

## **OUR DEPARTMENT AT A GLANCE**

- Nimapara college, Nimapara a rural based educational institution of district Puri, established on 27<sup>th</sup> July 1963.
- The Department of Physics is an integral part of Nimapara college established during the session 1965-66, headed by Prof. P. Bhaskar Rao imparting physics teaching in pre-university(P.U) level.
- Our department got elevated to graduation fold in 1972 and subsequently Honours teaching in the subject is incorporated during the session 1981-82, with Prof. Minaketan Nanda as the then Head of the Department.
- At infancy with 16 numbers of Honours students, it is now at the apex of glory with 95 Honours seats.
- The college got autonomous status in the year 2011 and since then the academic activities of our department is regulated as per the guidelines Nimapara Autonomous College.
- At present the department conducts teaching programme for both Higher Secondary (+2) and undergraduate (+3) level.
- The department has the glory of producing toppers in university/Autonomous level continuously.
- The department has proved itself a basic platform of producing fundamentally sound, bringing glory to our department and the institution as well by placing themselves at higher posts in state and national levels.

## **MISSION**

- Development of scientific skill through application of fundamental concept of physics keeping in view the need of society.
- To foster student competent in understanding the core of science as a whole and physics in particular.
- To motivate student for further study beyond the curriculum extending to finer aspect of physical science through appropriate research activities.
- To develop a rational attitude through scientific reasoning to fight against the odds of society and blind beliefs.
- Department of physics is an instrumental to create students who can promote the research activities in a direction so that its outcomes will reach even at the door steps of weaker section of the society.

## **VISION**

- To achieve excellence in providing scientifically skilled and dynamically students to be a great asset to the nation.
- To provide a new dimension to physics laboratories with well furnished equipment and computers.
- To provide effective carrier counselling to students to enable them cracking in national level examinations (viz; IIT,NISER,ISER,IISC,BARC).
- To enhance awareness among the students for green, clean and plastic free environment.
- To undertake research projects to overcome the hazards by Global Warming, Water Level Depletion and Ozone Layer Depletion.
- Last but not the least, the department will strive its continuous effort to transform it into a center of excellence of leavening, pertaining to research activities both in theoretical and experimental fronts.

## **INFRASTRUCTURES**

- Separate department is situated in the main block of the colleges
  - ❖ Staff common room-01
  - ❖ Laboratories-03
  - ❖ Dark room-01
  - ❖ Store room-01
  - ❖ Seminar library-01
  - ❖ Class room-01

## **COURSES OFFERED {CBCS SYSTEM}**

- PHYSICS {HONS.}
- Generic elective { For other Hons. Students }

## STAFF POSITION

<u>Post</u>	<u>Filled</u>
Reader	02
Lecturer	02
Laboratory Demonstrator	03
Laboratory Attendant	02

## PRESENT STAFF POSITION

<u>Sl. No.</u>	<u>Name</u>	<u>Qualification</u>	<u>Designation</u>	<u>Specialization</u>	<u>No.of years of Experience</u>	<u>No.of PhD students Guided for the last 4years</u>
1.	Mr. Ambika Prasad Sarangi	M.Sc.	Reader(SS)	Electronics	34	-

2.	Mr. B.B. Samantasinghar	M.Sc.	Reader(SS)	Spectroscopy	32	-
3.	Mrs. Pratidwani Swain	M.Sc	Lecturer(SS)	Particle Physics	8	-
4.	Dr. Sorna Prava Barik	M.Sc, Ph.D	Lecturer(SS)	Particle Physics	2	Nil
5.	Mr. A.K. Swain	B.Sc (Hons.)	Demonstrator	-	34	-
6.	Mr. B.K. Nayak	M.Sc.	Demonstrator	-	34	-
7.	Mr. Badri Narayan Swain	B.Sc. (Hons)	Lab. Asst.	-	06	-
8.	Mr. Debaraj Bhoi	H.Sc.	Lab. Attendant	-	32	-
9.	Mr. Uttap Behera	H.Sc.	Lab. Attendant	-	30	-

## FACULTY PROFILE

**Name and Contact Address:**  
**Sri Ambika Prasad Sarangi**  
**Reader in Physics**  
**Nimapara Autonomous College**  
**Nimapara-752106,Puri,Odisha**



**Name of the Department:** Physics      **Mobile:** +91-9861304131  
**E-mail:** ambikaprasad.1963@gmail.com

**Qualification:** M.Sc.

**Experience:** 34 Years of Teaching Experience

**Area of Specialization:** Electronics

### REFRESHER COURSE:

- ❖ Utkal University: 07.11.2005-27.11.2005: Topic: Astro Physics
- ❖ Berhampur University : 04.03.2011-24.03.2011: Topic: Understanding the Universe

### SEMINAR ATTENDED:

- ❖ 05.03.2012-06.03.2012- Physical Methods For Waste Treatment At Pipili College.
- ❖ 14.02.2015-15.02.2015- F.M. University Ballistics a Multi-disciplinary Physical Science.
- ❖ 13.02.2016-14.02.2016- Recent Trends in Physics Maharshi College.

## FACULTY PROFILE

**Name and Contact Address:**

**Bibhuti Bhusan Samantasinghar**  
**Reader in Physics**  
**Nimapara Autonomous College**  
**Nimapara-752106,Puri,Odisha**



**Name of the Department:** Physics

**Mobile:** +91-9437143514

**E-mail:** bibhutissr@gmail.com

**Qualification:** M.Sc.

**Experience:** 32 Years of Teaching Experience

**Area of Specialization:** Spectroscopy

### REFRESHER COURSE:

- ❖ Utkal University: 03.11.2004-23.11.2004: Topic: Physics
- ❖ Utkal University:04.03.2011-24.03.2011: Topic: Understanding the Universe
- ❖ Utkal University:13.02.2014-05.03.2014:Topic:Computer Application
- ❖ Utkal University:22.02.2017-14.03.2017:Topic: Basic Science



## FACULTY PROFILE

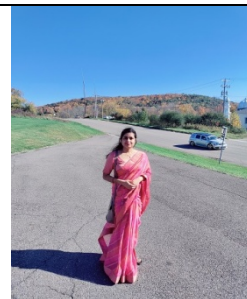
**Name and Contact Address:**

**Mrs. Pratidhwani Swain**

**Lecturer in Physics**

**Nimapara Autonomous College**

**Nimapara-752106,Puri,Odisha**



**Name of the Department:** Physics

**Mobile:** +91-8249205385

**Email:**pratidhwaniswain@gmail.com

**Qualification:** M.Sc.

**Experience:** 8 Years of Teaching Experience

**Area of Specialization:** Particle Physics

### REFRESHER COURSE:

- ❖ Utkal University: 03.11.2004-23.11.2004: Topic: Physics
- ❖ Utkal University:04.03.2011-24.03.2011: Topic: Understanding the Universe
- ❖ Utkal University:13.02.2014-05.03.2014:Topic:Computer Application
- ❖ Utkal University:22.02.2017-14.03.2017:Topic: Basic Science

## FACULTY PROFILE

### Name and Contact Address:

**Dr. Sorna Prava Barik**  
**Lecturer in Physics**  
**Nimapara Autonomous College**  
**Nimapara-752106,Puri,Odisha**



**Name of the Department:** Physics

**Mobile:** +91-9749743148

**E-mail:** sornaprava15@gmail.com

**Qualification:** M.Sc. , Ph.D.

**Experience:** 2 Years of Teaching Experience

**Area of Specialization:** Particle Physics, String theory

### LIST OF PUBLICATIONS:

1. *On finite-size spiky strings in  $AdS_3 \times S_3 \times T_4$  with mixed fluxes*  
**Sorna Prava Barik**, Rashmi R. Nayak and Kamal L. Panigrahi, **JHEP 02, 071 (2020)** [arXiv:1911.09306].
2. *Spinning pulsating strings in  $(AdS_5 \times S_5)_{\text{varkappa}}$*   
**Sorna Prava Barik**, Kamal L. Panigrahi and M. Samal, **Eur. Phys. J. C 78, no.4, 280 (2018)** [arXiv:1801.04248].
3. *Perturbation of pulsating strings*  
**Sorna Prava Barik**, Kamal L. Panigrahi and M. Samal, **Eur. Phys. J. C 78, no.11, 882 (2018)** [arXiv:1708.05202].
4.  *$SL(2,Z)$  invariant rotating  $(m, n)$  strings in  $AdS_3 \times S_3$  with mixed flux*  
**Sorna Prava Barik**, M. Khouchen, J. Kluson and Kamal L. Panigrahi, **Eur. Phys. J. C 77, no.5, 298 (2017)** [arXiv:1610.03402].
5. *Finite size effect from classical strings in  $AdS_3 \times S_3$  with NS-NS flux*  
**Sorna Prava Barik**, Kamal L. Panigrahi, [arXiv:1901.03026].

## **SCHOOLS AND CONFERENCES ATTENDED:**

1. 2018 Kavli Asian Winter School (KAWS) on Strings, Particles, and Cosmology 2018, ICTS, Bangalore, India.
2. 2017 National String Meeting 2017, NISER, Bhubaneswar, India.
3. 2017 Student Talks on Trending Topics in Theory 2017, Chennai Mathematical Institute, Chennai, India.
4. 2017 Advanced String School 2017, February 12-18, 2017, Institute of Physics, Bhubaneswar, India.
5. 2015 National String Meeting 2015, IISER, Mohali, India.

## **RESEARCH INTERESTS:**

Semiclassical strings, AdS/CFT Correspondence

## **REFRESHER COURSE:**

- ❖ Malaviya Mission Teacher Training Programme, Utkal University: 14.02.2024-24.02.2024: Topic: NEP 2020 ORIENTATION AND SENSITIZATION PROGRAMME

## FACULTY PROFILE

**Name and Contact Address:**

**Ashok Kumar Swain**

**Demonstrator in Physics**

**Nimapara Autonomous College**

**Nimapara-752106,Puri,Odisha**



**Name of the Department:** Physics

**Mobile:** +91-9861062558

**E-mail:** Swain8576@gmail.com

**Qualification:** B.Sc.

**Experience:** 29 Years of Teaching Experience

## FACULTY PROFILE

**Name and Contact Address:**

**Bijay Kumar Nayak**

**Demonstrator in Physics**

**Nimapara Autonomous College**

**Nimapara-752106,Puri,Odisha**



**Name of the Department:** Physics

**Mobile:** +91-8984214952

**E-mail:** bknayak179@gmail.com

**Qualification:** M.Sc.

**Experience:** 29 Years of Teaching Experience

## FACULTY PROFILE

**Name and Contact Address:**

**Badrinarayan Swain**

**LAB. Asst. in Physics**

**Nimapara Autonomous College**

**Nimapara-752106,Puri,Odisha**



**Name of the Department:** Physics

**Mobile:** +91-9437534643

**E-mail:** bibhutissr@gmail.com

**Qualification:** B.Sc.

**Experience:** 04Year of Teaching Experience

## GUEST FACULTY PROFILE

**Name and Contact Address:**

**Soumya Prakash Nayak**

**Guest Faculty in Physics**

**Nimapara Autonomous College**

**Nimapara-752106,Puri,Odisha**



**Name of the Department:** Physics

**Mobile:** +91-6371301270

**E-mail:** chikunpr2504@gmail.com

**Qualification:** M.Sc.

**Experience:** 2 Years of Teaching Experience

**Area of Specialization:** Electronics

## GUEST FACULTY PROFILE

**Name and Contact Address:**

**Abhista Batsala Prusty**  
**Guest Faculty in Physics**  
**Nimapara Autonomous College**  
**Nimapara-752106,Puri,Odisha**



**Name of the Department:** Physics

**Mobile:** +91-8093403050

**E-mail:** abhista2014@gmail.com

**Qualification:** M.Sc.

**Experience:** 5 Years of Teaching Experience

**Area of Specialization:** Solid State Physics



## NON-TEACHING STAFFS



**Name-Uttap Behera**

**Post- Lab Attendant**

**Dept. of Physics**

**Nimapara Autonomous College**

**Experience-25 years**

**Contact no.-9938122098**



**Name-Debaraj Bhoi**

**Post-Lab Attendant**

**Dept. of Physics**

**Nimapara Autonomous College**

**Experience-35 years**

**Contact no.-9178044768**

**REFRESHER/ORIENTATION/SEMINAR ATTENDED BY THE FACULTY MEMBERS.**

Sl No.	Name	Refresher	Orientation	Seminar
1.	Mr. A.P. Sarangi	03	01	03
2.	Mr. B.B. Samantsinghar	04	-	-
3.	Mrs. Pratidhwani Swain	-	01	-
4.	Dr. Sorna Prava Barik	-	01	-

**SEMINAR ORGANIZED WITH EXTERNAL EXPERTS FOR  
LAST 07 YEARS.**

<u>Sl No.</u>	<u>Year</u>	<u>Date</u>	<u>Seminar</u>	<u>Topic</u>	<u>Resource Person</u>
1.	2015-16	07.11.15	Annual International Year of Light	Photonics	Dr. Iqbal Hussain(IAPT) Dr. Ranajn Jha(NISER) Dr. Ritwik Das(IIT,BBSR) Dr. Harihar Mishra(IAPT)
2.	2016-17	27.12.16	Annual	The Universe Collision	Dr. Sanjay ku. Swain(NISER)
3.	2017-18	28.02.18	Annual	Do You Know The Laws of Reflection?	Dr. Rabindra Kishore Mishra(HOD in Electronics Science and Technology, Berhampur University)
4.	2018-19	18.01.19	Annual	Harmonic Oscillator: A Happy Hunting Ground For Physicist.	Prof. L.P. Singh Retd. Prof. Utkal University.
5.	2021-22	28.05.22	Annual	Exclusion Principle for Indistinguishable Particles	Sri Anantaram Panda Retd. Reader Nimapara Auto. College
6.	2022-23	25.04.2023	Annual	Discovery of Elementary Particles at Colliders	Dr. Sudhansu Sekhar Biswal, Ravenshaw University
7.	2023-24	13.04.2024	Annual	TIME: A Mistery Unsolved	Hemanta Kumar Mishra Retd. Reader

## **STUDENT PROFILE YEAR WISE**

Name of Course	Year	No. of Students Appeared	No of Students Secured 1 <sup>ST</sup> Class with Distinction	No of Students Secured 1 <sup>ST</sup> Class Honours	Pass Percentage
B.Sc with Physics Honours.	2017-20	91	73	11	87.9%
	2018-21	86	67	12	91.9%
	2019-22	82	66	11	93.9%
	2020-23	70	49	15	91.4%
	2021-24	71	26	30	87.3

## **ACHIEVEMENTS OF STUDENTS (2020-23 & 2021-24 BATCH)**

- JAM Qualified-03
- CPET Qualified-05

## **STUDENT EXTENSION ACTIVITIES**

- Participation in Blood Donation Camp.
- Participation in Swachha Bharat Abhijan.
- Participation in Plantation Program in College Campus.
- Observation of College Foundation Day.
- Observation of National Science Day.
- Observation of Welcome And Farwell Ceremony
- Participation in Quiz, Essay, Debate Competition on topic related to Science.
- Participation in Wall Magazine
- Participation in Poster Presentation.

## **FACILITIES FOR STUDENTS**

- Seminar Library
  - Number of Books-577
  - Number of Journals-47
- General Library
  - Number of Books-3000
- Internet (Wi-Fi) Facilities-Yes
- Classrooms with ICT Facility-1
- National Level Tests - National Graduate Physics Examination

## **SWOC OF THE DEPARTMENT**

### **Strength**

- Highly Qualified and Experienced Faculty and Technical Staff.
- Disciplined and Talented Students.
- Positive Student-Teacher Interaction.
- Cracking State and National Level Tests by The Student For Higer Studies.

### **Weakness**

- Restricted Autonomy in Developing Need Base Curriculum.
- Frequent Transfer of Faculty by The Government.
- Students from Rural Background with low socio-economy and educational status.

## **OPPORTUNITIES**

- Seminar Library
- Reading Room Facility
- Internet Facilities
- Supply of Handout.
- Power Point Presentation of Seminar by The students.
- Remedial Classes For slow Runners followed by periodic evaluation.
- Conduct of national level physics tests in our institution to facilitate the students of our department and peripheral colleges.

## **CHALLENGES**

- To increase the no. of students entering to higher studies
- To ensure Facility of Research Programs.
- To enhance the Strength of study room as well as seminar library.

# PHOTO GALLERY

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Farewell Ceremony of Sri Ambika Prasad Sarangi



Farewell Ceremony of 2024 Passout Batch Students



# PHOTO GALLERY

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Felicitaton to Best Graduate cum Departmental Topper  
Mr. Bikash Mishra

# **JEWELS OF OUR DEPARTMENTS:**

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