

CSIR-North East Institute of Science & Technology, Jorhat
Connecting Science & Technology for a Brighter Tomorrow

CSIR-NEIST develops Modular Bricks from Brahmaputra River sand

An alternative brick from the river bed sand of the famous Brahmaputra River has been developed by CSIR-NEIST for use as building material in civil construction. The process developed by the Institute involves an eco-friendly compressed stabilized based technique with air drying and water curing, unlike the conventional burnt clay bricks which involves coal burning in brick kilns thereby causing air pollution. This indigenous technology is aimed at maximum utilization of local resources with minimum effect on long term basis that makes the process a sustainable one. Manufacturing of the bricks is easy which requires a simple machinery to be operated manually or by electrical means and can be manufactured in all seasons. The modular bricks can be used for construction of building structure, boundary wall, foundation, etc. and the main advantage is that the bricks are lighter than the conventional ones with better quality, shape and size which will give an esthetic look to the finished structure.

The bricks are suitable for earthquake resistant construction and are cost efficient which is another added advantage. Developed at a large scale of 24 lakhs bricks per annum, the technology is ready for transfer to potential clients/customers for commercialization.



Modular bricks developed by CSIR-NEIST



Residential Salters' Chemistry Camp and Teachers' Training Workshop of Royal Society of Chemistry India held at CSIR-NEIST



Student participants of the Salters' Chemistry Camp held at CSIR-NEIST

The Royal Society of Chemistry India (RSC) in association with CSIR-NEIST and Kaziranga University, Jorhat organized Teachers' Training Workshop and Residential Salters' Chemistry Camps in July, 2016 at CSIR-NEIST campus. The Salters' Chemistry Camp was held during 11-13 July, 2016 wherein 67 students of std IX from 17 government/less-privileged schools of Jorhat participated. The main objective of the program was to encourage the young minds towards basic science and especially in the chemistry subject by providing them a platform to experience hands-on lab experiments, which they generally don't experience in schools. The program also offered them a chance to meet like-minded students and help in exchange

I have no special talent. I am only passionately curious.

Albert Einstein

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of ideas and knowledge. This was followed by a two-day Teachers' Training workshop held during 14-15 July, 2016 for government school teachers at CSIR-NEIST. The teachers' training program was also held at CSIR-NEIST branch labs in Itanagar and Imphal during 18-19 July, 2016 and 21-22 July, 2016 respectively. Altogether 33 teachers from 25 different schools of Jorhat participated at the program at CSIR-NEIST while 30 teachers from 27 schools and 33 teachers from 31 schools participated at the programs held at Itanagar and Imphal respectively. The teachers' program was held with an aim to provide them an opportunity to learn new techniques and skills to teach science in an engaging and exciting manner. The programs were coordinated by Mr Partha Paul, Scientist, CSIR-NEIST and Ms Bhakti Dhamdhare and Mr Ershad Abubacker from the RSC.



Participants of the Teachers' training program held at CSIR-NEIST

Papers published

In International Journals

- Baruah S, Saikia S, Baruah S, Tatevossian R, Kayal J R: The September 2011 Sikkim Himalaya earthquake Mw 6.9: is it a plane of detachment earth-quake?, *Geomatics, Natural Hazards and Risk*, 2016, 7 (1), p: 248-263.
- Leo V V, Passari A K, Joshi J B, Mishra V K, Uthandi S, Ramesh N, Gupta V K, Saikia R, Sonawane V C, Singh B P: A novel triculture system (CC3) for simultaneous enzyme production and hydrolysis of common grasses through submerged fermentation, *Frontiers in Microbiology*, 2016, 7(MAR), p: 447.
- Saikia P J, Sarmah Saikia P C, Rahman A: Microstructure and optical properties of ultra thin film of gold nanocomposite polyaniline, *Indian Journal of Pure and Applied Physics*, 2016, 54(6), p: 401-405.
- Lal M, Dutta S, Bhattacharyya P R: Development of a high yielding variety, jor lab L-8 of Lemongrass (*Cymbopogon flexuosus* L.), *Annals of Agricultural Research*, 2016, 21 (1), p: 22-23.
- Lal M, Dutta S, Bhattacharyya P R: Development of a new superior variety (Jor Lab C-5) of Java citronella with characteristics of stable and high oil yield, *Annals of Biology*, 2016, 32(1), p: 22-23.
- Borthakur P, Boruah P K, Hussain N, Sharma B, Das M R, Matic S, Reha D, Minofar B: Experimental and Molecular Dynamics Simulation Study of Specific Ion Effect on the Graphene Oxide Surface and Investigation of the Influence on Reactive Extraction of Model Dye Molecule at Water-Organic Interface, *Journal of Physical Chemistry C*, 2016, 120(26), p: 14088-14100.

- **Total papers published: 6 nos.**
- **Highest Impact Factor: 4.509**

Farewell

The following members of the staff have retired from Council's service on superannuation from CSIR-NEIST on 31 July, 2016.

1. Dr D K Dutta, Chief Scientist
2. Mr Ram Kr Borah, Sr Technician (2)
3. Mr Photik Bora, Lab Assistant
4. Ms Pratima Bora, Group D

Condolence held

The Director and members of the staff of CSIR-NEIST deeply condoled the sad demise of its employee, Shri Kolamoni Kalita, Non-Tech (who breathed his last on 07.07.2016) at a condolence meeting held in front of the administrative building on 08.07.2016.