



**Institute for Steel Development & Growth
(INS DAG)**

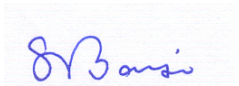
Ispat Pragati Bhawan, 793 Anandapur, Kolkata - 700 107

**MONTHLY ACTIVITY REPORT
JUNE 2019**

Promotional Activities

- ❖ Dr J K Saha-DGM attended seminar on Material Engineering and Science organised by EEPC, Kolkata on 17th June 2019. INSDAG displayed publications in the meet.
- ❖ Dr J K Saha-DGM attended Quality Control order meeting organised by Ministry of Steel on 11th June 2019 at New Delhi to dispose off imported Steel products.
- ❖ Mr D Datta, AGM has visited Sikkim Manipal Institute of Technology at Majitar, Sikkim and delivered presentation on the two design alternatives of the large span steel roof over their existing open air gallery. During the presentation their VC, Director and other Engineers & Professors of Civil Engineering department were present. They have selected one alternative and as per Mr. Datta's suggestion they agreed to provide aluminium turboventilators on the roof to reduce the excessive suction underneath the open roof in such a mountainous valley. As desired by them, Mr Datta has optimised the design with low (50%) suction and has submitted the revised drawings and BOQ of structural items for their consideration. SMIT has furnished survey data based on manual measurements and now they are conducting the detail survey of the site using total station machine. The drawings will be adjusted according to the final measurements.
- ❖ Mr D Datta, AGM has submitted final BOQ of two composite options of the high court building at Saket, New Delhi to M/s Everest Industries. Both the options are found to be cost effective with respect to conventional RCC design. Their client PWD, Delhi has accepted one composite option but suggested steel columns in lieu of proposed composite columns with increase in cost. Executive Engineer, PWD, Delhi has discussed the design in detail with Mr. Datta over telephone and has assured that he will be confirming the structural design assignment to INSDAG on nomination basis after consulting their Chief Engineer.
- ❖ The draft of INSDAG publication entitled "Design of Steel Connections" authored by Mr D Datta, AGM has been reviewed by Dr. Prem Krishna, former Prof. & Head of Civil Engineering, and Dean, IIT, Roorkee and Dr. A R Santhakumar, former Professor Emeritus, IIT, Madras and former Dean, Anna University, Chennai. INSDAG has received its ISBN number. The book is under printing. It will be sold through Flipkart, Amazon & also directly from INSDAG.
- ❖ Mr D Datta, AGM has been invited to be a member in a 3-member review committee of a survey on Life Cycle Cost of buildings being conducted by ThinkStep, Mumbai, a subsidiary of ThinkStep, Germany. They are referring the INSDAG publications on the subject authored by Mr. Datta for conducting this study.
- ❖ Following awareness programmes organised by INSDAG on steel framed puja pandals since 2002, presently every year 10-15 numbers such pandals are coming up in Kolkata during Durga Puja celebration. This year Mr D Datta, AGM has coordinated with two puja committees Santoshpur Avenue South (for procuring steel sections) and Shibmandir (design of their pandal) for erection of steel pandals.
- ❖ Draft code IS 11384, as prepared and compiled by Mr Arijit Guha-AGM has been approved by BIS and is under printing by BIS.
- ❖ Explanatory Handbook to IRC -22, 2015, as drafted by Mr Arijit Guha-AGM has been published by Indian Road Congress.
- ❖ Advanced Steel Design- A two day workshop was organised jointly by COEST-IIT Bombay, CEAI-WRA at IIT Bombay during 14-15 June 2019. Mr M M Ghosh-AGM delivered a presentation on Case Study of Indira Paryavaran Kendra (a building designed by INSDAG with Steel-Concrete Composite Construction). The program was attended by 140 participants.

- ❖ Mr M M Ghosh-AGM attended a Two day program of development of OSDAG- software being developed by IIT Bombay on Design of Steel Connections. He also deliberated on the occasion.
- ❖ Mr Shiladitya Chanda-Manager delivered presentations on a One (1) day Mason Training Programme conducted at Dharma, Medinipur, West Bengal in association with SAIL. About 50 contractors and masons attended the programme.
- ❖ Ms Nibedita Dey- Dy. Manager attended the workshop- Advanced Steel Design- which was organised jointly by COEST-IIT Bombay, CEAI-WRA at IIT Bombay during 14-15 June 2019
- ❖ Summer internship is being provided to two 3rd/4th year students of Jalpaiguri Engineering College for one month. Mr D Datta-AGM and Ms Nibedita Dey - Dy Manager are guiding them.



Sushim Banerjee
Director General

1.0 Project Activities

Project Scope / Objective	Publication	Codes & Standards	Survey / Study	Skill Development
	Seminar / Workshop	Implementation	Rural Promotion	Learning & Growth

1.01	Students Mentoring Programme for Final Year Engineering Students on Steel Applications		Project co-ord. JKS	Completion Time March 01, 2019
Project Scope / Objective		Skill Development		Learning & Growth
Milestone for the month	Achievement		Rolling Targets	
			Four (4) workshops are planned in July at IEST and JU after the universities reopen after summer vacation from mid July 2019	
Remarks				

1.02	Performance Evaluation of Different types of Pre-coated Steel Sheets		Project co-ord. JKS	Completion Time September 30, 2019
Project Scope / Objective		Survey / Study	Publication	Learning & Growth
Milestone for the month	Achievement		Rolling Targets	
	Exposure test racks are operational.		Next meeting will be organised at IITM along with Executives from JSW Steel	
Remarks	Exposure sites are working. Exposed Test Samples at Tarapur is being tested after one year of exposure			

1.03	Evaluation & Life Prediction of Galvanised Wires used in Farming & Fencing Applications		Project co-ord. JKS	Completion Time October 31, 2021
Project Scope / Objective		Survey / Study	Publication	Learning & Growth
Milestone for the month	Achievement		Rolling Targets	
Remarks	Project to start. Tata Steel is to send the copy of the MOU. NML has been informed to undertake the jobs of testing. All formalities are completed. NML has now revised the charges for by Rs 2 Lakhs as per their new rate. INSDAG has requested Tata Steel to approve the additional cost. INSDAG is following up with Tata Steel.			

1.04	Formulation, Updation of Steel Codes through MTD 4 & CED 54	Project co-ord. JKS	Completion Time March 31, 2019
Project Scope / Objective		Codes & Standards	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
Remarks	INSDAG has been associated with MTD 4, CED 54, CED 24 for formulation of steel related codes. INSDAG is providing useful inputs to BIS code committees and members in the panel. Attended BID MTD 4 committee meeting on 10 th & 12 th June 2019 on long and flat products. INSDAG has been made chairman for MTD 4.2 committee.		

1.05	Evaluation o various types of TMT Reinforcement Bars available in market	Project co-ord. JKS	Completion Time March 31, 2020
Project Scope / Objective		Codes & Standards	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
	INSDAG is finalising code, IS 11587 (weathering Steel), IS 15911 (Structural Steel General Purpose). INSDAG is also working on IS 15961, IS 15965 and Electro Galvanised Steel.	Samples are to be collected from the market.	
Remarks	Project started on 15 th March 2019.		

1.06	INSDAG Yearbook 2019-20	Project co-ord. JKS	Completion Time Dec 31, 2019
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
	Project has started		
Remarks	Invitation to probable contributors has to been sent. Two (2) papers have been received		

1.07	Guidebook on Steel Plate Shear Walls	Project co-ord. PLR	Completion Time June 30, 2018
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
Remarks	Draft is ready for printing. Printing process is going on.		

1.08	Design Guidebook on Steel Connections	Project co-ord. DD	Completion Time March 31, 2019
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
Ready for printing	Reviewers have commended the draft along with their suggestions for improvement	To get the book published in printed form by June 2019	
Remarks	The draft of INSDAG publication entitled "Design of Steel Connections" authored by Mr. D Datta, AGM has been reviewed by Dr. Prem Krishna, former Prof. & Head of Civil Engineering, and Dean, IIT, Roorkee and Dr. A R Santhakumar, former Professor Emeritus, IIT, Madras and former Dean, Anna University, Chennai. The book is under printing with an ISBN number.		

1.09	Design of PEB type Steel-Concrete Composite Buildings for R & R projects	Project co-ord. DD	Completion Time December 31, 2019
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
Specific details are worked out	Govt. Approved plan for night shelter proposed by Patna Municipality has been collected for design.	To complete the project within time frame	
Remarks	Contents of the publication have been finalised. Necessary information is being collected. Drafting of the publication is under process.		

1.10	Design of Connections in Steel-Concrete Composite Buildings	Project co-ord. DD	Completion Time December 31, 2019
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
Specific details are worked out	Some specific details of the composite structures followed internationally have been compiled.	To complete the project within time frame	
Remarks	Contents of the publication have been finalised. Relevant reference books have been purchased. Necessary information is being collected. Drafting of the publication is under process.		

1.11	Preparation of Guidebook on Design of Steel-Concrete Composite Box Girder Bridges for Indian Road Congress (IRC)		Project co-ord. AG	Completion Time March 31, 2019
Project Scope / Objective		Codes & Standards	Skill Development	Learning & Growth
Milestone for the month	Achievement		Rolling Targets	
Remarks	Since the draft has been prepared based on AASHTO code, it was decided that a fresh worked out example would be incorporated which was being jointly prepared by IITM & STUP. This example has been done by STUP consultants and is under review internally which will be sent for wide circulation shortly.			

1.12	Involvement and interaction in connection with revision of Steel and Steel-Concrete Composite Codes for Indian Road Congress		Project co-ord. AG	Completion Time December 31, 2020
Project Scope / Objective		Codes & Standards		Learning & Growth
Milestone for the month	Achievement		Rolling Targets	
	This is a continuous project.			
Remarks	The present committee is involved in IRC :24, Steel- Concrete composite Box Girder, composite Truss, Guidelines in Steel substructures, Arch Bridges etc.			

1.13	Revision of IRC: 24-2010		Project co-ord. AG	Completion Time March 31, 2020
Project Scope / Objective		Codes & Standards		Learning & Growth
Milestone for the month	Achievement		Rolling Targets	
Remarks	INSDAG has taken up the project which is under the purview of the B-5 committee of IRC. The revision has been initiated based on latest international codes and developments.			

1.14	Development of IS: 801 Code & Handbook for Design of Cold-formed Steel Members		Project co-ord. MMG	Completion Time Time Depends upon BIS	
Project Scope / Objective		Codes & Standards	Seminar / Workshop	Skill Development	Learning & Growth
Milestone for the month	Achievement		Rolling Targets		
	Presently INSDAG does not have any involvement.				
Remarks	The code is being prepared by a committee headed by IITM.				

1.15	Design Manual for Designing Steel Structures according to new IS 800-2007- Modification	Project co-ord. MMG	Completion Time Linked with release if IS 808
Project Scope / Objective		Codes & Standards	Publication
Milestone for the month	Achievement	Rolling Targets	
	Draft is ready	The manual can only be finalised after checking with the final IS 808. The job can be completed only after release of IS 808.	
Remarks	This modification is based on IS 808 which is under revision is yet to be finalised. The manual has already been modified but based on draft IS 808 code. The manual can only be finalised after checking with the final IS 808. The job can be completed only after release of IS 808.		

1.16	Webinar on Steel related subjects	Project co-ord. MMG	Completion Time March 31, 2019
Project Scope / Objective		Codes & Standards	Publication
Milestone for the month	Achievement	Rolling Targets	
Updation of website is underway	The project has been initiated.	Development of web site, establishing a payment gateway for financial transactions	
Remarks	Website needs to be utilised for collecting registration fees for webinars. Hence the same is being updated and agency for payment gateway is being explored. The project needs an extension as necessary infrastructures need to be in place. However Lecture material etc is ready.		

1.17	Manual for Erection of Steel Structures	Project co-ord. SC	Completion Time December 31, 2018
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
To compile chapter on "Inspection of Welds"	The chapter is partly completed.	All compilation will be completed by next two months	
Remarks	The project has been re-started.		

1.18	Energy Efficient Buildings with Steel	Project co-ord. SC	Completion Time Sept 30, 2019
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
	The project is partly completed	To induct one expert in Green Building into the project	
Remarks	Initial studies are being carried out.		

1.19	Design Study of Residential Building (G+3) - Comparison between Steel Concrete Composite and RCC options	Project co-ord. SG	Completion Time March 31, 2019
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
		Completing write-ups for other chapters	
Remarks	Project scope has been changed to G+3 from G+5 as per MoS requirement. A typical plan of a structure is collected for carrying out the comparative study. STAAD Analysis of RCC & Steel module is completed. Structural drawings of RCC option and Steel-concrete option have been received and sent to draftsman for incorporation of changes. Estimation of both the options has been completed.		

1.20	Design Guidebook for Beams with Web Openings	Project co-ord. ND	Completion Time Dec 31, 2018
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
	Draft is completed.	Review and modifications is underway. Will be completed by next two months.	
Remarks	Review is pending.		

1.21	Use of Cold Formed Steel section in Building Design	Project co-ord. ND	Completion Time May 31, 2020
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
	Initial work has started	Relevant literatures, write-ups etc are being collected and studied.	
Remarks			

1.22	Revision of INSDAG Guidebook on Structural Use of Steelwork in Buildings	Project co-ord. ND	Completion Time <i>To be decided in PRC</i>
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
	Revision of two chapters are completed	This publication is generally distributed to the students who participate in the Civil Competition for Students.	
Remarks	The publication needed a revision. The project will be proposed in the next PRC. The work has been started anticipating the need for the publication		

1.23	Analysis and Design of Tall Buildings	Project co-ord. ND	Completion Time <i>To be decided in PRC</i>
Project Scope / Objective		Publication	Learning & Growth
Milestone for the month	Achievement	Rolling Targets	
	Initial work has started.	Literature and Case Studies collected	
Remarks	The publication seems to be of great importance. The project will be proposed in the next PRC		

2.0 Education & Training:

2.01	Refresher Courses, Short Term Training Programme (STTP), Professional Development and Seminars	Project co-ord. MMG	Completion Time September 30, 2019
Project Scope / Objective		Seminar / Workshop	Skill Development
Milestone for the month	Achievement	Rolling Targets	
Preparation of PPT material for the Mumbai program.	Apart from Webinars Traditional training Programs planned	Advanced Steel Design- Jointly organised by IITB , CEAI WRA and INSDAG at IIT Bombay during 14-15 June 2019. INSDAG delivered a presentation on Case Study. About 140 Engineers took part in the program.	
Remarks	Following programs are lined up: 1. Advanced Steel Design - Jointly organised by INSTRUCT at Bangalore on end August 2019 2. Advanced Steel Design - Jointly organised by MASTERBUILDER at Chennai on end September 2019		

2.02	Award Competition for Civil / Structural Engg. Students: 2018-19	Project co-ord. ND	Completion Time December 31, 2019
Project Scope / Objective		Skill Development	
Milestone for the month	Achievement	Rolling Targets	
	Brochure finalised, printed, received from Printer		
Remarks	Hard Copy of the brochure is being distributed to prospective Colleges for inviting participation.		

2.03	National Structural Steel Design & Construction Awards Competition for Professionals 2016-2018	Project co-ord. MMG	Completion Time March 31, 2020
Project Scope / Objective		Skill Development	
Milestone for the month	Achievement	Rolling Targets	
Matter for brochure has been completed	The brochure has been finalised, approved for final printing.	Once receipt of the hard copy, the brochures will be distributed to prospective participants	
Remarks			

2.04	National Competition for Best Innovative Use of Steel in Architecture for the year 2019	Completion Time December 31, 2019
Project Scope / Objective		Skill Development
Milestone for the month	Achievement	Rolling Targets
Matter is completed	Brochure has been finalised, matter handed over to printer	Once receipt of the hard copy, the brochures will be distributed to prospective participants
Remarks	Hard copy of the same will be received soon	

3.0 Implementation Projects:

3.01	Design of Steel intensive Cold Storage at Siliguri	Project co-ord. DD	Completion Time
Project Scope / Objective		Implementation	Learning & Growth
Design of Cold Storage building		The design has been completed with Earthquake Zone IV requirements. All the structural members are Steel with RCC foundation.	Total Structural Steel requirement is about 510 Tonnes. Mild Steel sections like ISMB, ISMC, ISA are used.
Remarks	INSDAG has completed its design assignment. Construction shall be commenced by client shortly.		

3.02	Design of Steel-Concrete Composite Court Building at Saket High Court in Delhi	Project co-ord. DD	Completion Time
Project Scope / Objective		Implementation	Learning & Growth
Remarks	INSDAG has completed analyses of two alternatives of the Structure - one is with		

	Composite Columns, Composite Beams and RCC floors & foundations and the other with Composite Columns, Composite Beams and Composite Floors & RCC foundations. INSDAG has designed both the options and furnished the BOQs to the client along with a PPT on composite construction to be shown to the PWD, Delhi. M/s Everest has accepted the outcome as cost and time effective solution. EE, PWD, Delhi has accepted the design with composite beams and composite floors but suggested provision of steel columns instead of composite ones. Assignment for the structural design is awaited from them on nomination basis.
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3.03	Design of Steel Roof of the Indoor Stadium at Sikkim Manipal Institute of Technology, Sikkim	Project co-ord. DD	Completion Time
Project Scope/ Objective		Implementation	Learning & Growth
Remarks	INSDAG has designed two alternatives and has submitted them to the client for observations, which were accepted. Mr. Datta has given a presentation on these designs to their VC and Director in presence of other concerned Engineers. They have accepted one alternative. They have also accepted the suggestion made by Mr Datta to provide aluminium turboventilators on the roof to reduce the huge wind suction underneath the large open roof by 50%. Mr Datta has revised the design with reduced wind suction and has submitted the drawings and BOQ for their consideration. SMIT is conducting detail survey of the site by using total station machine and the drawings will be adjusted according to the final measurements. Tender will be floated soon for construction.		

AKS	Mr A K Samanta
JKS	Dr Jayanta Kumar Saha
PLR	Mr P L Rao
DD	Mr Debasish Datta
AG	Mr Arijit Guha
MMG	Mr Manas Mohon Ghosh
SC	Mr Shiladitya Chanda
SG	Mr Sajal Ghorai
ND	Ms Nibedita Dey