XML Document Processing: Theory and Practice

(Course Number: 725 U3420)

Fall 2008

Place and Time

Course Web Site
http://www.iis.sinica.edu.tw/~trc/public/courses/Fall2008/

Instructor
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Schedule

(Part 1) 09/17 Document markup languages; HTML and SVG examples; Why XML?
(Part 1) 09/24 XML Recommendation — DTD (Document Type Definition); Case study: RSS 0.91, QAML, XBEL.
(Part 1) 10/01 XML Recommendation — language code, character set, text encoding; XML Namespace.
(Part 1) 10/08 (Guest Lecturer: Yi-Hong Chang 張藝鴻) CSS (Cascading Style Sheets).
(Part 2) 10/15 XPath (XML Path Language).
(Part 2) 10/22 XSLT (Extensible Stylesheet Language Transformations).
(Part 2) 10/29 DOM (Document Object Model).
(Part 2) 11/05 XML in Web programming: Server-side/client-side XSLT, client-side ECMAscripting, etc.
(Part 3) 11/12 XML DTD revisited; Case study: Ruby, XBEL, XHTML Modulation.
(Part 3) 11/19 (Guest Lecturer: Chin-Lung Chang 張欽隆) XML Schema — Structures & Datatypes.
(Part 3) 11/26 Relax NG; Case study: Atom.
(Part 3) 12/03 Comparisons of XML schema languages; issues in XML document validation.
(Part 3) 12/10 RDF (Resource Description Framework).
(Part 4) 12/17 (Project proposal due) Balanced context-free grammars.
(Part 4) 12/24 Regular tree grammars; tree automata.
(Part 4) 12/31 Validated XML processors; Case study: CDuce.
(Part 4) 12/07 XML research topics.
(Part 5) 01/14 (Project presentation)

Reference Book (Recommended)

Grade
Homework (60%) and project (40%).