

## Awards & Achievements

### Redevelopment of Bowyer Blocks at SGH Outram Campus



Clockwise (from left): Mr Terence Wong (supervisor), Asokan Prasanth, Regi Abraham, Alvin Lee Wee Siong, Ms Wiliana Sulistio (supervisor), Wang Shou Zhang, Ng Chee Wai and Vipin Prasad  
(Source: ENGINEERUS, Jul 2006 Issue)

The Bowyer Blocks is one of 3 buildings that formed part of the original General Hospital which opened in 1926. (The other 2 buildings were the Stanley and Norris blocks). Today, the Bowyer Block is the only one of the 3 original buildings that remains standing, with its iconic clock tower and tall columns bearing witness to the SGH Outram Campus' rich history. Besides offices and other facilities, the redeveloped Bowyer Block also houses the SGH Museum, which encapsulates close to 2 centuries of the history of medical education and medicine in Singapore. In what was a first for the Diploma, IBT was approached by the project consultants to provide energy and climate consultancy services encompassing:

- Development of a virtual architectural model of the blocks, using REVIT software.
- Modeling the effect of daylighting on the interior spaces by varying the fenestration sizes, using 3D STUDIO VIZ software.
- Evaluating the energy savings resulting from the use of daylighting vs artificial (electrical) lighting, using EnergyPlus software.
- Modeling the airflow and temperature profiles for the proposed natural ventilation of a courtyard comprising a double-storey void and initially roofed over by a glass skylight.

The project was undertaken by 8 students from IBT as part of their SIP-MP program. The Bowyer Redevelopment project was awarded the Green Mark Gold<sup>Plus</sup> by the Building and Construction Authority (BCA), in recognition of its sustainable design.