



International Master's Program in Telecommunication Engineering

Course Name: Application of Random Set Theory in Communications
隨機集合理論於通訊之應用

Course Objects:

This course introduces advanced probability theory and its applications to communications, concentrating on random set theory in the communication system, in which the users or quantities are in a random number.

Course Syllabus:

1. Review of Fundamental Probability Theory
2. Generalities on Probability
3. Some Random Sets in Statistics
4. Finite Random Sets
5. Random Sets and Related Uncertainty Measures
6. Random Closed Sets
7. Applications of Random Sets Theory in Multiuser Detection
8. Applications of Random Sets Theory in Distributed Detection
8. Special Topics on Advanced Detection for Communications