INSDAG YEARBOOK 2020-2021

INSTITUTE FOR STEEL DEVELOPMENT & GROWTH (INSDAG)

793, Anandapur, Ispat Pragati Bhawan
KOLKATA – 700 107
E-mail: ins.steel@gmail.com, Website: www.steel-insdag.org

INSDAG	Steel is the backbone of all industries and the basic ingredient for growth and development of a country. Traditionally, the fortunes of the steel industry have been linked to the economic cycle of the country. Per capita consumption of steel speaks volumes about the relative position of the country on the development frontier. In India the per capita consumption of steel stands low compared to developed and developing countries. Moreover, steel is completely recyclable and environment friendly. Hence, a large potential exists in furthering the usage of steel in various segments of industry. Institute of Steel Development & Growth (INSDAG), a non-profit making, member based organization established by Ministry of Steel and the major steel producers of the country. The Institute primarily works towards the development of advanced design methodologies & technical marketing by expanding applications of steel in different segments of industry, upgrading skills & know-how, creating awareness amongst potential users and communicating the benefits of steel. Our founding members are SAIL, Tata Steel Ltd., RINL, JSW Steel Ltd., and Arcelor Mittal Nippon Steel India Limited (AM / NS) apart from Ministry of Steel. INSDAG has got very good networking among the member organisations/professionals for exchange of ideas. The Institute is registered as a "Society" under Societies Registration Act of West Bengal. Director General looks after the daily affairs of the Institute and Executive Council provides guidance and direction. Two other functional committees namely the Working Group and Project Review Committee provide administrative and technical guidance respectively. The Institute has defined its mission, role, and functions and has evolved its short, medium and long term Activity Plans. The Institute primarily works towards the development of technology in steel usage and the market for the steel fraternity. Some of its roles are: Ø Creating awareness amongst potential users on affordability of steel. Ø Bringing out technical publication on steel applications. Ø Providing technical advisory services on materials, construction practices etc. Ø Upgrading the skills of work force by refresher courses / training programmers. Ø Communicating the benefits of steel through life cycle cost studies. Ø Providing requisite thrust to increase steel consumption in rural areas. Ø Assisting in the development of ancillary industries for creating new market.

INSDAG Year Book

2020-2021

Pydi Lakshmana Rao M.Tech (Str) IIT KGP

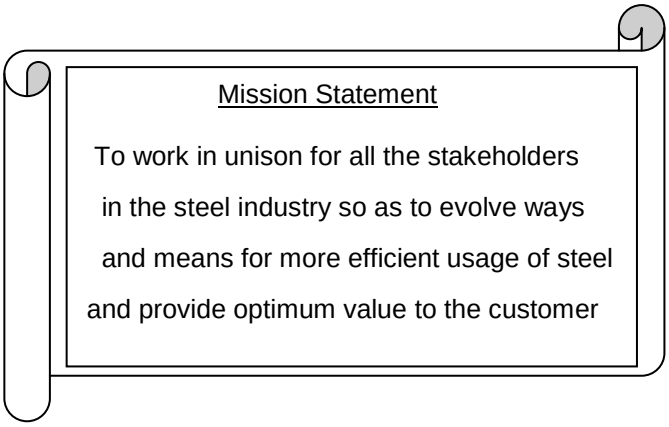
General Manager (Civil & Structural)

Institute for Steel Development & Growth

"Ispat Pragati Bhawan",793, Anandapur, Kolkata - 700 107

E-mail: ins.steel@gmail.com

Web Site: www.steel-insdag.org



Publication Number INS/ PUB/155
January 2023

Price Rs. /-

PREFACE

The primary drivers of steel consumption in the country would be massive infrastructure as well as the progress of a number of steel intensive structures like machinery & equipment, consumer durables and automobiles.

INSDAG Yearbook 2020-2021 contains the technical articles from experts in steel industry. The document contains article like Economy is Hallmark of Parallel Flange Sections – A Boon to the Indian Steel Construction Industry by Mr. Pydi Lakshmana Rao, Steel Concrete Composite Columns by Mr. Arijit Guha, Corrosion in Industrial Steel Structures and Mitigation by Mr. Pratip Bhattacharya; Mr. Manos Kumar De, High Strength Structural Steels by Mr. Asim Kumar Samanta, Efficient Construction with Steel Weld Mesh Fabric by Dr Jayanta Kumar Saha, Innovative Usage of Steel Hollow Sections in Steel-based Construction by Mr. Ravi Kumar, A Journey into the World of Corrosion by Ms. Sohini Mitra, Transitioning to High Strength Steel for Structural Applications by Mr. Tamilselvan; Mr. Sahil Aggarwal; Dr PC Ashwin Kumar.

We believe that the range and scope covered by the technical papers in the yearbook covering the high strength steels, new steel materials like welded wire mesh, parallel flange sections, composite construction, corrosion protection of steel structures and innovative use of steel hollow sections will definitely create interest in steel fraternity and increased use of steel intensive structures.

INSDAG Year Book

2020-2021

----------CONTENTS----------