FERROCEMENT SOCIETY

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FERROCEMENT NEWS

It's time to promote steel-based construction, says Sushim Banerjee

The residential housing sector (G+3) use of steel has increased, but RCC construction still predominates as saving of space advantage (compared with concrete slabs)with steel is possible primarily for high rise buildings. By: Sushim Banerjee

Only a few years back availability of steel in required sizes and grades at all locations in the country was an issue that prompted many builders, contractors and masons to recommend concrete-based designs and construct houses requiring minimum volume of steel. Things have appreciably changed for the better, thanks to the efforts made by major steel producers, that numerous local dealers, distributors, shop owners emerging in the vicinity of construction areas with limited steel inventories of rebars, light structurals for foundation and columns and coated sheets for the roofing.

Thus in the residential housing sector (G+3) use of steel has increased, but RCC construction still predominates as saving of space advantage (compared with concrete slabs) with steel is possible primarily for high rise buildings. For one story low cost houses, innovative technologies like ferro-cement in place of bricks for cladding and wall with sandwich panels and light steel frame structures (including hollow tubular) have been implemented by INSDAG in tribal villages and other places.

The cost per square feet is well within the limit prescribed by the government under the Pradhan Mantri AwasYojana. The casting of ferro cement panels is easy to make in the rural and semi-urban areas. The same technology can be applied in making anganwadi, primary health centre, school building, community/ panchayat halls, weekly market sheds, small warehouses where column free, long span space is ideally suited for steel based construction.Steel based toilets both for individual houses and for the community, would reaffirm the spirits of the Swatch Bharat programme.

The concept of a model steel village would, therefore, fulfill our basic commitment to create a pollution free and environment-friendly atmosphere and would many ways improve the quality of life of rural population. The use of steel in making household items like tables, chairs, furniture, storage bins, fencing and trunks is getting increasingly popular.

Steel based small span (2M/3M/5M) culverts and bridges, steel poles for electricity transmission as part of GrameenUrjaYojana would provide a durable, strong and much faster solution. But the whole concept needs widespread awareness campaign. It is well established from structural engineering point of view that while steel is strong in tension, concrete is strong in compression. An ideal design must blend the strength of steel and cement in steel concrete composite design. In UK, US the steel concrete composite design for residential houses has become popular.

One constraining factor to popularise more use of steel based household items and in general construction, be it in the rural or urban localities, is the lack of fabrication facilities or surplus feast of bad fabricators in these areas who make a mess of steel based fabrication. An ugly welding makes fabricated structures look awkward and discourages the prospective users.

The masons and the small contractors are the real influencers for the individual households when they decide to build a house or any other structures for other purposes. It is essential that these masons are trained to learn the basics of steel based construction, bar bending, use of good quality TMT bar (BIS certified) in construction, earthquake resistant detailing, safety practices in storing, bending. It may be mentioned that although more than 3500 numbers of masons have been trained by INSDAG in association with SAIL, Tata, RINL, JSW, there is an enormous need to enhance the coverage. The training in fabrication, erection and Welding are the three corners of steel based construction and skilled hands in all these segments would fill up the triangle of good construction practices.

Ferrocement Garden Structure



Salem (Tamil Nadu) :The interest towards ferrocement seems to have increased among the engineering students recently. Projects are being undertaken to study the mechanical properties of ferrocement and also its applications. Students showed interest in the construction of ferrocement structures within the college premises. The ferrocement garden structure was constructed as a part of the project work done by the part time B.E. Civil Engineering students S.Obuli Narayanan, R.Ranganathan, R.Satish and G.Venkateshwaran of Government College of Engineering, Salem under the guidance of Dr. D. ShobaRajkumar. The structure gives the appearance of big boulders being arranged one above the other. But it was actually constructed as a light weight structure using ferrocement. The wall thickness is of 25mm made with Cement mortar of 1:3 and water cement ratio of 0.45 with Weld mesh of 25mm size used as reinforcement. Soil was filled on the inner portion and plants are grown. A shell was also made of ferrocement and placed in front to improve the aesthetics of the structure.


Ferrocement members visited Sri Lanka.

Recently a ten member team visited Sri Lanka. Prof Sunil Kute discussed many things like opening a ferrocement chapter in Sri Lanka with Prof.RanjithDissanayake, Senior Professor, Department of Civil Engineering, University of Peradeniya, Peradeniya. GirishSangle, Hon Secretary, presented some ferrocement publications to this University. Members also visited National Engineering Research & Development Centre of Sri Lanka, Ekala, Jaelawhere W. P. R. D. Weerasinghe,Principal Research Engineer showed all the ferrocement activities. A foot bridge is already constructed and tested in this campus. Many small houses, silos, shells etc are developed by the researchers in the technology park.ErWeerasinghe assured to participate in the FS2017 event in Kerala. KiranRajurkar, JayantMurudkar, ChandrashekharHangekar, NandkumarJadhav, NamdevWarade were also present in the study tour.

Water line from dam to homes

Felix Chaudhary

Water Authority of Fiji chief executive officer OpetaiaRavai (third from left) with invited guests at the Abarela settlement water project commissioning in Navosa. Picture: SUPPLIED

A SETTLEMENT that relied on the Sigatoka River as a water source now has clean water pumped directly to their homes.Residents of Abarela settlement in Navosa have the Water Authority of Fiji to thank for building a new dam and installing pipes that channel water directly from a dam to the settlement.For the 132 residents, the commissioning of the $211,327 project last Friday by WAF chief executive officer OpetaiaRavai meant an end to irregular supply."The new dam is located in the hills 1.2 kilometres outside the village," said Mr Ravai."And the works also included a 10,000 gallon ferro-cement tank, the laying of 3.4 kilometres of 50mm diameter PVC pipes as well as the installation of 31 standpipes and showers."

Mr Ravai said a direct line was also laid to cater for 10 households located in elevated areas of the Abarela settlement.He said a contract was signed between WAF and the Abarela settlement water committee for the supply of labour to assist in construction works.As a result, a cheque for $6475 was presented to the water committee after the commissioning of the project."This empowers the water committee to be responsible for ongoing maintenance and repairs, thus ensuring the longevity and sustainability of their water supply system," said Mr Ravai.The project is managed by the WAF rural unit under the Government's Rural Water Scheme.

Anupama Kundoo uses ferrocement to create pioneering "Lego-like" house

Venice Architecture Biennale 2016: Indian architect AnupamaKundoo has unveiled a prototype house that can be built in just six days using Lego-like blocks of a material called ferrocement.

Kundoo brought skilled stone masons from India together with engineers from Germany to create the Full Fill Homes model, which is installed inside the Arsenale for the duration of this year's Venice Biennale.

As with several of the architect's previous projects, the full-scale house showcases the potential uses of ferrocement – a material made by layering mortar or plaster over metal mesh.

According to Kundoo, this engineered material offers a wealth of opportunities for architects but is particularly well suited to creating flexible and cost-efficient housing solutions, in India and elsewhere.

"It is a very high-tech material, ferrocement, but it also can be seen as low-tech, because it is hand crafted," she told Dezeen during a tour of the installation, adding that the material is affordable for even the most deprived regions.

"We're not just talking about affordability in terms of money here, we're also talking about impact on the environment," she said. "We can't afford to keep building the way we do."

Kundoo'sFull Fill Homes model is installed inside the Arsenale for this year's Venice Architecture Biennale

Ferrocement blocks used in this Full Fill Homes model can be produced in the backyards of masons' homes, providing an additional income

"We are trying to use simple blocks – Lego-like blocks, kitchen blocks, furniture blocks – for all of the materials and storage in the home," said Kundoo. "In small homes, people need much more space for storage than people who have big houses, because the same number of things have to be accommodated," she explained. "So the voids are actually very ergonomically designed to contain enough spaces for all your needs." "But these boxes are also the right size to be benches, to double up as bed platforms, all of that," she added. "They offer a strategy, where you can build everything in the home in stages."According to Kundoo, a Full Fill Homes property can be assembled in six days and disassembled in a single day. It is also designed to withstand strong winds and mild earthquakes. This prototype was built using materials recycled from the German Pavilion at the Venice Art Biennale 2015. When this year's Biennale is over, the house will be transported to nearby Marghera to provide a residence for homeless people.

The largest ferro-cement span in the world ... underneath the cultural centre's canopy. Photograph: Michel Denancé

Built for giants … the Stavros Niarchos Foundation Culture Centre, Athens, by Renzo Piano. Photograph: Louisa Gouliamaki/AFP/Getty Images

ATHENS NEWS-

A wafer-thin canopy floats at the top of a hill in Athens, hovering like a sheet of paper caught in the coastal breeze. Held in place by a gossamer grid of columns and wires, and crowned with a central mast, the structure has more in common with the world of sails and rigging in the nearby harbour than the weighty domain of buildings on land – a feeling that might be explained by the preoccupation of its designer, Renzo Piano.

"What I really do in life is sailing," says the 78-year-old Genoese architect, standing on the roof of his latest €600m cultural complex, which combines a new national library and opera house in one gargantuan artificial hillside, topped with the thinnest concrete roof the world has ever seen. "The ingredients are the same in architecture: light and air and breeze."

As ever, Piano makes the decade-long process of raising this cultural acropolis sound as effortless as taking a dinghy out for a paddle. Yet the challenges the building now faces are rather more weighty. As Greece descends ever deeper into crushing levels of national debt, with the culture ministry's budget slashed by half since 2010, it is a fraught time to be unveiling one of the biggest cultural projects of the century – especially one that will require 900 staff.

Engineered by London firm Expedition, the roof is a tour de force of ferro-cement and clever seismic technology. Subtly curved like the wing of a plane, it is formed from a shell of concrete just 2cm thick, reinforced with a dense cage of fine steel mesh, which encloses a 3D steel truss, all held up on a sprung suspension system that allows it to move in the event of an earthquake. It is the largest ferro-cement span in the world, a material Piano first used in 1971 – to build the hull of his first yacht.

More nautical details emerge within the cavernous volumes of the library and opera house below, where access decks and staircases are hung from tensile wiry rigging and edged with glass balustrades, while the auditorium balconies are made from curved wood echoing little boat hulls. The whole place is exquisitely crafted, a testament to both the Greek builders and Piano's team (his practice isn't called "building workshop" for nothing).

Maybe it's the lack of books and all the expanses of marble, steel and glass, but in places it feels a little sterile – more lab than library. From the outside, it also lacks some of the warmth you might expect from a house of culture. Encountering the thing from the sea, it looks more like a maximum security prison. A blunt cliff-face of concrete greets the harbour, in a defensive response to the eight-lane highway that roars along the seafront, from where the rooftop piazza looks more like an elite corporate events space than an accessible agora. With a yawning funding gap, one can only hope that won't end up being its primary function.

Ferrocement, new material for construction

Researchers at the National University of Colombia, Manizales, study the behavior of a new earthquake resistant material

Researchers from UN Manizales study the behavior of a new seismic resistant material for the manufacture of houses: ferrocement. Based on the study previously carried out at the Medellín headquarters by the now-teacher and researcher of UN Manizales Daniel AlveiroBedoya Ruiz, this new application offers housing and infrastructure benefits in the constructions that apply it.

"The study emerged as a concern I had about my profession on how I could contribute to society through the new structures, a branch of Civil Engineering that has most passionately," said Bedoya Ruiz.

Ferrocemento is an alternative material for the construction of different types of structures, especially of houses, that allows to design and to construct through economic means and that respect the environment.

The added value provided by the Academic Working Group in Seismic and Seismological Engineering of UN Manizales is the study of ferrocement from variables such as seismicity, resistance, habitability, decent housing, sustainability, among others.

Although this material will also be used according to families of economic strata one, two and three, the development of researchers of the Institution is based on an innovative component that could generate a patent.

"The first function to be advanced is to determine the seismic behavior of the material because it is already optimized, it is also a new material and different from that used in social housing, since they are innovative materials with characteristics such as flexibility, thinness and use in Some cases of agro-industrial waste, "added the researcher.

At the moment the group is waiting for the last approval from the Administrative Department of Science, Technology and Innovation - Colciencias, to begin with the final studies of the material, already used in countries like Germany, Mexico, Thailand, among others.

"The research emerged when observing the little satisfaction that the human being has in needs such as mobility and resources, characteristics that as Civil Engineers we can and are called to solve," said the teacher.

Floating houses: an option to inhabit wetlands without destroying them

A witness case advances in the Luján river basin; Unlike other neighborhoods, the land was not filled, so the property still receives overflows; They warn that it alters the ecosystem

The houses in Hippocampus, a development in Maschwitz, float on a channel over ferrocement blocks. Photo: LA NACION / MaximilianoAmena

The house has two floors and 52 square meters. It floats on a channel that soon flows into the Luján River. When it grows, the neighborhood is flooded. And the house continues to float, but one or two meters above the level of the land, which becomes a mirror of water. This is how AnibalGuiser lives in the Hippocampus neighborhood, an undertaking made on a Maschwitz swamp that began to become a witness case to analyze what are the most sustainable forms of inhabiting wetlands without destroying them, as many researchers and environmentalists report. Most of the closed neighborhoods that rose in the basin.

"We naturally accept that water rises and floods the area," says Guiser, who is 58 years old, was an actor and television producer and that in 2005, cornered by the debts, sold his house of Agronomy to cancel the accounts and buy Seven hectares of marshes about 500 meters from DiqueLuján. They belong to Escobar, municipality that at the end of last year approved an ordinance that prohibits new developments in 6000 hectares of wetlands in the area of islands.

The project of Guiser, promoted in partnership with film director Fernando Spiner, plans to generate a neighborhood for 35 families. To achieve this, instead of filling the ground, deepened the wettest sector. It took two meters of soil in 25% of the lot; Produced a canal and small bays on which already five houses float. "I do not consider myself a conservationist, but someone who seeks to protect an area as natural as possible to occupy it in a harmonious way causing only those losses of the environment that are unavoidable to inhabit it," argues Guiser, and repeats that on days of flood the farm receives Water and is flooded, so it did not change its wetland characteristics.

In addition to the expansion of monocultures such as soybeans and logging, the filling of wetlands to develop neighborhoods is one of the main reasons why NGOs and specialists explain the overflow of the Luján River. "If you compare this type of venture with the nautical neighborhoods built on large wetland areas, the affectation is clearly smaller, a little on the smaller scale and also because they do not try to transform an aquatic ecosystem into an earthly ecosystem," says geographer Patricia Pintos , Member of the Center for Geographical Research (CIG) of the National University of La Plata, but clarifies: "However, for the production of water mirrors in the Hippocampus neighborhood requires major soil movements that denature the ecosystem." The five houses of Hippocampus are made of wood and float on blocks of ferrocement. These structures can hold houses of more than 50 tons and do not require maintenance for at least a hundred years. This is ensured by its creator, Pablo Rubio, an autodidact who has his house in front of the Luján. "If you're going to build a $ 100,000 building, you're going to have to invest $ 20,000 more in the floats," he says. "I do not know if Hippocampus's design is the best, but Floating houses can be a solution to live in wetlands and allow water to enter and exit. In addition, from the point of view of the developer's profitability, this scheme costs less than bringing land to fill, "says Rubio. He asks to clarify that his intentions are not to sell the system of floats, The houses that float in Hippocampus are legally not houses and therefore may be floating. Otherwise they would have to be on solid ground, on a filling of the wetland. "The figure with which we work the neighborhood is the consortium of moorings," says Guiser. In any case, the neighborhood presented the environmental impact study before the Provincial Sustainable Development Agency.

Anna University Chennai Geopolymer Seminar.

ICI, Chennai with Anna University COE, GUINDY, organised one day seminar on Geopolymer technology. The event was sponsored by Kiran Global Chemicals. ErChandrashekhar and Hon Secretary GirishSangleparticipated the event. Prof N P Rajamane was the man behind the success of the seminar. The chemistry was very lucidly explained by all the lady professors and doctors. In future the geopolymer use is going to increase for reaching early strengths in concrete, so its use in ferrocement can not be neglected.

Ferrocement tank 12000 litres constructed by villagers..

Tonpewadi(Maharashtra)-Er Ulhas Paranjape, from JalVardhini foundation, Mumbai arranged a training program for the villagers near panchgani. Size of the ferrocement tank is 10feet 3 inch diameter and 5 feet height. Nearly 12000 litre water will be stored for drinking purposes. Grampariis a venture of Friends of Moral Re-Armament(India), Panchgani working in Rural area. Many young boys were inspired by this training and they now started to construct such tanks by their own therby saving the labor cost. The expenses for this tank were only for the material I e Rs 28000. The villagers had involvement in construction so they will maintain the tank very carefully now.

Casa Odon.Designed for a family of four, two adults and two children

Building Name: Casa Odon.Designed for a family of four, two adults and two children. The concept for design arose from the idea of a different space, which was not linear, but with an architectural aspect full of curves, but without being so organic.

Courtesey-Arquimaster, From PINTEREST

The number of premises required by the client consisted of living room, dining room, kitchen, a bathroom and a half bathroom for the service of the ground floor. Initially the client requested a project with more spaces, but the budget did not reach the initial proposal, because it required the integration of two commercial premises in the ground floor, which generated a larger area and therefore a higher cost to its budget.

It is a house with very specific spaces and ordinary dimensions, but with very special characteristics, since the geometry of the premises is not common, the lack of orthogonal lines gives a touch of greater movement.

It was possible that the house had a common spatial organization without losing sight of the plasticity of non-orthogonal forms, and the only way to construct these free forms was to use the constructive system called ferrocement, which allows us to design spaces with non-orthogonal free forms , Without becoming organic, this with the idea that the user is adapting to a new geometry of their home, given that most Oaxacans are accustomed to living in traditional spaces.

Following the same idea, a building with a minimum of spaces was designed, without the commercial premises, required by the client at the beginning, but a different access porch to the traditional one was included, considering that, the inhabitants of the valley of Oaxaca have by habit Go out to a portal or corridor to get some fresh air.

On the ground floor there is a space in the main entrance that works as an open hall, it is a small portico but with a pleasant view to the front garden of the house, trying to make the portico fulfill the function of transition between the outside environment with Greater warmth to the freshness of the shaded space.

From this space you can directly access the interior lobby that serves as a distributor to the rest of the premises. It has a room that is located independently of the dining room. The interior lobby is of a short distance which makes the spaces feel very close but with a certain privacy, since undoubtedly this custom is very rooted in the daily life of the Oaxacans, in such a way that the room and the dining room are Are separated by a staircase and a dresser, which lies just below the staircase.

At the same level, is integrated the kitchen with direct access from the dining room with the idea that the two spaces fulfill the function of eating, when integrating a breakfast bar directly to the dining room, the kitchen is connected to the outside by means Of a door that is located on the north side, to have access to the service yard to be built later, to locate the laundry area and the drying area.

The space of the upper floor is connected by means of the general vestibule and the staircase which has a window that perfectly illuminates the whole staircase and the vestibules, this makes that the interior space of the house sits with greater amplitude.The idea of the client was to make his house look very large, but with small spaces, since his budget was not more than six hundred thousand pesos, and that amount was the ceiling to design a space of these characteristics.

The main lobby has the characteristic of communicating to the other spaces immediately, with this we achieve savings in space, the bedrooms and the full service bathroom is very close, since the lobby is very small and makes the spaces project bigger familiarity.

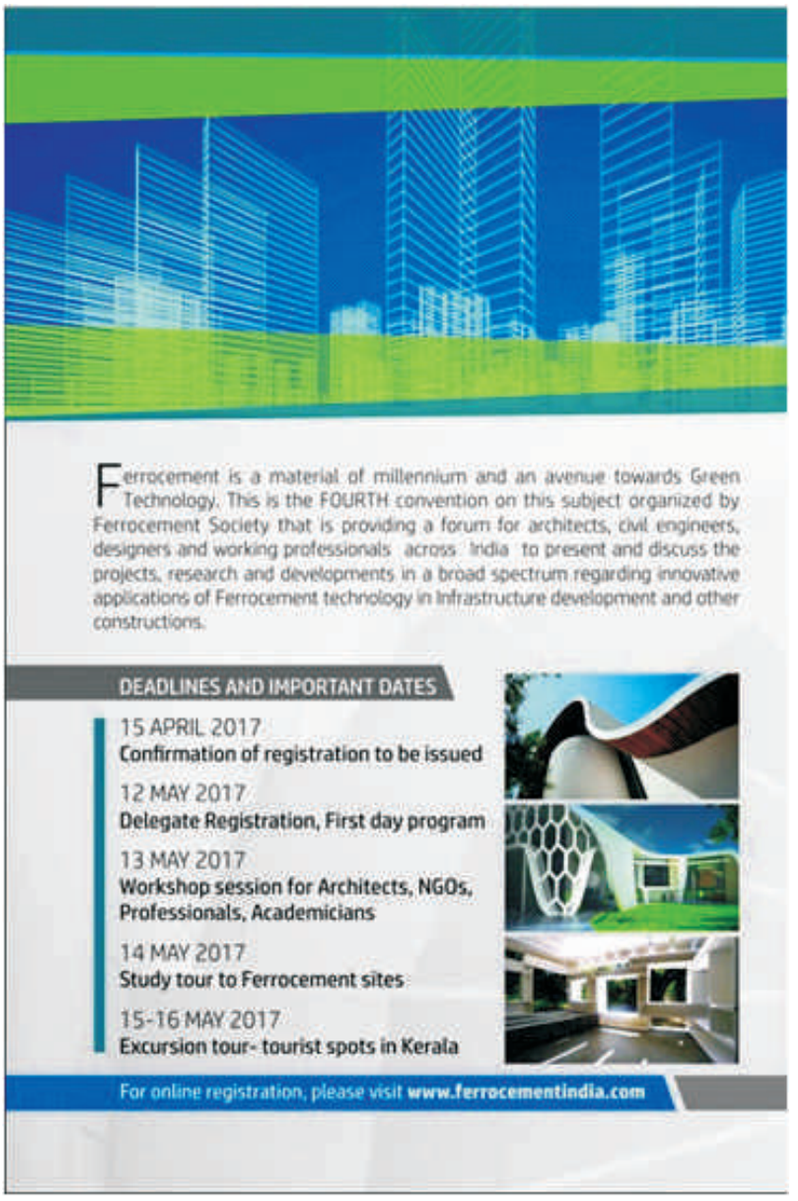
Location : New York, United States
Design and construction :
Architect Jesús Sánchez Luqueño
Owner : Mr. Odon Caballero Martínez
Construction area : 58.60 m2 on the ground floor and 52.00 m2 on the first floor
Total area: 110.00 m2 **Year : 2014-2105**

FS-2017 will be successful-Biji John.

Peroor- Casa Maria, Peroor is quite waiting for the delegates of FS 2017. Many innovative papers will be presented in the National Convention during 12-14 May 2017. Ferrocement Society, India has organised this 4th big event and the convener is Biji John, from Ferrotechnologies, Chenganassery, Kerala.

Angus Macdonald, Architect, USA (Am-Cor) has given consent to deliver key note on the industrialisation in ferrocement. Delegates from Bangla Desh, Sri Lanka, Singapore are likely to attend the convention.

The program also includes the study tour for ferrocement construction sites followed by nature tour in KERALA, the green state in INDIA. Delegates can visit the website and enrol for the convention online. The limited rooms are available for delegates, so Chandra Mohan Co convener requested all the interested delegates to enrol early and send email for booking the rooms.



SHORT NEWS

This is a Book published by Jalvardhini Pratishthan and is in English and Marathi language.

On 15th Oct. 2016 at Pani Parishad organised by Dr. Hedgewar Smarak Sevanidhi at Nagar, a Book Titled **"Let us Collect Water Using Ferrocement Technology"** was released By Dr.MadhavraoChitale, RSS Kshetriya Prachrak Dr. Ravindra Joshi, Kshtriya Seva Pramukh Dr.Upendra Kulkarni

GUHAGAR - Maharashtra- Jalvardhini Pratishthan builds ferrocement water tanks for villagers. Shri Vijay Khare and Janardan Bhagat went to Velam--Pangari in TalukaGuhagar to build ferrocement Tank of !4 feet Dia and 4 feet in height at ShriDilip Vane's Land in September 2016. From Monday work started and on Thursday the tank was completed with the help of local Mason.8 Masons participated in training activity. Er. Senger from MJP / Jalswarajya was present for first 3 days and Er. Hrishikesh Davalbhakata from MCGM was present on 4th day at site. (They were on leave on those days from their respective offices) Many people from taluka agriculture Department, Panchayat Samiti, Farmers, Reporters visited this site while the work was in progress.

Owner contributed cost of Plinth + cost of Sand + Labour
Jalvardhini provided other material + supervision
This is the 5th Tank in Taluka Guhagar. Total capacity created in TalukaGuhagar is about 55,000 litre. For more information people can contact-

Er. Senger---------- 09222317360
Er. HrishikeshDavalbhakata---- 08108907778
Farmer Dilip Vane---------- 08975282366

Workshop in MIT college of Architecture, Aurangabad.

Workshop at Sanjeevani College Kopargaon.

Ferrocement design workshop at META Nashik.

Ferrocement Day 2016

Results of All India Competition for best Ferrocement Structure

Shrishilp Consultants, Aurangabad has been declared as the winner of the competition for constructing a ferrocement small dam near Satara village in Aurangabad.

Ferrocement is a really old technology which emerged before cement concrete, i.e. in 1847. But due to ease in construction, reinforced concrete superseded and became popular. However when curved shapes and light weight construction is required engineers and architects have no other alternative than ferrocement. Ferrocement Society of India has its head office in Pune. Society is promoting this technology as this also gives solutions for earthquake resistant houses. Ferrocement is one of the components in GREEN housing concepts. Ferrocement Society has decided to celebrate 3rd September as the Ferrocement Day every year, in the memory of Great Engineer Late V.D.Joshi.

Every year national level competition for selecting best ferrocement structure is organized for engineers and architects and the winner gets the Late V D Joshi Award. This is the fourth year. Arch. AnupamaKundoo, Arroville, Arch. Ajay Thosar, Pune, Er. Biji John, Chenganassery, Kerala were the award winners of previous competitions.

Shrishilp Consultants have built a small water conservation dam attached to a road culvert. Normally so many culverts are constructed to pass the rain water below the road. But if a small bandhara is built so as to pass the overflowing water over it and storing the excess water, it acts as a conservation dam. The ground water table is increased in the adjacent area. This concept is more popular in Gujarath. Use of ferrocement has made it possible to save the material and cost also. The photograph shows the wall thickness of the ferrocement wall is much less than concrete. The structure is appreciated by many people.

Shri Girish Sangle, Hon Secretary of India Ferrocement Society said that, the award will be given to the winner, Shrishilp Consultants in Sir J J College of Architecture, Mumbai on 2nd September 2016. This year Reliance Foundation, Mumbai, Amaltas Niketan, Bihar, Amrutvahini College of Engineering, Sangamner, Archivista, Pune, were the other competitors who will also be felicitated for their contribution.

4TH NATIONAL CONVENTION

fs 2017 INNOVATIVE APPLICATIONS

4TH NATIONAL CONVENTION

Peroor, Kottayam, (KERALA), India, May 12-14, 2017

"Innovative applications"

CONVENTION VENUE

The convention will be at Casa Maria, Peroor, Kottayam, (Kerala) INDIA. Kerala is famous for the greenery and tea production. This venue is 10 km from Kottayam railway station and 70 km away from Cochin. Cochin is served by direct charter flights from various cities in India. Taxi service is available.

CONVENTION FEES FOR REGISTRATION

The fee Structure and various concessions shall be as below.
(Cost of Excursion tour is not included)

Sl. No.	Type of registration	Fees per delegate
1	Registration fees INR	₹ 5000
2	For group registration, 5 or more delegates	₹ 4000
3	For technical partners (Maximum 10 delegates)	₹ 4000
4	For Life members of FS	₹ 2000
5	For students of Architecture/Engineering (I-card essential)	₹ 1000

The registration fee must be paid directly to the "FERROCEMENT SOCIETY" by Demand draft, or cheque drawn on any bank payable at Pune. Also fees can also be paid directly in the nearest branch of ICICI bank accounts of "Ferrocement Society" in cash also. The details of ICICI bank account are as below.

Account Number - 646101050896, IFSC Code ICIC0006461, Erandwane Branch, Pune.

The registration forms, duly filled along with soft copy of a photo shall be sent by email or by post RPAD, after paying the fees in bank. Note that credit cards cannot be accepted for the payment of conference fees at the conference site. Leading Author of any accepted paper will not be required to pay for registration of Convention.

DEADLINES AND IMPORTANT DATES

5 February 2017	Submission of Abstracts
25 February 2017	Selection of abstracts to be informed.
25 March 2017	Full paper submission
10 April 2017	Acceptance of paper to be informed.
15 April 2017	Confirmation of registration will be issued
12 May 2017	Conference Registration, Reception and 1st day proceedings
13 May 2017	Workshop session for Architects, Engineers, NGO, Institutions, Professors.
14 May 2017	Study tour to construction sites of ferrocement works
15-16 May 2017	Excursion tour - tourist spots in Kerala.

FERROCEMENT SOCIETY

CONTACT FOR REGISTRATION
(Form available on website)

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