Zine Module: Three Level certification Accreditation

Program	Duration	Min. Eligibility	Fee (Rs.)
Ethical Hacking Beginner	36 Hrs	10th Pass	Rs.4500/-
Ethical Hacking Advance Security Concerns	60 Hrs	12 Pass	Rs.8500/-
Cyber Security Analyst Program	200 Hrs	12th Pass	25000
JODHNS (*Job Oriented Diploma in Hardware, Networking and Security*)	15 months	12th Pass	25000
Embedded Robotics CAN based Project	36 Hrs	12th Pass Science Stream	4500
Robotics	60 Hrs	12th Pass Science Stream	8500
Embedded Systems: Advance S/W @ H/W interfacing in Java Or Robotics MoERTA	200 Hrs	12th pass Science Stream	25,000
MATLAB	36 Hrs	12th pass Science Stream	4500
Microsoft.Net (C#, ADO.NET, ASP.NET)	36 Hrs	12th	4500
Java/J2EE	36 Hrs	12th	4500
Web Designing	6 months	12th Pass	10000
(*Diploma in Application Programming*)	12 months	12th	25,000
Executive Master Technology Program	1 year	Graduation	85,000
IDIT (Guaranteed Job) (*Integrated Diploma in Information Technology*)	2 Years	12th	90,000

I-PHONE :

Level 1 ***Zine Module**	Introduction to Programming language Objective-C. Xcode IDE as a development tool
Level 2 ***Zine Module**	The iOS Developer Center, Programme and SDK. Interface builder GUI Tool. Cocoa Touch Design Patterns. View and View Controllers. Manage Navigation.
Level 3 ***Zine Module**	Gesture Recognizers. Graphics. Animation. Performance and Debugging. Submitting your app for approval. Introduction iPad App Development.

	iPhone and iPad virtual Keyboard.

Course contents :

Level 1	**Google's Android :**  **1) Introduction** ▯ Intro to open source. What is open source? ▯ License Issues (MPL, GPL, LGPL, etc.) ▯ Contrasting and comparing open source vs. traditional development methodologies **2) Mobile Application Development Overview** ▯ Mobile Devices Profiles ▯ Mobile Software ▯ Options for development
Level 2	**3) Targeting Android The Big Picture** ▯ Introducing Android ▯ Stacking up Android ▯ Booting Android Development an Android application **4) Development Environment** ▯ The Android SDK ▯ Building an Android application in Eclipse ▯ The Android Emulator ▯ Debugging **5) User interfaces** ▯ Activity LifeCycle ▯ Creating the Activity ▯ An Overview of User interfaces ▯ Using XML Layouts ▯ Selection Widgets ▯ Date and Time Tabs ▯ Using Menus ▯ Using Fonts ▯ The WebView and the WebKit Browser ▯ Dialog Boxes: AlertDialog & Toast ▯ Using resources **6) Intents and services** ▯ Working with Intent classes ▯ Listening in with broadcast receivers ▯ Building a Service ▯ Performing InterProcess ▯ Communication
Level 3	**7) Storing and retrieving data.** ▯ Using preferences ▯ Using the filesystem ▯ Persisting data to a database ▯ Working with ContentProvider classes **8) Networking and Web services** ▯ An overview of networking ▯ Checking the network status ▯ Communication with server socket

	Working with HTTP Web Services **9) Telephony** Telephony background and terms Accessing telephony information Interaction with the phone Working with messaging SMS **10) Graphics and Animation** Drawing graphics in Android Animations **11) Multimedia** Introduction to multimedia Playing audio Playing video and Capturing media **12) Location Services** Simulating your location within the emulator Using LocationManager and LocationProvider Working with maps Converting places and addresses with Geo Coder

SEO (SEARCH ENGINE OPTIMIZATION) TRAINING :

SEO stands for "search engine optimization." It is the process of getting traffic from the "free," "organic," "editorial" or "natural" listings on search engines. All major search engines such as Google, Yahoo and Bing have such results, where web pages and other content such as videos or local listings are shown and ranked based on what the search engine considers most relevant to users. Payment isn't involved, as it is with paid search ads.

In SEO Course we begin right from the fundamentals such as fine page structure, keyword selection and meta tags to further advanced skills like designing search engine friendly content, architecture issues, and many other guidelines & actions we chosen and developed along the way. We also research into the passionately challenged discussion over search engine spam i.e. what it is; why not do it, and how to optimize a site successfully without getting banned.

Course contents for Ethical Hacking

Level 1 ***Zine Module**	A: Introduction to Ethical Hacking B: Ethics and the Hacker C: Hacking Legalities D: Foot printing Concepts E: Web Foot printing Tools **Session 1** F: Local Foot printing Tools G: Scanning for Gold Session 2 A: Mastering Scanning Tools B: Enumeration C: Passwords D: Password Cracking Tools E: Ownership Privileges F: Trojan Horses G: Sniffers
Level 2 ***Zine Module**	Session 3 A: ARP, MAC, and DNS B: DoS Attacks C: Social Engineering D: Advanced Social Engineering

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	E: Session Hijacking F: Web Servers G: Hacking Web Servers H: Web Applications I: Cracking Web Passwords Session 4 A: SQL Injections B: SQL Attacks C: Wireless Vulnerabilities D: WEP Attacks E: WPA and EAP F: Viruses and Worms G: Physical Security Policies
Level 2 ***Zine Module**	Session 5 A: Implementing Physical Security B: Linux C: Compiling Linux D: Intrusion Monitoring Systems E: Evading IMS F: Buffer Overflows Session 6 A: Cryptography B: Symmetric Cryptography C: Multi-Hat Hacking D: Computer Forensics E: Hack Prevention F: Security Policies Session 7: Research and Live Hacking A: SIM cloning a Ethical way B: Credit Card or ATM card cloning possibilities C: How to create a secure server with CERT std

Embedded Systems & Robotics

This is a list of materials for the Embedded & Robotics course lectures. Slides are the slides beamed during lectures; handouts are printable version of slides with basic equations and some explanations. It is recommended to print handouts before lecture and make notes into the material during lectures.

Literature : Level 1 4500 INR

Introduction, slides
Introduction to embedded system.

1.a)Microcontroller ATMEL 8051(89s8252/89c51)

1. B) Deep understanding with microcontroller.

1. c) Embedded in c language + Assembly language.

1.d)Program +code+execution+miniproject(in last or in parallel)

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Literature : Level 2 85,00 INR

Introduction, slides
Operating system

ARM 7 TDMI
32 bit microcontroller basics/pipelining
Execution/features/Instructions set architecture.

Device drivers

Embedded Communications.
CAN/MODBUS/WLAN/BLUETOOTH/SPI/I2C

Real time operating system.(RTOS)
Robot introduction and linkage with Embedded.(A practical session)

Additional course contents of Batch Mastering embedded.

Literature : Level 3 25000 INR

Introduction, slides
Kinematics (slides)
Main Project.

VX-Works

**Java wired interfacing ** port interfacing.etc.

MoRETA(Modular robot for extreme terrain access-MIT university project for NASA) type project

Kinematics of serial manipulators (slides)
Kinematics of serial manipulators (handouts)
Denavit-Hartenberg step by step (by Tomas Pajdla) (slides)
Inverse kinematics of 6-DOF serial robot (slides)
Inverse Kinematics of 6-DOF serial robot - (handouts)
Kinematics of parallel manipulators (slides)
Kinematics of parallel manipulators (handouts)
Differential Kinematics (Slides)
Differential kinematics (handouts)
Statics (Slides)
Statics (handouts)
Robot Control (slides)
Robot Control (handouts)
Mobile Robots Navigation(slides)
Mobile Robots Navigation (handouts)

Time plan for Level 3

1. Introduction, applications of robots
2. Kinematics, terminology, degrees of freedom, structures
3. Body in the coordinate system, transformation of coordinates
4. Open kinematic chain, direct kinematics
5. Denavit-Hartenberg notation
6. Inverse kinematics

7. Parallel manipulators
8. Example: Analysis of complex kinematic chain with camera in measuring machine
9. Differential kinematics, Jacobian
10. Differential kinematics, applications, example
11. Statics
12. Robot control
13. Mobile robots navigation
14. Applications of robots in industry.

Requirements for passing the exam Level 3:

The total points from labs, an exam test, an exam example, and verbal part of exam are summed together (maximum 100 points) and the final evaluation is determined according standard IERAIL regulation: classification table

1. 90+ excellent,
2. 80+ very good,
3. 70+ good,
4. 60+ satisfactory,
5. 50+ sufficient,
6. 49- fail.

Laboratory guide.
Easy to read reference
Mathematical reference.

Industry Oriented Diploma in Hardware, Networking & Security

Duration: 15 months

Level-1: Hardware
Level-2: Networking
Level-3: Information Security

Advance Diploma in Computer Application

1st Semester **Duration 6 Months**

- Computer Fundamentals- hardware& software Elements
- Operating System MS-DOS
- Introduction of Windows & Information Technology
- Microsoft Word
- Microsoft Excel
- Microsoft Power Point
- Microsoft Access
- Project

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2nd Semester

Duration 6 Months

- Programming Technique
- Turbo C
- C++(OOPS Concept)
- Introduction to Computer Network & Internet
- HTML
- DHTML
- VB Script
- Java Script
- Project