**SUBJECT DESCRIPTION FORM**

<table>
<thead>
<tr>
<th>Subject title:</th>
<th>Construction Information Technology</th>
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<tr>
<td>Subject code:</td>
<td>BRE586</td>
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<td>Credit value:</td>
<td>3</td>
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**Responsible staff and department:**
Dr. Andy Wong, Prof. Heng Li and Prof. Stephen Mak (BRE)

**Pre-requisite (Subject title and code no, if any):** Nil

**Recommended background knowledge:**
Construction management, project management, IT applications

**Mutual exclusions:** Nil

**Learning approach:**
- Lectures and seminars
- Independent study
  - Assignments
  - Case study
  - Self-study
  - Computing

**Assessment:**
- Coursework 50%
- Examination 50%

**Objectives:**
By the end of this subject, participants should be able to:

1. understand the ways of construction management workflow and dataflow analyses for the development of an integrated construction management system.
2. understand the state of art of the information technologies and their applications in construction.

**Keyword syllabus:**
- Unit 1. Construction Integrated Management System (1)
- Unit 2. Construction Integrated Management System (2)
- Unit 3. IT Investment Costs in Construction
Unit 4. E-Commerce for Construction Material Procurement

Unit 5. Decision Support Systems (ANN, GA and KBS)

Unit 6. Internet Technology and its Application to Construction, Information Technology Service Management

Unit 7. Data Base and Information Management for Construction

Indicative reading list and references:

ASCE Journal of Computing in Civil Engineering. www.asce.org


Wong K. D. (1999) Use of Smart Card for Hong Kong Contractors, Productivity Management Letter Hong Kong Institute of Real Estate, April 1999 Vol. 1 No.3