

Announcement for
NATIONAL STUDENT AWARD COMPETITION (2009-2010)
FOR THE BEST INNOVATIVE USE OF STEEL IN ARCHITECTURE
THEME: STEEL INTENSIVE VILLAGE

THE INSTITUTE

Institute for Steel Development & Growth (INSDAG) is a non-profit making, member based organization established at Kolkata by the **Ministry of Steel, Govt. of India** and the **major steel producers** in the country. The Institute primarily works towards the development of advanced design methodologies and technical marketing by expanding applications of steel in different segments, upgrading skills and know-how, creating awareness amongst potential users, providing efficient steel-usage technology /design aids / teaching aids, upgrading skills/know-how, disseminating steel related information / database, establishing intimate industry-university interface and communicating the benefits of steel vis-à-vis other competitive materials, etc. To promote steel usage in India, the Institute has identified various projects / thrust areas under the direction of its Executive Council.

THE MISSION

To accomplish its goals and objectives, the Institute has carved its mission as:

**To work in unison
with all the
stakeholders
in the Steel Industry
so as to evolve
ways & means for
more efficient use
of steel and provide
optimum value
to the customer.**

THE COMPETITION

To create interest among the students of Architecture in using steel as a medium of their architectural expression and in exploiting numerous advantages of structural steel as a material of construction, the Institute organises a "***National Competition for Students for the Best Innovative use of Steel in Architecture***" as a part of its Industry-University interface. Starting from the year 1999-2000, the Institute is arranging an interesting and exciting competition every year for the students of Architecture all over India with a view **to recognizing and rewarding the talents of budding Young Architects of tomorrow for "Excellence in Steel Architecture"**

THE OBJECTIVE

The main objective of the competition is to create awareness among the students on high potential of structural steel (as a material of construction), to expose them to the world of steel in depth and also to stretch their imaginations to make use of the unique properties of steel as a building material.

THE BRIEF & THE THEME:

This is the **11th year of the Competition**. The **Theme** of the competition for the year 2009-2010 is **Steel intensive village**. The **Brief of the Architecture Competition** is available in this booklet.

THE PRIZE

1st Prize : Rs.30,000/- + Scroll of Honour + Certificate
2nd Prize (2 nos.) : Each Rs.20,000/- + Scroll of Honour + Certificate
3rd Prize (2 nos.) : Each Rs. 10000/- + Scroll of Honour + Certificate

Further all submitted Entries will receive Participation Certificates.

ELIGIBILITY

The "**Competition**" is open to all the **first year to final year UG & PG Architecture Students** (for UG students, individual participant / team of maximum 4 students in the team & for PG students only one PG student either individually or in a team with maxm. three UG students) from any AICTE / COA approved University / Schools of Architecture in India. Each participating student is required to fill in the enclosed "**Expression of Interest**" form (photocopies are acceptable) for participation and **student membership form** (refer General Rules) and send both of these to INSDAG. Students who have already been enrolled as members of the Institute would mention their membership number only and need not pay any further membership fees.

THE SELECTION

Four Zonal Selection Committees (one each for East, West, North and South Zone) consisting of renowned Architects and Faculties will make the Zonal Ranking (and Screening) of Entries at each Zone. In this **Zonal Round**, a

max. of 16 (sixteen) best Entries will be selected (maximum 4 numbers from each Zone) based on the Zonal Ranking of the proposals, as per the criteria formulated by the Committee. The participants of 16 top scoring entries will be duly informed and called to Kolkata to appear before the **Central Selection Committee** in the **Final Round** of Competition to display and present their entries. The **COORDINATORS**

NORTH ZONE [Chattisgarh; Chandigarh; Delhi; Himachal Pradesh; Haryana; Jammu & Kashmir, Madhya Pradesh; Punjab; Rajasthan; Uttaranchal; Uttar Pradesh]

Prof. S M Akhtar

The Dean

Faculty of Architecture & Ekistics

Jamia Millia Islamia; Jamia Nagar

New Delhi – 110 025

SOUTH ZONE [Andhra Pradesh; Karnataka; Kerala; Tamil Nadu]

Prof. N Altaf Ahmed

The Director

MEASI Academy of Architecture

“Association Gardens”

New College Campus

87, Peter’s Road; Royapettah

Chennai – 600 014

EAST ZONE [Assam, Bihar; Jharkhand; Orissa; West Bengal]

Prof. Tapas Kumar Bhattacharya

HOD

Department of Architecture

Jadavpur University &

The Zonal Coordinator (East Zone)

Jadavpur

Kolkata – 700 032

WEST ZONE [Goa; Gujarat; Maharashtra]

Prof. Dhananjay Chaudhuri

Padmashree Dr. D Y Patil College of Architecture &

The Zonal Coordinator (West Zone)

Sector No. 29, Nigdi Pradhikaran

Near Akurdi Railway Station

Pimpri Chinchwad

Pune – 411 044

approximate timing of the same is around mid **July 2010**. However, the detailed programme will be intimated later on. The top five Entries will receive the **Awards**.

ENTRIES / APPLICATIONS

- **Last date of sending Expression of Interest – 28th February 2010**
- **Last date of sending entries 31st March 2010**
- EOI is to be sent to – Mr. Debashis Datta, Senior Manager, INSDAG
- Entries including drawings, summary, testimonials to be sent to respective Zonal Coordinators
- If selected for final round physical models, walk-throughs (optional) may be brought for presentation

SUBMISSION

The participants are invited to send their entries / application containing the following (given as guidelines only):

- Site Plan (A0/A1 Size) with all the details such as Landscape, cycle stand, approach road etc (Recommended scale 1: 200 / 1: 500)
- Detailed Architectural Drawings showing Floor Plans, Elevations, Sectional views, blow-up details etc highlighting the application of steel. (Recommended scale 1:100, 1:10)
- Perspective View of the buildings/structures
 - All other drawings shall be of A1 size and in printed form complete with Nameplates etc. (floppies will not be accepted). Name of participants and the colleges may appear in the drawings.
- A brief Write-up (3000 words maximum, duly typed on A4 size paper) on the work (consisting of the Summary, Introduction /Background, Considerations / Assumptions, Proposal Description, Highlights/ Special features, Innovativeness in Approach and Steel Application etc.)
- A brief Resume of participant(s) containing name, address, phone / fax / e-mail number, name of University / College, year of study, roll numbers

Request to Principals, Directors and HODs of all the Architectural Institutes.

This is a prestigious National Level Competition. You are requested to encourage & assign the Brief as a project / sessional work to the students.

and registration numbers and two (2) copies of recent passport-size attested photographs etc.

- A certification from the HOD of his / her Institution on office pad duly approving all the above information produced by the student (s) / applicant (s) and also certifying the originality of the work under the office seal / stamp.
- Soft copies of drawings/ reports/ presentation work may be submitted in CD form in addition to the hard copies.

GENERAL RULES

1. The participating students are required to enroll themselves as student member of INSDAG before submission of entries.

2. There is no limitation of the numbers of participating groups from any Institution.
3. Originality of work is essential and the application will be disqualified, if found otherwise.
4. The decision of the Expert Committee is final and binding. Canvassing in any kind will lead to disqualification.
5. Outstation candidates appearing for the final round of competition in Kolkata will be reimbursed with to-and-fro ordinary 3 tier sleeper class fare by the shortest route on production of proof of travel. Accommodation in Guest House / Hostel will be considered depending upon availability.
6. Family members/ relatives of Selection Committee/ INSDAG Staff are debarred from taking part in this competition.
7. All the entries / proposals received by INSDAG at all stages of the above competition shall be treated as property of INSDAG.
8. INSDAG will not take any responsibility in case of missing of any documents /communications (if any) from any side while in transit

THE BRIEF

The Central Government of India has allocated lot of funds in the present annual budget for the development expenses in the rural sector as a measure of growth in its infrastructure. A good number of Government agencies and NGOs are taking up several projects following various Gol's programmes called Yojanas in the villages.

INSDAG has selected the design of a steel intensive village as the Theme of this competition for the year 2009-2010. Participants are required to design innovatively the Rural Housings and other units as specified in brief, using the unique advantages of Steel as a medium of architectural expression.

THE BASIC REQUIREMENTS OF THE STEEL INTENSIVE VILLAGE ARE AS FOLLOWS:

- The village is located in southern part of West Bengal.
- The total number of villagers is 30000. The site plan (not to scale) is furnished in the Brochure along with the North direction and indicating the surrounding features.
- The village shall include the following housing units / facilities / services:-
 - **Rural Houses as per Indira Awas / Rajiv Gandhi Awas Yojanas of Government of India**
(Approximately 9000 numbers).
 - **Panchayat (Administrative) Building**
(Approximately two storeyed covering 1500 sq. ft. in each floor).
 - **Community Hall**
(1 number covering approximately 30 ft. x 60 ft.)
 - **Primary School**
(One (1) typical design for nine (9) numbers schools is required).
 - **High School**
(One (1) number two storeyed building is required to be constructed. Number of students may suitably be assumed by the designer).
 - **Health Centre**
(One (1) number two storeyed building needs to be constructed. The centre will provide services to about 1500 numbers of patients including both the outdoor and indoor services. Number of patients in indoor and outdoor may suitably be assumed by the designer).
 - **Overhead Water Tank**

(One (1) number Overhead Reservoir needs to be constructed catering facility to 9000 dwelling and other units near existing deep tubewell. Schematic water collection and distribution layout needs to be indicated). A water tank of suitable size needs to be located near it for fighting against fire hazard.

- **Toilet Block for Public**
(Five (5) numbers of urinals, water closets etc. separate for gents and ladies shall be suitably located by the participants within the village. Size of the units shall conform to the Architectural norms).
- **Cycle stand & Bus stand**
(One (1) number common Cycle stand, number of cycles may be suitably assumed by the designer, within the village near Bus stand meant for the rural commuters waiting for local buses). Both the cycle stand and bus stand shall be designed by the designer.
- Space for **weekly hut** and **cattle hut** need to be suitably located.
- One (1) **Playground** with galleries for local football and cricket matches need to be located near school.
- One (1) **village railway station** and one (1) **launch ghat** for ferries in canals need to be designed.
- **Sanitation system**
(Schematic sanitation system, individual or collective, needs to be indicated, details not required).
- **Internal Roads**
(Schematic layout of internal roads needs to be indicated along with the schematic area drainage, details not required).

✚ Length, breadth and height etc. of the different units / services, if not specified here, shall be determined by the participants as per relevant IS Codes / National Building Code / Architectural norms / Awas Yojanas of Government of India.

GUIDELINES

1.0 The following suggestions are made for design of the **Steel intensive Village**:

- The proposed Rural Housings / other units will be eye-catching in its features, quality, aesthetics and visual impact.***
- The Students are free to evolve the Steel Structures having any suitable shape satisfying the basic requirements furnished in the Brochure.***
- Larger column free areas inside the Structures are desirable.***
- INSDAG defines the competition problem to the architectural design of the Steel intensive Village and the village specified in the basic scheme, along with the plan area indicated in this Brochure. Innovative use of steel in the best possible way in roof and other structures along with the associated services is desirable. Any other parameters required for the design may be suitably assumed by the students.***

2.0 INSDAG desires that the Architectural scheme should take full advantage of the unique properties of Steel in all its forms to provide the basis of the design. Accordingly the followings may be noted while working out the schemes:

- Use of steel to the maximum extent in structural framing.**
- Use of steel elements in roofing, cladding, fascia, stairs, main entrance gates of buildings and other areas as far as possible along with other construction materials.**
- Use of Steel-Concrete Composite Structures could be proposed because it may be desirable to include RCC elements in some locations such as slabs etc.**

3.0 Emphasis should be laid on design process and conception of innovative steel structures of various forms tempered with the practicality of putting the concept into reality along with Structural Stability.

4.0 Fire Safety/Lightning Protection norms are imperative. Encasement with concrete may not be adopted.

DESIRED CONSTRUCTION TIME

The construction of each unit of the **Steel intensive Village** is expected to be completed in about one (1) month and the completion time of the construction of all units is about six (6) months.

CODES AND REFERENCES

1. Use of Internet and recent publications for obtaining information on similar Complex worldwide is suggested. However, direct copying is prohibited.

(Also refer rules under submission criteria in the announcement section)

2. Detailed structural design and cost estimation / plumbing and sanitary design are outside the scope of the competition.

However the following codes and publications may be used for reference purpose:

- IS:800, IS:801, IS:806, IS:875, IS:1161, IS:1893, IS:4923, IS:9595, IS:11384 – the latest versions of these codes are to be referred.
- National Building Code and other Guide Books.
- The candidates are free to refer suitable Indian/ British or other international codes as applicable.
- The INSDAG Design Competition for students of Architecture – A compilation of the outstanding designs for the competitions held 1999-2002 – INSDAG Publication No. INS/PUB/053.
- Reference manual for Structural Engineers – INSDAG Publication No. INS/PUB/003.
- Design Guidebook of Cost Effective Rural Housing – INSDAG Publication No. INS/PUB/049.
- Steel Structures in Rural Applications – Housing & School

Buildings – INSDAG Publication No. INS/PUB/052.

- Steel Structures in Rural Applications – Panchayat Meeting Halls – INSDAG Publication No. INS/PUB/074.
- Corrosion Protection of Structural Steels used in Buildings and Bridges – INSDAG Publication No. INS/PUB/005.
- The Fire Resistance of Composite Floors with Steel Decking (second edition) – INSDAG Publication No. INS/PUB/026.
- Design for Structural Fire Safety: A Handbook for Architects & Engineers – INSDAG Publication No. INS/PUB/033.

Steel Elements

All available **Steel Elements** may be used for the above purpose. These include:

- Mild Steel Rolled Sections including Beam Sections (wide flange, castellated etc), Channel Sections and Angle Sections etc.
- Mild Steel Fabricated / Built-up Sections
- Rectangular, Square & Circular Hollow Sections
- Plates and Flats, Rounds and Squares
- Wire Ropes
- Cold Formed Steel
- Corrugated /Plain/ Profiled Sheet
- Colour Coated/ Plastic Coated/Galvanized Sheet
- Stainless Steel Sheet and Sections
- High Tensile Steel, Weather Resistant Steel etc

OTHER POINTS

Except for the guidelines mentioned above, suitable rational assumptions may be made to complete the work. However, all the considerations must be clearly specified in the write-up.

SUBMISSION

Regarding submission criteria, please refer to **The Announcement Part** available with this booklet.

INSDAG PUBLICATIONS

For list of publications of INSDAG please visit our website

Some Continuing Activities of INSDAG

- Publications:
 - Steel in Construction
 - INSDAG News
- National Student Award Competition for Best Innovative Use of Steel in Architecture
- National Award Competition for Professionals on structural steel design and construction
- National Student Award Competition for Civil / Structural Engineering Students for Best Innovative Steel Design
- Revision of Codes and Standards (IRC & BIS)
- Executing real life structures using steel as major material of construction
- Training programmes for faculties as well as practising professionals on steel design

Visit us at www.steel-insdag.org

The Announcement and the Brief of this year's Competition is also available at INSDAG website for free downloading

ATTENTION PARTICIPANTS

The duration of this Competition is approximately THIRTY weeks, which will go by very quickly. We encourage you to start immediately by familiarizing yourself with the project requirements and planning your progress for each week through the competition. Develop your design and create fantastic presentation of drawings that everyone will be thrilled to review. We encourage you to be creative and imaginative with your design and presentation. This competition is a great challenge, provide your best and most importantly - **ENJOY**

GOOD LUCK!

EXPRESSION OF INTEREST FOR PARTICIPATION
(To be submitted on or before 28th February 2010)

NATIONAL COMPETITION FOR STUDENTS FOR THE BEST INNOVATIVE USE OF STEEL IN ARCHITECTURE
YEAR 2009-2010

You are requested to fill in this form of intent and return the same to the address given below in a sealed envelope along with a DD as mentioned below.

Name & Address of the college:

Name of the guiding faculty/ HOD:

Signature of the guiding faculty/ HOD with date:

Student's name:

Residential address:

Telephone No.:

E-mail address:

Student's name:

Residential address:

Telephone No.:

E-mail address:

Student's name:

Residential address:

Telephone No.:

E-mail address:

Student's name:

Residential address:

Telephone No.:

E-mail address:

I/We **agree to participate in the Competition** organized by INSDAG for the year 2009-2010 and would request you to enroll my/our name/s in your database for record. I/We also **agree to become Student Member/s of INSDAG** by paying Rs. 200/- only for each one of us (onetime only) through Demand Draft drawn in favour of **"Institute for Steel Development & Growth"** payable at **Kolkata** enclosed herewith.

Signature(s): 1.

2.

3.

4.

Date

Please send to:

Mr. Debashis Datta, Senior Manager

Institute for Steel Development & Growth (INSDAG)

"ISPAT NIKETAN", 1st Floor

52/1A Ballygunge Circular Road

Kolkata – 700 019

Telephone Nos: (033) 2461 4045 / 4047 / 4409 / 09231693829

Fax: (033) 2461 4048

E-mail: debashis@steel-insdag.org / insdag@rediffmail.com