

## WHO CAN APPLY

Faculty members/ PG students/ Research scholars from Engineering Colleges and practicing engineers from industry are eligible to apply for the course. No registration fee is charged for the participants. Eligible participants will be selected on the basis of first come first served. On completion of the course, an objective assessment will be done and certificates will be awarded to successful participants by ATAL academy.

## GUIDELINES

Faculty Development Program comprises of 13 sessions. Timing will be from 6:00 pm to 9:00 pm. The FDP will be conducted in the online mode with two sessions per day. On the last day of the course, there will be an objective assessment test. Digital certificate by ATAL Academy will be awarded to participants who have an attendance of more than 80% and score more than 60% in the test.

## HOW TO APPLY ?

There is no registration fee. All participants are requested register using the link of AICTE ATAL portal: <https://atalacademy.aicte-india.org/signup> Find this FDP under Workshops. The following filters may be applied:  
Select state> Odisha  
Select month> February  
Select thrust area> Manufacturing & Industry 4.0

## PATRON

**Dr. Satyabrata Mohanta**  
Director  
I.G.I.T Sarang

## CHAIRMAN

**Dr. Bibhuti Bhusan Choudhury**  
Professor & Head, Department of Mech. Engg

## ORGANISING COMMITTEE

Dr. Sudhakar Majhi  
Dr. Manoj Kumar Muni  
Mrs. July Randhari  
Mrs. Krushnashree S.S. Sahoo  
Mr. Somya Ranjan Pradhan

## COORDINATOR

**Dr. Supriya Sahu,**  
Asst. Professor, Mechanical Engg. Dept  
*Email: supriya.sahu@igitsarang.ac.in*  
*Mob: 9556819820*

## CO-COORDINATOR

**Mrs. Babita Singh,**  
Asst. Professor, Mechanical Engg. Dept  
*Email: babitasingh@igitsarang.ac.in*  
*Mob: 7325950754*

AICTE Training and Learning  
Sponsored One Week  
(ONLINE)  
Faculty Development Program  
(ATAL-FDP)  
On

Sustainable Manufacturing and  
Advanced Automation in Industries



(Dt. 24.02.2025 to 01.03.2025)

Organized by  
Department of Mechanical Engg.



**Indira Gandhi Institute of Technology**  
(An Autonomous Institute of Govt. of Odisha)  
Sarang, Dhenkanal  
Odisha - 759146



## ABOUT THE INSTITUTE

Indira Gandhi Institute of Technology (IGIT), Sarang was established in the year of 1982 and was managed directly by the Govt. of Odisha in the name of Odisha College of Engineering (OCE). Prior to this, since 1981, the institute in the name of Modern Polytechnic (MPT) was offering Diploma Courses in Civil, Electrical, Mechanical, Mining Survey Engineering. In the year 1987, both OCE & MPT were merged and renamed as IGIT, Sarang and the management was transferred to an Autonomous Society.

Presently, the Institute is offering nine Under Graduate Engineering courses in Civil, Chemical, Electrical, Mechanical, Metallurgical, Electronics & Telecommunication, Computer Science Engg., Production Engg., & two part-time Post Graduate Engg courses in Industrial Power Control & Drives, Environmental Sc. & Engg.; nine full time Post Graduate Engg courses / Master course Computer Sc. Engg., Electronics and Telecom. Engg., Geotech Engg., Mechanical System Design, Mett. & Materials Engg., Power Electronics & Drives, Power System Engg., Production Engg., Structural Engg., Master in Computer Application.

## ABOUT THE DEPARTMENT

B.Tech programme in Mechanical Engineering was introduced in the Institution in 1982. Since its inception, the Department of Mechanical Engineering is actively engaged in grooming a large pool of students into well trained engineers. The department has well equipped labs and highly qualified faculty and staff. The department keeps pace with the advances in technology by engaging in research and consultancy works in the various fields of Mechanical Engineering.

## BROAD OBJECTIVES

Organizing a Faculty Development Program (FDP) on Sustainable Manufacturing and Advanced Automation in Industries aims to equip educators, researchers, and industry professionals with the latest knowledge and skills needed to foster innovation and sustainability in manufacturing processes. Key objectives of the FDP include:

- To promote Sustainable Manufacturing Practices
- To familiarize Participants with Advanced Automation
- To bridge Academia-Industry Collaboration
- To encourage interdisciplinary research and development of innovative solutions to industrial challenges.
- To encourage faculty members for the development of specialized courses or modules focused on these emerging areas.
- To discuss real-world challenges industries face in adopting sustainable practices and automation.

## TOPICS COVERED IN FDP

- Reverse supply chain, industrial engineering and robotics
- Stress analysis, composite materials, thermal spray coating and tribology
- Condition monitoring and reliability
- Free space optics, fiber optic communication, IsOWC system, non-linear optics and digital communication
- Thermal and fluid engineering, industrial boilers and fired furnaces, bio-mechanics and robotics
- Product development, IPR development, destructive and nondestructive testing of mining and allied equipment
- Composite materials, tribology, modelling and simulation, biomaterials and metal casting
- Mechanical properties, mechanical behavior of materials and failure analysis
- Process engineering, modeling, simulation, optimization and hysis
- Six Sigma, SAP products and supply chain management
- Design, development, aerodynamic applications
- IT strategy, solution architecture, requirement analysis, software project management, cyber security and global delivery

## RESOURCE PERSON OF THE FDP

- ◆ **Dr. Rabindra Narayan Mahapatra**  
Professor & HOD, Dept. of Production Engineering, NIT Agartala
- ◆ **Dr. Alok Satapathy**  
Professor, Mechanical Engineering  
NIT Rourkela,
- ◆ **Dr. Chinmaya Kar**  
Condition Monitoring and Reliability Professional,  
Honeywell, Abu Dhabi, United Arab Emirates
- ◆ **Dr. Ha Huy Cuong Nguyen**  
Director SDC - Software Development Centre -  
Danang University Da Nang City, Vietnam
- ◆ **Dr. Bijayananda Patnaik**  
Associate Professor, Electronics & Telecom.  
Engineering, NIT Raipur
- ◆ **Dr. Harish Chandra Das**  
Professor, Mechanical Engg, NIT Meghalaya
- ◆ **Dr. Sudhir Kumar Kashyap**  
Senior Principal Scientist & HOS Roof Support  
Testing Laboratory, CSIR - Central Institute of  
Mining & Fuel Research, Barwa Road, Dhanbad
- ◆ **Dr. Amar Patnaik**  
Associate Professor, Department of Mechanical  
Engineering, MNIT, Jaipur
- ◆ **Mr. Sunand Rakshit**  
General Manager Maintenance Jindal Steel &  
Power Ltd., Angul, Odisha
- ◆ **Mr. Balakrushna Sahu**  
DGM Process L&T  
Hydrocarbon Engineering Limited
- ◆ **Mr. Satyajeet Pattnaik**  
Managing Director Accenture
- ◆ **Mr. Satya Swaroop Panda**  
Director, Engineering Collins Aerospace
- ◆ **Mr. Srikanta Mohapatra**  
Delivery Head (Cloud Services and Digital  
Transformation) Tata Consultancy Services  
Limited

**ATAL Online 6 Day Faculty Development Programmes 2024-25 Schedule**

**FDP Thrust Area: Manufacturing & Industry 4.0**

**FDP Title: Sustainable Manufacturing and Advanced automation in Industries**

**Start Date:24.02.2025**

**End Date:**

Day 1	Day 2	Day 3	Day 4	Day 5	Day 6
<p>6:00PM to 6:30PM</p> <p><b>Inaugural Session</b></p>	<p>6:00PM to 7:30PM</p> <p><b>Session 3</b></p> <p>Topic: Condition monitoring and reliability</p> <p>Name of the Expert: Dr. Chinmaya Kar</p> <p>Designation &amp; Organization: Condition Monitoring and Reliability Professional, Honeywell, Abu Dhabi, United Arab Emirates Years of Exp:18</p>	<p>6:00PM to 7:30PM</p> <p><b>Session 5</b></p> <p>Topic: Free space optics, fiber optic communication, IsOWC System, Non-linear optics and Digital communication</p> <p>Name of the Expert: Dr. Bijayananda Patnaik</p> <p>Designation &amp; Organization: Associate Professor, Electronics &amp; Telecom. Engineering, National Institute of Technology, Raipur Years of Exp:17</p>	<p>6:00PM to 7:30PM</p> <p><b>Session 7</b></p> <p>Topic: Product development, IPR development, Destructive and nondestructive testing of mining and allied equipment</p> <p>Name of the Expert: Dr. Sudhir Kumar Kashyap</p> <p>Designation &amp; Organization: Senior Principal Scientist &amp; HOS Roof Support Testing Laboratory, CSIR - Central Institute of Mining &amp; Fuel Research Barwa Road, Dhanbad Years of Exp: 34</p>	<p>6:00PM to 7:30PM</p> <p><b>Session 9</b></p> <p>Topic: Mechanical properties, mechanical behavior of materials and failure analysis</p> <p>Name of the Expert: Mr. Sunand Rakshit</p> <p>Designation &amp; Organization: General Manager Maintenance Jindal Steel &amp; Power Ltd., Angul, Odisha Years of Exp:31</p>	<p>2:00PM to 3:30PM</p> <p><b>Session 11</b></p> <p>Topic: Six Sigma, SAP products and Supply chain management</p> <p>Name of the Expert: Mr. Satyajee Pattnaik</p> <p>Designation &amp; Organization: Managing Director Accenture Years of Exp:30</p>
<p>6:30PM to 8:00PM</p> <p><b>Session 1</b></p> <p>Topic: Reverse supply chain , industrial engineering and Robotics</p> <p>Name of the Expert: Dr. Rabindra Narayan Mahapatra</p> <p>Designation &amp; Organization: Professor &amp; HOD, Dept. of Production Engineering, National Institute of Technology Agartala Years of Exp: 34</p>	<p>7:30PM to 9:00PM</p> <p><b>Session 4</b></p> <p>Topic: Condition monitoring</p> <p>Name of the Expert: Dr. Ha Huy Cuong Nguyen</p> <p>Designation &amp; Organization: Director SDC - Software Development Centre - Danang University · Da Nang City, Vietnam Years of Exp: 25</p>	<p>7:30PM to 9:00PM</p> <p><b>Session 6</b></p> <p>Topic: Thermal and fluid engineering, Industrial boilers and fired furnaces , Bio-mechanics and Robotics</p> <p>Name of the Expert: Dr. Harish Chandra Das</p> <p>Designation &amp; Organization: Professor, Mechanical Engg., National Institute of Technology, Meghalaya Years of Exp:30</p>	<p>7:30PM to 9:00PM</p> <p><b>Session 8</b></p> <p>Topic: Composite materials, Tribology, Modelling and simulation, Biomaterials and Metal casting</p> <p>Name of the Expert: Dr. Amar Patnaik</p> <p>Designation &amp; Organization: Associate Professor, Department of Mechanical Engineering, MNIT, Jaipur Years of Exp:24</p>	<p>7:30PM to 9:00PM</p> <p><b>Session 10</b></p> <p>Topic: Process engineering, modeling, simulation, optimization and Hysis</p> <p>Name of the Expert: Mr. Balakrushna Sahu</p> <p>Designation &amp; Organization: DGM Process L&amp;T Hydrocarbon Engineering Limited Years of Exp:18</p>	<p>3:30PM to 5:00PM</p> <p><b>Session 12</b></p> <p>Topic: Design, Development, aerodynamic applications</p> <p>Name of the Expert: Mr. Satya Swaroop Panda</p> <p>Designation &amp; Organization: Director, Engineering Collins Aerospace Years of Exp:29</p>
<p>8:00PM to 9:30PM</p> <p><b>Session 2</b></p> <p>Topic: Stress analysis, composite materials, thermal spray coating &amp; Tribology</p> <p>Stress analysis, composite materials, thermal spray coating &amp; Tribology</p> <p>Name of the Expert: Dr. Alok Satapathy</p> <p>Designation &amp; Organization: Professor, Mechanical Engineering National Institute of Technology Rourkela, Odisha, India Years of Exp:31</p>					<p>5:00PM to 7:30PM</p> <p><b>Session 13</b></p> <p>Topic: IT strategy, solution architecture, Requirement analysis, Software project management, Cyber security and global delivery</p> <p>Name of the Expert: Mr. Srikanta Mohapatra</p> <p>Designation &amp; Organization: Delivery Head (Cloud Services and Digital Transformation) Tata Consultancy Services Limited Years of Exp:29</p>
					<p>6:30PM to 7:30PM</p> <p><b>Online test &amp; feedback</b></p> <p>7:30PM to 8:00PM</p> <p><b>Valedictory Session</b></p>

# Letter Head

**Subject: NOC for Attending ATAL FDP**

Ref No. \_\_\_\_\_

Date: \_\_\_\_\_

## **To Whomsoever It May Concern**

This letter is to express No Objection on Mr./Mrs./Ms./Dr.<Participant name>in attending ATAL Online 6 Days Faculty Development Programme on “**Sustainable Manufacturing and Advanced Automation in Industries**” organized by **IGIT Sarang**, from February 24<sup>th</sup> February to 01<sup>st</sup> March, 2025.

This certificate is issued as per requirement of AICTE for successful conduction of ATAL Faculty Development Program.

Yours Sincerely,

(Sign & Stamp)

[Head of the Institution/Competent Authority]

Institute Name and Address