**Course: 405-02: Mobile Application Development – 2**

**Unit-1: Project structure of Mobile Application:**

1.1 Internal details of Android Application:

1.1.1 Dalvik VM, Screen Orientation

1.1.2 AndroidMenifest, R.java

1.2 Android Widgets (UI)

1.2.1 Default and Custom Checkbox

1.2.2 Dynamic and Custom RadioButton

1.2.3 Spinner, AlterDialog

**Unit-2 : Basic Attributes and Events of Important Android Widgets(UI)**

2.1 ListView, Custom ListView

2.2 DatePicker, TimePicker, ProgressBar

2.3 Horizontal and Vertical ScrollView

2.4 AutoCompleteTextView, TextWatcher to EditText

2.5 ImageSlider, ImageSwitcher, SearchView

2.6 TAbLayout and FrameLayout

**Unit-3: Working with DART:**

3.1 DART overview, concept, features and installation

3.2 Online editor DartPad and dart2js tool

3.3 Executing Dart basic code using Command line, DartPad and IDE

3.3 Understanding DART syntax:

3.3.1 Identifiers, Datatypes, variables, comments

3.3.2 Decision making (if, if..else, if..else if..., switch..case)

3.3.3 Iterative statements (for, for...in loop, while, do..while)

3.3.4 break, continue, label

3.4 DART function :

3.4.1 Calling function, deleting function

3.4.2 Passing arguments to function, lexical scoping

**Unit-4: Introduction of Flutter:**

4.1 Fundamentals of Flutter:

4.1.1 Installation and Architecture of Flutter

4.1.2 Features of Flutter

4.1.3 Creating basic flutter project using Android Studio

4.2 Flutter Widget:

4.2.1 Types of flutter widget:

4.2.1.1 Visible and Invisible

4.2.1.2 StatelessWidget, StatefulWidget

4.2.1.3 Single child widget and Multiple child widget

4.2.2 Visible widget (Constructor and Properties): Text, Image, Button, Icon

4.3.3 Invisible widget (Constructor and Properties): column, row, center, padding, scaffold, stack

**Unit-5: Basic Flutter widget (Constructor, attributes and Properties)**

5.1 Text, TextField, Buttons, Slider

5.2 Checkbox, Radio Button, Progress Bar, Lists

5.3 Stack, Forms, AlertDialog, Tooltip

5.4 Toast, Switch, Charts, Flutter Form