



Glulam – A Metamorphosis of Timber

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I attended a seminar on glulam timber recently. It was organised by the Malaysian Timber Council, with the support of the Forest Research Institute of Malaysia (FRIM) and Universiti Teknologi Mara, and was held at the auditorium of FRIM. About 150 people attended the seminar, including university students, architects, engineers and representatives of timber product manufacturers and construction companies.

Glulam timber, or glulam in short, was first used in Switzerland in 1893 for the construction of an auditorium in Basel. The technology was introduced in our country in the early 1960s when FRIM constructed a single-span arch bridge with glulam in its compound. In the 1970s, FRIM constructed its mosque with glulam, and in 1982, FRIM constructed its Fire Laboratory using glulam for the portal frames.

When I first cast my eyes on the glulam arch bridge in FRIM many years ago, I immediately became fascinated by its elegant design. I was also enthralled by the potential versatility the glulamination technology is bestowing upon this age-old material – timber.

The use of timber as a structural member has traditionally been limited by the sizes of the timber logs available which, in turn, were restricted by the practicalities in its handling. With glulamination, many of these problems can be overcome.



In addition, the important aspects of timber that are usually of profound concern to its potential users, such as fire resistance and durability, can be improved through pressurised chemical treatment and glulamination.

However, to date, glulam has not been widely used commercially in our country for several reasons. The principal reason for this is because the use of timber as a construction material is frowned upon by both the Unified Building By-Laws and our insurance industry, even though glulam is quite extensively used in Japan, Australia, New Zealand, US and some European countries.

With concerted effort from all interested parties to remove these obstacles as well as change the people's mindset, we may one day find a prominent and elegant structure of glulam standing in our city centre. ■

