***अरिष्ट***

**Towards Zero Harm: Digital Innovation Technologies for Enhanced Safety in Integrated Steel Plants for Viksit Bharat**

**Introduction**

The integrated steel industry plays a crucial role in the economic development of any nation, especially in the context of the vision of "Viksit Bharat" (Developed India). However, this industry also faces several challenges, particularly in terms of maintaining safety standards, managing the complex production processes, and ensuring sustainability. The application of Digital Innovation technologies offers transformative solutions to address these challenges. The safety of workers, equipment, and the environment is of paramount importance in such high-risk industries.

The theme of this safety conclave —“**Towards Zero Harm: Digital Innovation Technologies for Enhanced Safety in Integrated Steel Plants for Viksit Bharat**”—focuses on how advanced digital tools and technologies can be leveraged to create smarter, safer, and more sustainable steel plants. This concept aims to reduce man-machine intervention, enhancing operational efficiency, safety protocols, and sustainability initiatives.

**Objective of the Conclave:**

* To explore and showcase the latest advancements in **digital innovation** and **Industry 4.0 technologies** in the context of safety and sustainability in integrated steel plants.
* To discuss **best practices** in reducing man-machine intervention and improving safety standards using smart technologies like AI, IoT, and automation.
* To examine the role of **data analytics**, **AI**, **machine learning**, and **predictive maintenance** in improving plant safety, reducing risks, and ensuring operational efficiency.
* To promote **sustainability** in steel production by adopting energy-efficient technologies, reducing carbon emissions, and minimizing waste.
* To contribute to the broader vision of **Viksit Bharat**, a developed nation, by advancing the steel industry through technological innovation and sustainable practices.

**Key Focus Areas of the Conclave:**

* AI/ML-based predictive safety tools
* Industrial IoT (IIoT) for hazard monitoring
* Drone-based surveillance and inspection
* Digital twin and simulation for risk analysis
* Real-time data analytics for proactive safety management
* VR/AR-based training and hazard simulation
* Wearable tech and smart PPEs
* Integration of safety technologies in brownfield and greenfield projects

**Keynote Speaker:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl No.** | **Name of Keynote Speaker** | **Designation** | **Institution** |
|  | Shri. Lalit Gabhane | Director General | National Safety Council, Navi Mumbai |
|  | Shri Jhareswar Maiti | Professor & Former Head, Industrial & Systems Eng. & Founder Chairman, CoE on Safety Engineering and Analytics (CoE-SEA). He established the CoE-SEA & introduced the MTech in Safety Engineering and Analytics at IITKGP. | Centre of Safety Excellence, IIT, Kharagpur |
|  | Shri Jagdish V | Advisor | Centre of Safety Excellence, IIT Gandhinagar |
|  | Shri Ravindra P Bhave | Director | Regional Labour Institute, Kolkata |
|  | Shri Vineeth Krishna | Senior Manager - HSE  PA - Process Industries | ABB India Ltd. |
|  | Consent Received from Organization. Speaker Name awaited. |  | M N Dastur |
|  | Consent Awaited |  | SMS India |
|  | Consent Awaited |  | L&T |
|  | Consent Awaited |  | Siemens Ltd. |
|  | Consent Awaited |  | CORE EHS |

**List of Invitees/ JCCSSI Member**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **SN** | **Plant/Unit** |  | **SN** | **Plant/Unit** |
|  | BSP, Bhilai, SAIL |  |  | Bhushan Power & Steel Ltd. |
|  | DSP, Durgapur, SAIL |  |  | NMDC, Nagarnar |
|  | RSP, Rourkela, SAIL |  |  | VISA Steels Ltd. |
|  | ISP, Burnpur, SAIL |  |  | JGOM, SAIL |
|  | TATA Steel Ltd. |  |  | CGOM, SAIL |
|  | RINL, Vizag |  |  | OGOM, SAIL |
|  | JSW, Dolvi |  |  | TATA group of Mines |
|  | Tata Steel, NINL |  |  | ASP |
|  | AMNS |  |  | CFP |
|  | JSW, Vijaynagar |  |  | SSP |
|  | Tata Steel, Meramandali |  |  | VISL |
|  | Hospet Steel Limited |  | 25. | SSO (Ranchi) |
| 26. | RDCIS, SAIL |  | 27. | Mecon Limited |
| 28. | CET, SAIL |  |  |  |

**Publication of Souvenir**

**Message for Souvenir:**

1. CMD, SAIL
2. Director Technical
3. Director I/c BSL
4. All Executive Directors, BSL
5. ED (SSO)

**Technical Paper;**

1. From Above JCSSI Member/ Invitees
2. From Bokaro Steel Plant

# DRAFT PROGRAMME SCHEDULE

**Date:** 06th – 07th August, 2025.

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| **Day – 1:**  **06th August, 2025** | | |
| **Description** | **Time** | **Remarks** |
| **Registration/ Batch Distribution** | 09:00 am to 10:00 am |  |
| **Inauguration Ceremony** |  |  |
| Welcome Speech | 10:00 am to 10:15 am | CGM (Safety & Fire Services), BSL |
| Deep Lighting | 10:15 am to 10:25 am |  |
| Address - 1 | 10:25 am to 10:35 am |  |
| Address - 2 | 10:35 am to 10:45 am |  |
| Address - 3 | 10:45 am to 11:00 am | **Chief Guest - Director I/c, BSL** |
| **High Tea** | 11:00 am to 11:30 am |  |
| **Keynote speaker 1** | 11:30 am to 12:00 pm | 10 - 15 min for presentation and 10 minutes for discussion |
| Presentation and deliberation by plant 1 | 12:00 pm to 12:30 pm |
| Presentation and deliberation by plant 2 | 12:30 pm to 01:00 pm |
| **Lunch Break** | 01:00 pm to 02:30 pm |
| **Keynote speaker 2** | 02:30 pm to 03:00 pm |
| Presentation and deliberation by plant 3 | 03:00 pm to 03:30 pm |
| **Keynote speaker 3** | 03:30 pm to 04:00 pm |
| **Tea/ Coffee Break** | 04:00 pm to 04:30 pm |  |
| Presentation and deliberation by plant 4 | 04:30 pm to 05:00 pm | 10 - 15 min for presentation and 10 minutes for discussion |
| Presentation and deliberation by plant 5 | 05:00 pm to 05:30 pm |
| **Day 1Closing and High Tea** | 05:30 pm to 06:00 pm |  |
| **Cultural Night** | 07:00 pm to 10:00 pm |  |

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| **Day – 2:**  **07th August, 2025** | | |
| **Description** | **Time** |  |
| Registration | 09:00 am to 09:30 am |  |
| **Keynote speaker 4** | 09:30 am to 10:00 am | 10 -12 min for presentation and 10 minutes for discussion |
| Presentation and deliberation by plant 6 | 10:00 am to 10:30 am | 10 -12 min for presentation and 10 minutes for discussion |
| **Keynote speaker 5** | 10:30 am to 11:00 am |  |
| **High Tea** | **11:00 am to 11:30 am** |  |
| Presentation and deliberation by plant 7 | 11:30 am to 12:00 pm |  |
| **Keynote speaker 6** | 12:00 pm to 12:30 pm |  |
| Closing Session and Memento Distribution | 12:30 pm to 02:00 pm |  |
| **Lunch Break** | **02:00 pm to 03:00 pm** |  |