

COLLEGE OF ENGINEERING BHUBANESWAR (COEB)
Plot No.1 (A), CNI Complex, Patia, Bhubaneswar – 751024, Odisha, India.
[AFFILIATED TO BPUT, ODISHA]
www.coeb.ac.in

DEPARTMENT OF MECHANICAL ENGINEERING

ADD-ON COURSE: Nano Technology
[Programme: B.Tech, Mechanical Engg.]
Semester: 5th


PRINCIPAL
College of Engineering Bhubaneswar

Course Objectives:

- ❖ To understand the basics of nano technology.
- ❖ To know about the different synthesis procedures of nano materials.
- ❖ To know about the different types of characterization techniques in nano technology.

SYLLABUS

Total Lecture Hours: 40

MODULE 1:

(12hours)

Introduction: Scientific revolutions–Time and length scale in structures –Definition of a nano system –Dimensionality and size dependent phenomena –Surface to volume ratio -Fraction of surface atoms – Surface energy and surface stress –Properties at nano scale (optical, mechanical, electronic and magnetic).

Classification based on dimensionality - Quantum Dots, Wells and Wires – Carbon – based nano materials (bucky balls, nano tubes, graphene) – Metal based nano materials (nano gold, nano silver and metal oxides) – Nano composites – Nano polymers – Nano glasses – Nano ceramics – Biological nano materials.

MODULE 2:

(12hours)

Classification of synthesis: Top-down and bottom-up nanofabrication. Chemical Methods: Metal Nano crystals by Reduction – Solvo thermal Synthesis- Photochemical Synthesis – Sono chemical Routes - Chemical Vapor Deposition (CVD) – Metal Oxide – Chemical Vapor Deposition (MOCVD). Physical Methods: Ball Milling –Electrode position - Spray Pyrolysis - Flame Pyrolysis -DC/RF Magnetron Sputtering-Molecular Beam Epitaxy (MBE).

MODULE 3:

(16hours)

Characterization Techniques: Scanning Electron Microscope, Transmission Electron Microscope (TEM), Atomic force microscopy (AFM), Scanning Probe Microscope (SPM), Scanning Tunneling Microscope (STM), X-ray Diffraction (XRD).

Applications: Plasmonics - Chemical and biosensors –Nano medicine and Nano biotechnology – Nano toxicology challenges, Solar energy conversion and catalysis – Molecular electronics and printed electronics –Nano electronics - Polymers with a special architecture - Liquid crystalline systems - Linear and nonlinear optical and electro-optical properties, Applications in displays and other devices – Nano materials for data storage – Photonics.

Course Outcomes:

After completion of course the students will be able to:

- CO1: Understand the background and the nature of the Nano Technology.
- CO2: Evaluate Nano systems, to the various fabrication techniques.
- CO3: Explain the crystal system and unit cell, reciprocal lattice and X-ray diffraction methods.
- CO4: Analyze the top-down and bottom-up approach for nano-scale device preparation.
- CO5: Discuss the nano materials and various nano measurements techniques.
- CO6: Summarize the various properties of nano composites and study mechanical properties.

Text Books:

1. Introduction to nanotechnology by Charles P. Poole Jr. & Frank J. Owens Publisher: John Wiley & Sons (Asia) Pvt. Ltd.
2. Norio Taniguchi, Nano Technology, Oxford University Press, New York, 2003
3. Bhusan, Bharat (Ed), "Springer Handbook of Nanotechnology", 2nd Edition, 2007.
4. Pradeep T., "A Text book of Nanoscience and Nanotechnology", Tata Mc Graw Hill Education Pvt. Ltd., 2012.

Reference Text Book:

1. Hari Singh Nalwa, "Nanostructured Materials and Nanotechnology", Academic Press, 2002.
2. Tai – Ran Hsu, MEMS and Microsystems Design and Manufacture, Tata-McGraw Hill, New Delhi, 2002.
3. Waqar Ahmed and Mark J. Jackson, Emerging Nanotechnologies for Manufacturing, Elsevier Inc., 2013, ISBN: 978-93-82291-39-8
4. Julian W. Hardner Micro Sensors, Principles and Applications, CRC Press 1993.


Online resources:


NPTEL COURSE named "Nano-Technology, Science and Applications". Link:
<https://www.youtube.com/watch?v=0EWCqCIsFO&list=PLyqSpQzTE6M8682dGkNTN8936vSY4Cbq>


Evaluation Criteria

- Mandatory attendance of 75% for each student.
- Conduction of two internal assessments and students have to secure 50% marks in each assessment.
- Certificates will be awarded to each student fulfilling the above criteria.

Designed & developed by: Prof (Dr.) Sujit Kumar Khuntia & Prof (Dr.) Subhakanta Nayak


Principal
PRINCIPAL
College of Engineering Bhubaneswar


PRINCIPAL
College of Engineering Bhubaneswar


H.O.D. M.ECH. Engg.
Mechanical Engineering
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR

Plot No.1 (A), CNI Complex, Patia, Bhubaneswar – 751024, Odisha, India.

NOTICE


Department of Mechanical Engineering
Add On Course 2021-2022

Ref No: COEB/ME/2021/09

Date: 22.11.2021

It is hereby informed to all the students that the Department of Automobile Engineering is going to start the following Add-on courses for Academic year 2021-2022. All the students are instructed to enroll their names for the following courses on or before **30.11.2021**. The classes will be commenced from **06/12/2021** during 5.30pm to 7.30pm. You can contact the following course co-ordinators for enrolment and any queries.

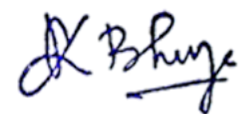
Sl No.	Name of Add-on Course	Sem.	Duration in hours	Name of the course co-ordinators
1	Designing Components Using Solid Works	3 rd	40	Dr. N. K. Vadivel
2	Nano Technology	5 th	40	Prof. Jagannath Mohapatra
3	Introduction to 3D Printing	7 th	40	Prof (Dr.) Sujit Kumar Khuntia


HOD
Mechanical Engineering Department
College of Engineering Bhubaneswar

Copy to:

1. Vice Chairman
2. Executive Director
3. Principal
4. All Notice Board.
5. A.O(Admin)
6. All HODs
7. Hostel, Security


HOD
Mechanical Engineering Department
College of Engineering Bhubaneswar


PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

DEPARTMENT OF MECHANICAL ENGINEERING

ADD ON/CERTIFICATE COURSE

STUDENT ENROLLMENT SHEET

Programme: B Tech in MECHANICAL ENGINEERING Academic Year : 2021-22

Semester: 5th Course Code (if any): Course Duration: 40 hours

Name of the Course: Nano Technology

I do hereby undertake to participate in the above mentioned add on course.

Sl No.	Reg. No.	Name of the Students	Signature
1	1901219145	AMBIKA PRASAD BARIK	Ambika Prasad Barik
2	1901219146	AMRIT KUMAR KAR	Amrit Ku. Kar
3	1901219147	ARJEET MAJHEE	Arjeet Majhee
4	1901219148	BIBEKANANDA JENA	Bibekananda Jena
5	1901219149	BISHNU PRASAD MOHANTA	Bishnu Prasad Mohanta
6	1901219150	DEEPAN KUMAR BISWAL	Deepan Kumar Biswal
7	1901219151	KHAGESWAR MALIK	Khageswar Malik
8	1901219152	LIPU PRADHAN	Lipu Pradhan
9	1901219153	PRABHU SANKAR SINGH	P.S. Singh
10	1901219154	SHYAM SUNDAR BHOI	Shyam Sundar Bhoi
11	1901219155	SUVAM ASHIRBAD	Suvam Ashirbad
12	1901219262	ABHIJIT SETHY	Abhijit Sethy
13	1901219263	ABHISHEK BEHERA	Abhishek Behera
14	1901219264	ABHISHEK KASHYAP	Abhishek Kashyap
15	1901219265	ABINASH PAHADASINGH PR	A. Pahadasingh
16	1901219266	ARSHAD MOHANTY	Arshad Mohanty
17	1901219267	AYUSH PARIDA	Ayush Parida
18	1901219268	BIDYABHUSAN KHATUA	B. B. Khatae
19	1901219269	BISHAL ROUT	Bishal Rout
20	1901219270	CHANDAN KUMAR BM	Chandan Kumar
21	1901219271	DEBABRATA MISHRA	Debabrata Mishra
22	1901219272	DEBASIS MOHANTY	Debasis Mohanty
23	1901219273	DEBASISH SAHU	Debasish Sahu
24	1901219274	DIBYAJYOTI PALAI	Debasish Sahu
25	1901219275	FARHAN ALAM	Farhan Alam
26	1901219276	GOBINDA PRASAD	Gobinda Prasad
27	1901219277	HEMANTA KUMAR	Hemanta Kumar
28	1901219278	KALIPRASAD SATAPATHY	Kaliprasad Satapathy
29	1901219279	MANOJ KUMAR KHADANGA	Manoj Ku Khadanga
30	1901219280	MANOJ KUMAR MALICK	Manoj Ku. Mallik.



J. Chhapanra
A. Bhuje
PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR (COEB)


DEPARTMENT OF MECHANICAL ENGINEERING
ADD ON/CERTIFICATE COURSE
STUDENT ENROLLMENT SHEET

Programme: B Tech in MECHANICAL ENGINEERING	Academic Year : 2021-22
Semester: 5 th	Course Code (if any):
Course Duration: 40 hours	
Name of the Course: Nano Technology	

I do hereby undertake to participate in the above mentioned add on course.

Sl No.	Reg. No.	Name of the Students	Signature
31	1901219281	MD. ZAID	Md. Zaid.
32	1901219282	PITABAS BEHERA	Pitabas Behera
33	1901219283	PRATYUSH KUMAR DHAL	Pratyush Ku. Dhal
34	1901219284	PRIYA KUMARI SINGH	Priya Kumar Singh
35	1901219285	RAHUL KUMAR DIAN	Rahul Ku. Dian
36	1901219286	RAJAT DIXIT	Rajat Dixit
37	1901219287	RAJIB KUMAR NANDI	Rajib Ku. Nandi
38	1901219288	RAJIB KUMAR RAY	Rajib Kumar Ray
39	1901219289	RAKESH RANJAN	Rakesh Ranjan
40	1901219290	SAUDAMINI BEHERA	Saudamini Behera
41	1901219291	SAYED MOHAMMAD	Sayed Mohammad
42	1901219292	SHIBASHANKAR BIRUA	Shibashankar Birua
43	1901219293	SUBHAM KUMAR JENA	Subham Jena
44	1901219294	SUBHRANSU SINGH	Subhransu Singh
45	1901219295	SUBRAT KUMAR GOPAL	Subrat Ku. Gopal.
46	1901219296	SURENDRA SAW	Surendra Saw




PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

PRINCIPAL
College of Engineering Bhubaneswar

DEPARTMENT OF MECHANICAL ENGINEERING
ADD ON/CERTIFICATE COURSE
STUDENT ATTENDANCE SHEET

①

Programme: B Tech in MECHANICAL ENGINEERING Semester: 5th Academic Year : 2021-22

Name of the Course: Nano Technology		Course Code (if any):		Sheet No:		
Sl No.	Reg. No.	Name of the Students	Date	Date	Date	Date
1	1901219145	AMBIKA PRASAD BARIK	07/12/21	07/12/21	08/12/21	09/12/21
2	1901219146	AMRIT KUMAR KAR	Amrita Prasad Barik	Amrita Prasad Barik	Amrita Prasad Barik	Amrita Prasad Barik
3	1901219147	ARJEET MAJHEE	Arjeet Majhe	Arjeet Majhe	Arjeet Majhe	Arjeet Majhe
4	1901219148	BIBEKANANDA JENA	Bibekamanda Jena	Bibekamanda Jena	Bibekamanda Jena	Bibekamanda Jena
5	1901219149	BISHNU PRASAD MOHANTA	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta
6	1901219150	DEEPAN KUMAR BISWAL	Deepan Biswal	Deepan Biswal	Deepan Biswal	Deepan Biswal
7	1901219151	KHAGESWAR MALIK	Khageswar Malik	Khageswar Malik	Khageswar Malik	Khageswar Malik
8	1901219152	LIPU PRADHAN	Lipu Pradhan	Lipu Pradhan	Lipu Pradhan	Lipu Pradhan
9	1901219153	PBABHU SANKAR SINGH	P.S. Singh	P.S. Singh	P.S. Singh	P.S. Singh
10	1901219154	SHYAM SUNDAR BHOI	Shyam Sundar Bhoi	Shyam Sundar Bhoi	Shyam Sundar Bhoi	Shyam Sundar Bhoi
11	1901219155	SUVAM ASHIRBAD	Suvarn Ashirbad	Suvarn Ashirbad	Suvarn Ashirbad	Suvarn Ashirbad
12	1901219262	ABHIJIT SETHY	Abhijit Sathy	Abhijit Sathy	Abhijit Sathy	Abhijit Sathy
13	1901219263	ABHISHEK BEHERA	Abhishek Behara	Abhishek Behara	Abhishek Behara	Abhishek Behara
14	1901219264	ABHISHEK KASHYAP	Abhishek Kashyap	Abhishek Kashyap	Abhishek Kashyap	Abhishek Kashyap
15	1901219265	ABINASH PAHADASINGH	A. Pahadasingh	A. Pahadasingh	A. Pahadasingh	A. Pahadasingh
16	1901219266	ARSHAD MOHANTY	Arshad Mohanty	Arshad Mohanty	Arshad Mohanty	Arshad Mohanty
17	1901219267	AYUSH PARIDA	Ayush Parida	Ayush Parida	Ayush Parida	Ayush Parida
18	1901219268	BIDYABHUSAN KHATUA	B. Khatusa	B. Khatusa	B. Khatusa	B. Khatusa
19	1901219269	BISHAL ROU T	Bishal Rout	Bishal Rout	Bishal Rout	Bishal Rout
20	1901219270	CHANDAN KUMAR	Chandan Kumar	Chandan Kumar	Chandan Kumar	Chandan Kumar
21	1901219271	DEBABRATA MISHRA	Debabrata Mishra	Debabrata Mishra	Debabrata Mishra	Debabrata Mishra
22	1901219272	DEBASIS MOHANTY	Debasis Mohanty	Debasis Mohanty	Debasis Mohanty	Debasis Mohanty
23	1901219273	DEBASISH SAHU	Debasish Sahu	Debasish Sahu	Debasish Sahu	Debasish Sahu
24	1901219274	DIBYAJYOTI PALAI	D. Palai	D. Palai	D. Palai	D. Palai
25	1901219275	FARHAN ALAM	Farhan Alam	Farhan Alam	Farhan Alam	Farhan Alam
26	1901219276	GOBINDA PRASAD	GoBINDA Prasad	GoBINDA Prasad	GoBINDA Prasad	GoBINDA Prasad
27	1901219277	HEMANTA KUMAR	Hemanta Kumar	Hemanta Kumar	Hemanta Kumar	Hemanta Kumar



[Handwritten Signature]



COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

DEPARTMENT OF MECHANICAL ENGINEERING
ADD ON/CERTIFICATE COURSE
STUDENT ATTENDANCE SHEET

Programme: B Tech in MECHANICAL ENGINEERING

Semester: 5th

Academic Year : 2021-22

Name of the Course: Nano Technology

Course Code (if any):

Sheet No:

Sl No.	Reg. No.	Name of the Students	Date	Date	Date	Date
28	1901219278	KALIPRASAD SATAPATHY	Abs	Kali Prasad Satapathy	Kali Prasad Satapathy	Kali Prasad Satapathy
29	1901219279	MANOJ KUMAR KHADANGA	Manoj ku. khadanga	Manoj ku. khadanga	Manoj ku. khadanga	Manoj ku. khadanga
30	1901219280	MANOJ KUMAR MALICK	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick
31	1901219281	MD. ZAID	MD. Zaid	MD. Zaid	Abs	MD. Zaid
32	1901219282	PITABAS BEHERA	Pitabas Behera	Pitabas Behera	Pitabas Behera	Pitabas Behera
33	1901219283	PRATYUSH KUMAR DHAL	Pratyush Dhal	Pitabas Behera	Pratyush Dhal	Pratyush Dhal
34	1901219284	PRIYA KUMARI SINGH	Priya Kuar Singh	Abs	Priya Kuar Singh	Priya Kuar Singh
35	1901219285	RAHUL KUMAR DIAN	Rahul Ku. Dian	Rahul Ku. Dian	Priya Kuar Singh	Priya Kuar Singh
36	1901219286	RAJAT DIXIT	Rajat Dixit	Rahul Ku. Dian	Rahul Ku. Dian	Rahul Ku. Dian
37	1901219287	RAJIB KUMAR NANDI	Rajib Ku. Nandi	Rajat Dixit	Rajat Dixit	Rajat Dixit
38	1901219288	RAJIB KUMAR RAY	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi
39	1901219289	RAKESH RANJAN	Rakesh Ranjan	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi
40	1901219290	SAUDAMINI BEHERA	Saudamini Behera	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan
41	1901219291	SAYED MOHAMMAD	Sayed Mohammad	Saudamini Behera	Saudamini Behera	Saudamini Behera
42	1901219292	SHIBASHANKAR BIRUA	S. Birua	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad
43	1901219293	SUBHAM KUMAR JENA	Abs	S. Birua	S. Birua	S. Birua
44	1901219294	SUBHRANSU SINGH	Subhransu Singh	Subham Jena	Subham Jena	Subham Jena
45	1901219295	SUBRAT KUMAR GOPAL	Subrat Ku. Gopal	Subhransu Singh	Subhransu Singh	Subhransu Singh
46	1901219296	SURENDRA SAW	Surendra Saw	Subrat Ku. Gopal	Subrat Ku. Gopal	Subrat Ku. Gopal

[Signature]

PRINCIPAL
College of Engineering Bhubaneswar





COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

DEPARTMENT OF MECHANICAL ENGINEERING

ADD ON/CERTIFICATE COURSE

STUDENT ATTENDANCE SHEET

Programme: B Tech in MECHANICAL ENGINEERING

Semester: 5th

Academic Year : 2021-22

Name of the Course: Nano Technology

Course Code (if any):

Sheet No:

PRINCIPAL
College of Engineering Bhubaneswar

[Signature]

2

Sl No.	Reg. No.	Name of the Students	Date	Date	Date	Date
1	1901219145	AMBIKA PRASAD BARIK	18/12/21	13/12/21	14/12/21	15/12/21
2	1901219146	AMRIT KUMAR KAR	Absent for 3rd	Attended 3rd	Attended 3rd	Attended 3rd
3	1901219147	ARJEET MAJHEE	Amrit Kumar Kar	ABC	Amrit Kumar Kar	Amrit Kumar Kar
4	1901219148	BIBEKANANDA JENA	Arjeet Majhee	Arjeet Majhee	Arjeet Majhee	ABC
5	1901219149	BISHNU PRASAD MOHANTA	Bibeknanda Jena	Bibeknanda Jena	Bibeknanda Jena	Bibeknanda Jena
6	1901219150	DEEPAK KUMAR BISWAL	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta
7	1901219151	KHAGESWAR MALIK	Deepak Biswal	Deepak Biswal	Deepak Biswal	Deepak Biswal
8	1901219152	LIPU PRADHAN	Khageswar Malik	Khageswar Malik	Khageswar Malik	Khageswar Malik
9	1901219153	PRABHU SANKAR SINGH	Lipu Pradhan	Lipu Pradhan	Lipu Pradhan	Lipu Pradhan
10	1901219154	SHYAM SUNDAR BHOI	ABC	P.S. Singh	P.S. Singh	P.S. Singh
11	1901219155	SUVAM ASHIRBAD	Shyam Sundar Bhoi	Shyam Sundar Bhoi	Shyam Sundar Bhoi	Shyam Sundar Bhoi
12	1901219262	ABHIJIT SETHY	Suvam Ashirbad	Suvam Ashirbad	Suvam Ashirbad	Suvam Ashirbad
13	1901219263	ABHISHEK BEHERA	Abhijit Selby	Abhijit Selby	Abhijit Selby	ABC
14	1901219264	ABHISHEK KASHYAP	Abhishek Behera	Abhishek Behera	Abhishek Behera	Abhishek Behera
15	1901219265	ABINASH PAHADASINGH	Abhishek Kashyap	Abhishek Kashyap	Abhishek Kashyap	Abhishek Kashyap
16	1901219266	ARSHAD MOHANTY	A.P. Padada Singh	A.P. Padada Singh	A.P. Padada Singh	A.P. Padada Singh
17	1901219267	AYUSH PARIDA	Arshad Mohanty	Arshad Mohanty	Arshad Mohanty	Arshad Mohanty
18	1901219268	BIDYABHUSAN KHATUA	Ayush Parida	Ayush Parida	Ayush Parida	Ayush Parida
19	1901219269	BISHAL ROU	B. Khutua	B. Khutua	B. Khutua	B. Khutua
20	1901219270	CHANDAN KUMAR	Bishal Rou	Bishal Rou	Bishal Rou	Bishal Rou
21	1901219271	DEBABRATA MISHRA	Chandhan Kumar	Chandhan Kumar	Chandhan Kumar	Chandhan Kumar
22	1901219272	DEBASIS MOHANTY	Debabrata Mishra	Debabrata Mishra	Debabrata Mishra	Debabrata Mishra
23	1901219273	DEBASIS SAHU	Debasis Mohanty	Debasis Mohanty	Debasis Mohanty	Debasis Mohanty
24	1901219274	DIBYAJYOTI PALAI	Debasis Sahu	Debasis Sahu	Debasis Sahu	Debasis Sahu
25	1901219275	FARHAN ALAM	D. Palai	D. Palai	D. Palai	D. Palai
26	1901219276	GOBINDA PRASAD	Farhan Alam	Farhan Alam	Farhan Alam	Farhan Alam
27	1901219277	HEMANTA KUMAR	Gobinda Prasad	Gobinda Prasad	Gobinda Prasad	Gobinda Prasad





COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

DEPARTMENT OF MECHANICAL ENGINEERING
ADD ON/CERTIFICATE COURSE
STUDENT ATTENDANCE SHEET

Programme: B Tech in MECHANICAL ENGINEERING		Semester: 5 th	Academic Year : 2021-22		Sheet No:
Name of the Course: Nano Technology		Date	Date	Date	Date
Sl No.	Reg. No.	Name of the Students	Date	Date	Date
28	1901219278	KALIPRASAD SATAPATHY	Fahri Prady Satriya	Kel. Prady Satriya	Kel. Prady Satriya
29	1901219279	MANOJ KUMAR KHADANGA	Manoj Ku. Khadanga	Manoj Ku. Khadanga	Manoj Ku. Khadanga
30	1901219280	MANOJ KUMAR MALICK	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick
31	1901219281	MD. ZAID	MD. Zaid	MD. Zaid	MD. Zaid
32	1901219282	PITABAS BEHERA	Pitabas Behera	Pitabas Behera	Pitabas Behera
33	1901219283	PRATYUSH KUMAR DHAL	Pradyush Dhal	Pradyush Dhal	Pitabas Behera
34	1901219284	PRIVA KUMARI SINGH	Priva Kumari Singh	Pradyush Dhal	Abs
35	1901219285	RAHUL KUMAR DIAN	Rahul Ku. Dian	Rahul Ku. Dian	Priva Kumari Singh
36	1901219286	RAJAT DIXIT	Rajati Dixit	Rajati Dixit	Rahul Ku. Dian
37	1901219287	RAJIB KUMAR NANDI	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajati Dixit
38	1901219288	RAJIB KUMAR RAY	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Ku. Nandi
39	1901219289	RAKESH RANJAN	Abs	Rakesh Ranjan	Rajib Kumar Ray
40	1901219290	SAUDAMINI BEHERA	Saudamini Behera	Saudamini Behera	Rakesh Ranjan
41	1901219291	SAYED MOHAMMAD	Sayed Mohammad	Sayed Mohammad	Saudamini Behera
42	1901219292	SHIBASHANKAR BIRUA	S. Birua	S. Birua	Sayed Mohammad
43	1901219293	SUBHAM KUMAR JENA	Abs	Subham Jena	S. Birua
44	1901219294	SUBHRANSU SINGH	Subhransu Singh	Subhransu Singh	Subham Jena
45	1901219295	SUBBRAT KUMAR GOPAL	Subrat Ku. Gopal	Subrat Ku. Gopal	Abs
46	1901219296	SURENDRA SAW	Suresdra Saw	Suresdra Saw	Subrat Ku. Gopal


 PRINCIPAL
 College of Engineering Bhubaneswar





COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

PRINCIPAL
College of Engineering Bhubaneswar

[Signature]

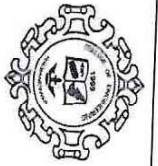
DEPARTMENT OF MECHANICAL ENGINEERING
ADD ON/CERTIFICATE COURSE
STUDENT ATTENDANCE SHEET

3

Programme: B Tech in MECHANICAL ENGINEERING Semester: 5th Academic Year : 2021-22

Name of the Course: Nano Technology		Course Code (if any):		Sheet No:	
Sl No.	Reg. No.	Name of the Students	Date	Date	Date
1	1901219145	AMBIKA PRASAD BARIK	16/12/21	17/12/21	22/12/21
2	1901219146	AMRIT KUMAR KAR	Abs	Abs	Abs
3	1901219147	ARJEET MAJHEE	Abs	Abs	Abs
4	1901219148	BIBEKANANDA JENA	Abs	Abs	Abs
5	1901219149	BISHNU PRASAD MOHANTY	Abs	Abs	Abs
6	1901219150	DEEPAN KUMAR BISWAL	Abs	Abs	Abs
7	1901219151	KHAGESWAR MALIK	Abs	Abs	Abs
8	1901219152	LIPU PRADHAN	Abs	Abs	Abs
9	1901219153	PRABHU SANKAR SINGH	Abs	Abs	Abs
10	1901219154	SHYAM SUNDAR BHOI	Abs	Abs	Abs
11	1901219155	SUVAM ASHIRBAD	Abs	Abs	Abs
12	1901219262	ABHIJIT SETHY	Abs	Abs	Abs
13	1901219263	ABHISHEK BEHERA	Abs	Abs	Abs
14	1901219264	ABHISHEK KASHYAP	Abs	Abs	Abs
15	1901219265	ABINASH PAHADASINGH	Abs	Abs	Abs
16	1901219266	ARSHAD MOHANTY	Abs	Abs	Abs
17	1901219267	AYUSH PARIDA	Abs	Abs	Abs
18	1901219268	BIDYABHUSAN KHATUA	Abs	Abs	Abs
19	1901219269	BISHAL ROUT	Abs	Abs	Abs
20	1901219270	CHANDAN KUMAR	Abs	Abs	Abs
21	1901219271	DEBABRATA MISHRA	Abs	Abs	Abs
22	1901219272	DEBASIS MOHANTY	Abs	Abs	Abs
23	1901219273	DEBASIS SAHU	Abs	Abs	Abs
24	1901219274	DIBYAJYOTI PALAI	Abs	Abs	Abs
25	1901219275	FARHAN ALAM	Abs	Abs	Abs
26	1901219276	GOBINDA PRASAD	Abs	Abs	Abs
27	1901219277	HEMANTA KUMAR	Abs	Abs	Abs





COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

DEPARTMENT OF MECHANICAL ENGINEERING
ADD ON/CERTIFICATE COURSE
STUDENT ATTENDANCE SHEET

Programme: B Tech in MECHANICAL ENGINEERING		Semester: 5 th		Academic Year : 2021-22		Sheet No:	
Name of the Course: Nano Technology				Course Code (if any):			
Sl No.	Reg. No.	Name of the Students	Date	Date	Date	Date	Date
28	1901219278	KALIPRASAD SATAPATHY	Pradyumn Subrata	Kali Prasad Satpathy	Pradyumn Subrata	Kali Prasad Satpathy	Pradyumn Subrata
29	1901219279	MANOJ KUMAR KHADANGA	Manoj Ku Khadanga	Manoj Ku Khadanga	Manoj Ku Khadanga	Manoj Ku Khadanga	Manoj Ku Khadanga
30	1901219280	MANOJ KUMAR MALICK	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick
31	1901219281	MD. ZAID	Md. Zaid	Md. Zaid	Md. Zaid	Md. Zaid	Md. Zaid
32	1901219282	PITABAS BEHERA	Pitabas Behera	Pitabas Behera	Pitabas Behera	Pitabas Behera	Pitabas Behera
33	1901219283	PRAITYUSH KUMAR DHAL	Pradyumn Dhal	Pradyumn Dhal	Pradyumn Dhal	Pradyumn Dhal	Pradyumn Dhal
34	1901219284	PRIYA KUMARI SINGH	Abs	Pradyumn Dhal	Pradyumn Dhal	Pradyumn Dhal	Pradyumn Dhal
35	1901219285	RAHUL KUMAR DIAN	Rahul R. Dian	Pradyumn Dhal	Pradyumn Dhal	Pradyumn Dhal	Pradyumn Dhal
36	1901219286	RAJAT DIXIT	Rajat Dixit	Abs	Rahul Mr. Dian	Rahul Mr. Dian	Rahul Mr. Dian
37	1901219287	RAJIB KUMAR NANDI	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi
38	1901219288	RAJIB KUMAR RAY	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray
39	1901219289	RAKESH RANJAN	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan
40	1901219290	SAUDAMINI BEHERA	Saudamini Behera	Saudamini Behera	Abs	Abs	Abs
41	1901219291	SAYED MOHAMMAD	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad
42	1901219292	SHIBASHANKAR BIRUA	S. P. Birua	S. P. Birua	S. P. Birua	S. P. Birua	S. P. Birua
43	1901219293	SUBHAM KUMAR JENA	Subham Jena	Subham Jena	Subham Jena	Subham Jena	Subham Jena
44	1901219294	SUBHRANSU SINGH	Subhransu Singh	Subhransu Singh	Subhransu Singh	Subhransu Singh	Subhransu Singh
45	1901219295	SUBRAT KUMAR GOPAL	Subrat Ku. Gopal	Subrat Ku. Gopal	Subrat Ku. Gopal	Subrat Ku. Gopal	Subrat Ku. Gopal
46	1901219296	SURENDRA SAW	Abs	Surendra Saw	Surendra Saw	Surendra Saw	Surendra Saw

[Signature]

PRINCIPAL
College of Engineering Bhubaneswar





COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

College of Engineering Bhubaneswar

DEPARTMENT OF MECHANICAL ENGINEERING
ADD ON/CERTIFICATE COURSE
STUDENT ATTENDANCE SHEET

(4)

Programme: B Tech in MECHANICAL ENGINEERING

Semester: 5th

Academic Year : 2021-22

Name of the Course: Nano Technology

Course Code (if any):

Sheet No:

Sl No.	Reg. No.	Name of the Students	Date	Date	Date	Date
1	1901219145	AMBIKA PRASAD BARIK	22/12/21	23/12/21	24/12/21	26/12/21
2	1901219146	AMRIT KUMAR KAR	Amrit Kumar Kar	Amrit Kumar Kar	Amrit Kumar Kar	Amrit Kumar Kar
3	1901219147	ARJEET MAJHEE	Arjeet Majhee	Arjeet Majhee	Abs	Amrit Kumar Kar
4	1901219148	BIBEKANANDA JENA	Bibekanda Jena	Bibekanda Jena	Abs	Arjeet Majhee
5	1901219149	BISHNU PRASAD MOHANTA	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta	Bibekanda Jena
6	1901219150	DEEPAN KUMAR BISWAL	Deepan Biswal	Deepan Biswal	Deepan Biswal	Bishnu Prasad Mohanta
7	1901219151	KHAGESWAR MALIK	Khageswar Malik	Khageswar Malik	Khageswar Malik	Deepan Biswal
8	1901219152	LIPU PRADHAN	Abs	Lipu Pradhan	Lipu Pradhan	Khageswar Malik
9	1901219153	PRABHU SANKAR SINGH	P.S. Singh	P.S. Singh	Lipu Pradhan	Lipu Pradhan
10	1901219154	SHYAM SUNDAR BHOI	Shyam Sundar Bhoi	Shyam Sundar Bhoi	P.S. Singh	P.S. Singh
11	1901219155	SUVAM ASHIRBAD	Suvam Ashirbad	Suvam Ashirbad	Shyam Sundar Bhoi	Suvam Ashirbad
12	1901219262	ABHIJIT SETHY	Abhijit Sethy	Abhijit Sethy	Suvam Ashirbad	Suvam Ashirbad
13	1901219263	ABHISHEK BEHERA	Abhishek Behera	Abhishek Behera	Abhijit Sethy	Abhijit Sethy
14	1901219264	ABHISHEK KASHYAP	Abhishek Kashyap	Abhishek Kashyap	Abhishek Behera	Abhishek Behera
15	1901219265	ABINASH PAHADASINGH	A. Pahadasingh	A. Pahadasingh	Abhishek Kashyap	Abhishek Kashyap
16	1901219266	ARSHAD MOHANTY	Arshad Mohanty	Arshad Mohanty	A. Pahadasingh	A. Pahadasingh
17	1901219267	AYUSH PARIDA	Ayush Parida	Arshad Mohanty	Arshad Mohanty	Arshad Mohanty
18	1901219268	BIDYABHUSAN KHATUA	B. Khutua	Ayush Parida	Ayush Parida	Arshad Mohanty
19	1901219269	BISHAL ROU	Bishal Rout	B. Khutua	B. Khutua	Arshad Mohanty
20	1901219270	CHANDAN KUMAR	Chandhan Kumar	Bishal Rout	Bishal Rout	B. Khutua
21	1901219271	DEBABRATA MISHRA	Debabrata Mishra	Chandhan Kumar	Chandhan Kumar	Bishal Rout
22	1901219272	DEBASIS MOHANTY	Debasish Mohanty	Debabrata Mishra	Debabrata Mishra	Chandhan Kumar
23	1901219273	DEBASISH SAHU	Debasish Sahu	Debasish Mohanty	Debasish Mohanty	Debabrata Mishra
24	1901219274	DIBYAJYOTI PALAI	D. Palai	Debasish Sahu	Debasish Sahu	Debasish Mohanty
25	1901219275	FARHAN ALAM	F. Alam	D. Palai	D. Palai	Debasish Sahu
26	1901219276	GOBINDA PRASAD ANI	Gobinda Prasad Ani	F. Alam	F. Alam	D. Palai
27	1901219277	HEMANTA KUMAR ANI	Hemanta Kumar Ani	Gobinda Prasad Ani	Gobinda Prasad Ani	D. Palai





COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

DEPARTMENT OF MECHANICAL ENGINEERING
ADD ON/CERTIFICATE COURSE
STUDENT ATTENDANCE SHEET

Programme: B Tech in MECHANICAL ENGINEERING		Semester: 5 th		Academic Year : 2021-22		Course Code (if any):		Sheet No:	
Name of the Course: Nano Technology				Date		Date		Date	
Sl No.	Reg. No.	Name of the Students	Date	Date	Date	Date	Date	Date	Date
28	1901219278	KALIPRASAD SATAPATHY	Kaliprasad Satapathy	Kali Prasad Satapathy	Kaliprasad Satapathy	Kaliprasad Satapathy	Kaliprasad Satapathy	Kaliprasad Satapathy	Kaliprasad Satapathy
29	1901219279	MANOJ KUMAR KHADANGA	Manoj ku. Khadanga	Manoj ku. Khadanga	Manoj ku. Khadanga	Manoj ku. Khadanga	Manoj ku. Khadanga	Manoj ku. Khadanga	Manoj ku. Khadanga
30	1901219280	MANOJ KUMAR MALICK	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick	Manoj Ku. Mallick
31	1901219281	MD. ZAID	MD. ZAID	MD. ZAID	MD. ZAID	MD. ZAID	MD. ZAID	MD. ZAID	MD. ZAID
32	1901219282	PITABAS BEHERA	Pitabas Behera	Pitabas Behera	Pitabas Behera	Pitabas Behera	Pitabas Behera	Pitabas Behera	Pitabas Behera
33	1901219283	PRATYUSH KUMAR DHAL	Pratyush Dhal	Pratyush Dhal	Pratyush Dhal	Pratyush Dhal	Pratyush Dhal	Pratyush Dhal	Pratyush Dhal
34	1901219284	PRIYA KUMARI SINGH	Priya Kumar Singh	Priya Kumar Singh	Priya Kumar Singh	Priya Kumar Singh	Priya Kumar Singh	Priya Kumar Singh	Priya Kumar Singh
35	1901219285	RAHUL KUMAR DIAN	Rahul Ku. Dian	Rahul Ku. Dian	Rahul Ku. Dian	Rahul Ku. Dian	Rahul Ku. Dian	Rahul Ku. Dian	Rahul Ku. Dian
36	1901219286	RAJAT DIXIT	Rajat Dixit	Rajat Dixit	Rajat Dixit	Rajat Dixit	Rajat Dixit	Rajat Dixit	Rajat Dixit
37	1901219287	RAJIB KUMAR NANDI	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi	Rajib Ku. Nandi
38	1901219288	RAJIB KUMAR RAY	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray
39	1901219289	RAKESH RANJAN	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan
40	1901219290	SAUDAMINI BEHERA	Saudamini Behera	Saudamini Behera	Saudamini Behera	Saudamini Behera	Saudamini Behera	Saudamini Behera	Saudamini Behera
41	1901219291	SAYED MOHAMMAD	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad
42	1901219292	SHIBASHANKAR BIRUA	S. Birua	S. Birua	S. Birua	S. Birua	S. Birua	S. Birua	S. Birua
43	1901219293	SUBHAM KUMAR JENA	Subham Jena	Subham Jena	Subham Jena	Subham Jena	Subham Jena	Subham Jena	Subham Jena
44	1901219294	SUBHRANSU SINGH	Subhransu Singh	Subhransu Singh	Subhransu Singh	Subhransu Singh	Subhransu Singh	Subhransu Singh	Subhransu Singh
45	1901219295	SUBRAT KUMAR GOPAL	Subrat Ku. Gopal	Subrat Ku. Gopal	Subrat Ku. Gopal	Subrat Ku. Gopal	Subrat Ku. Gopal	Subrat Ku. Gopal	Subrat Ku. Gopal
46	1901219296	SURENDRA SAW	Surendra Saw	Surendra Saw	Surendra Saw	Surendra Saw	Surendra Saw	Surendra Saw	Surendra Saw

[Signature]

PRINCIPAL
College of Engineering Bhubaneswar





COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

College of Engineering Bhubaneswar

DEPARTMENT OF MECHANICAL ENGINEERING
ADD ON/CERTIFICATE COURSE

STUDENT ATTENDANCE SHEET

5

Programme: B Tech in MECHANICAL ENGINEERING

Semester: 5th

Academic Year : 2021-22

Name of the Course: Nano Technology

Course Code (if any):

Sheet No:

Sl No.	Reg. No.	Name of the Students	Date	Date	Date	Date
1	1901219145	AMBIKA PRASAD BARIK	18/07/22	11/07/22	18/07/22	13/08/22
2	1901219146	AMRIT KUMAR KAR	Amrita Pr. Barik	Amrita Pr. Barik	Amrita Pr. Barik	Amrita Pr. Barik
3	1901219147	ARJEET MAJHEE	Arjeet M. Kar	Arjeet M. Kar	Arjeet M. Kar	Arjeet M. Kar
4	1901219148	BIBEKANANDA JENA	Abc	Arjeet Majhee	Arjeet Majhee	Arjeet Majhee
5	1901219149	BISHNU PRASAD MOHANTA	Bibekananda Jena	Bibekananda Jena	Bibekananda Jena	Abc
6	1901219150	DEEPAN KUMAR BISWAL	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta	Bishnu Prasad Mohanta
7	1901219151	KHAGESWAR MALIK	Deepan Biswal	Deepan Biswal	Deepan Biswal	Deepan Biswal
8	1901219152	LIPU PRADHAN	Khageswar Malik	Abc	Khageswar Malik	Khageswar Malik
9	1901219153	PRABHU SANKAR SINGH	Lipu Pradhan	Lipu Pradhan	Lipu Pradhan	Lipu Pradhan
10	1901219154	SHYAM SUNDAR BHOI	P.S. Singh	P.S. Singh	P.S. Singh	P.S. Singh
11	1901219155	SUVAM ASHIRBAD	Shyam Sundar Bhoi	Shyam Sundar Bhoi	Shyam Sundar Bhoi	Shyam Sundar Bhoi
12	1901219262	ABHIJIT SETHY	Suvam Ashirbad	Suvam Ashirbad	Suvam Ashirbad	Suvam Ashirbad
13	1901219263	ABHISHEK BEHERA	Abhishek Behera	Abhishek Behera	Abhishek Behera	Abhishek Behera
14	1901219264	ABHISHEK KASHYAP	Abhishek Behera	Abhishek Behera	Abhishek Behera	Abhishek Behera
15	1901219265	ABINASH PAHADASINGH	Abhishek Kashyap	Abhishek Kashyap	Abhishek Kashyap	Abhishek Kashyap
16	1901219266	ARSHAD MOHANTY	A.P. Pahadasingh	A.P. Pahadasingh	A.P. Pahadasingh	A.P. Pahadasingh
17	1901219267	AYUSH PARIDA	Arshad Mohanty	Arshad Mohanty	Arshad Mohanty	Arshad Mohanty
18	1901219268	BIDYABHUSAN KHATUA	Ayush Parida	Ayush Parida	Ayush Parida	Ayush Parida
19	1901219269	BISHAL ROU	B. Khatua	B. Khatua	B. Khatua	B. Khatua
20	1901219270	CHANDAN KUMAR	Bishal Rou	Bishal Rou	Bishal Rou	B. Khatua
21	1901219271	DEBABRATA MISHRA	Chandan Kumar	Chandan Kumar	Chandan Kumar	Chandan Kumar
22	1901219272	DEBASIS MOHANTY	Debabrata Mishra	Debabrata Mishra	Debabrata Mishra	Debabrata Mishra
23	1901219273	DEBASISH SAHU	Debasish Mohanty	Debasish Mohanty	Debasish Mohanty	Debasish Mohanty
24	1901219274	DIBYAJYOTI PALAI	Debasish Sahu	Debasish Sahu	Debasish Sahu	Debasish Sahu
25	1901219275	FARHAN ALAMI	D. Palai	S. Palai	Abc	Abc
26	1901219276	GOBINDA PRASAD	Farhan Alam	Farhan Alam	Farhan Alam	Farhan Alam
27	1901219277	HEMANTA KUMAR	Gobinda Prasad	Gobinda Prasad	Gobinda Prasad	Gobinda Prasad



Principal Signature



COLLEGE OF ENGINEERING BHUBANESWAR (COEB)

DEPARTMENT OF MECHANICAL ENGINEERING
ADD ON/CERTIFICATE COURSE
STUDENT ATTENDANCE SHEET

Programme: B Tech in MECHANICAL ENGINEERING		Semester: 5 th		Academic Year : 2021-22		Sheet No:	
Name of the Course: Nano Technology				Course Code (if any):			
Sl No.	Reg. No.	Name of the Students	Date	Date	Date	Date	Date
28	1901219278	KALIPRASAD SATAPATHY	Kali Prasad Satpathy	Kali Prasad Satpathy	Kali Prasad Satpathy	Kali Prasad Satpathy	Kali Prasad Satpathy
29	1901219279	MANOJ KUMAR KHADANGA	Manoj Kumar Khadanga	Manoj Kumar Khadanga	Manoj Kumar Khadanga	Manoj Kumar Khadanga	Manoj Kumar Khadanga
30	1901219280	MANOJ KUMAR MALICK	Manoj Kumar Mallick	Manoj Kumar Mallick	Manoj Kumar Mallick	Manoj Kumar Mallick	Manoj Kumar Mallick
31	1901219281	MD. ZAID	Md. Zaid	Md. Zaid	Md. Zaid	Md. Zaid	Md. Zaid
32	1901219282	PITABAS BEHERA	Pitabas Behera	Pitabas Behera	Pitabas Behera	Pitabas Behera	Pitabas Behera
33	1901219283	PRATYUSH KUMAR DHAL	Pratyush Dhal	Pratyush Dhal	Pratyush Dhal	Pratyush Dhal	Pratyush Dhal
34	1901219284	PRIVA KUMARI SINGH	Priva Kumari Singh	Priva Kumari Singh	Priva Kumari Singh	Priva Kumari Singh	Priva Kumari Singh
35	1901219285	RAHUL KUMAR DIAN	Rahul Kumar Dian	Rahul Kumar Dian	Rahul Kumar Dian	Rahul Kumar Dian	Rahul Kumar Dian
36	1901219286	RAJAT DIXIT	Rajat Dixit	Rajat Dixit	Rajat Dixit	Rajat Dixit	Rajat Dixit
37	1901219287	RAJIB KUMAR NANDI	Rajib Kumar Nandi	Rajib Kumar Nandi	Rajib Kumar Nandi	Rajib Kumar Nandi	Rajib Kumar Nandi
38	1901219288	RAJIB KUMAR RAY	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray	Rajib Kumar Ray
39	1901219289	RAKESH RANJAN	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan	Rakesh Ranjan
40	1901219290	SAUDAMINI BEHERA	Saudamini Behera	Saudamini Behera	Saudamini Behera	Saudamini Behera	Saudamini Behera
41	1901219291	SAYED MOHAMMAD	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad	Sayed Mohammad
42	1901219292	SHIBASHANKAR BIRUA	S. Shibham	S. Shibham	S. Shibham	S. Shibham	S. Shibham
43	1901219293	SUBHAM KUMAR JENA	Subham Jena	Subham Jena	Subham Jena	Subham Jena	Subham Jena
44	1901219294	SUBHRANSU SINGH	Subhransu Singh	Subhransu Singh	Subhransu Singh	Subhransu Singh	Subhransu Singh
45	1901219295	SUBRAT KUMAR GOPAL	Subrat Kumar Gopal	Subrat Kumar Gopal	Subrat Kumar Gopal	Subrat Kumar Gopal	Subrat Kumar Gopal
46	1901219296	SURENDRA SAW	Sureshwar Prasad	Sureshwar Prasad	Sureshwar Prasad	Sureshwar Prasad	Sureshwar Prasad

PRINCIPAL
College of Engineering Bhubaneswar





COLLEGE OF ENGINEERING BHUBANESWAR
 PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



Certificate of Completion

This is to certify that Mr./Ms. MANOJ KUMAR KHADANGA, student of the Department

of Mechanical Engg. semester Fifth bearing registration number 1901219279

has successfully completed the ADD-ON Course titled Nano Technology

conducted at College of Engineering Bhubaneswar in the academic year 2021-22

TRUE COPY

J. Mohapatra

Course-Coordinator

[Signature]

Principal

[Signature]

PRINCIPAL

College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR
 PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



Certificate of Completion

This is to certify that Mr./Ms. MANOJ KUMAR MALICK student of the Department

of Mechanical Engg. semester Fifth bearing registration number 1901219280

has successfully completed the ADD-ON Course titled Nano Technology

conducted at College of Engineering Bhubaneswar in the academic year 2021-22

TRUE COPY

J. Mohapatra

Course-Coordinator

[Signature]

Principal

[Signature]

PRINCIPAL

College of Engineering Bhubaneswar

5/19



COLLEGE OF ENGINEERING BHUBANESWAR
PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



Certificate of Completion

This is to certify that Mr./Ms. MD. ZAID, student of the Department

of Mechanical Engg. semester Fifth bearing registration number 1901219281

has successfully completed the ADD-ON Course titled Nano Technology

conducted at College of Engineering Bhubaneswar in the academic year 2021-22

TRUE COPY

f. mahapatra

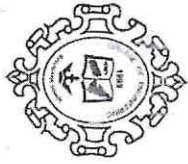
Course-Coordinator

[Signature]

Principal

[Signature]

PRINCIPAL
College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR
PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



Certificate of Completion

This is to certify that Mr./Ms. PITABAS BEHERA, student of the Department

of Mechanical Engg. semester Fifth bearing registration number 1901219282

has successfully completed the ADD-ON Course titled Nano Technology

conducted at College of Engineering Bhubaneswar in the academic year 2021-22

TRUE COPY

J. Mahapatra

Course-Coordinator

Principal

J. B. Singh

PRINCIPAL

College of Engineering Bhubaneswar



COLLEGE OF ENGINEERING BHUBANESWAR
PLOT NO-1(A), CNI COMPLEX, PATIA, BHUBANESWAR, KHORDHA, ODISHA-751024



Certificate of Completion

This is to certify that Mr./Ms. PRATYUSH KUMAR DHAL, student of the Department

of Mechanical Engg. semester Fifth bearing registration number 1901219283

has successfully completed the ADD-ON Course titled Nano Technology

conducted at College of Engineering Bhubaneswar in the academic year 2021-22.

TRUE COPY

J. Mohapatra
Course-Coordinator

[Signature]
Principal
PRINCIPAL
College of Engineering Bhubaneswar