Ferrocement is a composite material which is used in construction around the world. Ferrocement is normally applied to a mixture of Portland cement and sand applied over layers of woven or expanded steel mesh and closely spaced small-diameter steel rods rebar. It can be used to form relatively thin, compound curved sheets to make hulls for boats, shell roofs, water tanks, etc. It has been used in a wide range of other applications including sculpture and prefabricated building components.

**FERROCEMENT CELLULAR PANEL**

Malaysian researchers have developed this lightweight ferrocement cellular panel for modular housing and industrialised building system (IBS) that would provide minimum construction cost, flexibility in the design and construction and a good quality product.

The product features are as follows:

- Applicable to any site condition and flexibility in construction
- Enhance durability, strength and speed of construction
- Self supporting and able to carry substantial loads which can act as a building envelope for both load bearing wall and roof components
- Better crack control in the earlier, resulting in smaller crack widths and crack spacing
- Extremely high tensile resistance (steel mesh)
- Compressive strength

With the above features, apart from existing applications there are numerous new potential applications anticipated, such as:

- Road surfacing
- Airport runaways
- Bridge decks overlays

**MARKET POTENTIAL**

Based on Malaysia’s Treasury Circular SPP 07/2008, the IBS market is an emerging and important market in Malaysia and the application in all public-sector project must attain no less than 70% IBS content. This policy was created to encourage the usage and to establish demand for IBS components, thus bringing the cost down. The total estimate of IBS market value by the year 2015 is RM 84.24 billion, adding the amount of RM 44.97 billion public sector projects and RM 39.27 billion private sector projects.

For ferrocement panel, the common applications are for:

- Swimming pool
- Water reticulations
- Sluice gate
- Water tanks
- Landscape structures
- Architectural elements
- Slope protection
- Irrigation linings