SISP 1306 Development of Great Structures throughout Civilisation

Course Description
This course will explore, without mathematics, the development of various types of great and monumental structures that have been built for economic, social or religious purposes. The structures considered will be from the pyramids to cathedrals, to the tallest buildings and longest span bridges. The functional requirements of these structures, as well as the important relationship between the properties and development of construction materials and the knowledge of structural behavior, that make the construction of monumental structures possible, will be considered.

Topics
1. Loads and Forces that the Built Environment is subjected
2. Structural Elements and Structural Actions
3. Material Properties
4. Aesthetics and Balance; Harmony and Unity
5. Use of Masonry in Construction
6. Introduction of Steel to the Construction Process
7. Tall Buildings and Towers, Bridges

Grading Scheme
- Project (35%)
- Quiz (20%)
- Final Exam (45%)

[Topics and grading schemes are subject to change as deemed appropriate. Students will receive information and guidelines in class on how they will be assessed for the course.]

Instructor
Prof Neil Mickleborough
Prof Mickleborough has been a member of HKUST since 1991. He is now an Adjunct Professor in the Department of Civil and Environmental Engineering at HKUST. He is from Australia and was educated in both Australia and Canada. He has also worked and lived in Indonesia, Malaysia, Germany and Thailand. Most recently he was working in the United Arab Emirates in both Abu Dhabi and Dubai. Having an extensive knowledge and teaching experience in the field, Prof Mickleborough always motivates his students and creates an excellent learning environment for them. He has been teaching SISP 1306 for HKUST Summer Institute since 2011 and has received many positive comments from the students. He was ranked as one of the best instructors over the years.