

FPGDST-2007

Full-time Post Graduate Diploma in Advanced Software Technology

Mr. Ashish Shankarrao Nanhe

*attended a one year course described in the transcript at
C-DAC, Kharghar, Navi Mumbai
performed well in frequent periodic tests
and completed all the requirements in July 2009.
This Diploma is being conferred in recognition
of this achievement.*

Centre for Development of Advanced Computing
(formerly National Centre for Software Technology)
Gulmohar Cross Road No.9, Juhu, Mumbai - 400049.



Formerly NCST




George L. Arakal
Director (Administration)

FPG/2007/002/KHR



Centre for Development of Advanced Computing
(formerly National Centre for Software Technology)
Gulmohar Cross Road No.9, Juhu,
Mumbai – 400 049

TRANSCRIPT

Mr. Ashish Shankarrao Nanhe

has successfully completed the Full-Time Post Graduate Diploma programme in Advanced Software Technology (FPGDST) conducted at **Centre for Development of Advanced Computing**, Kharghar, Navi Mumbai (formerly **NCST**) during August 2007 – July 2009, securing marks as follows.

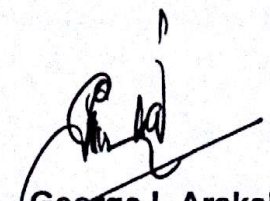
Module	Marks %
Object-Oriented Programming, Algorithms & Data Structure (OPAD)	77.66
Mathematical Foundation of Computer Science (MFCS)	66.43
Technical Communication (TCOM)	56.18
Programming using C and C++ (PCCP)	82.20
Computer Organization & Operating Systems (COOS)	57.60
Computer Networks (CNET)	68.20

Module	Marks %
Database Management (DBMS)	63.70
Enterprise Computing (ENCO)	59.41
Object Oriented Analysis & Design and Software Engineering (OOSE)	70.20
Elective Module – Advanced Networking and Cyber Security	64.40
Project Module	80.00

Total: 745.98/1100
Percentage: 67.81
Division: First

Date: 28/03/2010




George L Arakal
Director (Administration)

Full Time Post Graduate Diploma in Advanced Software Technology (FPGDST), conducted by the Centre for Development of Advanced Computing (formerly NCST), has the primary objective of developing quality manpower with advanced professional competence in software technology. Though the course covered the fundamentals, the focus remained on advanced concepts and state-of-the-art practices and techniques. The course was conceptualized as a finishing school in software technology so that the successful candidates step out into the industry with knowledge, skills and confidence that the industry expects from a well-rounded software professional.

Prerequisite	A Bachelor's degree in any field or a diploma in engineering, involving at least three years of study after the tenth standard.										
Entrance Examination	For admission to the course, candidates had to take an all India Entrance Examination, which tested scholastic aptitude covering quantitative ability, knowledge of high school mathematics, logical reasoning, visuo-spatial reasoning and verbal ability. The Entrance Examination also tested the candidate's familiarity with computer and programming concepts. The test was at the level that one is expected to reach after a careful study of one or two introductory books in the area of computer and programming concepts. A National test was held on January 21, 2007 and subsequently another similar test was held on July 15, 2007. 150 participants were selected for the course from both the tests.										
Evaluation	To be successful in FPGDST, a participant had to successfully complete the 11 modules listed on the reverse. A minimum attendance of 70% is compulsory in each module, covering lectures and tutorials. Every module has a quiz and a practical component (a project, programming test, or a set of assignments). To complete a module, one has to obtain at least 50% in the quiz and 50% in the practical. Participants obtaining 65% or more overall are placed in the first division.										
Machine Graded Programming Test	In the OPAD module, the candidate had to undergo a machine graded programming test (MGPT) that tested the candidate's programming and problem solving ability. During the MGPT, the candidate has to develop a program for solving a given problem, and get it working correctly on the computer within a given span of time. The computer does the grading by comparing the output produced by the program for a set of pre-set undisclosed inputs, against expected outputs.										
Course Project	<p>Project Name : Optimal Path Finder</p> <p>To create a web based system for finding an optimal path from source to destination based on the users constraints. It will take care of users constraints such as time, money & day of travel. This system will provide the detail route plan, like sequence of bus, train and others mode of travel and the expected time and/or money required.</p> <p>Optimal path finder will have the following features:</p> <ul style="list-style-type: none">• Provide multiple traveling options from a given source to destination• Provide expected cost (time & money) for each route.• The selected route will be highlighted on the city map										
Development Environments	<p>Tools: JavaScript, JSP, Servlet, HTML, CSS</p> <p>Students have been exposed to the following development environments, during the course: Operating Systems: Linux, Windows NT/2000</p> <table><tr><td>Design Tools:</td><td>Microsoft Visio / Argo UML</td></tr><tr><td>Database servers:</td><td>Postgres SQL 8.0.2</td></tr><tr><td>Web Technologies:</td><td>HTML, CSS, XML, JavaScript, JSP, Servlets</td></tr><tr><td>Programming Languages:</td><td>C, C++, Java</td></tr><tr><td>Component Technologies:</td><td>EJB, J2EE</td></tr></table>	Design Tools:	Microsoft Visio / Argo UML	Database servers:	Postgres SQL 8.0.2	Web Technologies:	HTML, CSS, XML, JavaScript, JSP, Servlets	Programming Languages:	C, C++, Java	Component Technologies:	EJB, J2EE
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Modules & Duration	Textbooks	Contact Hours*
Object- Oriented Programming, Algorithms & Data Structures (OPAD) August 06 – October 18, 2007	Data Structures, Algorithms & Application in Java – 2 nd Ed., by Sartaj Sahni Computing Concepts With Java 2Essential, 2 nd Edition By Cay S. Horstmann Unix Concepts & Applications – 4th Ed., by Sumitabha Das	60.0
Mathematical Foundation of Computer Science (MFCS) August 13 – October 18, 2007	Discrete Mathematics and its Application – 6 th Ed., by Kenneth H Rosen Probability & Statistics for Engineers & Scientists, 6 th Ed., by Ronald E Walpole, Mayers Raymond H, Sharon L. Myers	30.0
Technical Communication (TCOM) August 16 – October 11, 2007	Technical Communication - Principles and Practice, 1 st Ed., by Meenakshi Raman and Sangeeta Sharma	39.0
Programming using C and C++ (PCCP) October 29 – November 26, 2007	The C Programming Language – 2 nd Ed., by Brian W Kernighan & Dennis M Ritchie Thinking In C ++: Volume I, Introduction to Standard C ++, 2 nd Ed., By Bruce Eckel	36.0
Computer Organization & Operating Systems (COOS) November 27 - December 26, 2007	Computer Organization & Architecture –& Designing for Performance, 7 th Ed., by William Stallings Operating Systems : Internals & Design Principles – 5 th Ed., by William Stallings	37.5
Computer Networks (CNET) December 27, 2007 - January 18, 2008	Computer Networks – 4 th Ed., by Andrew S Tanenbaum Unix Network Programming – Vol. 1, The Sockets Networking API, 3 rd Ed., by Richard Stevens, Bill Fenner, Andrew M Rudoff	39.0
Database Management (DBMS) January 22 – February 25, 2008	Fundamentals of Database Systems – 4 th Ed. by Ramez Elmasri, Shamkant S. Navathe, Durvasula V L N Somayajulu, Shyam K Gupta	43.5
Object Oriented Analysis & Design and Software Engineering (OOSE) February 26 – April 8, 2008	The Unified Software Development Process 2008, Third Reprint by Jacobson Ivar, Grady Booch, James Rumbaugh. Designing Flexible Object Oriented Systems with UML, 1 st Ed., by Charles Richter Software Engineering – A Practitioner's Approach, 6 th Ed., by Roger S. Pressman	55.5
Enterprise Computing (ENCO) April 9 – May 21, 2008	Mastering Enterprise Java Beans, 3 rd Ed. by ED Roman, Rima Patel, Sriganesh, Gerald Brose Core Servlets & Java Server Pages Vol. 1 : Core Technologies, 2 nd Ed., by Marty Hall, Larry Brown Webmaster in a Nutshell, 3 rd Ed., by Robert Eckstein, Stephen Spainhour	55.5
Elective Module		90.0
1) Advanced Networking & Cyber Security: June 01, 2009 to 22 July, 2009	Computer Networks, 4 th Ed., by Andrew S. Tanenbaum UNIX Network Programming, Vol. 1, 3 rd Ed., By W. Richard Stevens, Bill Fenner, Andrew M. Rudoff	
Project Module May 22 – July 31, 2008		

*** In addition to the Contact sessions, the course participants have spent minimally an equal amount of time in the Lab.**

Centre for Development of Advanced Computing (formerly NCST)