Information Engineering of Regional Environment

2 units (selection)

Masashi Okushima · Associate Professor / Social Environment Systems Engineering, Ecosystem Engineering, Earth and Life Environmental Engineering

Target) The information of regional environment, technique of analysis and information management are explained. The method and technique using for application of environmental information to development of regional policies are lectured.

Outline\) The information of regional environment, technique of analysis, information management and geographic information system are explained using the various kinds of materials and examples in practical planning.

Style \ Lecture and excercise

Keyword> information of regional environment, technique of analysis

Relational Lecture "Urban and Regional Planning" (0.8), "Advanced Environmental Systems Engineering" (0.2)

Requirement) 特になし

Notice) Please download files for this lecture from u-learning system, print out and take to the lecture room. The materials are not distributed in the lecture.

Goal) To obtain the knowledge of the information of regional environment, technique in survey, information management and computer aid systems, and apply them to design of regional plan and political simulation.

$\textbf{Schedule}\rangle$

- 1. Bayes' theorem
- 2. discrete choice analysis
- 3. expert system
- 4. fuzzy reasoning
- 5. neural network
- 6. genetic algorithm
- 7. decision tree
- 8. analytic hierarchy process
- **9.** fuzzy integration
- 10. game theory
- 11. evolution game theory
- 12. reinforcement learning
- 13. complex system
- 14. presentation of results of exercise: part 1
- 15. presentation of results of exercise : part 2

Evaluation Criteria\rangle Evaluation of calculation exercises and final presentation count 100%.

Textbook) To be introduced in the class.

Reference) To be introduced in the class.

Webpage http://uls01.ulc.tokushima-u.ac.jp/

Contents http://cms.db.tokushima-u.ac.jp/cgi-bin/toURL?EID=216753

Student) Able to be taken by only specified class(es)

Contact>

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