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**Announcement for
NATIONAL STUDENT AWARD COMPETITION (2010-2011)
FOR THE BEST INNOVATIVE USE OF STEEL IN ARCHITECTURE
THEME: STEEL INTENSIVE MARTYR MEMORIAL**

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 12th year of the Competition. The Theme of the competition for the year 2010-2011 is Steel intensive Martyr Memorial. The Brief of the Architecture Competition is available in this booklet.

THE PRIZE

1st Prize : Rs.35,000/- + Scroll of Honour + Certificate
2nd Prize (2 nos.) : Each Rs.25,000/- + Scroll of Honour + Certificate
3rd Prize (2 nos.) : Each Rs. 12,500/- + 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 2011**. 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 2011**
- **Last date of sending entries 31st March 2011**
- EOI is to be sent to – The Director General, 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

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.

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

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 AC 3-tier sleeper class / AC Chair Car 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

INSDAG has selected the design of a steel intensive Martyr Memorial as the Theme of this competition for the year 2010-2011. Participants are required to design innovatively the Building and other units as specified in brief, using the unique

advantages of Steel as a medium of architectural expression.

*Ah! Not for idle hatred, not
For honour, fame, nor self applause
But for the glory of the cause
You did, what will not be forgot
-(Arthur clough)*

Mankind owes a lot to its martyrs. Every time that humanity has found itself in chains, held hostage to the choking hold of autocracy, despotism or sheer apathy; every time that the integrity of our nation and society has been at stake – a few have risen from the throngs of the masses and put their very existence in line to preserve and to propagate their cause. The Theme this year aims to honour the life and the deeds of the martyrs by building a memorial in steel for those who had nerves of steel. It is a means to remember the valour and uphold the sacrifices made by those who through their actions in life have become immortal in death.

The various parameters to be considered while selecting the site are:-:

- The site should be located within a metropolitan city and should be easily accessible.
- It should be integrated to the urban fabric of the city and should truly be within the urban domain.
- The space occupied by the memorial should be within 40000 Cu. M. It could be conceived in various permutations and combinations (For example – 50 m x 40 m x 20 m)
- There should be a strong rationale to the selection of the site. It could range from the physical context of the site to philosophical and metaphorical aspects of the cause or deeds of the chosen martyr.
- The site can be real or hypothetical. If a similar project has been proposed on the site, the details of the said project should be mentioned in the report and the presentation.
- If the site is hypothetical, the immediate physical context should be defined by the participants, including the chosen city, the

location within the city and the immediate neighbourhood where the project would be placed.

The Design Requirements

The “**Martyr Memorial**” would comprise of three distinct components:-

- **The Sculpture** – This component will represent artistic depiction of life / cause / deeds of the martyr. It should pay homage and also educate and inspire the visitors. The sculpture should be abstract – symbolic in its allusion, and should be fully integrated with the architectural fabric of the building.
- **The Interpretation Centre** – It would be a new-age museum with a display gallery, Audio-Visual Room, Scenographic Room or Multi-media Room – aimed towards disseminating knowledge to the visitors about the martyr, the cause and the memorial itself.
- **The Function Core** – This would entail all the features that are essential in making the said core functional. It includes the service areas, the administrative block, the circulation areas and so on.

The complex is to be designed for the public and activities should be created via architecture for the structure to behave as a public domain. The various components mentioned would be merged together to form an individual structure while still retaining their singular functions.

Judgement Criteria

The submission would be graded according to the following:-

- The choice of the martyr, site and philosophy to build the memorial and the rationale behind the choice.
- The physical manifestation of the brief in to the design – its form and functionality.
- The innovative and judicious usage of steel in the design.
- The presentation of the said design – via drawing sheets, model and / or walkthrough.

- The audio-visual presentation to the jury, in case the submission is selected for the Final round to be held at Kolkata.

GUIDELINES

1.0 The following suggestions are made for design of the **Martyr Memorial**:

- The proposed Martyr Memorial 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 Martyr Memorial as specified in the Brief. 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 Martyr Memorial** is expected to be completed in about one (1) year.

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.
- Multistoreyed Residential Building [B+G+20] with Steel-Concrete Composite Construction - INSDAG Publication No. INS/PUB/117.

- (G+3) & (G+6) Storeyed Residential Building with Steel-Concrete Composite Construction - INSDAG Publication No. INS/PUB/048.
- (3B+G+40) Storeyed Residential Building with Steel-Concrete Composite option - INSDAG Publication No. INS/PUB/104.
- Guidebook on Connections using HSEFG Bolts (Design & Installation) -INSDAG Publication No. INS/PUB/102.
- Guidebook on Embossed Profiled Sheet acting as Composite Deck - INSDAG Publication No. INS/PUB/079.
- Design Guidebook on Plain Profiled Sheets used as Roofing & Cladding - INSDAG Publication No. INS/PUB/059.
- 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/ Embossed 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](http://www.steel-insdag.org)

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 2011)

NATIONAL COMPETITION FOR STUDENTS FOR THE BEST INNOVATIVE USE OF STEEL IN ARCHITECTURE
YEAR 2010-2011

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 2010-2011 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. 500/- 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:

The Director General

Institute for Steel Development & Growth (INSDAG)

“ISPAT NIKETAN”, 1st Floor

52/1A Ballygunge Circular Road

Kolkata – 700 019

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