



**GURU GOBIND SINGH EDUCATIONAL SOCIETY'S TECHNICAL CAMPUS**  
KANDRA (V), CHAS- 827013, BOKARO (JHARKHAND)

Date- 04/02/2021

**Report on a One-Week Faculty Development Program (FDP) on "Teaching Methodology and Industry 4.0" (25-01-2021 to 01-02-2021)**

**Introduction**

In alignment with the mission of GGSESTC, Chas, Bokaro, to provide high-quality and relevant training for educators, the college organized a One-Week Faculty Development Program (FDP) focused on *Teaching Methodology and Industry 4.0*. This FDP aimed to empower faculty members with advanced teaching methodologies, incorporating the latest practices from Industry 4.0 to enhance instructional effectiveness.

The program gathered 40 faculty members from GGSESTC and participants from other institutions, reinforcing the college's commitment to innovative education and industry-oriented faculty development.

**Objectives**

The key objectives of this FDP were:

- **To introduce faculty members to innovative teaching methodologies** that align with the demands of Industry 4.0, thus preparing them for the changing educational landscape.
- **To provide insights into Industry 4.0 technologies** and their applications in different engineering and management domains, helping faculty to integrate these technologies into their curriculum.
- **To enhance cross-departmental collaboration** by involving faculty members from various engineering and management disciplines, promoting a culture of interdisciplinary learning.
- **To develop faculty members' competency** in delivering high-quality, industry-relevant content that meets both academic and professional standards.

**Program Details**

**Dignitaries and Organizing Committee:**

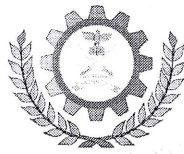
- **Chief Patron:** Shri Tarsem Singh, President, GGES, Bokaro
- **Patron:** Shri S.P. Singh, Secretary, GGES, Bokaro
- **Principal Convener:** Prof. (Dr.) Priyadarshi Jaruhar, Director, GGSESTC
- **Advisor:** Prof. (Dr.) Bikash Ghoshal, Professor
- **Dean (R&D):** Prof. (Dr.) Ramesh Chandra Rath
- **Organizing Secretary/Convener:** Dr. Avinash Kumar, Dean (Academics and Administration)
- **Program Coordinator:** Dr. A.P. Burnwal, HoD, BSH

**Program Schedule:**

- **Inaugural Session:**
  - *Date:* 25th January 2021



**DIRECTOR**  
GGSESTC, Kandra, Chas  
Bokaro, Jharkhand-827013



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- *Time:* 11:00 AM to 01:30 PM

**Technical Sessions (I & II):**

- **27th January 2021:** Presentations by the Department of CSE
- **28th January 2021:** Presentations by the Departments of EE/EEE and BSCH
- **29th January 2021:** Presentation by the Department of ME
- **30th January 2021:** Presentations by the Departments of ECE and Civil
- **1st February 2021:** Presentation by the Department of MBA and *Valedictory Ceremony* (2 PM to 3 PM)

Each technical session was conducted in two slots:

- **Session I:** 11:00 AM - 01:30 PM
- **Session II:** 02:30 PM - 04:30 PM

**Resource Persons:**

**Internal Resource Persons**

- Prof. (Dr.) Priyadarshi Jaruhar, Principal Convenor & Director, GGSESTC
- Prof. (Dr.) Bikash Ghoshal, Advisor
- Prof. (Dr.) Ramesh Chandra Rath, Dean (R&D) and HOD – MBA
- Dr. Avinash Kumar, Convener FDP & Dean (Academics)
- Prof. (Dr.) A.P. Burnwal, Head of Dept. of BSH

**External Resource Persons**

- Dr. P.V. Durge, Professor, Civil Engineering, Mauli Engineering College, Shegaon, Maharashtra
- Dr. Lakhwinder Pal Singh, Principal, Golden Group of Institutions, Gurdaspur, Punjab
- Dr. Mahendra Kumar, Associate Professor, EEE, Guru Kashi University, Punjab
- Dr. Parwinder Singh, Professor & Director MBA, Desh Bhagat University, Punjab

**Organizing Committee Coordinators:**

The organizing committee included professors from each department and administrative staff members who collaborated to ensure the smooth functioning of the FDP.

**Program Content and Discussions**

The FDP covered a comprehensive range of topics pertinent to both teaching methodology and Industry 4.0 technologies. Highlights of the discussions and presentations are as follows:

- **Advanced Teaching Methodologies:** Exploring the latest methods in pedagogy, with a focus on interactive and student-centered approaches that enhance learning retention.
- **Industry 4.0 Applications in Education:** Sessions included an introduction to Industry 4.0, covering topics such as automation, Internet of Things (IoT), artificial intelligence,



*P. Jaruhar*

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machine learning, and data analytics. Faculty members learned how these technologies are reshaping various industries and the implications for teaching content.

- **Cross-disciplinary Collaboration:** Presentations by various departments allowed faculty to understand how Industry 4.0 technologies impact multiple fields, facilitating the integration of these insights into a cohesive learning experience for students.
- **Practical Tools and Resources:** The resource persons provided practical insights and demonstrated tools that can be incorporated into everyday teaching practices, making faculty more adept at using industry-relevant technologies in their classrooms.

### Outcome

The FDP achieved its goal of equipping faculty members with the knowledge and skills required for modern, industry-oriented teaching. The outcomes include:

- **Improved Teaching Strategies:** Faculty participants reported a better understanding of modern teaching methodologies and expressed a willingness to apply these methods in their classrooms.
- **Industry-Relevant Curriculum Development:** Participants gained insights into Industry 4.0, which they are now better prepared to incorporate into their teaching modules, making the curriculum more relevant to industry standards.
- **Interdepartmental Knowledge Sharing:** The collaborative nature of the program facilitated cross-departmental knowledge sharing, strengthening the interdisciplinary approach in teaching and research at GGSESTC.
- **Positive Feedback and Engagement:** The feedback from participants was overwhelmingly positive, with requests for more such programs to stay updated on industry trends and teaching innovations.

### Conclusion

The *One-Week Faculty Development Program on Teaching Methodology and Industry 4.0* was a significant step towards realizing GGSESTC's vision of quality education that meets the needs of modern industry. By bringing faculty together with experts and providing them with relevant skills, GGSESTC has fostered an environment that promotes continuous learning and innovation in teaching. The program was an excellent success, setting a standard for future faculty development initiatives.

**Programme Coordinator**

Prof. (Dr.) Arun Prasad  
Burnwal  
Professor  
HOD BSH  
GGSESTC, Bokaro

**Advisor**

Prof. (Dr.) Bikash Ghoshal  
Professor, IQAC  
Mechanical Engineering  
Department  
GGSESTC, Bokaro

**Principal Coordinator**

Prof. (Dr.) Priyadarshi Jaruhar  
Director  
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