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Course: Artificial Intelligence in Wireless Communication

Course No.: 3112102150

Credit / Course Hours: 2/32

Preparatory Course: Introduction to Mobile Telecommunication Networks, Fundamental Theory of Wireless Communications, Data Structure, Comprehensive Practice of Programming, Introduction to C++/C/Java/Python

Course Description:

The course "Artificial Intelligence in Wireless Communication" is a new course which integrates wireless communication and artificial intelligence, which has been advancing as two separate disciplines, through a mixture of fundamental theory and hands-on projects to create real understanding. This course aims at students majoring in Electrical Engineering, Computer Science and Data Science who have blind spots in fundamental theories of wireless communication and artificial intelligence, and provides the study of methodologies for integrating these two disciplines. The main contents of this course include the development history、fundamental theory、key technologies and recent progress in the field of mobile communication and artificial intelligence, the fundamental theory and algorithm of machine learning, and the integration among wireless communication, wireless network, quality of experience, man-machine communication, and artificial intelligence. Two illustrative projects are provided to demonstrate the effectiveness of methodologies introduced in class. By completing the projects, students can establish the engineering concept of combining theory with practice, develop the ability of scientific thinking、discipline-crossing innovation、and conducting experimental research.