

# Employment Oriented Summer Course 2011

# APEX Institute of Technology and Management

Pahala, Bhubaneswar, Orissa. Ph: 0674-2113235/36, website: www.apexorissa.com



**SUMMER COURSE**      **CODE 2011/EDA**  
**Electronic Design Automation software Tools for VLSI / ASIC Design**

**Course Goals**

To introduce the latest VLSI Design Technologies and software used in the Electronics/Semiconductor industry. The software and hardware packages which will be introduced in this course are :

- Xilinx ISE 9.1 for FPGA digital design, DSP design and implementation, Electrical and Instrumentation applications using Spartan/Virtex.
- Embedded system application using Xilinx EDK and Spartan/Virtex
- Active HDL for VHDL/Verilog digital design and simulation.
- Tanner tool for IC design.
- Introduction to Mentor Graphics, Synopsis, and Cadence tool for Mixed Signal design.
- Process Tool for silicon using Synopsis CAD.

**Course Contents**

- Overview of VLSI/ASIC design and methodology.
- Course on VHDL/Verilog, Spice.
- Architectural overview of FPGA and CPLDs.
- MOS and CMOS device physics.
- IC design and fabrication process (Full Custom and Semi Custom)
- Cell Library Design.
- Analog/Mixed signal design methodology.
- Testing/Mixed signal design methodology.
- Testing and Verification issues of VLSI Design.

**Prerequisites**

Students are expected to know the fundamentals of analog and digital circuits. Students should have completed at least 4th Semester of BPUT.

**Course Coordinator :**

M. Suresh (+91-94372-17290)

**Course Fees :** For Students: Rs. 7,000/-

For Industry sponsored candidates: Rs. 8,500/-

**SUMMER COURSE**      **CODE 2011/ORA**  
**Certification Course Introduction to ORACLE 9i : SQL [Exam # 1Z0-007]**

**Course Goals**

To prepare you for the first paper [Exam # 1Z0-007] of OCA (Oracle Certified Associate) certification examination. As this course covers the complete set of SQL Queries, this will also help in designing back-ends for database related projects.

**Course Contents**

- Writing Basic SQL Select Statements
- Restricting and Sorting Data.
- Single Row Functions.
- Displaying Data from Multiple Tables with Joins.
- Aggregating Data Using Group Functions.
- Sub queries.
- Producing readable Output with iSQL\*Plus.
- Manipulating Data using INSERT, UPDATE, DELETE and MERGE statements.
- Creating and Managing Tables.
- Including Constraints
- Creating Views
- Creating Other Database Objects like Sequence, Index, and synonyms.
- Controlling User Access.

**Prerequisites**

You must have knowledge of any one high level programming language like C , Pascal, or Fortran and have some exposure to database fundamentals.

**Course Coordinator :**

Bhawani Shankar Pattanaik (+91-94371-66101)

**Course Fees :** For Students: Rs. 7,000/-

For Industry sponsored candidates: Rs. 8,500/-

**SUMMER COURSE**      **CODE 2011/JRR**  
**J2EE and Rational Rose**

**Course Goals**

- Industry Oriented Course
- For the first time being offered in eastern India
- Leads to appear for certification offered by IBM
- Heavy demand for such certification by IBM/Accenture/Infosys/TCS/Satyam
- A result of Industry-Institute partnership.
- Experts from industry and IITs will participate in the course.
- Fully hands on using IBM Rational Rose software.

**Course Contents**

- The servlet technology model
- The structure and development of Web Application
- The Web container model
- Session Management
- Architecture Analysis
- Web application security
- The Java Server Pages (JSP) Technology model
- J2EE patterns
- E-JB-QL
- Message driven bean component contract
- Best practices of software engineering
- Concepts of object orientation
- Requirement overview
- Analysis and design overview
- Use-case Analysis
- Identify design elements
- Identity design mechanisms
- Describe the Run-time architecture
- Describe distribution, Use-case design, subsystem design, class and Database design.

**Prerequisites**

Knowledge of Core Java is must.

**Course Coordinator :**

Siddharth Bhusan Neelamani (+91-94372-04424)

**Course Fees :** For Students: Rs. 7,000/-

For Industry sponsored candidates: Rs. 8,500/-

**SUMMER COURSE**      **CODE 2011/SEC**  
**Spoken English Language course**

**Course Goals**

To prepare you to speak English fluently by training you to produce the sounds of the language in the right way. After the end of this course the students will master the basic elements of English pronunciation and improve their production of the spoken language. Practice material will be given and particular difficulties of the speakers will be noted and remedial exercises provided,. The training will be provided through Hi-Class SW software.

**Course Contents**

- The Basic sounds and sound groups of English(vowels & consonants)
- Problems in pronunciation
- Stress and Rhythm units
- Intonation.
- Listening and Speaking Practice.
- Introduction to GRE and TOEFL.
- Introduction to British English Certificate (BEC).
- Vocabulary Practice.
- Group Discussions.

**Prerequisites**

For all BE, B.Tech., MCA , M.Tech. and MBA students

**Course Coordinator :**

Dipti Ranjan Lenka (+91-99370-27959)

**Course Fees :** For Students: Rs. 3,000/-

For Industry sponsored candidates: Rs. 4,000/-

The above fees includes course material, course bag & Kit, transport, breakfast, lunch, tea & snacks. The course fees can be paid in cash or through DD/ Cheque in favor of "Apex Institute Of Technology & Management, Bhubaneswar" at the center mentioned below.

**Duration & Batch Details :**  
 4 weeks x 6 days a week x 8 hours a day  
**Course Code**      **Start Date**      **End Date**  
**All Courses**      16-05-2011      12-06-2011  
 Dates may change with respect to completion of BPUT Semester Examination

**( VENUE: APEX, BHUBANESWAR )**  
**LAST DATE FOR REGISTRATION :** 1 week before the start date of respective batches  
 Registration Fees : Rs. 500/-  
 (This Regn. Fees will be deducted from the amount of the Course Fees) Limited Seats are available on a first-come-first served basis

**Grading :** There will be regular examinations conducted every Saturday and the grade will be awarded based on the performance in the tests and the projects.  
**Facilities :** Well equipped laboratory facilities/experienced instructors, custom developed course notes will be provided. Hostel facility available for Rs. 1,500/- including boarding and dinner.

**More details contact :**  
 Summer Course Coordinator : Siddharth Bhusan Neelamani  
**Apex Institute of Technology & Management**  
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