Multimedia Systems and Applications

2 units (selection)

Tetsushi Ueta · Professor / Applied Information Media Engineering, Information Science and Intelligent Systems, Systems Innovation Engineering

Target> Multimedia has become an indispensable part of modern computer technology. This course covers the theories, models, and systems of basic and advanced methods for designing and implementing multimedia systems. Latest multimedia Web technologies and some advanced topics will also be discussed.

Outline The course introduces the theories, models, and systems of basic and advanced methods for next generation digital contents processing, including (1) intelligent processing for texts, speech, images, and movies, (2) intelligent media integration, and (3) intelligent human-computer interfaces.

Style> Portfolio

Keyword) multimedia, digital contents, human-computer interface, media integration

Fundamental Lecture "Language Modeling" (1.0), "Applied Image Processing" (1.0)

Relational Lecture "Applied Knowledge Systems" (0.5)

Goal) To learn advanced methods in design and implementation of next generation digital contents processing systems.

$\textbf{Schedule}\rangle$

- 1. Multimedia contents fundamentals
- 2. Image, video, and audio compression
- 3. Intelligent document processing (1)
- **4.** Intelligent document processing (2)
- 5. Intelligent image and video processing (1)
- **6.** Intelligent image and video processing (2)
- **7.** Intelligent speech processing (1)
- **8.** Intelligent speech processing (2)
- 9. Multimedia storage systems and databases (1)
- 10. Multimedia storage systems and databases (2)
- 11. Multimedia information retrieval (1)
- 12. Multimedia information retrieval (2)
- 13. Multimedia Web Technologies (1)
- 14. Multimedia Web Technologies (2)
- **15.** Recent topics
- **16.** Assignment

Evaluation Criteria Assignment count 100%.

Textbook) To be introduced in the class.

Reference) To be introduced in the class.

Contents> http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216703 **Contact**>

⇒ Ueta (AIT 507, +81-88-656-7501, tetsushi@ait.tokushima-u.ac.jp) MaiL (Office Hour: Wednesday, afternoon)