



Ferrocement News

A monthly bulletin



FERROCEMENT SOCIETY

5 March 2018

HON SECRETARY : GIRISH SANGLE, PUBLISHED IN PUNE, ELECTRONIC CIRCULATION ONLY

Symbiosis Institute of Technology, Lavale, Pune and Ferrocement Society, India jointly organized this one day workshop on 27th February 2018. Prof Dhanya was the in

test to ensure that the mortar is very thick. Mr. Abhijeet Gawande and Mr. Angre assisted students for the demo specimen. A symbolic rectangular plate was selected for

EDITOR : NEHA BORKAR

showing the behavior of ferrocement component under stress.

The workshop was concluded with question answer session and very fruitful discussions with the experts. Prof Dhanya gave vote of thanks to the guests.

SIT Lavale Pune workshop

on ferrocement on 27 February 2018

charge of this event. Students are searching for new technologies which will be helpful after graduation. The intention of this workshop was to expose the students to the new technologies which can help them to become successful entrepreneurs. 27 B Tech students participated with 4 faculty members of this institute.

The workshop was inaugurated by Prof. Dr Kanchan C Khare, HOD, Civil Engineering Department.

In the first session, Er Chandramohan, President of Ferrocement Society explained the use of Ferrocement in the world.

In the next session a demonstration of the construction was arranged in the concrete lab. Er Girish Sangle showed the various meshes and skeletons. He demonstrated how they are welded and tied very tightly. The cement mortar was made by students in one part cement and three parts of fine sand. Water was then added to the dry mix so that water to cement ratio was 0.35. The mortar was quite thick and could not flow at its own. Small balls could be easily prepared by taking a lump in the hands. Er Girish Sangle said this is the field

making skeleton. It was inspected and the wire meshes were tied tightly by the students. It was ensured that the skeleton is quite sturdy. Two groups were formed to make ferrocement objects.

Then after lunch the next session started again in the class room. Er Nandkumar Jadhav explained how a two story building is constructed using ferrocement. He explained the construction on B C soil and many other applications. Garden articles and landscaping works can be carried out using ferrocement.

Er Padmanabh Lele is a working professional in ferrocement. He has built so many buildings in Ferrocement. He explained full construction activities of his project. The simple use of thermocol (EPS) between two slim walls of ferrocement makes the buildings soundproof. It insulates from heat. He explained other applications also and answered many questions from the students.

Er Pushyamitra Divekar, ferrocement professional, explained how rates of ferrocement items are derived and how the estimate is prepared. He explained the design principles and the typical graphs



Future Plans

Director of SIT Pune discussed further activities and constructions using ferrocement with Dr kanchan Khare, Prof Dhanya and Er Chandra Mohan, President FS



Demo

Practical demonstration of ferrocement construction by Girish Sangle, Hon Secretary, FS. Students enjoyed right from sieving the sand, mixing mortar to press fill it to make final product.



Jalvardhini conducts ferro-Coir workshops

by Ulhas Paranjape

I was invited to speak on Rainwater Harvesting Methods with Specific reference to Maharashtra at 1st Student Plumbing Conference organised by Plumbing Association -Nashik Chapter and Bhujbal Knowledge City on 15th Feb 2018.

I requested Organizer to hold Practical Training for students on Ferrocement Technology and Ferro-Natural Fiber Cement Tank Technology. They readily agreed and arranged it on 16th Feb. at NGO -Nirmala Niketan

About 50 Engineering Students from K.K.Wagh Institute, M.E.T., Sandip Foundation, Matoshri College of Engineering and Gokhale Education Society were present on 16th Feb at site

i) Ferrocement Tank of 4 feet dia and 4 feet in Height

Students constructed Plinth, learned knitting of Weld and Chicken Mesh, applying Mortar

ii) Ferro-Coconut Coir Cement Tank of 4 feet dia and 3 feet in Height

Student constructed 5 feet dia plinth for Tank, Knitting of coconut coir to Weld Mesh and applying Cement slurry over skeleton of Tank

Here we have replaced Chicken mesh by Natural fiber such as Coconut coir and this is our Innovative idea.

In short these two Technologies were introduced to Engineering Student which are having a lot of Urban as well as Rural application in Storage of Water.



Ferro--Coconut Coir Cement Tank



KEY NOTE



Dr Sunil Kute recently delivered key note speech on Ferrocement Cut off Trench in an earthen dam. He has a study of a major dam called as Bham Dam near Igatpuri near Nashik. He addressed the delegates in 2nd International Conference ACSGE-2018 at BITS-PILANI, Pilani Capmus. Photo shows the ineffaceable moments with the notable persons Dr. R. K. Dhir (University of Birmingham, U.K.), Dr. Roger P. West (TCD, Republic of Ireland), Dr. Subrata Chakraborty (IEST, India) and Prof. Pankaj N. Pagare (SPPU, India) during 2nd International Conference ACSGE-2018 at BITS-PILANI.



10 years completed

Ferrocement Society is entering in 11th year. We express our sincere gratitude towards the founder members and Dr N. R. Patwardhan who had a dream of Ferrocement Society in 2007.



The Organics initiative

by Prof Satish Pawar, Lokmanya Tilak Institute of Architecture & Design Studies, Koparkhairne, Navi Mumbai

Organics, Vasind, and Ferrocement Society, India jointly organized this one day workshop on 19th February 2018. Prof Satish Pawar and Prof Mandar Pardhy were the in charge of this event. Students are searching for new technologies which will be helpful after graduation. The intention of this workshop was to expose the students to the new technologies which can help them to become successful entrepreneurs. 27 last year students participated with 4 faculty members of their college.

The workshop was inaugurated by Prof. Ar. Mandar Pardhy, Lokmanya Tilak Institute of Architecture & Design Studies, Koparkhairane in the hall of Prof Pawar's Banglow.

In the first session, Er Chandramohan, President of Ferrocement Society explained the use of Ferrocement in the world. So many beautiful structures like Nautilus house, Mexico, the Mojo Century Centre Texas, dome houses in Chile, Indonesia, Sri



Lanka are built using Ferrocement. But he said India is much ahead.

In the next session a demonstration of the construction was arranged on the

Initiative

Er Chandramohan explained that Ferrocement Society of India based in Pune is ready to assist such colleges and students. Society organizes National level Conventions every alternate year. He explained the students that they must become members of such professional societies to get up dates and remain ahead in technological advances. This will make them successful Architects.



open ground near the river Bhatsai. Er Girish Sangle showed the various meshes and skeletons. He demonstrated how they are welded and tied very tightly. The cement mortar was made by students in one part cement and two parts of fine sand. Water was then added to the dry mix so that water to cement ratio was 0.35. The mortar was quite thick and could not flow at its own. Small balls could be easily prepared by taking a lump in the hands. Er Kiran Rajurkar said this is the field test to ensure that the mortar is very thick. Prof. Ar. Pramod Naidu and Prof. Ar. Digbijoy Shil assisted students for the demo specimen. Two symbolic small rectangular plates were selected for making skeletons. They were inspected and the wire meshes were tied tightly by the students. It was ensured that the skeleton is quite sturdy. Two groups were formed to make ferrocement objects.

Some students turn by turn in batches of ten actually performed the press-filling of mortar in the meshes. Two plane trowels were used on both side of mesh to press the mortar in the gaps of the wire

meshes, which tightly tied with the skeleton. After this method the hand filling method was also demonstrated. The students realized that the mortar is remaining in its place without any shuttering or form work. This is the main advantage of the



ferrocement that no timber planks and shuttering are necessary. This makes Ferrocement as eco-friendly. Any shape can be given to the skeleton and it makes the structure beautiful.

Then after lunch the next session started again in the class room. Er Chandramohan explained how earthquake forces act on any building and how the

building fails. Ferrocement buildings being monolithic are more resistant to earthquake forces. He also explained the press-spray method wherein mortar is sprayed with a machine having compressor. Garden articles and landscaping works can be carried out using ferrocement.

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Er Girish Sangle, Hon Secretary of FS explained how rates of ferrocement items are derived and how the estimate is prepared.

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A road map for the five years to come was discussed as mentioned below.

Expected progress by 2023.

- a. IS Code publishing
- b. PWD hand-book chapter published.
- c. Syllabus for FC design and practices included in the Mumbai University and all other autonomous colleges.
- d. MoU with many other colleges.
- e. GPP will have to give away their boat club space in COEP. We can use it for building FC Boats.
- f. A school for FC, R & D is established there.
- g. Kerala's separate Society, affiliated to FC India Society, HQ Pune.
- h. A full-fledged office is established at Institution of Engineers (I) Pune campus.
- i. The bungalow at canal road, model colony will be renovated and used for FC activities purposes.
- j. MERI CDO has a separate FC design cell in their campus at Nashik.
- k. Bulletin is published every month.
- l. Ferro 13 International convention is hosted made successful by FC India Society, Pune in collaboration with FC Society Kerala and Many other Corporates in INDIA. FS 2019 conducted and received huge response.