FUNDAMENTALS OF INFORMATION TECHNOLOGY

- The Fundamentals of Information Technology Certification Program covers a wide range computer related topics written for students with little to no computing experience.
- The program covers everything from building, operating, networking, securing, and troubleshooting a computer.
- This course also prepares students for the ITF+ certification and exam offered by CompTIA.

Not Just a Simulation! Hands-on Labs Use the Following Equipment:

Motherboards
CPUs
RAM Memory Modules
Hard Drives
Optical Drives
Video, Sound & Networking Cards
Keyboards & Mice
Wireless Home Routers
Tablet Computers
Faulty RAM, Cables, Expansion Cards
& Other Components

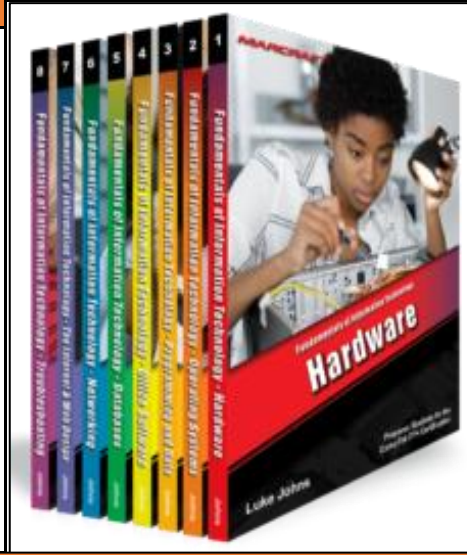
THE FUNDAMENTALS OF IT Training Program Includes:

ITF-1000 Fundamentals of Information Technology Package for
24 Students Working in Pairs
(Requires 12 PC Workstation Computers)

Instructor's Guide with
PowerPoint Presentation Media
(1 Per Classroom)

The Fundamentals of Information Technology Certification Course covers these topics:

Computer Components for Building a PC
Operating Systems & BIOS & UEFI
Operating the Windows OS
Computer Security
Types of Software
Word Processors, Spreadsheets & Presentation
Databases Software
Computer Networking & The Internet
Networking Hardware & Protocols
Network Security
HTML, CSS, & Website Design
Troubleshooting
AND MUCH MORE!



Prepares students for CompTIA IT Fundamentals (ITF+) Certification

CompTIA ITF+

Lab Configuration

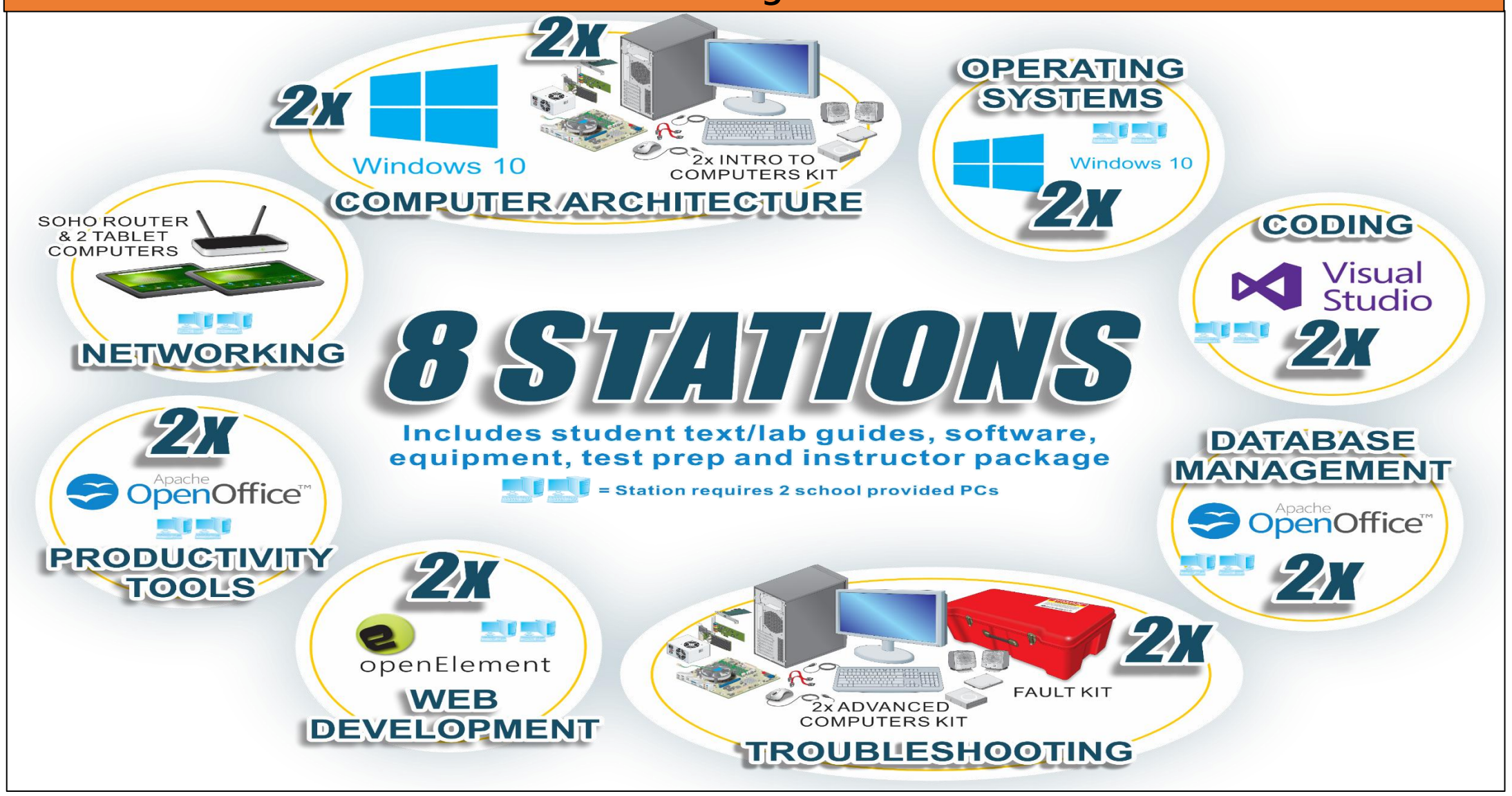


TABLE OF CONTENTS — CURRICULUM AND LAB PRACTICALS

1.FUNDAMENTALS OF IT - HARDWARE

SECTION 1 - COMPUTER BASICS
SECTION 2 - THE SYSTEM UNIT
- Lab Procedure 1 - Installing the Power Supply
- Lab Procedure 2 - Installing a Motherboard
- Lab Procedure 3 - Installing the Memory Modules
- Lab Procedure 4 - Securing the Power Cable and the Data Cable
- Lab Procedure 5 - Installing an Optical Disc Drive

SECTION 3 - STANDARD INPUT/OUTPUT DEVICES
- Lab Procedure 6 - Expansion Cards
- Lab Procedure 7 - Connecting the Monitor
- Lab Procedure 8 - Installing a Keyboard and Mouse

SECTION 4 - OPTIONAL DEVICES
- Lab Procedure 9 - Installing Speakers

SECTION 5 - SYSTEM STARTUP (BOOTING THE SYSTEMS)
- Lab Procedure 10 - System Check out: Startup
- Lab Procedure 11 – System Disassembly

SECTION 6 - DESIGN BRIEFS

2.FUNDAMENTALS OF IT - OPERATING SYSTEMS

SECTION 1 - DISCUSSION
- Lab Procedure 1 - BIOS/UEFI Configuration
- Lab Procedure 2 - Examining Drive Partitioning

SECTION 2 - WINDOWS OPERATING SYSTEM
- Lab Procedure 3 - Exploring Windows Basics
- Lab Procedure 4 - Exploring File Explorer
- Lab Procedure 5 - Copying and Moving Files
- Lab Procedure 6 - Creating Shortcuts
- Lab Procedure 7 - Creating Files with an Application
- Lab Procedure 8 - Using the Search Bar
- Lab Procedure 9 - Opening Different Types of Files

SECTION 3 - LOCAL COMPUTER SECURITY
- Lab Procedure 10 - User Accounts and Passwords
- Lab Procedure 11 - Customizing Windows
- Lab Procedure 12 - Disabling USB Ports and Optical Drives

SECTION 4 - DESIGN BRIEFS

3.FUNDAMENTALS OF IT - PROGRAMMING

SECTION 1 - INTRODUCTION TO PROGRAMMING
- Lab Procedure 1 - Creating and Executing a Pseudo-code Program
- Lab Procedure 2 - Hexadecimal and Binary Math Conversion
- Lab Procedure 3 – Exploring Microsoft Visual Studio
- Lab Procedure 4 - Hello World

SECTION 2 - PROGRAMMING BASICS
- Lab Procedure 5 – Using Variables
- Lab Procedure 6 - Operators
- Lab Procedure 7 – Using the MsgBox Function
- Lab Procedure 8 – InputBox and Data Type
- Lab Procedure 9 – If-Then-Else Statements
- Lab Procedure 10 – Select-Case Statements
- Lab Procedure 11 – The While Loop
- Lab Procedure 12 – The For-Next Loop
- Lab Procedure 13 – Random Number Generation

SECTION 3 - ADVANCED PROGRAMMING CONCEPTS
- Lab Procedure 14 – Modules Adding a Module
- Lab Procedure 15 – Functions Adding in the Function
- Lab Procedure 16 – Sub Procedures
- Lab Procedure 17 – The Timer Control
- Lab Procedure 18 – Arrays
- Lab Procedure 19 – Text Files
- Lab Procedure 20 – Manipulating Text Files with Loops and Arrays
- Lab Procedure 21 – Break Mode
- Lab Procedure 22 – Using a Watch Window Runtime Errors
- Lab Procedure 23 – The Try…Catch Statement

SECTION 4 - ADVANCED USER INTERFACE PROGRAMMING
- Lab Procedure 24 – RadioButton Controls
- Lab Procedure 25 – The CheckBox Control
- Lab Procedure 26 – The ListBox Control
- Lab Procedure 27 – The ComboBox Control
- Lab Procedure 28 – Using LinkLabel
- Lab Procedure 29 – Menus
- Lab Procedure 30 – Dialog Boxes
- Lab Procedure 31 – Drawing Graphics Moving Objects
- Lab Procedure 32 – Moving Object
- Lab Procedure 33 – Printing Investigation
- Lab Procedure 34 – Icons

SECTION 5 - SOFTWARE DEVELOPMENT
SECTION 6 - VALUE OF DATA AND INFORMATION
SECTION 7 - DESIGN BRIEFS

4.FUNDAMENTALS OF IT - OFFICE SOFTWARE

SECTION 1 - INTRO TO OFFICE SOFTWARE
- Lab Procedure 1 – Software Installation

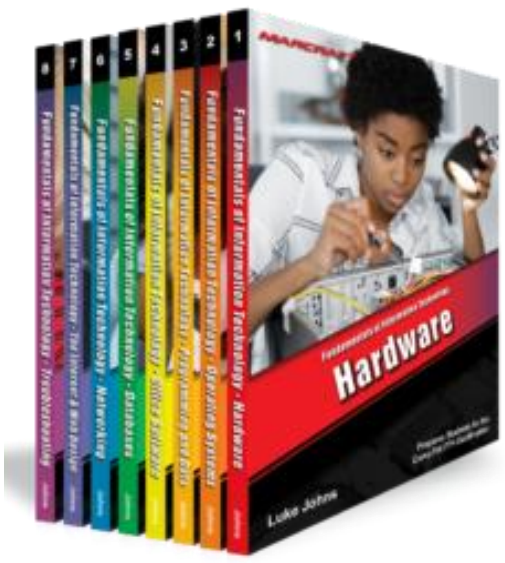
SECTION 2 - WORD PROCESSORS
- Lab Procedure 2 - Introduction to Word Processors
- Lab Procedure 3 - Formatting Text
- Lab Procedure 4 - Inserting Text
- Lab Procedure 5 - Editing Text
- Lab Procedure 6 - Tools
- Lab Procedure 7 - Templates

SECTION 3 - SPREADSHEETS
- Lab Procedure 8 - Introduction to Spreadsheets
- Lab Procedure 9 - Working with Spreadsheets
- Lab Procedure 10 – Sorting, Filtering, and Searching
- Lab Procedure 11 – Working with CSV Files
- Lab Procedure 12 - Formatting Data in Spreadsheets
- Lab Procedure 13 - Creating Charts
- Lab Procedure 14 – Templates

SECTION 4 - PRESENTATION SOFTWARE
- Lab Procedure 15 - Introduction to Presentation Software
- Lab Procedure 16 - Presentation Creation Basics
- Lab Procedure 17 - Charts and Graphs
- Lab Procedure 18 - Transitions and Animations
- Lab Procedure 19 – Multimedia and Interactive Elements

SECTION 5 - DESIGN BRIEFS

- ❖ Comphrehensive and fully-illustrated set of 8 books
- ❖ 130+ Physical Hands-On Lab Procedures
- ❖ Prepares students for Internationally-recognized **CompTIA ITF+** Certification



5.FUNDAMENTALS OF IT - DATABASES

SECTION 1 - DATABASE FUNDAMENTALS
- Lab Procedure 1 - Exploring Desktop Database Management Systems

SECTION 2 - DATA ENTRY
- Lab Procedure 2 - Creating Tables
- Lab Procedure 3 – Table Relationships
- Lab Procedure 4 – Entering Data in Tables
- Lab Procedure 5 - Forms

SECTION 3 - INFORMATION RETRIEVAL
- Lab Procedure 6 – Sorting Records
- Lab Procedure 7 – Filtering Records
- Lab Procedure 8 – Creating Views
- Lab Procedure 9 – Creating Queries
- Lab Procedure 10 – Custom Calculated Fields
- Lab Procedure 11 – Aggregate Calculations
- Lab Procedure 12 – Creating Reports

SECTION 4 - INTRODUCTION TO SQL
- Lab Procedure 13 – Working with DDL Statements
- Lab Procedure 14 – The INSERT, UPDATE, and DELETE Clauses
- Lab Procedure 15 – SELECT Statements

SECTION 5 - DESIGN BRIEFS

6.FUNDAMENTALS OF IT - NETWORKING

SECTION 1 - COMPUTER NETWORK BASICS
- Lab Procedure 1 – Point-to-Point USB Communication
- Lab Procedure 2 – Point-to-Point Networking with PCs

SECTION 2 - NETWORK STRUCTURE
- Lab Procedure 3 – Creating a Network Floor Plan
- Lab Procedure 4 – Creating a LAN
- Lab Procedure 5 – Sharing Files

SECTION 3 - NETWORKING PROTOCOLS
- Lab Procedure 6 - Inspecting Local DNS Settings
- Lab Procedure 7 – Working with MAC Addresses
- Lab Procedure 8 – Examining Protocol Traffic

SECTION 4 - NETWORK HARDWARE
- Lab Procedure 9 – Configuring a Network Interface Adapter
- Lab Procedure 10 – SOHO Router Basics
- Lab Procedure 11 – Creating a Wireless Network

SECTION 5 - NETWORKING TESTING
- Lab Procedure 12 – Testing Network Performance
- Lab Procedure 13 - Using TCP/IP Utility Programs

SECTION 6 - NETWORK SECURITY
- Lab Procedure 14 – Securing a SOHO Router

SECTION 7 - DESIGN BRIEFS

7.FUNDAMENTALS OF IT - THE INTERNET & WEB DESIGN

SECTION 1 - THE INTERNET
- Lab Procedure 1 - Connecting to the Internet
- Lab Procedure 2 - Understanding DNS

SECTION 2 - ONLINE SAFETY & SECURITY
- Lab Procedure 3 – Updating Windows
- Lab Procedure 4 – Anti-Malware Exploration
- Lab Procedure 5 – Local PC Firewall

SECTION 3 - WEB BROWSERS & COMMUNICATION SOFTWARE
- Lab Procedure 6 – Web Browser Fundamentals
- Lab Procedure 7 – Using a Search Engine
- Lab Procedure 8 – Cookies and Cache Files
- Lab Procedure 9 – Advanced Browser Settings

SECTION 4 - WEB DESIGN
- Lab Procedure 10 – Working With HTML
- Lab Procedure 11 – Working With CSS
- Lab Procedure 12 – Visual Web Page Editors
- Lab Procedure 13 – Examining Visual Web Page Editor Export Files

SECTION 5 - DESIGN BRIEFS

8.FUNDAMENTALS OF IT - TROUBLESHOOTING

SECTION 1 - TROUBLESHOOTING BASICS
- Lab Procedure 1 - Creating a Recovery Drive
- Lab Procedure 2 - Accessing Safe Mode in Windows 10

SECTION 2 - CONSUMER TROUBLESHOOTING
- Lab Procedure 3 - Creating a Restore Point
- Lab Procedure 4 - Examining the System Unit

SECTION 3 - PROBLEM ISOLATION PROCEDURES
- Lab Procedure 5 - Power Supply Problems
- Lab Procedure 6 - Keyboard Problems
- Lab Procedure 7 - Mouse Problems
- Lab Procedure 8 - Audio Problems
- Lab Procedure 9 - Video Display Problems
- Lab Procedure 10 - Motherboard Problems
- Lab Procedure 11 - Hard Drive Problems
- Lab Procedure 12 - Optical Drive Problems
- Lab Procedure 13 - Network Connection Problems

SECTION 4 - DESIGN BRIEFS

PROPOSED SESSIONS SUMMARY SHEET

1. STUDENTS OF VTH STANDARD
   FUNDAMENTALS OF IT - HARDWARE
2. STUDENTS OF VITH STANDARD
   FUNDAMENTALS OF IT - OPERATING SYSTEM
3. STUDENTS OF VIITH STANDARD
   FUNDAMENTALS OF IT - OFFICE SOFTWARE
4. STUDENTS OF VIIITH STANDARD 04
   FUNDAMENTALS OF IT - NETWORKING

1. STUDENTS OF IXTH STANDARD
   FUNDAMENTALS OF IT - TROUBLESHOOTING
2. STUDENTS OF XTH STANDARD
   FUNDAMENTALS OF IT - PROGRAMING
3. STUDENTS OF XITH STANDARD
   FUNDAMENTALS OF IT - DATABASE
4. STUDENTS OF XIITH STANDARD
   FUNDAMENTALS OF IT - INTERNET AND WEB DESIGN

SR. NO.	CLASS	COURSES	TOTAL PROPOSED SESSIONS	SESSIONS BREAKUP	SESSIONS PER WEEK
1	5	Hardware	32	32	2.0
2	6	Hardware + OS	40	20+20	2.5
3	7	Hardware + OS + Office Software	48	16+16+16	3.0
4	8	Hardware + OS + Office Software + Networking	48	12+12+12+12	3.0
5	9	Hardware + OS + Office Software + Networking + Troubleshooting	50	10+10+10+10+10	3.1
6	10	Hardware + OS + Office Software + Networking + Troubleshooting + Programming	54	09+09+09+09+09+09	3.4
7	11	Hardware + OS + Office Software + Networking + Troubleshooting + Programming + Databases	56	08+08+08+08+08+08+08	3.5
8	12	Hardware + OS + Office Software + Networking + Troubleshooting + Programming + Databases + Internet and Web Design	64	08+08+08+08+08+08+08+08	4.0

LIST OF ASSOCIATED EQUIPMENT FOR INFORMATION TECHNOLOGY AND FOUNDATION CYBERSECURITY COURSE FOR SCHOOLS COE TO BE ARRANGED BY INSTITUTE

A Digital Interactive Panel 1 NO.
B CABLING and TOOLS, LAN Cables (approx. length in m) + 15 Terminations

BELOW TRAINING LAB ROOM SETUP REQUIRED FOR ABOVE EQUIPMENT AND ASSOCIATED CLASSROOM INFRASTRUCTURE
Classroom approx. 30feet by 25feet for 32 students each - 1 Room 750 sq ft approx.
Total 1 room for 32 students, Each Session of 2-4 hours,
Sessions can be conducted daily as per students set timetable.

Air-conditioning, Proper workstations/chairs, Necessary UPS — As per required

FoIT BILL OF MATERIALS – PARTS LIST

FUNDAMENTALS OF INFORMATION TECHNOLOGY TRAINING PROGRAM

Rotational Full - 8 Lab Stations (for 32 Students) with Theory/Lab/Instructor guide

Station 1 - Hardware	**Station 5 - Databases**
Station 2 - Operating System	**Station 6 - Networking**
Station 3 - Programming	**Station 7 - Internet & Web Design**
Station 4 - Office Software	**Station 8 - Troubleshooting**

Including all software, student curriculum, instructor package and hardware, Theory, and Lab Guides as below,

Build Computer Fundamentals Theory/Lab Guide - 3 nos.

Troubleshoot Computer Fundamentals Theory/Lab Guide with Media Resource - 3 nos.

Operating System Fundamentals Theory/Lab Guide with Media Resource - 3 nos.

Database Fundamentals Theory/Lab Guide with Media Resource - 3 nos.

Coding Fundamentals Theory/ Lab Guide with Media Resource - 3 nos.

Office Productivity Fundamentals Theory/Lab Guide with Media Resource - 3 nos.

Web Development Fundamentals Theory/Lab Guide with Media Resource - 3 nos.

Networking Fundamentals Theory/Lab Guide with Media Resource - 3 nos.

Fundamentals of IT Fundamentals Training Program Instructor's Guide with PowerPoint Presentation - 1 no.

FOLLOWING HARDWARE INCLUDED

WORKSTATION STUDENTS PC	12	Storage Case	4
Minimum PC configuration are as follows:		Storage Case Foam	4
• 256GB Hard Drive/SSD		SATA Cables	8
• Core i5 with 8GB RAM		SATA Cables 4-Pin	4
• LAN Port, Wi-Fi adapter, 4 USB Ports		Windows 10 Pro	4
System Board	4	Toolkit 4	4
Processor (CPU)	4	Anti-Static Wrist Strip	4
RAM	4	SoHo Router	4
Hard Drive SATA	4	Tablet PC	4
CD/DVD Drive	4	H/S Storage Case	4
LCD Monitor 20"	4	H/S Storage Case Foam	4
Video Card	4	Faulted RAM	2
LAN Card	4	Faulted Mouse and Keyboard	2
Mouse and Keyboard	4	Faulted Video Card	2
Power Supply	4	Faulted LAN Card	2
Sound Card	4	Faulted SATA Cable 4 Pin	2
Speakers 2EA	4	Faulted Power Cable	2

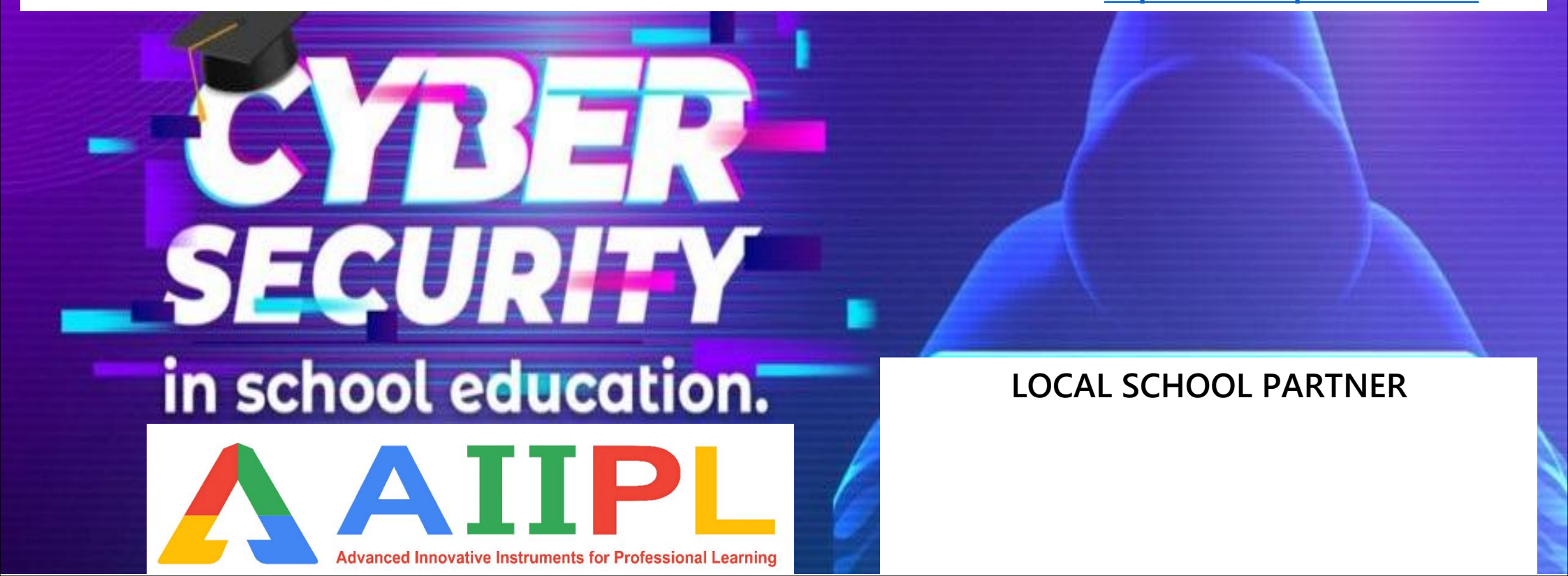
BENEFITS EARNED WITH FoIT PROGRAM

WHAT SKILLS STUDENTS WILL LEARN	JOB ROLES AND OPPORTUNITIES
The Computer System Unit Standard and Optional Input/Output Devices Windows Operating System, Office Software Troubleshooting Binary and Hexadecimal Math Basics of Ruby, Python, Bash, & PowerShell Database Fundamentals, Administration & Security Introduction to SQL Simple Computer Communications Computer Connection Media Data Transmission Local Area Networks, LAN Protocols Networking Transmission Media Network Connectivity Devices Network Control Strategies The Internet & Network Services End Point Devices & Upgrading a LAN Network Troubleshooting & WAN Troubleshooting Network Preventive Maintenance Security Layers Physical Security Operating System Security Internet and Wireless Security Password and Audit Policies Encryption Network Security Client, Server and Email Technician Cyber Incident Response	IT Support Technician Help Desk Technician Technical Support Junior Software Developer Junior Data Analyst Network Administration Support Help Desk Technician Network Security Instructor Support IT Security Administration Support Help Desk Technician for Security Junior Cybersecurity Analyst Cyber Security Instructor Support

1. Capacity in each lab is to train a classroom of students for 2-4 hours per week.
2. Students can complete each designated course a school semester.

Your Project Implementation partner Mr. Devesh Singh 9873993903

Mr. R. K. Pillai – President and CEO M: +91 9867368076 E: rkpillai@aiipltech.com



LOCAL SCHOOL PARTNER