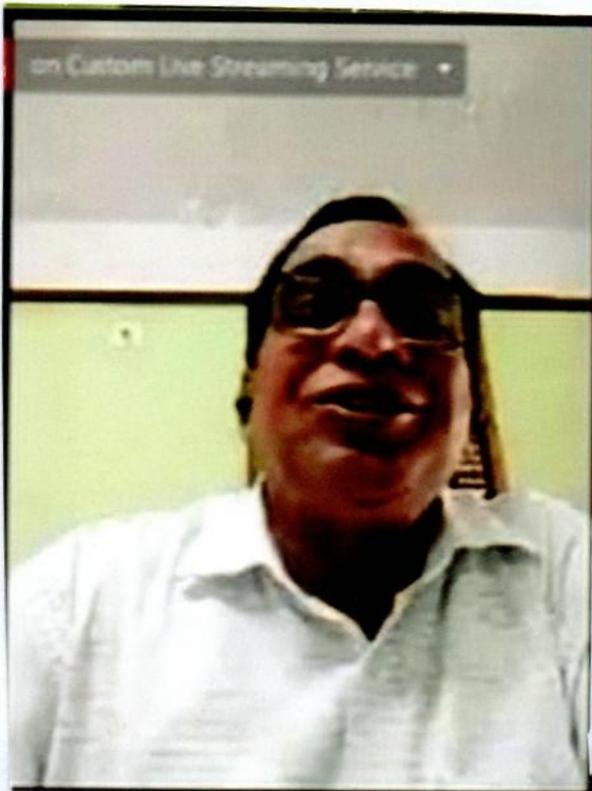
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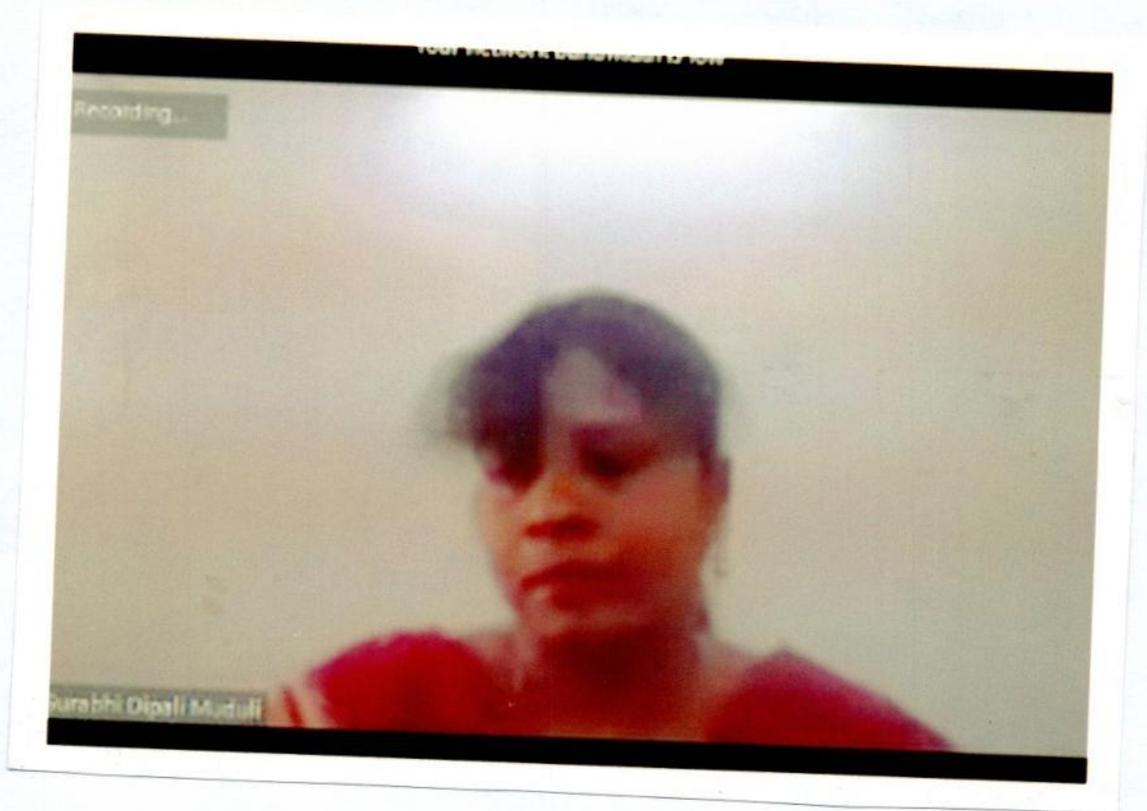
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8-26-2020 19:41:23	jayashreeparida10@gmail		0 Jayashree Parida	BS17-078	+3 3RD YEAR	Botany	9668506978
8-26-2020 19:46:14	nayak37099@gmail.com		0 Srutideepa Nayak	BS(B)19-106	+3 2ND YEAR	Botany	7853906694
8-26-2020 20:10:46	preetikar710@gmail.com		0 Preeti Priyadarshini Kar	BS17-021	+3 3RD YEAR	Botany	8637233343
8-26-2020 20:28:46	kariyotiprava2018@gmail.		0 Jyotiprava kar	BS18-007	+3 3RD YEAR	Botany	6370828858
8-26-2020 20:34:18	gjena196@gmail.com		0 Gayatri jena	BS(B)19-091	+3 2ND YEAR	Botany	9178416553
8-26-2020 20:46:51	paridamousumi215@gma		0 Mousumi Parida	BS18-008	+3 3RD YEAR	Botany	9348683631
8-26-2020 20:55:14	krushnarout99@gmail.cor		0 Krushna chandra rout	BS17-009	+3 3RD YEAR	Botany	7787972557
8-26-2020 21:00:13	nayakprasanna02@gmail.		0 Prasanna Kumar Nayak	BS 17_102	+3 3RD YEAR	Botany	8260146199
8-26-2020 21:01:07	barshamahunta938@gma		0 Monalisa Mahunta	BS1838	+3 3RD YEAR	Botany	7682987584
8-26-2020 21:19:51	sushreekarisma676@gm		0 Sushreekarisma samal	BS-17-053	+3 3RD YEAR	Botany	8456069247
8-26-2020 21:59:59	sradhanjalidas200@gmail		0 Sradhanjali Das		137 +3 3RD YEAR	Botany	6372442063
8-26-2020 22:18:27	sarmisthadash495@gmail		0 Sarmistha Dash	BS 17 156	+3 3RD YEAR	Botany	9090173220
8-26-2020 23:03:38	varsao18@gmail.com		0 Prajnaya Paramita Behura	BS 18-134	+3 3RD YEAR	Botany	9114566424
8-27-2020 7:48:03	beherapuja63@gmail.cor		0 Puja Behera	BS 17_056	+3 3RD YEAR	Botany	9668468631
8-27-2020 8:18:17	barsharaidash13@gmail		0 Barsarani dash	BS-17-131	+3 3RD YEAR	Botany	6370850275
8-27-2020 8:58:05	bhagyashreesahoosiman(0 Bhagyashree saho	BS-17-55	+3 3RD YEAR	Botany	9078419422
8-27-2020 9:13:20	prashmita378@gmail.com		0 Rashmita parida	BS(B)19-029	+3 2ND YEAR	Botany	9861554738
8-27-2020 9:16:01	prashmita378@gmail.com		0 Rashmita Parida	BS(B) 19-029	+3 2ND YEAR	Botany	9861554738
8-27-2020 9:55:22	ankitapriyadarshini4444@		0 Ankita Priyadarshini	BS17-141	+3 3RD YEAR	Botany	9668508620
8-27-2020 10:17:20	bikaah17052001@gmail.c		0 Bikash jena	BS18 129	+3 3RD YEAR	Botany	8287651722
8-27-2020 10:21:43	saganpatra0007@gmail.cc		0 Rakesh Rout	BS18-112	+3 3RD YEAR	Botany	9078553355
8-27-2020 10:22:44	swagatika18patra@gmai.		0 Swagatika Patra	BS18-123	+3 3RD YEAR	Botany	9078327771
8-27-2020 10:22:52	annapurnanayak271@gm		0 Annapurna Nayak	BS18-028	+3 3RD YEAR	Botany	9348579426
8-27-2020 10:24:35	supravapanda799@gmail		0 Suprava panda	BS18-135	+3 3RD YEAR	Botany	9937346364
8-27-2020 10:37:10	rajashreebiswai90580@gr		0 Rajashree Biswal	Bsc-18-124	+3 3RD YEAR	Botany	9938751294
8-27-2020 11:00:16	mikss28046@gmail.com		0 Manoj Kumar swain	BS(B)19-046	+3 2ND YEAR	Botany	8328965353
8-27-2020 11:04:14	dashshweta107@gmail.cc		0 Shweta Dash	BS17- 147	+3 3RD YEAR	Botany Department	8658231238
8-27-2020 11:17:00	manishar361@gmail.com		0 Manisha Routray	BS(B)19-028	+3 2ND YEAR	Department of Botany	9348343605
8-27-2020 11:53:57	rakesh29rout@gmail.com		0 Rakesh	Rout	+3 3RD YEAR	Botany	9078553355
8-27-2020 12:31:01	suchitra161101@gmail.co		0 Sushree Suchitra das	Bs(B)19_112	+3 2ND YEAR	Botany	8114364022
8-27-2020 19:13:06	Dashprajnaparimita@gma		0 Prajnaparimita Dash		127 +3 3RD YEAR	Botany	7735126020
8-27-2020 20:50:34	routprativa39@gmail.com		0 Sonali priyadarisami parida	BS(B) 19-122	+3 2ND YEAR	Botany	9938672365
8-27-2020 20:55:21	sumitrabal790@gmail.com		0 Sumitra Bal	BS18-111	+3 3RD YEAR	Chemistry	7377598738
8-27-2020 21:01:56	anuskasahoo961@gmail.:		0 Anuska saho	BS18-111	+3 3RD YEAR	Chemistry	9348165770
8-27-2020 21:13:14	rajibirirajgirir0265@gma		0 Rajib giri	BS17- 124	+3 3RD YEAR	Botany	9777173582
8-27-2020 21:23:14	swagatikadas871@gmail.:		0 Swagatika das	BS18103	+3 3RD YEAR	Chemistry	9938970570
8-27-2020 21:24:58	saraspradhan90@gmail.c		0 Saras pradhan	BS-18-060	+3 3RD YEAR	Zoology	9337947845
8-27-2020 21:35:07	parbatsethi2001@gmail.c		0 Parbati sethi	BS-18-035	+3 3RD YEAR	Zoology	9176792994
8-27-2020 22:24:18	pandanamita33@gmail.cc		0 Namita panda	Bsc18019	+3 3RD YEAR	Chemistry	8658667460

Timestamp	Email Address	NAME	DESIGNATION	DEPARTMENT	MOBILE NO
8-27-2020 11:54:28	saratchandradasengish@gmail.com	DR. SARAT CHANDRA D.	Lecturer	English.	9776907778
8-27-2020 12:03:59	ranjan775819@gmail.com	Ranjan kumar Behura	LECTURER	HISTORY	9668830365
8-27-2020 12:47:46	sarojinimishra7191@gmail.com	sarojini Mishra	Lecturer in zoology	zoology	9437920782
8-27-2020 15:10:39	pradyumna.bir@gmail.com	Mr PRADYUMNA PRADH.	Lecturer in Economics	Economics	9776010619
8-27-2020 18:33:41	swainpramodkumar1969@gmail.com	Pramod kumar swain	Lecture	Odia	9937974209
8-27-2020 18:46:10	nibedita006@gmail.com	Nibedita Pradhan	Lecturer	Political Science	8260531432
8-27-2020 19:22:39	dparida1965@gmail.com	DR DUSHASAN PARIDA	ASSOCIATE PROFESSOR	CHEMISTRY	9853165455
8-27-2020 20:54:26	dilipbhuyan1965@gmail.com	DILLIP KUMAR BHUYAN	READER IN ZOOLOGY	ZOOLOGY	9437383989
8-27-2020 21:12:40	monalibaral48@gmail.com	Monali Baral	Student	Department of zoology	9861482757
8-27-2020 21:26:24	anjalidash8@gmail.com	Dr. Anjali Kumari Dash	Lecturer	Botany	9861476642
8-27-2020 21:31:15	suchismitabiswal@yahoo.com	Suchismita Biswal	Lecturer	Botany	7978349618
8-27-2020 21:32:06	jitendramalik57@gmail.com	JITENDRA MALIK	Lecturer	Commerce	7008598319
8-27-2020 23:04:50	arabindapandab@gmail.com	ARABINDA PANDAB	LECTURER IN MATHEM	PATTAMUNDAI COLLEGI	9937254024
8-27-2020 23:51:45	nibeditanayak63@gmail.com	Mrs Nibedita Nayak	Lecture in education	Department of education	9668725524
8-28-2020 6:35:41	baikunthroul1@gmail.com	Baikunth charan Roul	Lecturer in Physics,	Pattar Physics	9337127295
8-28-2020 7:07:27	nilamani.lenka00@gmail.com	DR.NILAMANI LENKA	READER	ODIA	9438329950
8-28-2020 12:56:53	amritabehura52@gmail.com	Amrita Behura	Student	Zoology	7735642711
8-28-2020 20:47:44	rkpandaodca2008@gmail.com	Rabindra Kumar Panda	Lecturer in History	History	9238899769
8-29-2020 20:46:19	manojparida1967@gmail.com	Manoj Parida	Reader in Sociology	Sociology	9861329944
8-30-2020 17:39:13	ranjankumargahan746@gmail.com	RANJANKUMARGAHAN	Assistant Professor of che	Chemistry	7735355311
8-30-2020 18:54:09	drpkasama11963@gmail.com	Dr. Pramod kumar Samal	Reader	History	9337143523
8-30-2020 21:42:52	subhasismishra5@gmail.com	SUBHASIS MISHRA	LECTURER	ECONOMICS	7978621173
8-30-2020 22:22:42	manasnayak2009@gmail.com	Dr Manas Kumar Nayak	Lecturer	English	8763776106
8-30-2020 23:35:49	excellentsaroja@gmail.com	Sarojakanta Nayak	Lecturer	English	9583371671
8-31-2020 7:24:32	dsimangini@gmail.com	Simangini Das	Lecturer in Political Scienc	Political Science	9090945613
8-31-2020 10:27:37	sunilpradhan1968@gmail.com	Dr Sunil Kumar Pradhan	Lecturer in chemistry Gr A	Chemistry	9937193076
8-31-2020 10:29:37	rmmadhu1989@gmail.com	R N MADHUSMITA PARIJ	Lecturer	Philosophy	7008005356

8-28-2020 2:09:44	arpitalenka03@gmail.com	0 Arpita lenka	BS(P)19-013	+3 2ND YEAR	Chemistry	7790050696
8-28-2020 7:01:43	swagsrd@gmail.com	0 Swagatranjan Dash	BS18-009	+3 3RD YEAR	Dept. Of zoology	8144570330
8-28-2020 7:25:14	kumarsatyabrata63@gmail.com	0 Malaya kumar Sahoo	BS 18-012	+3 3RD YEAR	Zoology	6370183886
8-28-2020 8:18:48	monalishakunlidash@gmail.com	0 Monalisha Dash	BS18-039	+3 3RD YEAR	Chemistry	6370995348
8-28-2020 8:27:17	alokranjandas01@gmail.com	0 Alok Ranjan Das	BS18079	+3 3RD YEAR	Chemistry	9348763176
8-28-2020 8:51:54	ghanajayasamaimunna12@gmail.com	0 Dhanajaya Samal	BS18-117	+3 3RD YEAR	Zoology	7894709480
8-28-2020 10:09:48	sandeepsahoo2001@gmail.com	0 Sandip saho	BS(P)19-042	+3 2ND YEAR	Chemistry	7894917404
8-28-2020 10:50:52	itishreemohanty08@gmail.com	0 Itishree mohanty	BS18-077	+3 3RD YEAR	Botany	9861249878
8-28-2020 14:22:37	sarojinikar915581@gmail.com	0 Sarojini kar	BS18 024	+3 3RD YEAR	Zoology	9861325190
8-28-2020 20:34:11	sabyasachidash1999@gmail.com	0 Sabyasachi Dash	BS18-011	+3 3RD YEAR	Chemistry	8763630790
8-28-2020 20:36:38	dparida1965@gmail.com	0 DR Dushasan Parida	BS 18 013	+3 3RD YEAR	Chemistry	9853165455
8-28-2020 20:37:31	prajnaparimita174@gmail.com	0 Prajna parimita Nayak	BS18-025	+3 3RD YEAR	Botany	9861330885
8-28-2020 20:58:06	pratishrutiswain07@gmail.com	0 Pratishruti Swain	BS-19-107	+3 2ND YEAR	Chemistry	9937950832
8-29-2020 8:52:29	diptimayeesili177@gmail.com	0 Diptimayee Malik	BS (B)19-71	+3 2ND YEAR	Botany	9861485176
8-29-2020 9:55:11	satyajitdas8591@gmail.com	0 satyajit Das	BS-18-126	+3 3RD YEAR	Chemistry	6372584406
8-29-2020 12:40:50	monalibara148@gmail.com	0 Monali Baral	Bsc-19- 004	+3 2ND YEAR	Zoology	9861482757
8-29-2020 12:47:47	sasantarout2@gmail.com	0 Susanta Rout	BS-19-102	+3 2ND YEAR	Zoology	7735679878
8-29-2020 13:18:36	architapandalinu123@gmail.com	0 Archita panda	BS(B)-19-021	+3 2ND YEAR	Zoology department	7853842716
8-29-2020 17:09:46	swostikatarai9@gmail.com	0 Swostika Tarai		18 +3 2ND YEAR	Zoology	8260053090
8-30-2020 13:38:29	monalishaniku@gmail.com	0 Monalisha sethi		25 +3 2ND YEAR	Zoology	6372863507
8-30-2020 18:55:50	abhisek1015@gmail.com	0 Abhisek senapati		106 +3 3RD YEAR	Chemistry	6372913858
8-31-2020 6:13:03	sangitasarang99@gmail.com	0 Sangria sarangi	BA18-009	+3 3RD YEAR	Economics	9348720488
8-31-2020 6:13:17	satyabanrout79@gmail.com	0 Satyaban rout	BA18238	+3 3RD YEAR	ECONOMICS	9348520076
8-31-2020 6:13:33	madhusmita2001sutar@gmail.com	0 Madhusmita sutar	BA-18-118	+3 3RD YEAR	Economics	8260899012
8-31-2020 6:14:29	pratishrutipanda@100gmail.com	0 Pratishruti panda	BA-18-093	+3 3RD YEAR	Economics	6371697686
8-31-2020 6:16:33	nathsarita05@gmail.com	0 Sarita nath	053	+3 3RD YEAR	Economics	9437613488
8-31-2020 6:24:33	samalanjana99@gmail.com	0 Anjana samal	BA18-249	+3 3RD YEAR	Economics	6370155639
8-31-2020 7:13:54	swarnamalik4@gmail.com	0 Swarna manjari malik	BA-18-031	+3 3RD YEAR	Economics	9114566419
8-31-2020 7:23:41	tapaswinipradhan234@gmail.com	0 Tapaswini pradhan	BA 18-189	+3 3RD YEAR	Economic	9348040242
8-31-2020 9:13:11	bijayalaxmisandha53@gmail.com	0 Bijayalaxmi Sandha	BA-19-174	+3 2ND YEAR	Economics	8018805542
8-31-2020 9:14:03	smrutiranjjanparida73@gmail.com	0 Smruti ranjan parida	BA19-020	+3 2ND YEAR	Economic	9556317992
8-31-2020 9:14:34	subhasmitasahoo318@gmail.com	0 Subha smita saho	063	+3 2ND YEAR	Economic	7735796540
8-31-2020 9:17:20	preetylovelypradhan@gmail.com	0 Preetinibedita Pradhan	BA19-028	+3 2ND YEAR	Economics	6372628981
8-31-2020 9:56:00	sahoolipsa827@gmail.com	0 Lipsa saho	068	+3 2ND YEAR	Economic	7992790973
9-1-2020 21:01:21	dasjitendra021@gmail.com	0 Jitendra Das	BS19-015	+3 2ND YEAR	Zoology	9348597392





ପଟ୍ଟାମୁଣ୍ଡାଲ କଲେଜରେ ଅନୁଲାଇନ ସେମିନାର

ପଟ୍ଟାମୁଣ୍ଡାଲ, ୩/୯(ଇମିସ): ପଟ୍ଟାମୁଣ୍ଡାଲ କଲେଜରେ ଉତ୍ତମ ବିଜ୍ଞାନ ବିଭାଗ ପକ୍ଷରୁ ଅନୁଲାଇନ ସେମିନାର ଅନୁଷ୍ଠିତ ହୋଇଛି । ପରିବେଶ ପ୍ରଦୂଷଣ ବନାମ ଶିଳ୍ପର ବିକାଶ ଶୀର୍ଷକ ଏହି ଆଲୋଚନା ଚକ୍ରରେ କଲେଜ ଅଧ୍ୟକ୍ଷ ପ୍ରଫେସର ଅଧିକାରୀ ଇନ୍ଦ୍ରାନାରାୟଣ ଦାଶ ସଭାପତିତ୍ୱ କରିଥିଲେ । ପଟ୍ଟାମୁଣ୍ଡାଲ କଲେଜ ଉତ୍ତମ ବିଜ୍ଞାନ ବିଭାଗର ମୁଖ୍ୟ ଡ. ଅଂଜଳି ଦାଶ ସେମିନାର ଲକ୍ଷ ଓ ଆଭିମୁଖ୍ୟ ସଂପର୍କରେ ସୂଚନା ଦେବା ସହ ଅତିଥି ପରିଚୟ ପ୍ରଦାନ କରିଥିଲେ । ସେମିନାରେ ଅତିଥି ଭାବେ ଭୁବନେଶ୍ୱର ଆଇଏମଏମଟିର ଯୁବ ବୈଜ୍ଞାନିକ ସୁରଭି ଦିପାଳୀ ମୁହୁଲି ଯୋଗଦେଇଥିଲେ । ଅର୍ଥନୀତି ବିଭାଗର ମୁଖ୍ୟ ଶୁଭାଶିଷ ମିଶ୍ର କାର୍ଯ୍ୟକ୍ରମ ପରିଚାଳନା କରିଥିବା ବେଳେ ବିଭାଗୀୟ ଅଧ୍ୟାପିକା ସୁଚିସ୍ମିତା ବିଶ୍ୱାଳ ଧନ୍ୟବାଦ ଅର୍ପଣ କରିଥିଲେ ।



OFFICE OF THE PRINCIPAL

Mobile : 9437376724

PATTAMUNDAI COLLEGE

NAAC ACCREDITED B+ GRADE

PATTAMUNDAI, KENDRAPARA, ODISHA - 754215

Ref No. : 773

Date..... 26/08/2020

To

Dr. Surabhi Dipali Muduli
Young Scientist
IMMT, Bhubaneswar

Sub – Request to act as Resource Person in extra mural webinar to be conducted on the topic “Environmental pollution versus Industrial development”

Madam,

I am pleased to request you to kindly act as resource person in extra mural webinar on the topic “**Environmental pollution versus Industrial development**” to be organized by the department of Botany of this college at 11 am on 31 August 2020.

Your kind consent in this regard is highly solicited.

Your's Faithfully

Anshu
Principal 26.8.20

Pattamundai College

www.pattamundaicollege.ac.in,

E-mail : pattamundaicollege@gmail.com, pattamundaicollege@yahoo.com

To

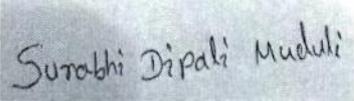
**The Principal
Pattamundai College.
Pattamundai, Kendrapara, Odisha.**

Sir,

Good afternoon. Hope you will be fine and in good health during this pandemic situation. First of all, I convey my gratitude for inviting me as resource person, in extra mural webinar to be conducted on the topic Environmental pollution versus Industrial development to be organized in Department of Botany. So, in this context I confirm my availability to deliver the talk through webinar.

Wish you a grand success.

With regards


Surabhi Dipali Muduli

- **Dr. Surabh Dipali Muduli completed her Ph.D. in Chemical Sciences** from Academy of Scientific and Innovative Research (AcSIR) at CSIR-IMMT, Bhubaneswar on the topic “**Study on development of atmospheric setting fly ash geopolymer with reference to manufacture of building brick**” , presently working as **Young Scientist in Environment & Sustainability Department of CSIR-IMMT. She is recipient of Science communicator award for the year 2020 by Indian Science Congress Association, Kolkata.**
- **ISCA Young Scientist Award in Environmental Sciences** for the year **2012** by **Indian Science Congress Association, Kolkata, India.**
- **Junior Scientist Award** for the year **2013**, by **National Environmental Science Academy, New Delhi.**
- **Sarojini G. Panigrahi Young Scientist Award** in **2009** by the **Orissa Botanical Society.**, **Best paper award** in other building materials, at **13th NCB International Conference on Cement and Building Materials**, by **National Council for Cement and Building Materials, New Delhi** in **2013 etc. along with some other awards**
- She has handled 2 projects as project leader and 4 projects as team member. She has also transferred 3 technologies as team member to **M/s Chrome Chemicals Chandrapur, Maharastra** on Treatment and Stabilization of Soluble Chromium of Dichromate Plant Residue by Down Draft Sintering Technique, to **M/s Chrome Chemicals Chandrapur, Maharastra.**
- Process demonstration on manufacture of chemical activated cold setting red mud and fly ash building brick and block to **M/s Vedanta Aluminium Limited, Lanjigarh, Odisha, and** transferred the commercial process on manufacture of geopolymer concrete using fly ash and red mud **M/s Sesa Sterlite Limited, Lanjigarh, Odisha.**
- She has also guided one B.Tech Chemical engineering student under her guidance.
- Dr. Muduli has delivered **7 invited talks** and organized **2 workshops** on building materials as **convenor**. To her credit she has published 26 research papers in different National and International Journals. Dr. Muduli has 12 years of research experience in the field of Treatment and utilization of mining and industrial solid wastes for making value added products.

Department of Botany
Pattamundai College, Pattamunda
Organizes
A Webinar on
**"Environmental Pollution Versus
Industrial Development"**

On dt: 31.08.2020, Time: 11AM

Resource Person



Surabhi Dipali Muduli
(M.Sc, Ph.D)
Young Scientist
ICAR, Bhubaneswar



Prof. ALN Dash
Principal
Pattamundai College



Dr. Anjali Dash
H. O. D, Botany
Convener