

MALAYSIA'S FIRST INDOOR BEACH STADIUM 'THE WAI KI KI'

Prepared by: Malcolm Wong Ling Yioh, Kho Heng Chong, Tan That Hwang

ABSTRACT

The idea of indoor beach is not a new idea, as foreign country has already implemented it, such as Germany, Japan and United States. However it is a totally new idea in Malaysia. So we decided to build the first indoor beach in Malaysia. The name created for the indoor beach stadium is 'The Wai Ki Ki'. The indoor beach to be constructed is proposed to have an environment such as Hawaii beach.

This project team consists of 3 engineers, 2 mechanical engineers and a civil engineer. In order to build an indoor stadium successfully, job distribution is very important for the project. The civil engineer's role in this project is to propose a suitable design for the indoor beach stadium. The indoor beach stadium consists of a shopping mall, hotel, beach and a semi-dome roof.

Wave generator was assigned to one of the mechanical engineer; the wave generator is using air powered to produce the wind. Unlike other methods that are using head difference to produce wave. This method is the simplest and most economical way to produce wave and it is currently only one country using it – US.

Water treatment and design of heat exchanger are assigned to another mechanical engineer. Water treatment is needed to ensure the pool water is clean and crystal clear. The purpose of using heat exchanger is to heat up the pool water at night. At night which is quite cold in our country and usually people do not prefer to swim at night, but in our indoor beach, people can enjoy beach activities even in the coldest night.