

**FIELD WORK/OUTREACH PROGRAMME BY DEPARTMENT OF ZOOLOGY  
S.D WOMEN'S COLLEGE, RAJGANGPUR**

**Introduction**

On 12th May 2022, 08 number of students from department of zoology with lecture and demonstrator went for a trip to BSMTC , Central Silk Board, Kerai, Sundargarh. With an aim to visit Sericulture. We arrived around 10am and planed to field visit their silkworm host plant plots and forest area maintained by the unit of silkworm rearing.

**Trip Objective**

The objectives of the tour was to visit cocoon cell, cocoon cell storage room and larval feeding plants etc.

**Field Observation**

We were guided by the in charge Dr. N.B. Chowdary. Our students observe the larval feeding plants like Arjuna,Asana and mulberry and observe the process of hatchery of coccon. Students observe and taken photographs. Then we observe the cocoons stored in grainage, adult moth. The in charge of BSMTC , Kerai giving us information and data regarding Sericulture. They tell us about sericulture technique, investment to start sericulture as a startup labor charges, silk production, cost of rearing of silkworm, cost of materials for silkworm.

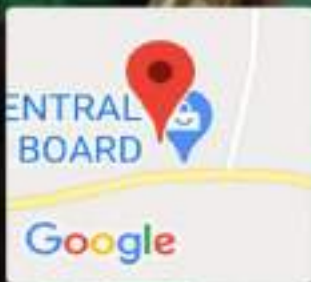
**Conclusion**

In this field tour our students will enriched with such a economic oppotunity they got to know about things which may help them in future projects, dissertatation. They got a raw data, a live visit for the accomplish of their project.

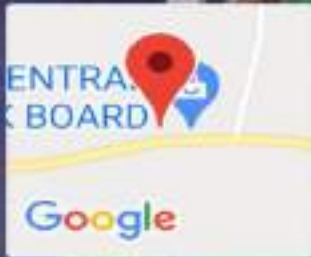




Sundargarh, Odisha, India  
SH 24, Odisha 770073, India  
Lat 22.064625°  
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Sundargarh, Odisha, India  
SH 24, Odisha 770073, India  
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SH 24, Odisha 770073, India  
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बुनियादी बीज प्रगुणन एवं प्रशिक्षण केंद्र  
बुनियादी तसर रेशम कीट बीज संगठन  
केन्द्रीय रेशम बोर्ड,एमओटी,भारत सरकार  
ग्राउन्ड फ्लोर, नियर रिजर्व पुलिस ग्राउण्ड्स  
पो. संकरा-770 020,जि. सुंदरगढ़ (ओड़ीशा)

BASIC SEED MULTIPLICATION & TRAINING CENTRE  
BASIC TASAR SILKWORM SEED ORGANISATION  
CENTRAL SILK BOARD, MOT, GOVT. OF INDIA  
GROUND FLOOR, NEAR RESERVE POLICE GROUNDS  
PO.: SANKARA -770 020, DIST: SUNDARGARH (ODISHA)



No.CSB/BTSSO/BSMTC/PE/Sun/2022-23/

Date: 17.5.2022

To,  
The Principal  
Sarwati Devi Women's College  
Rajgnapur, Sundargarh- 770017  
Sir,

**Sub: Feed back on Field visit of B.Sc., students**  
**Ref: Your letter No. 617/8 DWC date 11.5.2022**

With reference to the above, I would like to inform your good self that as per your request 8 students on B.Sc., Zoology (Hons) of your college along with Mrs. Sarojini Ekka, Head of the Department of Zoology and Ms. Sarita Biswal, Demonstrator of Zoology were visited this office on 12.5.2022. During the field visit they have visited our economic & natural tasar silk worm host plant plots and forest area maintained by this unit for silkworm rearing. Further, they have visited grainages where tasar silkworm seed cocoons preserved for grainage activities during 2022-23. During the field visit they were guided by me and our technical staff on various aspects of host plant cultivation, maintenance of grainage activities for production of quality disease free tasar silkworm seed. In this occasion I heartfully congratulate the students and staff for their keen interest on tasar activity handled by this unit. My special thanks and appreciation to the Principal for nice encouragement to the students to undertake field visit.

With warm regards

Yours faithfully,

Dr. N. B. CHOWDARY  
सैविक-डी / Scientist D  
बु.बी.प्र.ब.के., केन्द्रीय रेशम बोर्ड  
B.S.M.T.C. Central Silk Board  
सुंदरगढ़ (ओड़िशा)/Sundargarh (Odisha)

**FIELD WORK/OUTREACH PROGRAMME BY DEPARTMENT OF BOTANY  
S.D WOMEN'S COLLEGE, RAJGANGPUR**

## **Introduction**

it was a well planned field trip that enhanced the knowledge of the students. This trip was held on 18/5/2022. The journey of the trip started from Sarbati devi women's college Rajgangpur to Krishi vigyan Kendra, Kirei Sundargarh with 11 students of B Sc (Botany hons) along with Mrs Reshan Ara Begum, Head of department of Botany and Mrs. Kalyani Sahoo, dem/Botany

- i) Yashaswini Bariha
- ii) Pratima Lakra
- iii) Sanjukta Mahakul
- iv) Sandhyabati Ekka
- v) Punam Lakra
- vi) Asha Ekka
- vii) Baishnabi Kujur
- viii) Salmi Nanwar
- ix) Lipishree Naik
- x) Preeti Saha
- xi) Laxmipriya Swain

## **Trip objective**

The main objective of conducting this field trip for students was to reinforce experiential and contextual learning on latest technology for cultivation of plants.

## **Field Observation**

During the field visit, students were exposed to different techniques available for farmers along with all the different types of flowers, useful plants and different tree species. Along the tour, we were guided by Scientist Dr. Manoj Kumar Jena, (soil Sc.), and Mr. David James Bage (senior scientist) on livelihood opportunities and new technologies available for farmers. We also visited medicinal garden, dragon fruit unit, floriculture unit, cucurbit unit, Vermicomposting unit, mushroom cultivation unit, poultry unit, papaya unit, mango orchard, guava orchard, azolla production unit, grafted vegetables unit etc.

Then we went to the lab where they showed us how a raw sample is first tested then it is sent for the processing. Then we saw a section where everything was done by robots and computers and employees were just operating them. Due to the shortage of time and as there were many things to watch and to ask, we tried to get contact numbers to the host to arrange future trip.

## **Conclusion**

Really this field trip was very much useful for the students where they learnt about different types of plants and methods related to agriculture.



Kerai, Odisha, India  
Kirei-Bamra Road, Kerai, Odisha 770073, India  
Lat 22.06619°  
Long 84.051648°  
18/05/22 09:04 AM



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Kirei-Bamra Road, Kerai, Odisha 770073, India  
Lat 22.066632°  
Long 84.051948°  
18/05/22 11:10 AM





Kerai, Odisha, India  
Kirei-Bamra Road, Kerai, Odisha 770073, India  
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Long 84.05179°  
18/05/22 10:02 AM



Kerai, Odisha, India  
Kirei-Bamra Road, Kerai, Odisha 770073, India  
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Long 84.051948°  
18/05/22 11:30 AM







**Kerai, Odisha, India**  
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Long 84.051948°  
18/05/22 11:18 AM



**Kerai, Odisha, India**  
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Lat 22.066632°  
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18/05/22 11:31 AM



**KRISHI VIGYAN KENDRA, SUNDARGARH-1**  
**କୃଷି ବିଜ୍ଞାନ କେନ୍ଦ୍ର, ସୁନ୍ଦରଗଡ଼-୧**  
**कृषि विज्ञान केन्द्र, सुन्दरगड-१**



**AL/PO - KIREI ODISHA PIN : 770073**

email: kirkundargarh1@oiaa.gov.in, kirkundargarh1.oiaa@gmail.com, website: www.kvksundargarh1.org

Dr. LAXMIPATI PRADHAN  
 Sr. Scientist & Head

No. / 262  
 Date: 18/5/2022

To  
 The Principal,  
 Sarbati Devi Women's College,  
 Rajnagar, Sundargarh-770017

Sub: Feedback on Field visit of B.Sc. Students  
 Ref: Your letter No.650/SOWC dated 17.05.2022

Sir,  
 With reference to the above, I would like to inform your good self that as per your request 11 students of B.Sc. Botany (Hons.) of your college along with Mr. Reshan An Begam, Head of the Department of Botany and Mrs. Kalyani Sahoo, Demonstrator of Botany visited this institute on 18.05.2022. During the field visit in our different demonstration units of Krishi Vigyan Kendra, the students were exposed to different technologies available for farmers along with all the different types of flowers, useful plants and tree species and identified various flora and fauna of the instructional farm. Along the tour, they were guided by Scientist Dr. Murej Kumar Jena, Scientist (Soil Sc.) and Mr. David James Bage, Scientist (Agril. Extn.) on various livelihood opportunities and new technologies available for farmers of Sundargarh district including Poly house, Agro-shednet house, Medicinal garden, Dragon fruit unit, Floriculture unit, cucurbit unit, vermicomposting unit, Mushroom production unit, poultry unit, Papaya unit, Mango orchard, Guava orchard, Azolla production unit, Grafted vegetable unit etc.

I heartfully congratulate the students along with their teachers for showing keen interest and interacting with scientists on every aspects, clearing their doubts of all the demo units they visited.

My special-thank and appreciation to their Principal for nice guidance and encouragement to his students for undertaking such educative field visit.

With warm regards,

Yours faithfully,

  
 Senior Scientist & Head  
 Krishi Vigyan Kendra  
 Sundargarh -1

## **Introduction**

On 21<sup>st</sup> May 2022, 12 students from chemistry honors department with 2 lecturers went for a trip to OCL INDIA LTD with an aim to visit the chemical section of it. We arrived there around 10:30 am. We planned to visit their labs and also to its cement manufacturing section to learn about the process in details. Following students attended the field work.

- i)Evanjalin Lugun-BS19-002
- ii)Subhadhra Kisan-BS19-002
- iii)Sanjukta sahuo-BS20-26
- iv)Arundhati-BS21-001
- v)Amrita Toppo-BS21-023
- vi)Monalisha Dash-BS21-035
- vii)Payal Dey-BS21-049
- viii)Tusharkanti Mahanandia-BS21-050
- ix)Sunali Mishra-BS21-052
- x)Nikita Bara-BS21-059
- xi) Jharna Chattria-BS21-061
- xii)Michael Toppo-BS21-063

## **Trip objective**

The objectives of the tour were to get to know the company in more details in terms of the cement composition, manufacturing process, raw sample testing etc.

## **Field Observation**

We were guided by an employee of the company Miss. Aparna who first gave us all the visitor's jacket, safety shoes and helmets and then gave us a tour; explained about the machines. We jotted down some notes and interviewed the host about how the cement is made. Then we were taken to a conference hall where the HOD of the refractory and some officers were waiting for us. They greeted us very nicely with a glass of juice to all. There they presented a seminar where they explained every single and small detail about their factory, cement manufacturing process, composition, working of the machines. This session took nearly 1:30 hrs. We also managed to collect as many as good brochures and notes.

Then we went to the lab where they showed us how a raw sample is first tested then it is sent for the processing. Then we saw a section where everything was done by robots and computers and employees were just operating them. Due to the shortage of time and as there were many things to watch and to ask, we tried to get contact numbers to the host to arrange future trip.

We learned various things about the company and we found out that creativity was shown by the employees and the scientists and workers to help in keeping the environment clean is amazing. Their methods of working makes the cement environment friendly and spreads less pollution because there are fully covered pipes and machines from which the dust particles can't escape in the surrounding and recycles the wastes. The most important thing we learned here is that KONARK CEMENT is the GREEN CEMENT; environment friendly. The conduciveness of the environment of the company helped us learn more about the green cement.

## Conclusion

Our tour ended nearly 1:00 pm and we had lunch in the guest house of OCL. It can be concluded that the tour was successful and we believed that our objective was achieved. We learned something new and beneficial for us. It was well recommended tour especially for us as a chemistry student.







**Rajgangpur, Odisha, India**  
6H2P+9X3, Rajgangpur, Odisha 770017, India  
Lat 22.200277°  
Long 84.586956°  
21/05/22 12:17 PM



**Rajgangpur, Odisha, भारत**  
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Long 84.587576°  
21/05/22 09:47 AM



**Rajgangpur, Odisha, भारत**  
5HWQ+FFR, OCL Colony Rd, Rajgangpur, Odisha 770017,  
भारत  
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## FIELD STUDY TOUR

**1. Name of Department:-** PHYSICS

**2. Event:-** Field study tour to Odisha State Museum, Regional Science Park and Pathani Samanta Planetarium, BBSR, Odisha.

**3. Date:-** 04.01.2023

Following Students attended the study tour:

1. Meena Naik
2. Sushmita Toppo
3. Sushanti Lugun
4. Rinky Goud
5. Chandni Ansari
6. Barsha Jaypuria
7. Ashrita Guria
8. Mitali Singh
9. Junita Xalxo
10. Birajini BUrh
11. Sanju kumara Singh
12. Jyoti Lipsa Nayak
13. Poonam Kerketta

**4. Report:-** One day field study tour was organised by the Department of Physics, S.D. Women's college, Rajgangpur, on date 04.01.2023 to Odisha State Museum, Regional Science Park and Pathani Samanta Planetarium, BBSR. The degree of Physics Honours students visited the place under the guidance of Mr. Pankaj Naik and Miss Anamika Mahapatra. Odisha State Museum is divided into eleven sections, i.e contemporary art, Epigraphy, Numismatics, Armory, Mining and Geology, Patta painting, Natural History, Anthropology and Pain leaf Manuscripts. This place was dedicated to arts majorly including historical ideologies, the experience was bliss to get to know about the culture and history. In Regional Science Park, students get to know about types of motions, laws of motion, mechanics of motion, time and motion and many more. The gallery on "Mathematics" unravels the wonderful world of Mathematics and it's application in our everyday life. There is also a magic tap inside the campus of park. The next visit was paid to the Pathani Samanta Planetarium located at Acharya Vihar, BBSR. The students watched the Audio Vidual programme inside the Planetarium hall and got practical experience of the functioning of Solar system, get idea about the stars, nebula, galaxies. It was really an exciting and rewarding visit for Physics Honours students. The study tour concluded with a visit to Jagannath Temple, Puri, where students take blessings from Lord Jagannath.

**Impact of the tour:-** The said study tour has greatly impacted the students academically, mentally, morally and spiritually. The stereotyped and monotonous classroom activity fails to instill and infuse a feeling of thrill and excitement of reading science. The study tour gave them a hands - on experience at applying their knowledge in the practical fields. This tour also gave them an exposure to fast changing field of science and technology.

**Students feedback:-** The students expressed their satisfaction over tour. They narrated their delightful and exciting experience of during the visit. Some of the students are desired to do research on space and satellite communication system after Post Graduation P.G.



**Future plan :-** The department plans to conduct further study tour to different centers and institutions related to their area of studies preferable to Odisha Computer Application Centre (OAC) BBSR, Institute of Physics (IOP) BBSR and NISER ( National Institute of Science and research) BBSR.

**5. Any other remark:-**

Honours students visited the places under the guidance of

Mr. Pankaj Naik, Lect in Physics

Miss Anamika Mahapatra, Demonstrator in Physics







### Study tour of Home Science department 2022-23

Sl. No	Semester	Name of the visiting center	Brief report on tour
1.	5 <sup>th</sup> semester 23-11-2022	Sambalpuri bastralaya handloom co-operative society ltd.	Students got idea about the different types of dyeing, about the colours and weaving process of sambalpuri saree and other material. They were also visited the workshop, mega showroom and a near by village to know more about the weaving techniques of sambalpuri bandha.
2.	3 <sup>rd</sup> semester 25-11-2022	1.Kalayatan, madri karlo bhawan, SND.  2.Basic seed multiplication and training center, Kirei, SND.	3 <sup>rd</sup> sem students got knowledge on different types of tye and dye. They also joined their workshop and prepared a handkerchief for on by using the tie and die techniques.  In BSMTC, Kirei, our student got knowledge on life span of silk worm. Their junior scientist elaborate about the different stages of silk worm and give us idea about the identification male and female worm. They allowed us for visiting their field and seeding center.

#### Study tour photos of 5<sup>th</sup> semester students,





Bargarh, Odisha, India  
8JMG+46P, Bargarh, Odisha 768028, India  
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Long 83.628085°  
23/11/22 11:06 AM



Bargarh, Odisha, India  
8JMG+46P, Bargarh, Odisha 768028, India  
Lat 21.333012°  
Long 83.628311°  
23/11/22 11:16 AM



Bargarh, Odisha, India  
Gangadhar nagar, wd14, Bargarh, odisha Gangadhar nagar, wd14, Bargarh, Odisha 768028, India  
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Long 83.627883°  
23/11/22 11:15 AM



Bargarh, Odisha, India  
8JMG+46P, Bargarh, Odisha 768028, India  
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Long 83.628294°  
23/11/22 11:00 AM



Bargarh, Odisha, India  
8JMG+46P, Bargarh, Odisha 768028, India  
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Long 83.628257°  
23/11/22 10:59 AM



Bargarh, Odisha, India  
8JMV+38C, Govindgarh Rd, Bargarh, Odisha 768028, India  
Lat 21.334897°  
Long 83.658429°  
20/11/22 08:10 PM



Bargarh, Odisha, India  
8JMV+38C, Trinath Nagar, Bargarh, Odisha 768028, India  
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Long 83.643035°  
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**Study tour photos of 3<sup>rd</sup> semester students,**

**Photos at kalayatan**



**Photos of basic seed multiplication and training center,**









**FIELD WORK/OUTREACH PROGRAMME BY DEPARTMENT**  
**OF BOTANY**  
**S.D WOMEN'S COLLEGE, RAJGANGPUR**

**INTRODUCTION**

it was a well planned field trip that enhanced the knowledge of the students. This trip was held on 03/01/2023 and 04/01/2023. The journey of the trip started from Sarbati devi women's college Rajgangpur to IINRG Namkum Ranchi and ICAR Plandu Ranchi with 21 students of B Sc(Botany hons) along with Mrs Reshan Ara Begum, Head of department of Botany, Ms Soumya Sefalika Rout, Lect/Botany and Mrs. Kalyani Sahoo, dem/Botany

**TRIP OBJECTIVE**

The main objective of conducting this field trip for students was to reinforce experiential and contextual learning on latest technology for cultivation of plants and study of plants for lac culture.

**FIELD OBSERVATION**

During the field visit at IINRG NAMKUM RANCHI , students were exposed to different technologies for Lac culture like pruning, bundling, inoculation, Phunki removal, spray of insecticides and fungicides, crop harvesting, production, processing, and value addition etc. by the guidance of senior experts. Students also visited to the institute museum, received knowledge about Poly house, agro-shadenet house, rose garden, host species of lac insects, floriculture, vegetable culture, agro based machineries etc. On next day we visited another institute ICAR PLANDU RANCHI, where the students were exposed to different techniques available for farmers along with all the different types of useful plants, flowers, tree species and identified various flora and fauna of the

[2]

instructional farm. The students were guided by Dr. Santosh S Mali(senior scientist,LWME),Students were exposed to cutting edge technologies covering the aspects of solar equipments,drip irrigation and mulching,poly house nursery production,grafting techniques,Agro-shadenet house,landscaping,vermicomposting,mushroom production units etc.Then we went to the lab where they showed us how a raw sample is first tested then it is sent for the processing. Then we saw a section where everything was done by robots and computers and employees were just operating them. Due to the shortage of time and as there were many things to watch and to ask, we tried to get contact numbers to the host to arrange future trip.

### **CONCLUSION**

Really this field trip was very much useful for the students where they learnt about different types of plants and methods related to agriculture.

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[4]



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**ICAR-Research Complex for Eastern Region**  
 Farming System Research Center for Hill and Plateau Region  
 Plandu, Namkum, Ranchi - 834010



*Dr. S. K. Naik*  
 Principal Scientist

Date: 04-01-2023

To,  
 The Principal,  
 Sarbati Devi Women's College,  
 Rajgangpur, Sundargarh - 770017

**Sub: Feedback on field visit of B.Sc. Students – reg.**

Sir/Madam,

With reference to the subject cited above, I wish to inform your good self that as per your request, 22 students of B.Sc. Botany (Hons.) of your college along with Mrs. Resha Ara Begam, Head of the Department of Botany, Mrs. Kalyani Sahoo, Demonstrator of Botany and Mrs. Saumya Sefalika Rout Lecturer in Botany Department visited this institute on 04.01.2023. During the field visit to our different demonstration units FSRCHPR, Ranchi the students were exposed to different technologies available for farmers along with all the different types of flowers, useful plants and tree species and identified various flora and fauna of the instructional farm. Along the tour, the students were guided by me along with Dr. Santosh S Mali (Senior Scientist, LWME) on various livelihood opportunities and new technologies available for farmers of the Eastern Plateau and Hill Region of India. Students were exposed to cutting-edge technologies covering the aspects of solar equipment, drip irrigation and mulching, poly house nursery production, grafting techniques, Agro-shadenet house, landscaping, vermicomposting and mushroom production units.

I congratulate the cogative students along with their teachers for showing keen interest and interacting with scientists at our centre. Students had discussions on a wide range of researchable issues and cleared the doubts they had about the technologies. My special thanks and appreciation to the Principal, Sarbati Devi Women's College for the meticulous guidance and encouragement to students for undertaking such an educative study tour.

With warm regards.

Yours Faithfully

(S K Naik)



भाकृअनुप.- राष्ट्रीय द्वितीयक कृषि संस्थान  
ICAR-NATIONAL INSTITUTE OF SECONDARY AGRICULTURE

(Formerly Indian Institute of Natural Resins and Gums)

नागकुम, राँची-834010 Namkum, Ranchi - 834 010 Jharkhand



To,  
The Principal,  
Sarwati Devi Women's College,  
Rajgangpur, Sundargarh-770017, Odisha, India.

Sub : Feedback on Field visit of B.Sc. Bot (Hons) Students

Ref : Your Letter No.1744/SIDWE. Dated : 17.12.2022.

Sir,

With reference to the above, I would like to inform your good self that as per your request 22 number of Students B. Sc. Botany (Hons) of your College along with Mrs. Reshan Ara Begum, Head of the Department of Botany, Mrs. Kalyani Sahoo and Ms. Soumya Sephalika Rout (Faculties) visited this Institute on 03.01.2023.

During the field visit to our different demonstration Units of ICAR - National Institute of Secondary Agriculture - NISA (Formerly: ICAR - Indian Institute of Natural Resins and Gums - IINRG), Namkum, Ranchi, Jharkhand, the Students were exposed to different Technologies of Lac culture, like Pruning, Bundling, Inoculation, Phunki removal, Spray of Insecticides & Fungicides, Crop harvesting, Production, Processing and Value addition etc. by the guidance of Institute Experts.

A huge and awesome application of Lac in different fields were known by the Students during the visit to the Institute Museum of ICAR - NISA, Namkum, Ranchi-10.

They received knowledge about Poly house, Agro-shednet house, Rose garden, indigenous & exotic host species of lac Insects, Floriculture Units, Vegetable culture, Agro based Machineries etc.

I heartfully congratulate the Students along with their Teachers for showing keen interest and interacting with Scientists on every aspect clearing their doubts of all the demo- Units they visited.

My special thanks and appreciations to their Principal for nice guidance and encouragement to his Students for undertaking such educative field visit.

With warm regards,

  
04/01/2023  
(Nirmal Kumar)  
Principal Scientist & Head  
PEM Division

## STUDY TOUR REPORT

DEPARTMENT OF ZOOLOGY, S.D. Women's college, Rajgangpur

### Introduction:-

Study tour is a union travel experience that combines learning and travelling. It gradually helps to explore the natural surrounding and erase the gap between teachers and learners. It promotes the quality of adjustment in students to develop a conversation with peers.

### Objective:-

- Effective Learning.
- Personal Development.
- Deepen Social and Historical Knowledge.
- Respect for Culture.
- Effective Communication.

### Tour report:-

It is certified that 18 number of students from BSc zoology honours and 05 number of staff of Sarbati Devi women's college, Rajgangpur visited to Puri- chilika on 6th January 2023 at 3:00 p.m. to 7th January for their project.

Day 01- they visited **Konark Sun temple**:( which is widely known not only for its architectural grandeur but also for the intricacy and profusion of sculptural work).

**Puri shree Jagannath temple**:( one of the most impressive monuments of the Indian State Odisha) on 6th January.

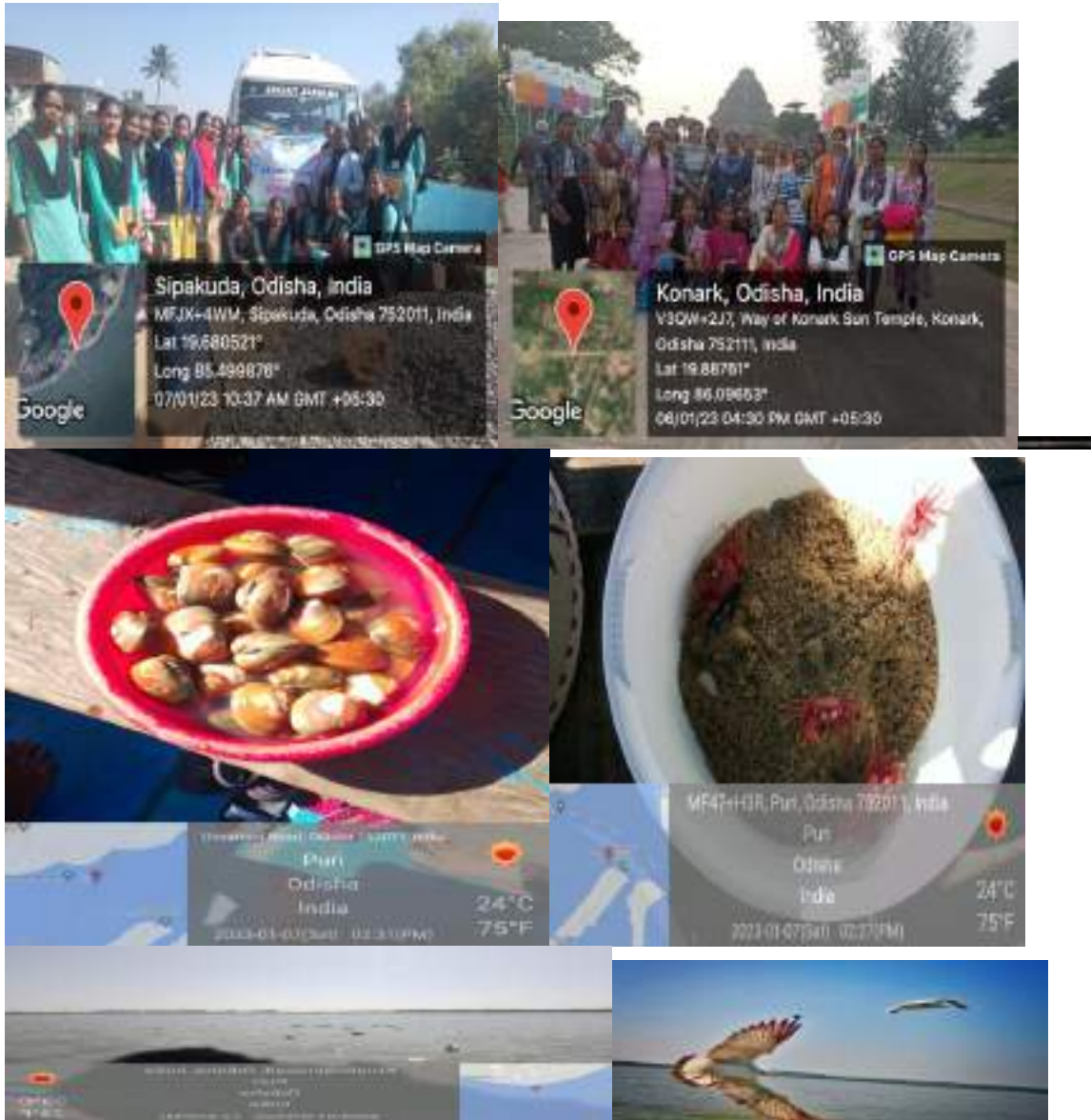
Day 02 - next day on 7th January they visit **Chilika Lake** (India's largest brackish water lagoon and habitat for migratory birds) they observe **Irrawaddy dolphins, red crab, Pearl oyster** and study how Pearl Formation and culture occur in the lake, watch and observe few bird species like **seagull, heron, pelican** etc.

### SIGNIFICANCE:-

Study tour has greater significance in the process of learning it not only brings happiness but enriches our knowledge the need and significance of study tour are

- Polishing the smooth functioning of curriculum
- healing of commonness among students
- building of friendly atmosphere with all

- Norris the mind with positive energy
- learning and exploring new places





**Introduction:**

On 3<sup>rd</sup> January 2022, 9 students and 3 faculties from the department of Chemistry went for a trip to Bhubaneswar with an aim to visit multiple places that promotes the culture of both Arts & Science. The journey from Rajgangpur to Bhubaneswar by train took around 9 hours. Our objective was purely to explore science based places but we also went to places where we gained knowledge about Arts & Culture.

List of places that was visited by us:

- Odisha State Museum
- Pathani Samanta Planetarium.
- Orissa Modern Art Gallery
- Regional Museum of Natural History.



( Image:Rajgangpur Railway Station)

Following Students attended the study tour:

- Arundhati Roy Chaudhary
- Monalisha Das
- Payal Dey
- Tushakanti Mahanandia
- Sonali Mishra
- Nikita Bara
- Jharana Chhatria
- Micheal Toppo
- Sanjukta Naik

**Trip objective:**

The objectives were various but our primary objective was to understand how the museum authority conserves the fossils of different species with the help of chemicals, The second most important objective was to gain knowledge about the usage of chemistry theories in Space Science.

**Field observation:**

We were not particularly guided by any employee in places which we visited, Our Madam, Kusum Burh (H.O.D) had knowledge about those particular areas and she exceptionally explained each and every minor detail and concept behind the relationship of chemistry with those places.



Image: Odhisa State Museum

Odisha State Museum is a museum in Bhubaneswar, Odisha. In its original form it was established in 1932 and later moved to the current building in 1960. The museum is divided into eleven sections, viz. Archaeology, Epigraphy, Numismatics, Armoury, Mining & Geology, Natural History, Art & Craft, Contemporary Art, Patta Painting, Anthropology and Palm Leaf Manuscripts. The museum is headed by a superintendent and the administrative control lies in the hands of the Cultural Affairs Department, Government of Odisha. This place was dedicated to arts Majorly including historical ideologies, the experience was bliss to get to know about the culture and history.



Image: Pathani Samanta Planetarium

Pathani Samanta Planetarium is a planetarium in the city of Bhubaneswar in India named after astronomer Pathani Samanta. It was founded to create awareness about astronomy . It carries on activities like night sky viewing, audio visual programs and poster shows. It also displays various astronomical devices. It also shows the history of Pathani Samanta with stone carvings on the walls. It also shows some of his inventions like the sundial. While exploring planetarium our H.O.D explained about the relationship between chemistry and astronomy, which is known as Astrochemistry even if it is not included in the basic teachings of Chemistry we can find its reference in the periodic table.





Image: Orissa Modern Art Gallery

Orissa Modern Art Gallery is the only gallery in Orissa offering a large permanent display of selected contemporary works of art. It is established for the promotion of Orissan contemporary art, artists and artisans. The Orissa Modern Art Gallery is a non-profit organisation. This place have no relation with Chemistry but somehow it arouses a sense of pride due to the facile and fancy work produced by the Contemporary artists with pure drudgery.



Image: Regional Museum of Natural History

The Regional Museum of Natural History, Bhubaneswar is a museum in Bhubaneswar, Odisha, India with exhibits on plants, animals and geology of the eastern region of India. The Regional Museum of Natural History at Bhubaneswar, was inaugurated in 2004. It was undertaken by the Ministry of Environment and Forests, Government of India. The museum is located near Acharya Vihar Square on Sachivalaya Marg, Bhubaneswar. The museum exhibits plants, animals and geology of Odisha, the Eastern and north-eastern India and the Andaman and Nicobar Islands of India. The galleries emphasise the conservation of nature and natural resources while depicting ecological interrelationship among plants and animals. Visually challenged students can feel the exhibits of animals on the premises. The museum provides an extracurricular activity for schools and promotes environmental awareness. A skeleton of a baleen whale has been installed in the museum, which is supposed to be the largest for any museum in India. Since May, 2017 this museum became one of the first museums in India to generate and use green energy through solar power production. This grid connected solar power plant is of roof type and generates 189 KVA electricity per month which makes it largest rooftop solar power plant in Odisha.

In this museum our H.O.D explained us each and every detail about the chemical usage by the authority of the museum to preserve the fossils and dead bodies of various animal species the chemical used to preserve the dead bodies is called embalming fluid, the another acid is Highly dilute (3-7%) concentrations of acetic or formic acid in water. The process of chemical usage was described very exceptionally and in a facile way.

Conclusion:

On 4<sup>th</sup> January we went to all these places mentioned above for our lunch and everything else was on time. On 5<sup>th</sup> January we came back to our respective college and put an end to our study tour. The tour was full of knowledge and joy and we explored more in perspective of our major subject and also gained knowledge about the Arts and Culture. We achieved our objective in a precise manner and gained additional knowledge as well.