

Int'l Smart Phone Developer(ISPD) Certificate



The Institute of Webcasting, Broadcasting and Communication(IWBC)

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Smart Phone Developer Certificate - Mobile Communication Engineering (ISPD01)

Following is a syllabus of Smart Phone Developer Mobile Communication Engineering(ISPD01), that provides standard of theory based test. The applicant must comprehend contents of the module beforehand, as ISPD01 syllabus is based on the knowledge and technology that is included in mobile engineering, the CORE module01.

Mobile Communication Engineering (ISPD01) Module Objective

SPDC01 applicant must understand and study the main concept of Mobile Communication Engineering through in-depth learning. Specifically, following contents must be understood.

- Concept of mobile engineering
- Trend of information-oriented society an mobile environment
- Mobile communication service environment
- Multimedia technology in mobile environment
- Concept of wireless internet service
- Communication environment for wireless internet service
- Concept of ubiquitous computing
- Core technology of ubiquitous computing
- Method of mobile communication system
- 3rd generation mobile communication system
- 4th generation mobile communication system
- Development of wireless internet service
- Mobile communication device types and functions
- Element function of mobile communication device
- Mobile information storage medium
- Wireless internet service access method

- Wireless internet language and browser
- Mobile device software principle
- Mobile platform concept
- Mobile platform status
- Major mobile platform
- Mobile contents outline
- Mobile information service
- Mobile entertainment
- Mobile game
- Mobile communication
- Mobile location based service
- Mobile market value chain
- Outline of mobile contents element technology
- 2D graphics technology in mobile environment
- Image process technology and its application
- 3D graphics technology in mobile environment
- SMS introduction
- Introduction of EMS and MMS
- Mobile instant messaging
- MMS contents expression
- MMS system framework
- Introduction of DMB technology
- DMB utilization and status
- Outline of LBS technology
- LBS technology and utilization
- Development trend of mobile device technology
- Development of mobile communication technology and ubiquitous society

Smart Phone Developer Certificate – Android (ISPD02)

Following is a syllabus of Smart Phone Developer Android(ISPD02), that

provides standard of theory based test. The applicant must comprehend contents of the module beforehand, as ISPD02 syllabus is based on the knowledge and technology that is included in Android, the CORE module02.

Android (ISPD02) Module Objective

ISPD02 applicant must understand and study the main concept of Android through in-depth learning. Specifically, following contents must be understood.

- Smart phone outlook
- Development characteristics per smart phone operating system
- Problems upon developing Android
- Composition and characteristics of Android
- Android platform
- Android composing elements
- Interworking between developing layers
- Runtime action principle
- Android license
- Precautions upon installation of Android SDK
- Looking around Android
- Android internal environment
- Making a project
- Application package production process
- Application digital signing operation
- Relations of JAVA and XML
- Layout
- Widget
- XML properties
- XML layout practice
- Android menu
- XML inflater
- Resource reference
- XML inflater

- Resource reference
- Menu
- Layout
- Style and theme
- Making XML user properties
- Localization and selective resource
- Event listener
- Event handler
- Touch mode
- Focus control
- Dialogue
- Array
- Java collection framework
- Adaptor
- Adaptor view
- Tab host
- Toast
- Automatic text complete view
- Application component
- Activity and task
- Activity life cycle
- External Java library
- Structure and regulation of manifest
- <manifest> tag
- <application> tag
- Security and permission
- Permission parameters
- Process and thread
- Thread implementation
- Handler
- Thread and handler usage exercise
- Looper

- Intent
- Intent interpretation
- Explicit intent usage example
- Implicit intent usage example
- Running and getting result of activity
- Intent action and category types
- Preference
- Uses and implementation of preference
- File access
- XML parser
- Database(SQLite)
- URL
- Method to use content provider
- Method to create own content provider
- Broadcast receiver
- Service life cycle
- Notification
- Start service
- Bind service
- Local bind service
- Message remote bind service
- Remote bind service
- Establish NDK development environment
- Using JNI(Java Native Interface) and NDK
- How-to-use native method in Java
- Native code preparation
- Native library production task
- NDK support binary code
- Android.mk preparation
- Application.mk(option) preparation
- NDK practice program
- Audio and video

- Camera function
- Phone management
- Sensor

Smart Phone Developer Certificate – Java Language(ISPD03)

Following is a syllabus of Smart Phone Developer Java Language(ISPD03), that provides standard of theory based test. The applicant must comprehend contents of the module beforehand, as ISPD03 syllabus is based on the knowledge and technology that is included in Java language, the CORE module03.

Java (ISPD03) Module Objective

ISPD03 applicant must understand and study the main concept of Java language through in-depth learning. Specifically, following contents must be understood.

- Computer and Java formation comparison
- Development kit to develop Java program
- What is eclipse
- Install eclipse
- What is object-oriented
- Putting object in capsule
- Stamping classes
- Inheritance of class
- Polymorphism
- Data type and constant
- Operator priority order and combinative
- Change type of data with basic data type
- Program is...
- Operate according to condition by using selection statement
- Operation by repetition statement
- Control program running order by statement
- Interface is...
- Declaring abstract class and method
- Declare no modification of final class and method
- Memory model based on data types
- Memory change based on program operation
- Memory change according to formation of instance(object)
- Memory change of array and character string constant
- Exception and exception process is...
- Basic exception process sentence
- Processing multiple exception
- Superimposition exception process
- Package is...
- Method to create package
- Java super class java.lang.Object
- Java system class java.lang.System
- java.lang.String class for character string class
- Wrapper class
- Java utility class collection java.util package
- Thread is...
- Multiple threading and synchronizing technique
- Process is...