

## RESEARCH COLLABORATION AGREEMENT

This Research Collaboration Agreement is

Between

**Dr. Niladri Bihari Debata**

**Dhenkanal Autonomous College, Dhenkanal**

and

**Dr. Laxmi Narayan Sahoo**

**Government Science College Chatrapur**

This is evidence that we have been collaborating in mutual areas of research interest and have been involved in mutual scientific cooperation in recent years, especially in utilizing the research facilities and publishing papers in which the corresponding author has the sole right to patent and commercialize the research output.

*Niladri Bihari Debata*

Signature of the Faculty Member

Dr. Niladri Bihari Debata

**Dhenkanal Autonomous College,  
Dhenkanal**

Date: 12.11.2023

*Laxmi narayan Sahoo*

Signature of the Collaborator

Dr. Laxmi Narayan Sahoo

Assistant Professor of Chemistry  
Government Science College  
Chatrapur, Odisha

**Govt. Science College Chatrapur**

Date: 12.11.23

Date: 15.11.2023

Time - 11 A.M


"Financial Awareness Programme."  
collaboration with <sup>Need of the hour</sup>  
the Securities and Exchange Board of India

An awareness <sup>Program</sup> on financial market and their products. was held on 15.11.2023 at 11 A.M. in the new reading room of this institution. The objective of this program was to educate the young students about various aspects of financial management, including budgeting, saving, investing and understanding financial products. The goal is to empower people with the knowledge and skills needed to make informed financial decisions, ultimately improving their financial well-being.


The following resource persons and faculty members and students were successfully participated and benefitted in the said event.

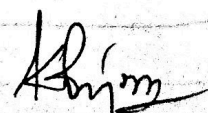
### Resource person

Signature

1. Mr. Sangham Keshari Sahoo,  
NISM Certified and Securities Market  
Trainer.   
mail: Sangham.keshari.sebi@gnat.co  
Contact 6371765726

2. Dr. Purna Chandra Banerjee,  
Principal,  
Dhenkanal (A) College, Dhenkanal

3. Dr. Debasis Mohanty, Adm. Officer -   
Dhenkanal (A) College, Dhenkanal

4. Dr. Rajamunda Khuntia, HOD Commerce 

15.11.2023

Sl No	Class	Room	Full Signature/Name
1	PG 2nd yr	PG 22 ECO 011	Ajayadwipa Nayak
2	PG 2nd yr	PG 22 ECO 004	Subhashree Subhasmita Mohanty
3	PG 2nd yr	PG 22 ECO 003	Aranya Pati
4	PG 2nd yr	PG 22 ECO 001	Ratnamanjari Pradhan
5	PG 2nd yr	PG 22 ECO 010	Pradya Paramita Nayak
6	PG 2nd yr	PG 22 ECO 008	Debdutta Subala Sahoo
7	PG 2nd yr	PG 22 ECO 007	bonalu Jena
8	PG 2nd yr	PG 22 ECO 009	Paayal Patra
9	PG 2nd yr	PG 22 ECO 0012	Subhalaxmi Sahoo
10	PG 2nd yr	PG 22 ECO 013	Rituesmita Lenka
11	PG 2nd yr	PG 22 ECO 005	Tanuptimayee Sahoo
12	PG 2nd yr	PG 22 ECO 006	Pooja Senapati
13	PG 1st yr	PG 23 0012	Aradhana Khuntia
14	PG 1st yr	PG 23 008	Sanjayee Pradhan
15	+3 2nd year	BA 22 028	Sibani Baral
16	+3 2nd year	BC - 22 - 101	Sushree Supriya Gyanapat
17	PG 2nd yr	PG 22 COM 030	Ushashree Rout
18	PG 2nd year	PG 22 COM 011	Aranya Sahoo
19	PG 2nd year	PG 22 COM 010	Bhawana Agarwal
20	PG 2nd year	PG 22 COM 026	Aliva Sahoo
21	PG 2nd year	PG 22 COM 035	Tanuptimayee Behera
22	PG 2nd year	PG 22 COM 028	Partha Sarathi Jena
23	PG 2nd year	PG 22 COM 006	Matru Prasad Mohanty
24	PG 2nd year	PG 22 COM 029	Kalinga Keshari Parida
25	PG 1st year	PG 23 Com 010	Sambid Kumar Nayak
26	PG 1st year	PG 23 COM 003	Gyanarajan Behera
27	UG 2nd year	BC - 22 - 148	Soumya Gopin Mohapatra
28	UG 2nd year	BC - 22 - 154	Smritanta Samal
29	UG 2nd year	BC - 22 - 040	Prayal Bhusu Mishra
30	UG 2nd year	BC - 22 - 085	Sambit Sahoo
31	PG 1st year	PG - 23 COM 002	Tuvaram Das
32	PG 1st year	PG - 23 COM 019	Bismaya Behera
33	PG 1st year	PG - 23 COM 005	Abhishek Dash
34	PG 1st year	PG - 23 COM 014	Mahaprasad Rout

Da

Ti:

SL No	Class	Roll No	Full Name / Signature
35	PG 1st year	PG 23 COM 018	Anshuman Nayak
36	UG 2 <sup>nd</sup> year	BC 22-004	Mahabhisprasad Mohapatra
37	UG 2nd year	BC 22-003	Om Prakash Behera
38	UG 1st year	BC 23-110	Bibhudatta Sahoo
39	PG 2nd year	PG 22 COM 001	Kuna Patra
40	UG 3rd year	BC 21-098	Narembhaju Lenka
41	PG 2nd year	PG 22 COM 003	Kapil Pradhan
42	PG 2nd year	PG 22 COM 023	Bandana Mishra
43	PG 2nd year	PG 22 COM 016	Kiranbala Behera
44	PG 1st year	PG 23 COM 006	Barbarani Mishra
45	PG 1st year	PG 23 COM 031	Prityanka Panda
46	PG 1st year	PG 23 COM 013	Pranabi Pradyotsari Sahu
47	UG 2nd year	BC 22-067	Rajashree Das
48	UG 2nd year	BC 22-087	Rinku Sahoo
49	UG 2nd year	BC 22-041	Sakanya Rajarodinee
50	UG 2nd year	BC 22-005	Sai Supriya Behera
51	UG 1st year	BC 23-073	Rajlaxmi Sahoo
52	UG 1st year	BC-23-072	Manisa Sahoo
53	UG 2nd year	BC-22-072	Alaka Sahoo
54	UG 2nd year	BC-22-090	Manalisha Khuntia
55	UG 2nd year	BC-22-051	Janghamitra Dahi
56	UG 2nd year	BC-22-049	Kajal Kanchamini Behera
57	UG 2nd year	BC-22-058	Smriti Mani Sahoo
58	UG 3rd year	BC-21-130	Pallabi Das
59	UG 1st year	BC-23-111	Abhisa Patra
60	UG 1st year	BC-23-004	Manasi Singh
61	UG 1st year	BC-23-061	Saloni Parida
62	PG 2nd year	PG 22 COM 036	Sulochana Patra
63	PG 2nd year	PG 22 COM 027	Preetinanda Sahoo
64	UG 2nd year	BA 22 081	Sonali Mahapatra
65	UG 2nd year	BA 22-041	Anelane Behera
66	PG 1st year	PG 23 COM 009	Subhashree Dibyadarshini Behera
67	PG 1st year	PG 23 COM 16	Niki Bisoi
68	PG 1st year	PG 23 COM 008	Subhashree Sahoo

69	PG 1st year	PG 23 COM 004	Banita Pradhan
70	PG 2 <sup>nd</sup> year	PG 22 COM 013	Bandana Bara
71	PG 1st year	PG 23 COM 032	Soudamini Pahan
72	PG 2nd year	PG 22 COM 015	Surekha Mallik
73	PG 2 <sup>nd</sup> year	PG 22 COM 025	Ananya Sahoo
74	PG 2 <sup>nd</sup> year	PG 22 COM 020	Prapti Pradhan
75	UG 1 <sup>st</sup> year	BC-23-021	Tulsi Agrawala
76	UG 1 <sup>st</sup> year	BC-23-092	Shivansh Agarwal
78	UG 3 <sup>rd</sup> year	BC-21-044	Shubham Kanodia
79	UG 1 <sup>st</sup> year	BC-23-048	Jagannath Sahoo
80	UG 1 <sup>st</sup> year	BC-23-103	Geeta Narayan Khuntia
81	UG 1 <sup>st</sup> year	BC-23-037	Jagdish Patraik
82	UG 1 <sup>st</sup> year	BC-23-018	Siba Pratap Chandra Samanta

*[Handwritten Signature]*

15.11.2023

Head, P.G. Dept of Commerce  
Dhenkanal Autonomous College  
Dhenkanal



## MEMORANDUM OF UNDERSTANDING

BETWEEN

**DHENKANAL AUTONOMOUS COLLEGE, DHENKANAL, ODISHA, INDIA  
AND  
PHOTONICS GROUP, UNIVERSITY OF YORK, YORK, UK**

This Memorandum of Understanding (hereinafter referred to as “MoU”) made on this day of 26<sup>th</sup> June 2023.

BETWEEN

**Dhenkanal Autonomous College, Dhenkanal, Odisha, India**, a Government Autonomous College, under the Department of Higher Education, Odisha established in 1959 situated at Kunjakant, Dhenkanal Sadar, Dhenkanal – 759001, Odisha, India.

AND

**University of York, York, UK**, established by Royal Charter in 1963.

witnesseth as follows:

RECOGNISING the mutual interest in the fields of research on non-commercial basis, and also

RECOGNISING the importance of the institution’s role in promoting international collaboration and increased contribution of scientific development.

HEREBY agree to establish collaboration according to terms and conditions set out in the articles following hereunder.

The words “the two institutions” in the MoU refer to the Dhenkanal Autonomous College, Dhenkanal, Odisha, India and the Photonics Group, University of York, York, UK. Dhenkanal Autonomous College, India here after referred to as “DAC” and the Photonics Group, University of York, UK here after referred to as “UoY” are known for their strengths in research and teaching in their core areas and interdisciplinary areas. Both the institutions are mutually interested to enter into a Memorandum of Understanding (MoU) for Joint Collaboration in Research of mutual concern.

### **A. Objective**

Co-operation between the two institutions may be established through research collaboration between Prof. Thomas Krauss of UoY and Dr. Pankaj Kumar Sahoo of DAC

in their respective research field for mutual interest. The goal is to foster collaboration, provide opportunities for developing nanophotonic based devices for optical sensing and other applications.

**B. Joint Research Activities:**

1. Efforts will be made to share information about on-going research activities to establish contacts and collaboration between professionals working within the same field.
2. Exchange of scientific information, samples for investigations, and academic publications.
3. Most of the experimental work such as nanofabrication and characterization will be carried out at the Nanocentre at UoY under Prof. Krauss.
4. Theoretical and modelling works will be carried out by Dr. Sahoo at the DAC.
5. The results of the research work will be analyzed by both Dr. Sahoo and Prof. Krauss.

**C. Funding and Finance:**

1. There is no financial requirement or funding under this MoU.
2. Both institutes will be responsible for their respective financial obligations.

**D. Administration:**

1. Any related administration work will be solely done with mutual understanding between Prof. Krauss of UoY and Dr. Sahoo of DAC.
2. The time constraint for this MoU solely depends on the mutual agreement between Prof. Krauss and Dr. Sahoo.

This MoU is signed subject to the approval of the respective academic/administrative bodies.

For DAC



Dr. Pankaj Kumar Sahoo  
Assistant Prof. in Physics  
Department of Physics  
Date: 26 June 2023

Principal,  
Dhenkanal Autonomous College,  
Dhenkanal  
Date: 26 June 2023

For UoY



Prof. Dr. Thomas Krauss  
Professor of Physics  
AND  
Head, Photonics Group  
University of York, UK  
Date: 26 June 2023





## COLLABORATION AGREEMENT

BETWEEN

**DHENKANAL AUTONOMOUS COLLEGE, DHENKANAL, ODISHA, INDIA  
AND  
PHOTONICS RESEARCH LAB., OPTICS AND PHOTONICS CENTRE,  
INDIAN INSTITUTE OF TECHNOLOGY DELHI, NEW DELHI, INDIA**

This Collaboration Agreement made on this day of 22<sup>nd</sup> June 2023.

BETWEEN

**Dhenkanal Autonomous College, Dhenkanal, Odisha, India**, a Government Autonomous College, under the Department of Higher Education, Odisha established in 1959 situated at Kunjakant, Dhenkanal Sadar, Dhenkanal – 759001, Odisha, India.

AND

**Photonics Research Lab., Optics and Photonics Centre, Indian Institute of Technology Delhi, New Delhi, India**, an Institute under Ministry of Human Resource Development, India.

witnesseth as follows:

The two parties recognize the potential for mutual benefits to be gained through the cooperative research resulting from scholarly collaboration activities.

THEREFORE, the Parties hereby agree as follows:

### **A. Objective**

Co-operation between the two institutions may be established through research collaboration between Prof. Joby Joseph of Optics and Photonics Centre (OPC) and Dr. Pankaj Kumar Sahoo of the Department of Physics, Dhenkanal Autonomous College (DAC), Dhenkanal in their respective research field for mutual interest. The goal is to foster collaboration, provide opportunities for developing nanophotonic based devices for optical sensing and various other applications.



**B. Joint Research Activities:**

1. Efforts will be made to share information about on-going research activities to establish contacts and collaboration between professionals working within the same field.
2. Exchange of scientific information, samples for investigations, and academic publications.
3. Most of the essential nano fabrications of the guided-mode-resonance (GMR) structures as required for the research work are to be fabricated by Dr. Sahoo.
4. Most of the characterization works will be carried out at OPC under Prof. Joseph.
5. Theoretical and modelling works will be carried out by Dr. Sahoo with the help of Prof. Joseph.
6. The results of the research work will be analyzed by both Prof. Joseph and Dr. Sahoo.

**C. Funding and Finance:**

1. There is no financial requirement or funding under this MoU.
2. Both institutes will be responsible for their respective financial obligations.

**D. Administration:**

1. Any related administration work will be solely done with mutual understanding between Prof. Joseph of OPC and Dr. Sahoo of DAC.
2. The time constraint for this MoU solely depends on the mutual agreement between Prof. Joseph and Dr. Sahoo.

This MoU is signed subject to the approval of the respective academic/administrative bodies.

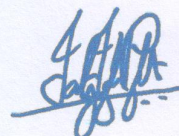
For DAC, Dhenkanal, Odisha

*Pankaj Kumar Sahoo*

Dr. Pankaj Kumar Sahoo  
Assistant Prof. in Physics

*Dr. Pankaj Sahoo*  
10/10/23  
Principal,  
Dhenkanal Autonomous College,  
Dhenkanal, Odisha, India.  
Date: 22 June 2023

For OPC, IITD, New Delhi



Prof. Joby Joseph  
Professor in Physics

AND

Head, Optics and Photonics Centre,  
Indian Institute of Technology Delhi,  
New Delhi, India.  
Date: 22 June 2023



## MEMORANDUM OF UNDERSTANDING

BETWEEN

**DHENKANAL AUTONOMOUS COLLEGE, DHENKANAL, ODISHA, INDIA**  
AND

**GOVERNMENT COLLEGE SUNDARGARH, SUNDARGARH, ODISHA, INDIA**

This Memorandum of Understanding (hereinafter referred to as “MoU”) made on this day of 19<sup>th</sup> June 2023.

BETWEEN

**Dhenkanal Autonomous College, Dhenkanal, Odisha, India**, a Government Autonomous College, under the Department of Higher Education, Odisha established in 1959 situated at Kunjakant, Dhenkanal Sadar, Dhenkanal – 759001, Odisha, India.

AND

**Government College Sundargarh, Sundargarh, 770002, Odisha, India.**

witnessed as follows:

RECOGNISING the mutual interest in the fields of research on non-commercial basis, and also RECOGNISING the importance of institution’s role in promoting national collaboration and increased contribution of scientific development.

HEREBY agree to establish collaboration according to terms and conditions set out in the articles following hereunder.

The words “the two institutions” in the MoU refer to the Dhenkanal Autonomous College, Dhenkanal, Odisha, India and the Government College Sundargarh, Sundargarh, Odisha, India. Dhenkanal Autonomous College here after referred to as “DAC” and Government College Sundargarh here after referred to as “GCS” are known for their strengths in research and teaching in their core areas and interdisciplinary areas. Both the institutions are mutually interested to enter into a Memorandum of Understanding (MoU) for Joint Collaboration in Research of mutual concern.

### **A. Objective**

Co-operation between the two institutions may be established through research collaboration between Dr. Pankaj Kumar Sahoo of DAC and Dr. Dipak Rout of GCS in their respective research field for mutual interest. The goal is to foster collaboration,

provide opportunities for developing nanophotonic based devices for societal benefits of rural Odisha (India). This will facilitate the exchange visits of faculties to access the research facilities at both the institute.

**B. Joint Research Activities:**

The following research activities will be carried out by mutual understanding between Dr. Rout and Dr. Sahoo.

1. Efforts will be made to share information about on-going research activities to establish contacts and collaboration between professionals working within the same field.
2. Defining problem statements and writing research proposal on photonic devices for societal benefits of rural Odisha (India).
3. Mathematical modelling of the designed photonic device.
4. Simulations of the optical device and performance estimation.
5. Free space optical characterisation using broadband and laser illumination.
6. Spectroscopic measurements.
7. Exchange of scientific information, samples for investigations, and academic publications.
8. Data analysis and interpretation for journal publications and patents.
9. Collaboration in refining the research proposal towards industrial applications.

**C. Funding and Finance:**

1. There is no financial requirement or funding under this MoU.
2. Both institutes will be responsible for their respective financial obligations.

**D. Administration:**

1. Any related administration work will be solely done with mutual understanding between Dr. Rout of GCS and Dr. Sahoo of DAC.
2. The time constraint for this MoU solely depends on the mutual agreement between Dr. Sahoo & Dr. Rout.

This MoU is signed subject to the approval of the respective academic/administrative bodies.

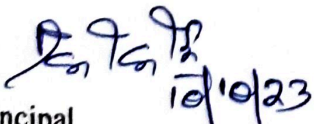
For DAC



Dr. Pankaj Kumar Sahoo.

Assistant Prof. in Physics

Date: 19 June 2023

  
Principal,  
Dhenkanal Autonomous College,  
Dhenkanal

For GCS




Dr. Dipak Rout

Optics and Photonics Research Lab.

Assistant Professor in Physics

Date: 19 June 2023

  
Principal I/C,  
Govt. College, Sundargarh,  
Government College Sundargarh  
Sundargarh