



DOEACC CENTRE CALICUT  
COURSE PROSPECTUS

CDS/CA/7.5.1/F 40/R0

**Name of the Group:** *IT Group*

**Name of the Course:** *Advanced Course in Mobile Application Development using J2ME*

**Course Code:** *SW201*

**Starting Date:** *12<sup>th</sup> Dec 2011*

**Duration:** *Two Months*

**Preamble:** *Our course aims to bring delegates who need to learn to utilize the features of J2ME in order to develop scalable, good-looking enterprise-class applications for mobile handsets, set-top boxes and other small footprint devices. This Hands-On training course provides delegates with intensive practical tuition using Sun's J2ME. The topics covered will focus on the tools and environments which exist to help develop Java applications that run on mobile and wireless devices. This course has been developed for real-world, commercial scenarios based on industry requirement. This course would be conducting along with ED800 Mobile Module.*

**Objective of the Course:** *This 2 month's intensive training course has been specifically designed to address the requirements of developers who want to become experts in Mobile Application development using J2ME environment.*

**Outcome of the Course:** *On completion of the Course, the Participants shall get,*

- a. Exposure in OOPs concepts and Java programming fundamentals.*
- b. Exposure in usage of java in mobile applications.*
- c. Expertise in designing and developing different mobile applications using Java and J2ME.*
- d. Hands on experience in Core Java with networking concepts.*
- e. Hands on experience in development of Mobile applications using J2ME, like SMS, MMS, Gaming, Multimedia and JavaFX.*

**Course Structure:**

Seq.	Modules	Duration
1	Core Java	2 Weeks
2	J2ME Basics in MIDP	2 Weeks
3	Advanced J2ME	1 Weeks
4	Project	3 Weeks

**Other Contents**

**a. Course Fees :**

Code	For General Category Students (Including Service Tax)	For SC/ST Students (Including Service Tax)
SW201	Rs 22000/-	Rs 2000/-

**b. Mode of Payments:**

1. Demand Draft to be drawn in favor of **Director, DOEACC Center Calicut**, Payable at **State Bank of India, Calicut NIT Branch (2207)**. The DD should reach here before the last date to apply.
2. Using the pay in slip available in our web site ([Pay in slip](#)), through any branch of SBI (where this format is accepted). The original counterfoil should reach here before the last date to apply.
3. The fees can be paid directly into our account from any bank where core banking facility is available. The details required for direct payment are as given below.

Account No: **31732177476**  
Bank Name: **SBI, NIT Chathamangalam**  
Bank Code: **2207**  
IFSC No: **SBIN0002207**  
MICR Code: **673002012**

The depositor should obtain the UTR Number/Journal No from the branch while depositing cash directly into our account. Depositor should also obtain the counterfoil duly filled up and signed by the staff with seal of the bank through which the amount was deposited. The following details should reach here before the last date to apply.

- A. Name of the Depositor
  - B. Name of the Student
  - C. Date of Payment
  - D. Amount Deposited
  - E. Name of Bank/branch through which amount deposited
  - F. Purpose – Course ID – Advance Fee/Hostel Rent/Installment Fee etc.
  - G. Proof of Deposit (counterfoil/acknowledgement in original) UTR Number
- c. **Eligibility:** *BE/B.Tech, M.Sc (IT/Computer Science/Electronics), MCA, BCA or equivalent of any of these. Degree holders with PGDCA, DOEACC A or B level, Diploma in Computer Science, Electronics, or others with relevant experience).*
- d. **Number of Seats:** *10-20*
- e. **How to Apply :** *Students are advised to apply in the prescribed [Application Form](#) available with the course brochure/course prospectus or downloaded from our website. Filled in application forms along with the Registration fee of Rs1000/- should be sent to the **Training Officer, DOEACC Centre Calicut, P. B. No. 5, NIT Campus Post, Calicut – 673 601, Kerala.** Modes of Payment given below. **The Name of the Course applied, should be super scribed on the envelope, in which the application form is forwarded.***
- f. **Selection of candidates:**

*Selection of candidates who have passed in the qualifying examination will be based on their marks in the qualifying examination subject to eligibility and availability of seats.*

- g. *The admission to the course shall be based on the following criteria:*
1. *Should have passed the eligibility criteria as mentioned above.*
  2. *The list of selected students shall be published in our web site. Individual call letters by email alone will be sent to the candidates.*
  3. *The admission for the selected students shall be confirmed only after verifying their original certificates. The verification of certificates for such candidates shall be on the date of commencement of examination. Fee shall be refunded for those whose credentials are found to be incorrect.*
- h. **Test/Interview:** *Not Applicable*
- i. **Counseling/Admission:** *12<sup>th</sup> Dec-2011*
- j. **Admission Procedure :** *Students who have been selected for test/interview/counseling/admission are required to report to the Centre on the prescribed day by 9:30 hrs along with the following*
1. *Attested Copies of Proof of Age, Qualifications, etc*
  2. *Original Certificate of the above*
  3. *Two copies of photograph and one stamp size photograph for identity card.*
  4. *The SC/ST students are required to submit in **ORIGINAL a Community Certificate ( in English or Hindi only)** issued by an Officer not below the rank of Tahsildar.*
- The students on reaching the Centre are required to meet the Front Office Councilor (FOC). The FOC then directs the student to the Course Coordinator. The student gets the enrollment form verified by the Course Coordinator and then meets the FOC who shall direct the student to the Accounts section for payment of fees. A student is thus admitted.*
- k. **Discontinuing the course:** *No fees under any circumstance shall be refunded in the event of a student discontinuing the course.*
- l. **Course Timings:** *9.15 A.M to 12.30 PM and 2.00 P.M to 5.15 PM [Monday – Friday]*
- m. **Location and How to reach :** *DOEACC CENTRE Calicut is located very near to NIT (REC) campus and is about 22Kms from Calicut (Kozhikode) city. A number of buses [Buses to NIT via Kunnamangalam] are available from "Palayam Bus Stand or KSRTC Bus Stand". Our stop is called "Panthrand" & is one stop before NIT. The bus fare is Rs.13/- from Calicut City to DOEACC Centre and is on the right side. Calicut (Kozhikode) is well connected by Rail, Road and Air from different parts of the country. The maximum and minimum temperatures range between 35° and 20°.*
- c. **Course enquiries :** *Students can enquire about the various courses either on telephone or by personal contact between 9.15 A.M. to 5.15 P.M. (Lunch time 1.00 pm to 1.30 pm).*

**Telephone Numbers:**

Office	0495 - 2287266 / 2287268
Director's Office	0495 - 2287123
Training Officer	0495 – 2287266

SW500 Course Coordinator 0495 – 2287178 (326)

Office Fax 0495 - 2287168

E-mail: [trng@doeaccalicut.ac.in](mailto:trng@doeaccalicut.ac.in)

Website: [www.doeaccalicut.ac.in](http://www.doeaccalicut.ac.in)

n. **Important Dates:**

Last date to submit application form	<b>09/12/2011</b>
Selection intimation in website	<b>09/12/2011</b>
Counseling/Admission:	<b>12/12/2011</b>
Commencement of classes:	<b>12/12/2011</b>
Payment of fees:	<b>12/12/2011</b>

o. **Placement:** *Placement support will be provided.*

p. **Hostel facilities:** *Hostel accommodation is available for boys and girls on daily or monthly chargeable basis. The hostel fee varies from Rs 450/- to Rs 1,050/- (for boys) per month and Rs 650/- to Rs 750/- (for Girls) per month depending on the location of accommodation. However, students are required to pay the hostel fees for the duration of the course for which they are seeking admission at the time of joining the course.*

q. **Canteen facilities:** *The Centre has a canteen functioning at the main campus and food at reasonable rates is available for breakfast, lunch, and dinner.*

r. **Lab Facilities:** *The IT Lab is equipped with Intel Xeon Dual Processor based servers from HP,IBM,DELL,HCL, managed gigabit switches and more than 100 networked PCs with internet facility. A variety of software is available which include various flavors of Windows, Linux & various open source mobile development tools and database servers.*

s. **Course Contents:**

**Week 1:**

**1. Core Java**

- i. Java Fundamentals
  - a. Getting Started with Introduction to Java and OOP's,
  - b. JVM, Structure of Java Program with simple examples,
- ii. Java Comments
- iii. Data Types and Variables
- iv. Command Line Arguments
- v. Operators
- vi. Conditional Statement
- vii. Loops (while, do-while and for loops)
- viii. Expressions

**Week 2:**

- i. Methods and Arrays
- ii. Classes and Objects
- iii. Interfaces
- iv. Catching Exceptions
- v. File I/O and Streams
- vi. Collections
- vii. Thread and Multithreading

**Week 3:****2. J2ME Basics in MIDP**

- i. Introduction to J2ME and MIDP
  - a. Basics
  - b. Lifecycle
  - c. Building, Packaging and Deploying MIDlets
  - d. Application Descriptor
  - e. MIDP Packages
  - f. MIDP in Context
- ii. High Level UI API
  - a. Presenting UI in a MIDlet
  - b. Organizing a UI by Screens
  - c. Forms and Items
  - d. Layout Control
  - e. TextField Class
  - f. DateField Class
  - g. ChoiceGroup Class
  - h. Other Item Classes
  - i. Alerts
  - j. Tickers
- iii. Low Level UI API
  - a. Canvas Class
  - b. 2D Graphics
  - c. Fonts
  - d. Drawing Text
  - e. Repainting

**Week 4:**

- i. Event handling
  - a. Event Architecture
  - b. High-Level event handling
  - c. Commands
  - d. Item state changes
  - e. Low Level event handling

- f. Key board input
  - g. Pointer input
  - h. MVC Pattern and in application Design
  - i. Model events
- ii. Threads and Timers
    - a. CLDC Threading model
    - b. Thread and Runnable
    - c. Timer Class
    - d. TimerTask Class
    - e. Scheduling TimerTasks

**Week 5:****3. Advanced J2ME**

- i. Java Database Connectivity (JDBC)
- ii. Record Management System (RMS) - Data Base Programming
- iii. Network Programming
  - a. CLDC Stream models
  - b. Supporting packages
  - c. Creating connections
  - d. Making an HTTP request
  - e. TCP and UDP
- iv. Developing Short Message Service (SMS)
- v. Developing application for Audio and Video
- vi. Developing MMS
- vii. Java Games
- viii. JavaFX Overview
- ix. MIDP2.0 Security
- x. Overview of Security

**Project:** During the 3 weeks project period students are required to develop software in any of the areas covered in the course, under the guidance of the faculty. Students can also take up relevant projects from the industry.

No.	Project Phases	Duration	Marks for each Phase
1	Analysis	One Week	50 Marks
2	Design	One Week	50 Marks
3	Coding, Testing and Implementation	One Week	50 Marks
4	Evaluation		50 Marks
	<b>Total</b>		<b>200 Marks</b>