

CIRCULAR**ARKA JAIN**
University
Jharkhand**CIRCULAR****Ref. No. AJU/AD/ENGG/2A/2025-26****Date: 04.07.2025**

A offline Faculty Development Programme (FDP) on the theme “Experiential Learning towards Advanced Concepts in Industry 4.0 for Sustainable Growth” been approved by the AICTE and will be held in offline mode from 7th July – 12th July 2025 in collaboration with the AICTE Training and Learning (ATAL) Academy.

Link for registration: Through AICTE Portal**Mode of learning: offline Mode****Registration fee: Nil****Max no. of Participants: 50 (external-35 and Internal-15)****Last Date for Registration: 04.07.2025 (till 7:00.P.M)****Coordinator: -****Dr. Anup Kumar****(dr.anup@arkajainuniversity.ac.in)****Coordinator:-****Dr. Ashwini Kumar****Asst. Dean
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ATAL 6-DAY OFFLINE BASIC FACULTY DEVELOPMENT PROGRAMME”
EXPERIENTIAL LEARNING TOWARDS ADVANCED CONCEPTS IN INDUSTRY 4.0 FOR
SUSTAINABLE GROWTH

Date of Event	7th July 2025 to 12th July 2025
Name of the Event	ATAL 6-day Offline Basic Faculty Development Programme” Experiential Learning towards Advanced Concepts in Industry 4.0 for Sustainable Growth
Type of the Event	Faculty Development Programme
Conducted by	Department of Mechanical engineering, School of Engineering & IT, AJU
No. Of Participants	51

OBJECTIVES:

The main objectives of the FDP were:

- To impart theoretical and practical knowledge about Industry 4.0 technologies and their role in sustainability.
- To familiarize faculty members with the integration of advanced manufacturing techniques and green technologies.
- To encourage the use of AI, ML, IIoT, 3D Printing, Robotics, and Smart Systems in academics and research.
- To foster collaboration between industry and academia through expert interaction and industrial visits.
- To support faculty development aligned with National Education Policy (NEP) 2020 and sustainable development goals (SDGs).

DETAILS:

The FDP comprised **ten technical sessions** and one **industrial visit** over six days. Each day had two expert-led sessions delivered by eminent speakers from premier institutions and industries.

Day 1 (7th July 2025):

- *Session 1:* Dr. Satish Kumar (NIT Jamshedpur) presented on "**Artificial Intelligence and Machine Learning in Sustainability**", showcasing how AI and ML help in predictive analytics, waste management, and energy efficiency.

- *Session 2:* Mr. Monojit Chakraborty (Tata Motors Ltd.) discussed "**IIoT and Digital Transformation in Industry 4.0**", highlighting real-time monitoring, predictive maintenance, and smart sensors in industrial settings.

Day 2 (8th July 2025):

- *Session 3:* Dr. Ajit Kumar (IIT-ISM Dhanbad) spoke on "**Technological Transition to Mining 4.0**", covering digital transformation in mining operations.
- *Session 4:* Mr. Anil Kumar Mishra (TRF Ltd.) shared insights on "**Significance of Robots in the Fourth Industrial Revolution**", emphasizing robotic automation in manufacturing.

Day 3 (9th July 2025):

- *Session 5:* Dr. Ratnakar Das (NIAMT Ranchi) delivered a lecture on "**Green Manufacturing in Industry 4.0**", addressing sustainable practices and energy efficiency.
- *Session 6:* Mr. Brundaban Panda (TRF Ltd.) addressed "**Sustainable Supply Chain Management using Industry 4.0 Tools**", emphasizing digitization, traceability, and waste reduction.

Day 4 (10th July 2025):

- *Session 7:* Dr. Vishesh Ranjan Kar (NIT Jamshedpur) elaborated on "**Modelling and Simulation for Smart Manufacturing**", with focus on digital twins and predictive modelling.
- *Session 8:* Dr. Sushant Rath (SAIL-RDCIS) delivered a session on "**Process Improvement and Tribology in Rolling Mills**", explaining the transformation from conventional to Industry 4.0-integrated systems.

Day 5 (11th July 2025):

Industrial Visit

A significant component of the FDP was the **industrial visit to Indo Danish Tool Room (IDTR), Jamshedpur**. IDTR, under the Ministry of MSME, is a premier institution in CAD/CAM/CAE and precision tooling. Participants interacted with industry experts and observed cutting-edge technologies like 3D modelling, CNC programming, and additive manufacturing. This hands-on exposure enhanced their understanding of design innovation and manufacturing automation.

- *Session 9:* Dr. Ashok Matani (Govt. College of Engineering, Jalgaon) presented "**Research Methodology for Energy Efficiency and Renewable Integration in Industry 4.0**", guiding participants through research frameworks and sustainability metrics.

Day 6 (12th July 2025):

- *Session 10:* Dr. Saurav Datta (NIT Rourkela) concluded the technical series with an advanced session on "**Sustainable Innovation through 3D Printing and Additive Manufacturing**", encouraging participants to adopt resource-efficient technologies.

TAKEAWAY (OUTCOMES):

Participants expressed high levels of satisfaction with:

- The diverse and relevant topics addressed.
- Expertise and engagement of resource persons.
- Practical knowledge shared during industrial visits and case studies.
- Relevance to NEP 2020 and sustainable engineering practices.

POSTER OF THE EVENT



SIX DAYS
FACULTY DEVELOPMENT PROGRAM

on
“EXPERIENTIAL LEARNING TOWARDS ADVANCED CONCEPTS IN INDUSTRY 4.0 FOR SUSTAINABLE GROWTH”



Dr. Satish Kumar
Professor,
Department of Mechanical Engineering
National Institute of Technology,
Jamshedpur
Topics: Role of Artificial Intelligence and
Machine Learning in Sustainability



Mr. Monojit Chakraborty
Deputy General Manager, Tata
Motors, Jamshedpur
Topic: IIoT & Digital Transformation
in Industry 4.0



Dr. Ajit Kumar
Asst. Professor,
IIT(ISM) Dhanbad
Topic: Technological and
Transition to Mining 4.0



Mr. Anil Kumar Mishra
Sr. Designation Manager,
TRF Limited, Jamshedpur
Topic: Significance of Robots in
Fourth industrial revolution (4IR)



Dr. Ratnakar Das
Assistant Professor,
Department of Manufacturing
Engineering, National Institute of
Advanced Manufacturing
Technology (NIAMT), Ranchi
Topic: Green Manufacturing in the
Context of Industry 4.0



Mr. Brundaban Panda
Sr. Designation Manager,
TRF Limited, Jamshedpur
Topic: Sustainable Supply Chain
Management using industry 4.0
tools



Dr. Vishesh Ranjan Kar
Assistant Professor
Mechanical Engineering,
National Institute of Technology,
Jamshedpur
Topic: Modelling & Simulation for
smart Manufacturing



Dr. Ashok Matani
Professor- Mech Engg [Retired-
Alumni]
Govt College of Engg Jalgaon [MS]
Topic: Energy efficiency and
renewable integration in Industry 4.0
(Implementation of Research
Methodology)



Dr. Saurav Datta
Professor
Department of Mechanical
Engineering
National Institute of Technology,
Rourkela
Topic: Sustainable Innovation
through 3D Printing and Additive
Manufacturing



Mr. Purnanand Pathak
CGM(Rolling Technology),
R&D Centre for Iron & Steel, Steel
Authority of India Limited, Ranchi
Topic: Implementation of process
improvement and tribology in rolling mills
origin to industry 4.0

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AICTE TRAINING AND LEARNING (ATAL) ACADEMY
AND
ORGANIZED BY
DEPARTMENT OF MECHANICAL ENGINEERING
SCHOOL OF ENGINEERING & IT
ARKA JAIN UNIVERSITY, GAMHARIA-832108
SERAIKELA KHARSAWAN, JHARKHAND, INDIA

Coordinator- Dr. Ashwini Kumar
Co-Coordinator- Dr. Anup Kumar

Figure 1: Poster of the Event- ATAL 6-day Offline Basic Faculty Development Programme”
Experiential Learning towards Advanced Concepts in Industry 4.0 for Sustainable Growth

PHOTOS OF THE EVENT



Figure 2: Inaugural Session- In lighting the Lamp



Figure.3: Inaugural Session



Figure.4: Felicitating the Chief Guest- Dr. Sandip Ghosh Chowdhury, Director, NML Jamshedpur



Figure 5: Group Photo all participates



Figure 6: Dr. Satish Kumar Session on Role of Artificial Intelligence and Machine Learning in Sustainability



Figure 7: Mr. Monokit Chakraborty Session on IIoT & Digital Transformation in Industry 4.0



Figure 8: Dr. Ajit Kumar Session on Technological and Transition to Mining 4.0



Figure 9: Mr. Anil Kumar Mishra Session on Significance of Robots in Fourth industrial revolution

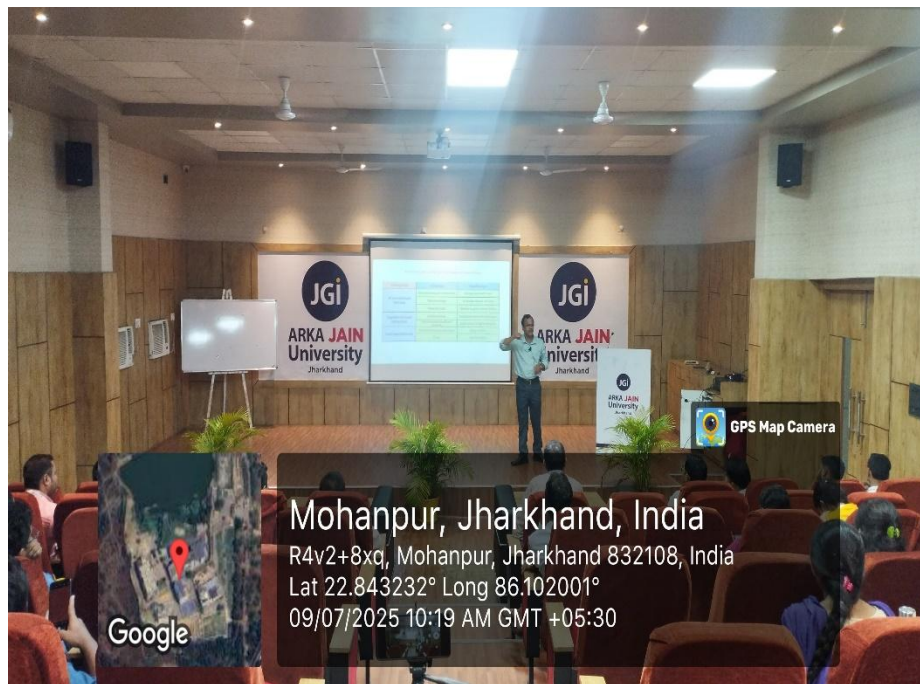


Figure 10: Dr. Ratnakar Das Session on Green Manufacturing in the Context of Industry 4.0



Figure 11: Mr. Brundaban Panda Session on Sustainable Supply Chain Management using industry 4.0 tools



Figure 12: Mr. Brundaban Panda Session on Modelling & Simulation for smart Manufacturing



Figure 13: Dr. Sushant Rath Session on Implementation of process improvement and tribology in rolling mills origin to industry 4.0



Figure 14: Dr. Saurav Datta Session on Sustainable Innovation through 3D Printing and Additive Manufacturing



Figure 15: Valedictory Session

PRESS RELEASE

अरका जैन विवि में फैकल्टी डेवलपमेंट प्रोग्राम शुरू



जमशेदपुर . अरका जैन यूनिवर्सिटी में सोमवार को छह दिवसीय फैकल्टी डेवलपमेंट प्रोग्राम की शुरुआत हुई. 'इंडस्ट्री 4.0 की उन्नत अवधारणाओं की ओर प्रायोगिक शिक्षण के लिए सतत विकास'. विषय पर आयोजित कार्यक्रम अखिल भारतीय तकनीकी शिक्षा परिषद (एआईसीटीई) के ट्रेनिंग एंड लर्निंग (अटल) एकेडमी द्वारा प्रायोजित था. उद्घाटन एनएमएल निदेशक डॉ. संदीप घोष चौधरी ने किया. इस दौरान शिक्षकों को एआई, आईओटी, श्री डी प्रिंटिंग, ग्रीन मैनुफैक्चरिंग जैसी तकनीकों से रूबरू कराया जा रहा है. एनआईटी, आईआईटी व टाटा मोटर्स, सेल जैसे संस्थानों से आए विशेषज्ञ सत्र ले रहे हैं. कार्यक्रम में देशभर के प्रमुख संस्थानों से 35 से अधिक शिक्षकों ने भाग लिया.

प्रभात खबर

Tuesday, July 8, 2025

Jamshedpur-City

<https://epaper.prabhatkhabar.com/clip/686c2526be0e09cc15e06a82>



Figure 16: Press Release of the event in Prabhat Khabar dated: 08.07.2025

अरका जैन यूनिवर्सिटी में एआईसीटीई-अटल प्रायोजित छः दिवसीय फैकल्टी डेवलपमेंट प्रोग्राम शुरू

शिक्षक होंगे आधुनिक तकनीक, नवाचार व विकास के मूलमंत्र से लैस

जमशेदपुर, 7 जुलाई (रिपोर्टर) : अरका जैन यूनिवर्सिटी में सोमवार को 'इंडस्ट्री 4.0 की उन्नत अवधारणाओं की ओर प्रायोगिक शिक्षण के लिए सतत विकास' विषय पर छः दिवसीय फैकल्टी डेवलपमेंट प्रोग्राम (एफडीपी) की शुरुआत हुई. यह आयोजन के यूनिवर्सिटी के स्कूल ऑफ इंजीनियरिंग एंड आईटी के अंतर्गत मैकेनिकल इंजीनियरिंग विभाग की ओर से किया गया है, जो आगामी 12 जुलाई को संपन्न होगा. यह कार्यक्रम अखिल भारतीय तकनीकी



शिक्षा परिषद (एआईसीटीई) के ट्रेनिंग एंड लर्निंग (अटल) एकेडमी की ओर से प्रायोजित है. इस कार्यक्रम का मुख्य उद्देश्य शिक्षकों को आर्टिफिशियल इंटेलिजेंस (एआई), इंटरनेट ऑफ थिंग्स (आईओटी), स्मार्ट मैनुफैक्चरिंग, ग्रीन टेक्नोलॉजी व 3डी प्रिंटिंग जैसी आधुनिक तकनीकों का प्रशिक्षण देकर उन्हें औद्योगिक

आवश्यकताओं के अनुरूप तैयार करना है.

अरका जैन यूनिवर्सिटी में आयोजित कार्यक्रम का उद्घाटन मुख्य अतिथि एनएमएल के निदेशक डा. संदीप घोष चौधरी ने दीप प्रज्वलित कर किया. उन्होंने बहुविषयक अनुसंधान व अकादमिक-औद्योगिक सहयोग की आवश्यकता पर विशेष जोर

दिया. इस मौके पर अरका जैन यूनिवर्सिटी के निदेशक डा. अमित श्रीवास्तव, प्रति कुलपति डा. अंगद तिवारी, इंटरनल क्लालिटी एश्योरेंस सेल (आईक्यूएसी) के निदेशक डा. अरविन्द कुमार पांडेय, एनआईटी जमशेदपुर के डीन आरएनसी प्रो. (डा.) सतीश कुमार समेत देशभर से आए 35 से अधिक प्रतिभागी मौजूद थे.

Figure 17: Press Release new Ispat mail dated: 08.07.2025

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