



## **ABOUT THE COLLEGE**

The genesis of Pattamundai College dates back to the sixties of the last century when its foundation was laid on 1st June, 1967, though it started functioning since 5th July of 1970. This locality, a breadbasket of the district, turned proverbially backward both socially and economically as it became the continual haunt of natural calamities like cyclone, flood and drought, as it is even now, and there was no scope at all for higher education, the obvious catalyst for socio-economic transformation. The only college at Kendrapara, some 20 kms away and logistically disadvantageous for access then, had limited scope to cater to the academic need of the aspiring young college-goers of this vast locality. At this crucial juncture, a team of education lovers and activists starting with some college students of this land in Cuttack city, to the local activists and enthusiasts from the social gentry, came forward for establishment of a college for the benefit of all concerned. Launched as an Arts college with only 128 students, it has grown to its present premier position with two other streams of science and commerce and 1475 students on its rolls with 15 programs at UG level. With an eventful history of 50 years and a picturesque sprawling campus of 14.6 acres, it is indeed a testimony to the dream and sacrifice of our predecessors. Its alumni, globally positioned today are its identity markers and this institution has been playing a pivotal role in development of its satellite localities. Affiliated permanently to Utkal University, this college has been listed under 2(f) and 12 B of the UGC Act vouchsafing its academic standard and administrative acumen. The addition of new buildings, hostels, library, laboratories and playground over the years has not only given a new dimension to its infrastructure but also has facilitated the expansion of curricular and extra-curricular horizons. Quite ahead of its contemporaries, it has adopted new technology of ICT facilities, library automation, Wi-Fi campus, online classes, green initiatives, etc. by adopting the modern change to meet the expectation of its stakeholders.

### **VISION**

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

### **MISSION OF THE COLLEGE**

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

## **GENESIS OF THE DEPARTMENT**

Pattamundai College, Pattamundai is a leading Degree College in the State imparting education in Arts, Science & Commerce Stream at Degree level. The college has successfully completed 53 years of its existence producing many bright scholars in different field. Pattamundai College, Pattamundai was established on 1970-71. Science in University level was opened during the academic year 1989-90 vide G.O. No- 54802/EYS dt.13.12.1990 and Physics at degree course was started on 1989-90. The Department of Physics also has a bright academic portfolio since its inception. From the very beginning, the department is extremely student co-operative and attracts brilliant students to study Physics as an honours. The department is constantly maintaining a 95% result in the examination conducted by Utkal University. The department annually conduct student seminar, extramural seminar, State level seminar, Mentor-Mentee Progarmme, Field visit to eminent institutions etc. Many of the students of the department have secured important position and pursuing career in Physics, which is available in the webpage of the institution [www.pattamundaicollege.ac.in](http://www.pattamundaicollege.ac.in) /alumni registration. The student of this department has excelled in different competition at college and inter college level. The faculties of this department are constantly updating their knowledge by joining national seminar, workshop, refresher course, FDP, short term course organized by primer educational institution of India. The department is well equipped with modern ICT facilities like LCD Projector, Mechanics Lab, Optics Lab, Electronics Lab, Computer Lab and Laptops etc. for the benefit of students. Currently Dr. Ramesh Kumar Sahoo is heading the department with other faculty members Mr. Baikunth Charan Roul, Mr. Amit Kumar Sahoo and Mr. Satyabrata Biswal with Lab Attendants Mr. Pandu Jena and Mr. Chandramani Jena.

## **ABOUT THE PROGRAMME THEME & OBJECTIVES**

### **Magnetism at the interfaces and in nanostructures for future spintronic applications**

Ferromagnetic thin films have been investigated for last few decades for the advancement of fundamental research and data storage technology. Hence, it is necessary to understand the magnetic properties like domain structure and magnetization reversal of these magnetic thin films. In this context, the role of interactions and interfaces becomes very important to explore and tune novel magnetic properties for future spintronic applications. The magnetization reversal can be studied simultaneously with domain imaging using the state-of-art magneto-optic Kerr effect (MOKE) microscopy and magnetic force microscopy.

### **Physics at Ultra-Cold Temperature**

We encounter things at different temperatures in our daily life. We also know that matter changes its character with increase or decrease in temperature e.g. ice turning to water and water becoming gas or vice-versa. While we have some ideas about the behavior of matter at very high temperature such as hot plasma (the fourth state of matter), there is a wealth of interesting scenarios hidden if we go down in the temperature scale i.e. at the ultracold temperature.

## **CALL FOR PAPER & GUIDE LINES**

Research Papers/Papers are invited in the form of original works from the researchers, teachers, research scholars, social workers and students. Two hard copies and one soft copy (CD) of full paper are to be submitted. Medium of research paper can be in English only in MS-word (Times Roman font size 12.5 having 1.5 spacings). Authors are requested to follow strictly the specification given below without which it would be very difficult for the selection of papers for

publication. Submission of Abstracts and the research paper should be submitted with the following information and in this order

- Title of Abstract
- Name & Designation of Authors(s)
- Institutional affiliation
- E-mail address
- Mob- Number
- Body of Abstract
- Key Words alphabetically.

The abstract should not exceed three hundred words (300 Words) and a full paper not more than three thousand words (3000 words).

Authors are requested to kindly send the abstracts and full papers through E-mail Id [physics.pmc@outlook.com](mailto:physics.pmc@outlook.com) .

### **CHIEF PATRON**

**Mr. Dillip Kumar Bhuyan, Principal**

### **ADVISORY COMMITTEE**

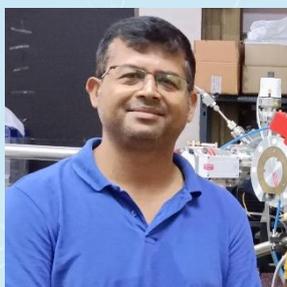
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2. Mr. Sarbeswar Sahoo, HOD, Pol. Science, Administrative Bursar
3. Dr. Dushasan Parida, HOD, Chemistry
4. Dr. Anjali Kumari Dash, HOD, Botany
5. Dr. Sunil Kumar Pradhan, IQAC Coordinator, Pattamundai College
6. Dr. Fakir Chandra Pradhan, Coordinator Add-On-Courses, Pattamundai College
7. Capt. Manoj Parida, HOD, Sociology
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12. Mrs. Nibedita Nayak, HOD, Education
13. Mr. Ranjan Kumar Behura, HOD, History
14. Mr. Pradyumna Pradhan, HOD, Economics
15. Mr. Ranjan Kumar Behera, HOD, Commerce

### **ORGANISING COMMITTEE**

1. Dr. Ramesh Kumar Sahoo, HOD, Physics (Convenor)
2. Mr. Biswa Ranjan Puan, HOD, Physics, Kendrapara Auto. College (Co-Convenor)
3. Mr. Baikunth Charan Roul, Reader in Physics (Coordinator)

4. **Mr. Amit Kumar Sahoo, Lecturer in Physics (Coordinator)**
5. **Mr. Ranjit Kumar Senapati, Reader in Sociology, IQAC, Member**
6. **Mr. Ranjan Kumar Gahan, Lecturer in Chemistry**
7. **Mr. Subhasis Mishra, IQAC, Member**
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12. **Miss. Namita Behera, Lecturer in Education**
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14. **Mr. Gokuli Charan Dash, Demon. in Chemistry**
15. **Mr. Satyabrata Biswal, Demon. in Physics**
16. **Mr. Abhimanyu Mohanty, Demon. In Botany**

## **INVITED SPAEKERS**



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