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COVER STORY: International Cruise Terminal



Dr Ho Nyok Yong is Green Innovator of the Year 2011

Dr Ho Nyok Yong, Director cum Technical Director of Samwoh Corporation, a leading infrastructure construction specialist and green materials conglomerate, was conferred the Green Innovator of the Year 2011 award at the BCA AWARDS 2011 presentation ceremony on 19 May 2011.

Dr Ho was one of four distinguished persons from the building industry who received the inaugural BCA-SGBC Green Building Individual Awards, instituted by the Building and Construction Authority (BCA) and the Singapore Green Building Council (SGBC). The winners were honoured for their continual and outstanding contributions towards the sustainability of Singapore's built environment. The awards were presented under four categories, namely, Green Innovator, Green Architect, Green Engineer, and Green Advocate.

The Green Innovator of the Year 2011 award was presented to Dr Ho in recognition of his breakthrough achievements in green building product and technology innovation.

'The new BCA-SGBC Green Building Individual Awards were introduced to recognise and spur green efforts in Singapore, and I hope that this would encourage more professionals in the industry to step up and contribute to our national target of greening at least 80% of Singapore's built environment', said Dr John Keung, CEO, BCA.

On receiving the award, Dr Ho said, 'It is my hope that my green R&D works will not only benefit the industry, but will also inspire all Singaporeans especially the younger generation, to start early to make a commitment to being green in schools, in their communities, in their homes, and in their personal lives.'

One of the recent pioneering researches led by Dr Ho was on the use of recycled concrete aggregates (RCA) in structural concrete. Formerly, the RCA was mostly used in non-structural applications which have low economic value. The research data was applied in the construction of the Samwoh Eco-Green Building, the first building in the region to be constructed using concrete with up to 100% RCA. The research team for the project consisted of



Dr Ho Nyok Yong (left) receiving the Green Innovator of the Year 2011 award from Mr Mah Bow Tan, the then Minister for National Development, at BCA AWARDS 2011.

Samwoh, BCA, and Nanyang Technological University, and funding was obtained from the MND research fund.

Speaking on his research work, Dr Ho said, 'I believe in a pragmatic approach to research and development. My inspiration for research work is largely driven by the practical need to recycle waste materials as there is a lack of natural materials available in Singapore for construction applications. By recycling waste materials, we can provide a substitute for natural materials as well as alleviate waste disposal problems due to shortage of landfill space in Singapore.'

Other noteworthy green innovations engineered by Dr Ho and his research team at the well-equipped Samwoh Research and Development Centre, relate to the following:

- Development of green cementitious materials that can be incorporated in structural concrete.
- Development of green concrete, which is suitable for the construction of aircraft parking bays.
- Efficient use of construction and demolition waste for pavement construction applications.



Some members of the Samwoh research team with Dr Ho (fourth from right).

- Development of a recycling technique that makes it possible to use reclaimed asphalt pavement waste for road construction, thereby easing the demand on bitumen and granite.
- The use of incinerated bottom ash, derived from the incineration of refuse, for construction applications.
- Recycling of rubber tyres for asphalt mixes.
- Carbon footprint assessments for green products.

Dr Ho has had a keen interest in green innovation and development works since the 1980s. His PhD research project was on the efficient use of industrial wastes for structural applications. Since then, he has continued to be actively involved in many R&D works on green building and sustainable construction, concrete technology, and asphalt pavement engineering.

Dr Ho has also contributed his expertise as principal investigator for many practical research projects which are mostly funded by government agencies. As a result of these studies, he has published many technical papers in these fields, and has often been invited to share his knowledge and experiences in seminars and conferences, held in Singapore and overseas. Besides his research activities, Dr Ho is also actively involved in many professional bodies. He is currently the President of Singapore Contractors Association Ltd.

Summarising, Dr Ho said, 'Receiving this prestigious award is a great honour to me and my research team, as well as to my company. It will definitely motivate us to do more green works. I have been actively involved in R&D work on sustainable technologies for more than 20 years, and I do not think I will ever stop campaigning for the green cause!'