



Name of the Program(s): - Short Courses or Trade Courses- Professional Training in IT (Information Technology) and Computer Sciences Engineering, Electrical Vehicle and Electronic Appliances Trainings.

Are you interested in earning your Short Training Certificate or international Trade course in IT (Information Technology) and Computer Sciences Engineering Training, but you're unsure how to start the process? While this is a great step for your individual career, it doesn't have to be a complex one really if you study from GEPEA. This is the ultimate guide to enroll yourself in your desired short course trainings such as in IT, Computer Sciences Engineering and Electrical Vehicle and Electronic Appliances Trainings as well as specific qualifications.

Upon completing the course respective student are usually equipped to plan and engage in effective trade practices. There are a number of benefits available with taking an international trade course. The number one advantage is the versatility of the information in the field s/he be trained. As like a short course or trade touches on a wide scope of industries, which aids to diversify the student's skill set. This also can open them up to various positions & make them more qualified to hiring potential employers.

Short Course Trainings in Different career oriented fields

GEPEA Trade courses



- High in Demand
- High Salary
- PR Pathway

IT (INFORMATION TECHNOLOGY) AND COMPUTER SCIENCES
ENGINEERING, ELECTRICAL VEHICLES AND ELECTRICAL APPLIANCES
TRADE COURSE PROFESSIONAL SKILLS TRAININGS

Training Hours: 16 or 20 GEPEA Credit hours.

Program Duration: 1 Month (Fast Track) or 2 Months to 3 Months (For Part Time Home Study-Distance Learning) (Certifications).

Admission Requirements: A high school diploma or an associate degree in general science or science (or global equivalent), Secondary degree (high school diploma, associate degree, or the global equivalent). **Age Limit:** No age bar or age limit.

Other Requirements: Any Science related degree are needed to take this course, but have some extra skills using laptop/computer and internet, E-mail for communications will help.

Training Delivery: The course duration will comprise 16 or 20 hours of self-study home based or lecture based delivery. The 16 or 20 hours will be delivered in 1 to 3 sessions online distance learning based on given course materials. This 1 month or 2 months or 3 months' course aims to provide an introduction and depth understanding, practical training in the respective field. Even the short course or trade course will develop and enhance trainees a core -basic skills of the concern training and certification areas.



Syllabus Outline

Serial No.	Syllabus component	Assignment TMA (Tutor Mark Assignment) or Case Study	Board Questions (OBS = Open Book System) Exam.	MCQ (Multiple Choice Questions) 10 Questions (each @ 2 marks)
	<p>1 session or part will count 7 hours each (1 parts/courses x 7 hours study each = 7 hours total) + Suggested Video Exercises Minimum 9 hours = Grand Total 16 Hours</p> <p style="text-align: center;">OR</p> <p>2 sessions or parts will count 7 hours each (2 parts/courses x 7 hours study each = 14 hours total) + Suggested Video Exercises Minimum 6 hours = Grand Total 20 Hours</p>	45	35	20
	Short Courses- Professional Training in IT (Information Technology) and Computer Sciences Engineering, Electrical Vehicle and Electronic Appliances Trainings.	<i>16 or 20 Hours (Time)</i>		
1	<p><u>Training Course Certificate Title:</u> <u>Automation and Robotics, Introduction to Robotics:</u></p> <p>Chaper-1: Automation & Robotics – An optimized loudspeaker assembly for a mechanized production line Chapter-2: Design of Speakers Production Chapter-3: Strategic Approaches to Resource husbandry & Recovery Chapter-4: Software engineering & Data Communications Chapter-5: Robot Grip Mechanism</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> Automation and Robotics https://www.youtube.com/watch?v=K1B86ghqeIE Robotics and Automation https://www.youtube.com/watch?v=etVW96uyb6c Robotic Process Automation Full Course - 10 Hours https://www.youtube.com/watch?v=MBI-3Yb30FA Automation Testing Tutorial for Beginners Software Testing Certification Training https://www.youtube.com/watch?v=QtZ4yV49RtA What exactly is Robotics Engineering? 3 Things you need to know if you are a beginner. https://www.youtube.com/watch?v=NIOcSPDFnk0 What is Automation? https://www.youtube.com/watch?v=W8mKWrt-Cxk https://www.youtube.com/watch?v=xowQkxFXTNg 	<p>45</p> <p><i>7 Credit Hours Per Subject</i></p> <p><i>6 or 9 Credit Hours</i></p>	35	20

2	<p><u>Training Course Certificate Title: Cyber Security/Cyber Security Engineering:</u></p> <p>Chapter 1: Cyber Security Engineering: Lifecycle Assurance of Systems and Software Chapter 2: Risk Analysis—Identifying and Prioritizing Needs Chapter 3: Secure Software Development Management and Organizational Models Chapter 4: Engineering Competencies Chapter 5: Performing Gap Analysis Chapter 6: Metrics Chapter 7: Special Topics in Cyber Security Engineering Chapter 8: Summary and Plan for Improvements in Cyber Security Engineering Performance</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> Cyber Security in 7 Minutes What Is Cyber Security: How It Works? https://www.youtube.com/watch?v=inWWhr5tnEA Getting into Cyber Security: 5 Skills You NEED to Learn https://www.youtube.com/watch?v=Kx4v9c7w2JQ What is Cyber Security? Introduction to Cyber Security Cyber Security Training https://www.youtube.com/watch?v=ooJSgsB5fIE Cyber Security Full Course In 8 Hours Cyber Security Tutorial https://www.youtube.com/watch?v=nzZkKoREEGo Cyber Security Full Course - Learn Cyber Security In 12 Hours https://www.youtube.com/watch?v=oZfDp3SvrOY Day In The Life of a Cybersecurity Engineer Instagram Takeover Zero To Engineer https://www.youtube.com/watch?v=t7alwWiUb50 https://www.youtube.com/watch?v=MFG5rbSCGZE 	7 Credit Hours Per Subject		
3	<p><u>Training Course Certificate Title: Basic Computer Maintenance & Troubleshooting:</u></p> <p>Introduction Step One: Disable System Restore Step Two: Ad-Aware SE Personal Scan Step Three: X-Cleaner / X-Scan Step Four: Spybot S&D (Search & Destroy) Step Five: Antivirus Scan using AVG Step Six: Startup & System Processes Step Seven: Disk Cleanup Tool Step Eight: Disk Defragmentation Step Nine: Restart System Restore Appendix A: Winsock XP Fix Tool</p> <p>Software Maintenance</p> <ol style="list-style-type: none"> Drive Error Correction..... 2 Defragmentation 4 Hard Drive free space 6 	6 or 9 Credit Hours		
		7 Credit Hours Per Subject		

	<p>4. Software Inventory 7</p> <p>5. Startup folder 8</p> <p>6. Security updates 8</p> <p>Hardware Maintenance 10</p> <p>Dust removal and ventilation</p> <p>Other issues: Anti-Malware 10</p> <p>Performance Options 11</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> BASIC COMPUTER MAINTENANCE https://www.youtube.com/watch?v=hzT_gGUkNWk Introduction to Computer Maintenance & Troubleshooting https://www.youtube.com/watch?v=HKWDWo1fG8w Computer Maintenance and Troubleshooting https://www.youtube.com/watch?v=XaBPzZ4a7pM&list=PLTerE3zLmlF5Tj8G82wAzpDCyWEoDkXYM 5 Basic Networking commands for everyone (2021) How to troubleshoot network issues on Windows? https://www.youtube.com/watch?v=SK8D1bdJh7s Generations of computer (Computer Maintenance and Trouble Shooting) https://www.youtube.com/watch?v=OXO-naYHCIs Top 5 Tips for Basic Computer Maintenance https://www.youtube.com/watch?v=FtJz_ZRCxbo 	<p>7 Credit Hours Per Subject</p>		
4.	<p><u>Training Course Certificate Title: Data Communications:</u></p> <p>In this Training Chapter</p> <ul style="list-style-type: none"> » Concept of Communication » Components of Data Communication » Measuring Capacity of Communication Media » Types of Data Communication » Switching Techniques » Transmission Media » Mobile Telecommunication Technologies » Protocol <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> Data communication and its components https://www.youtube.com/watch?v=YGm2GZeR5Y&list=PLrjktq3jnm9xaVxzOGH5Z_xvBguUSat Data communication, characteristics and components https://www.youtube.com/watch?v=Ylb5XipDHxA Introduction to Data Communication Course and Outline https://www.youtube.com/watch?v=swtH_ekidQc&list=PLUitVcb-ign8dG1-Cn7NTEdILR3hRVgcN Data Communications https://www.youtube.com/watch?v=ULgKbLWhgEM Introduction DATA COMMUNICATIONS AND NETWORKING https://www.youtube.com/watch?v=bR3U1L1oCb0&list=PL9P1J9q3_9NXTTp1JTM0gJDdjM9HBGsN INTRODUCTION TO DATA COMMUNICATIONS AND NETWORKING https://www.youtube.com/watch?v=mYWslbszYQ 	<p>6 or 9 Credit Hours</p>		
5.	<p><u>Training Course Certificate Title: Database Management/Database systems for Management:</u></p>	<p>7 Credit Hours Per Subject</p>		

	<p>Database Fundamentals</p> <p>CHAPTER CONTENTS</p> <p>Data as an Organizational Asset</p> <p>Managing Organizational Data</p> <p>Data versus Information</p> <p>Elements of Database Systems</p> <p>People</p> <p>Computer Hardware and Software</p> <p>Databases</p> <p>Database Planning and Design Techniques</p> <p>Database Systems and Other Organizational Information Systems</p> <p>Effective Systems and Efficient Systems .</p> <p>Case Example: Data Management at the Conventional National Bank .</p> <p>Case Example: Byer Kaufman's Portfolio Management System</p> <p>Objectives of Database Systems</p> <p>Access Flexibility</p> <p>Data Integrity</p> <p>Data Security</p> <p>Data Independence and the ANSI/SPARC Model</p> <p>Reduced Data Redundancy</p> <p>Data Shareability</p> <p>Data Relatability</p> <p>Standardization</p> <p>Personnel Productivity</p> <p>Disadvantages of the Database Approach</p> <p>Suggested Video Exercises:</p> <ol style="list-style-type: none"> 1. Introduction to Database Management Systems (DBMS) https://www.youtube.com/watch?v=6lu45VZGQDk 2. Introduction to DBMS Database Management System https://www.youtube.com/watch?v=T7AxM7Vqvaw 3. Introduction To DBMS - Database Management System What Is DBMS? https://www.youtube.com/watch?v=mqprM5YUdpk 4. Database Systems (SQL, NoSQL, Large-Scale Data Analysis) https://www.youtube.com/watch?v=4cWkVbC2bNE 5. Relational model in dbms https://www.youtube.com/watch?v=P8n_rwPzdBc&list=RDQMvYjWQqQv0tg&start_radio=1 6. Database Management System (DBMS) https://www.youtube.com/watch?v=cMUQznvYZ6w 	<p><i>7 Credit Hours Per Subject</i></p>		
6.	<p><u>Training Course Certificate Title: Data and Computer Communications:</u></p> <p>Chapter 1 Data Communications, Data Networking, and the Internet</p> <p>Chapter 2 Protocol Architecture,TCP/IP, and Internet-Based Applications</p> <p>Chapter 3 Data Transmission</p> <p>Chapter 4 Transmission Media</p> <p>Chapter 5 Signal Encoding Techniques</p>	<p><i>6 or 9 Credit Hours</i></p> <p><i>7 Credit Hours Per Subject</i></p>		

	<p>Chapter 6 Digital Data Communication Techniques Chapter 7 Data Link Control Protocols Chapter 8 Multiplexing Chapter 9 Spread Spectrum Chapter 10 Circuit Switching and Packet Switching Chapter 11 Asynchronous Transfer Mode Chapter 12 Routing in Switched Networks Chapter 13 Congestion Control in Data Networks Chapter 14 Cellular Wireless Networks Chapter 15 Local Area Network Overview Chapter 16, 17 High-Speed/Wireless LANs Chapter 18 Internetwork Protocols Chapter 19 Internetwork Operation Chapter 20, 21 Network Protocol & Security Chapter 22 Internet Applications—Electronic Mail and Network Management Chapter 23, 24 Internet Applications & Multimedia—Internet Directory Service and World Wide Web</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> 1. Data and Computer Communications https://www.youtube.com/watch?v=CsyQGfBp-VE 2. Data and Computer Communications - Data Communications, Networks and Switching https://www.youtube.com/watch?v=G7e3gNCc8OU 3. Introduction of Data Communication and Computer Networking. https://www.youtube.com/watch?v=OmYHJShD_QM 4. Introduction and Course Outline - Data Communication https://www.youtube.com/watch?v=sG6WGvzmVaw&list=PL8BF3052396E05930 			
7.	<p><u>Training Course Certificate Title: Software Engineering:</u> Part 1 Introduction to Software Engineering Part 2 Dependability and Security Part 3 Advanced Software Engineering Part 4 Software Management (From introduction to software project management will be though in this training module)</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> 1. Software Engineering Basics https://www.youtube.com/watch?v=sB2iQSvrcG0 https://www.youtube.com/watch?v=4b1D1QFEel0&list=PLWPirh4EWFpG2b1L3CL-OAPYcM25LjXH 2. Software Engineering Tutorial Learn Software Engineering https://www.youtube.com/watch?v=u0WXusT1WaA 3. Software Engineering: Crash Course Computer Science https://www.youtube.com/watch?v=O753uuutqH8 4. What Professional Software Engineers ACTUALLY Do? https://www.youtube.com/watch?v=Q0A35ZfgwHA 	6 or 9 Credit Hours	7 Credit Hours Per Subject	6 or 9 Credit Hours

	<p>5. SOFTWARE ENGINEERING https://www.youtube.com/watch?v=5p_O9RcmPdc</p> <p>6. 5 Things I Wish I Knew Before Becoming a Software Engineer https://www.youtube.com/watch?v=M_GVUj86VaY</p> <p>7. What is software engineering? https://www.youtube.com/watch?v=WxkP5KR_Emk&list=PLrkTq3jnm9b5nr-ggx7Pt1G4UAHeFJ</p> <p>8. <u>Training Course Certificate Title: Basic Computer Maintenance:</u> Software Maintenance 1. Drive Error Correction..... 2 2. Defragmentation 4 3. Hard Drive free space 6 4. Software Inventory 7 5. Startup folder 8 6. Security updates 8</p> <p>Hardware Maintenance 10 Dust removal and ventilation Other issues: Anti-Malware 10 Performance Options 11</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> 10 Tips for Basic Computer Maintenance & Security https://www.youtube.com/watch?v=9aFVjvCJcbk PC Maintenance You Should Be Doing https://www.youtube.com/watch?v=ZYGND_SLqUQ COMPUTER SUPPORT AND MAINTENANCE https://www.youtube.com/watch?v=hAVGbBX5MhU BASIC COMPUTER MAINTENANCE https://www.youtube.com/watch?v=hzT_qGUkNWk&t=242s Basic Computer Maintenance & Security How to Care & Maintenance of Computer System https://www.youtube.com/watch?v=TXOZ80rA3aY 	<p>7 Credit Hours Per Subject</p> <p>6 or 9 Credit Hours</p>		
<p>9.</p>	<p><u>Training Course Certificate Title: Computer Hardware Repairs and Maintenance:</u> Knowledge of Computer Hardware Identify computer hardware Issues/Problems determine faulty Computer hardware Know Basic computer troubleshooting tips Knowledge of Operating System and device Drivers Identify hardware Peripherals Basic knowledge of safeguarding hardware Apply the knowledge to repair/maintain a computer etc.</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> Tools for computer repair computer hardware & networking https://www.youtube.com/watch?v=FPfnhlbdxkl Computer Hardware Basics Explained with Parts https://www.youtube.com/watch?v=3vSnVvtv_PQ Desktop Motherboard Repair Tutorial https://www.youtube.com/watch?v=2I6Mudx0Rm0 	<p>7 Credit Hours Per Subject</p> <p>6 or 9 Credit Hours</p>		

	<p>4. How to Repair a DEAD Computer? https://www.youtube.com/watch?v=Zz9pMKy9Mbs</p> <p>5. Laptop Repair Tools and Basic Parts (Part 1) https://www.youtube.com/watch?v=huJFm11zuM</p> <p>6. Mother Board Repair Basics #10 - Short Detection with Voltage Injection https://www.youtube.com/watch?v=EWuzmlz7hOE</p> <p>7. Fixing A Dead Server Motherboard + Troubleshooting Tips https://www.youtube.com/watch?v=X2KvXSs9fGo</p>			
10.	<p><u>Training Course Certificate Title: Networking or Computer Networking</u> – A top down approach:</p> <p>Chapter 1 Computer Networks and the Internet Chapter 2 Application Layer Chapter 3 Transport Layer Chapter 4 The Network Layer Chapter 5 The Link Layer (Access Networks and LANs) Chapter 6 Wireless and Mobile Networks Chapter 7 Multimedia Networking Chapter 8 Security & Computer Networks Chapter 9 Network Management</p> <p><u>Suggested Video Exercises:</u></p> <p>1. Introduction to Computer Networks https://www.youtube.com/watch?v=VwN91x5i25g&list=PLBlnK6fEyqRgMCUAG0XRw78UA8qnv6iEx</p> <p>2. Computer Networking Fundamentals Networking Tutorial for beginners Full Course https://www.youtube.com/watch?v=k9ZigsW9iI0</p> <p>3. Computer Networking Course - Network Engineering https://www.youtube.com/watch?v=qiQR5rTSshw&t=10s</p> <p>4. Computer Networking Complete Course - Beginner to Advanced https://www.youtube.com/watch?v=QKfk7YFILws</p> <p>5. Computer Networking Explained https://www.youtube.com/watch?v=tSodBEAJz9Y</p> <p>6. Introduction FHU - Computer Networks https://www.youtube.com/watch?v=5D67Qy1tPLY&list=PLFLgriuZPAcCkmSTfc7oaHcVY3rzEtc</p> <p>7. Computer Network Devices https://www.youtube.com/watch?v=Ye6Mh9fig0</p>	<p>7 Credit Hours Per Subject</p> <p>6 or 9 Credit Hours</p>		
11.	<p><u>Training Course Certificate Title: Wireless Technologies or Wireless Networking Technologies:</u></p> <p>Chapter 1: Introducing Wireless Networking Chapter 2: Wireless Network Logical Architecture Chapter 3: Wireless Network Physical Architecture Chapter 4: Radio Communication Basics Chapter 5: Infrared Communication Basics Chapter 6: Wireless LAN Standards Chapter 7: Implementing Wireless LANs Chapter 8: Wireless LAN Security Chapter 9: Wireless LAN Troubleshooting Chapter 10: Wireless PAN Standards Chapter 11: Implementing Wireless PANs</p>	<p>7 Credit Hours Per Subject</p>		

	<p>Chapter 12: Wireless MAN Standards Chapter 13: Implementing Wireless MANs Chapter 14: Leading Edge Wireless Networking Technologies Chapter 15: Further Sources of Information</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> 1. What is Wireless Network? Types of Wireless Network https://www.youtube.com/watch?v=YpWWga6PTME 2. Introduction to Wireless Networking Technologies https://www.youtube.com/watch?v=AF3MyOFil8M 3. Introduction to Wireless Network Types and How They Work https://www.youtube.com/watch?v=ut-EMI-uHXY 4. What Do You See as the Future of Wireless Networking Technologies? https://www.youtube.com/watch?v=1ol-vZglwGM 5. Wireless Technologies https://www.youtube.com/watch?v=MwFWPi-D-ps 6. Wireless Network Technologies https://www.youtube.com/watch?v=eV9Mu3njz_M <p>12. <u>Training Course Certificate Title: Laptop Repair & Maintenance:</u> Laptops Fundamental Features of Laptops and Portable Devices Power Management Safe Removal of Laptop Specific Hardware Portable and Laptop Diagnostics Preventative Maintenance for Laptops and Portable Device Processors Software and Operating Systems Laptop Data Recovery Problem Solving and Troubleshooting</p> <p>Part 1: Chapter 1 Chapter 2 Chapter 3 Chapter 4 Chapter 5 Chapter 6 Chapter 7 - Basic Troubleshooting Used by A Laptop Technician - Common Parts and Functions of the Average Laptop - Installing Operating Systems On Laptops and Netbooks - Complete Disassembly / Taking Apart the Laptop - Laptop Screen Disassembly Instructions - Laptop Screen Types, Including Bulb/Inverter Repair - Laptop Not Powering On Issues & Resolutions Liquid Spill Discussion Cleaning the Motherboard Discussion Chapter 8 - Laptop Not Powering On Issues; Part 2: Video Related Cleaning The Fan And Heat-Sink Assembly Discussion Thermal Paste Usage & Removal Discussion Chipset Discussion Chapter 9 - Reflowing The GPU Coin-stack Use Discussion BGA Explanation Heat Gun Use/Hot Air Gun/ Tips and Nozzles Monitoring The Temperature Tips For A Successful Reflow Chip Sealant / Epoxy Removal Preheating the PCB Use Of Flux Fan Modification/Thermal Controller Thermal Pads Verses Shims</p>	<p><i>6 or 9 Credit Hours</i></p>		
	<p><i>7 Credit Hours Per Subject</i></p> <p><i>7 Credit Hours Per Subject</i></p>			

	<p>Use Of Thermal Paste Chapter 10 - Laptop Not Powering On Issues; Part 3: Motherboard Related Blown Voltage Regulator Types Of Voltage Regulators/ Images/Vectors Blown Capacitors Tantalum & Electrolytic</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> Laptop Repair Tools and Basic Parts (Part 1) https://www.youtube.com/watch?v=huJFImI1zuM&t=21s How to Read Laptop Schematics-Part 1 https://www.youtube.com/watch?v=7F8eFKVPtos&list=PLQ8gTjAmbjEFUmkiaRzveNRAM7VSu3vPj Laptop motherboard repair from a beginner point of view https://www.youtube.com/watch?v=YQIGdimn0nQ How to diagnose a laptop motherboard - motherboards repair lesson? https://www.youtube.com/watch?v=GCLflgmne6k Laptop Repair https://www.youtube.com/watch?v=ZrW_uIC5TOk Most common fault on a Dead Laptop https://www.youtube.com/watch?v=kOGGCGAb2d4 LVDS Section No Display on Screen English La-d701p Online Chiplevel Laptop Repair Course https://www.youtube.com/watch?v=17gYxtpDTE&list=PLf8urso-lgyntlanDz4vOmTEz-OpXCDLa Lenovo Laptop - no power, not charging, let's learn diagnose https://www.youtube.com/watch?v=I73U2ZnvrBM Laptop repair - when everything is good but still not working https://www.youtube.com/watch?v=IRJYkU_4mDg Laptop motherboard, diagnose & and repair tutorial https://www.youtube.com/watch?v=WU8_eTqlue0 <p>13. <u>Training Course Certificate Title: Fiber Optics Engineering:</u></p> <p>Chapter 1 Fiber Optic Communications: A Review Chapter 2 Communication Networks Chapter 3 Signal Characterization and Representation Chapter 4 Semiconductor Lasers Chapter 5 Optical Fibers Chapter 6 PIN and APD Detectors Chapter 7 Light Coupling and Passive Optical Devices Chapter 8 Optical Transmitter Design Chapter 9 Optical Receiver Design Chapter 10 Reliability Chapter 11 Test and Measurement Chapter 12 Standards Appendix A Common Acronyms</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> Optical fiber cables, how do they work? https://www.youtube.com/watch?v=jZOg39v73c4 Free Fiber Optic Training https://www.youtube.com/watch?v=pXy2s8bfRY4 Optical Fiber Communication https://www.youtube.com/watch?v=OQUupugT-GI&list=PLgwJf8NK-2e7CDIWsh61eltP9IRw1EIQC Introduction to Optical Fibers & its Applications https://www.youtube.com/watch?v=2KIYBzGHNxc&list=PLDQCtNMf2k0qbf1mHtvHzcmdwkeKUPCx9 Fiber Optics https://www.youtube.com/watch?v=YbB8u_EvcdY&list=PLq-Gm0yRYwTgr7v3Hhndrl_Kcc38369fw- 	<p><i>6 or 9 Credit Hours</i></p>		
	<p><i>7 Credit Hours Per Subject</i></p>	<p><i>6 or 9 Credit Hours</i></p>		

	<p>6. How Fiber Optic Technicians Work on site https://www.youtube.com/watch?v=ayhZJpOCMVQ</p> <p>7. Structure, basics and types of optical fibers https://www.youtube.com/watch?v=pavBq7HloIE&list=PLgwJf8NK-2e4d2AyXC7pvXtgJ51qz-HWV</p> <p>8. Need of fiber optic communication systems https://www.youtube.com/watch?v=cPnKxaPAc7g</p> <p>9. Optical Fiber Communication - Optical Fibre - Optical Fibre Communication https://www.youtube.com/watch?v=j4qbhVQQdBO&list=PLDp9Jik6WjRuxzZArqomE59SFmhVv5qPO</p> <p>10. Fiber Optic Communication Technology https://www.youtube.com/watch?v=ougKUUM3hJA&list=PLHj96QRI0kOhH8xoXXrOgkMf9Z0vjhgYI</p>			
14.	<p><u>Training Course Certificate Title: Electric Vehicles:</u></p> <p>Introduction Historical background Types of electric vehicles Electric vehicle charging basics Market Trends Electric vehicle major players Electric vehicles-as-a-service Challenges & Conclusions Challenges of electric vehicles Securing electric vehicles</p> <p><u>Suggested Video Exercises:</u></p> <p>1. Electric Vehicle Introduction https://www.youtube.com/watch?v=wypbLRe9xUg</p> <p>2. Introduction to Electric Vehicle https://www.youtube.com/watch?v=J7VRJOKsSi4</p> <p>3. Electric Vehicles Components and Working principles https://www.youtube.com/watch?v=KOLBGKMo3zQ</p> <p>4. How Do Electric Vehicles Work? https://www.youtube.com/watch?v=GHGXy_sibqQ</p> <p>5. No One is Telling You the Truth About Electric Cars, So I Have To https://www.youtube.com/watch?v=gUAY2qSNWQ</p> <p>6. The Electric Vehicle Charging Problem https://www.youtube.com/watch?v=pLcqJ2DclEq</p> <p>7. How to make an electric car? https://www.youtube.com/watch?v=MOU579o5Rlo</p> <p>8. Top 10 All-New Electric Cars on Roads in 2022 https://www.youtube.com/watch?v=4tujk8FDP8Q</p> <p>9. How an Electric Car Works? Its Parts & Functions https://www.youtube.com/watch?v=tJfERzrG-D8</p>	<p>7 Credit Hours Per Subject</p> <p>6 or 9 Credit Hours</p>		
15.	<p><u>Training Course Certificate Title: Electric and Hybrid Vehicles:</u></p> <p>Electric Vehicles Introduction Safe working, tools and hazard management Electrical and Electronic Principles Electric Vehicle Technology Batteries Motors & Control Systems Charging Maintenance, repairs and maintenance Case Studies etc.</p>	<p>7 Credit Hours Per Subject</p>		

16.	<p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> What are Hybrid Electric Vehicles? https://www.youtube.com/watch?v=qBilSuiPSDc Hybrid-Electric Vehicles https://www.youtube.com/watch?v=uoBuQQn9XAAQ Types of hybrid electric vehicle Series, Parallel, Series-Parallel HEV https://www.youtube.com/watch?v=47U1q4ChVkm Hybrid vs. Electric vs. Plug-In Hybrid — What's the Difference? https://www.youtube.com/watch?v=o6IPDOF-wEs History of Electric Vehicles Hybrid and Electric Vehicles https://www.youtube.com/watch?v=SPsGANghDKg Types of electric vehicles and their working BEV, HEV, PHEV https://www.youtube.com/watch?v=UPazxC7o2SM <p><u>Training Course Certificate Title: CCTV Training and Installation:</u></p> <p>Video Levels. 1 How Sync Pulse Amplitude Effects CCTV Installations. 1 White Level Iris Setting, How Much Is Enough? 1-2 Peak To Peak Measurement Of Video. 2 Color Cameras And Color Burst. 2 Vertical Interval, Its Many Uses. 2 Termination, The End Of The Line. 2-3 The Basic Three. 3 CCTV Video Ground Loop Problems. 3-5 CCTV Focus Problem Solving. 5 Depth Of Field, What Is It? 6 The Problem With Auto Iris Lenses. 6-7 How To Shoot A License Plate With A CCTV Camera. 8-9 How To Measure CCTV Camera Output Impedance. 10 Problems Caused By Incorrect Terminations. 10 Correct Measuring Of Camera Output Impedance. 11 Sync Pulse Pass / Fail Test Table 1. 11 Calculation Of Precise Source Impedance. 11 Digital Video Recorder Problem Solving. 12 Headroom In The Dvr. 12-13 How To Prevent Lightning Damage In CCTV. 14-16 CCTV Line-Lock Problems. 16-18 CCTV Ups Trouble Shooting Tips. 19-20 Ground Loops And The Common Power Supply. 20-21 Video Lines Of Definition. 21-25 Fiber Transmission Problem Solving. 25-28 A Helping Hand. 28</p> <p>CCTV TECHNOLOGY:</p> <ol style="list-style-type: none"> Introduction 1 CCTV System Design 1 <ol style="list-style-type: none"> Defining System Requirements 1 CCTV System Design Considerations 3 Components of CCTV Systems 9 <ol style="list-style-type: none"> Cameras 9 Lenses 15 Housing and Mounts 22 Video Monitors 25 Switchers and Multiplexers 30 Video Recorders 32 Transmission 36 	6 or 9 Credit Hours		
	<p>Video Levels. 1 How Sync Pulse Amplitude Effects CCTV Installations. 1 White Level Iris Setting, How Much Is Enough? 1-2 Peak To Peak Measurement Of Video. 2 Color Cameras And Color Burst. 2 Vertical Interval, Its Many Uses. 2 Termination, The End Of The Line. 2-3 The Basic Three. 3 CCTV Video Ground Loop Problems. 3-5 CCTV Focus Problem Solving. 5 Depth Of Field, What Is It? 6 The Problem With Auto Iris Lenses. 6-7 How To Shoot A License Plate With A CCTV Camera. 8-9 How To Measure CCTV Camera Output Impedance. 10 Problems Caused By Incorrect Terminations. 10 Correct Measuring Of Camera Output Impedance. 11 Sync Pulse Pass / Fail Test Table 1. 11 Calculation Of Precise Source Impedance. 11 Digital Video Recorder Problem Solving. 12 Headroom In The Dvr. 12-13 How To Prevent Lightning Damage In CCTV. 14-16 CCTV Line-Lock Problems. 16-18 CCTV Ups Trouble Shooting Tips. 19-20 Ground Loops And The Common Power Supply. 20-21 Video Lines Of Definition. 21-25 Fiber Transmission Problem Solving. 25-28 A Helping Hand. 28</p> <p>CCTV TECHNOLOGY:</p> <ol style="list-style-type: none"> Introduction 1 CCTV System Design 1 <ol style="list-style-type: none"> Defining System Requirements 1 CCTV System Design Considerations 3 Components of CCTV Systems 9 <ol style="list-style-type: none"> Cameras 9 Lenses 15 Housing and Mounts 22 Video Monitors 25 Switchers and Multiplexers 30 Video Recorders 32 Transmission 36 	7 Credit Hours Per Subject		
	<p>CCTV TECHNOLOGY:</p> <ol style="list-style-type: none"> Introduction 1 CCTV System Design 1 <ol style="list-style-type: none"> Defining System Requirements 1 CCTV System Design Considerations 3 Components of CCTV Systems 9 <ol style="list-style-type: none"> Cameras 9 Lenses 15 Housing and Mounts 22 Video Monitors 25 Switchers and Multiplexers 30 Video Recorders 32 Transmission 36 	7 Credit Hours Per Subject		

	<p>4.1 Wired Transmission 36 4.2 Wireless Transmission 39 4.3 IP Network Transmission 42 5. Video Storage 44 5.1 Media Storage 44 5.2 Scalable Network Storage 45 6. Video Analytics 46 7. System Integration 46 7.1 Systems Approach 47 7.2 Integrating CCTV Components 47 7.3 Other Considerations 48 8. Emerging Technology 49 8.1 Digital Technologies 49 8.2 Improvements to Existing Technology 50 8.3 Major IT Trends 50 9. Vendor Selection Considerations 50</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> Basics of CCTV (CCTV Training Course) https://www.youtube.com/watch?v=e3JZWdYg6Yk HOW TO INSTALL CCTV CAMERA ? COMPLETE GUIDE https://www.youtube.com/watch?v=2vKMaT5icmo&t=38s Difference between analog and IP CCTV Systems https://www.youtube.com/watch?v=3EOdeoHcTtw&list=PLs7lclZGxLD02duDzEBf4GZYQu4xUPmm1 Complete CCTV Installation Course - CCTV Course - CCTV Training https://www.youtube.com/watch?v=dQ4hD3q3B0M CCTV operator training (Skill and Abilities) https://www.youtube.com/watch?v=C60D-ZShOi0 IP Camera Easy Installation https://www.youtube.com/watch?v=tg4ycBcbZEA CCTV & Security Training https://www.youtube.com/watch?v=xfUERcUMDRl Basics of CCTV (CCTV Training Course) https://www.youtube.com/watch?v=e3JZWdYg6Yk&t=50s Complete CCTV Cameras Wiring with DVR Diagram https://www.youtube.com/watch?v=urrJ0Pnlzc0 			
17.	<p><u>Training Course Certificate Title: IP Camera Trainings:</u></p> <p>Overview6 Features.....6 Package Content.....7 Dimensions8 Name and Function of Each Part.....9 Battery Charge.....12 Powering On12 Touch Panel Calibration.....14 Status Icons14 Buttons.....14 IP Camera Live View.....18 Connect IP Camera (Direct Connection) 18 Device Search.....20 AV In (Analog Video Live View).....21 Fixed Camera Live View 21 Cable Test (CAT5)22 Power over Ethernet (PoE).....23 Enable PoE.....23</p>			

	<p>PoE Setup.....23</p> <p>Snapshot</p> <p>IP Surveillance 101 Training</p> <p>2 IP Surveillance: The Opportunity</p> <p>3 Analog Vs. IP</p> <p>6 IP Camera Features</p> <p>10 Imaging / Lenses</p> <p>13 Imaging / Day & Night</p> <p>15 Image and Video Processing</p> <p>17 External Connections</p> <p>18 IP Camera Features</p> <p>20 Network Video Recorders / Storage</p> <p>22 Video Management Software (VMS)</p> <p>23 Questions to Ask End-Users</p> <p>25 Conducting a Site Survey</p> <p>26 Sample Site Survey Assessment Forms</p> <p>26 Installation Tips</p> <p><u>Suggested Video Exercises:</u></p> <ol style="list-style-type: none"> 1. IP Camera Easy Installation https://www.youtube.com/watch?v=tg4ycBcbZEA&t=51s 2. IP CCTV CAMERA INSTALLATION, USING A POE SWITCH https://www.youtube.com/watch?v=gJfuCZe1Avw 3. How to set up IP Camera https://www.youtube.com/watch?v=WL0aBcbGIus 4. How to install CCTV IP Camera using network switch hub https://www.youtube.com/watch?v=ZS9dgZyJBmg 5. How to connect an IP camera to a computer? https://www.youtube.com/watch?v=FYMb4Am3n_U 6. Hikvision Latest Version NVR, IP Camera & Poe Switch Complete installation https://www.youtube.com/watch?v=SV0wSEtDKIY 7. Remguard How to install IP Cam Viewer Pro Tutorial https://www.youtube.com/watch?v=NqDXVRDkGzQ 8. How to Connect an IP Camera to your Network? https://www.youtube.com/watch?v=gLEHw_Gqjbc 	<p><i>7 Credit Hours Per Subject</i></p>		
18.	<p><u>Training Course Certificate Title: Air Conditioning:</u></p> <p>Air-conditioning and Refrigeration tools and Instruments</p> <p>Development of refrigeration</p> <p>Voltage, current and resistance</p> <p>Solenoids and Valves</p> <p>Electric Motors</p> <p>Refrigerants (New and Old)</p> <p>Refrigeration compressors</p> <p>Condensers, chillers, cooling towers</p> <p>Working with water cooling problems</p> <p>Evaporators</p> <p>Refrigerant: Flow control</p> <p>Servicing and safety</p> <p>Freezers</p> <p>Temperature and Air control</p> <p>Comport Air conditioning</p> <p>Commercial Air conditioning systems</p>	<p><i>7 Credit Hours Per Subject</i></p>		

Various type of Air conditioners and heat pipes Estimating load and insulating pipes Installing & controlling electrical power for Air conditioning units <u>Suggested Video Exercises:</u> <div><div>1. Air Conditioning System Basics hvacr how does it work https://www.youtube.com/watch?v=SfuSzBja8QA</div><div>2. How Air Conditioning Works https://www.youtube.com/watch?v=nVo0GuNm3Ek</div><div>3. HVAC Training - (Heating Ventilation & Air Conditioning) https://www.youtube.com/watch?v=JLes1-GcWiQ</div><div>4. Basic HVAC Controls - learn hvacr https://www.youtube.com/watch?v=uXG1y2bOufu</div><div>5. LG Split Air Conditioner (AC) Installation Process - Step by step https://www.youtube.com/watch?v=lwEWFyjHwuk</div><div>6. AIR CONDITIONER DETAIL INSTALL SPLIT DUCTLESS AC HEATING INVERTER, MINI PUMP SYSTEM SETUP, DIY HOW TO https://www.youtube.com/watch?v=2RDfAkmDld0</div><div>7. Learn How to Clean an Air Conditioner Servicing AC Cleaning at Home https://www.youtube.com/watch?v=s6NHxfKUKUo</div></div> <div>FOLLOWING ADDITIONAL TASKS SHOULD HAVE TO DONE BY PARTICIPANTS OR STUDENTS: <div>a) Training in the respective area and its professional Certification Test MCQ Questions answer practicing</div><div>b) Training in the respective area and its professional Test Board Questions/TMA (Tutor Mark Assignment)</div><div>c) Training in the respective area and its professional Case Studies (If Case Studies are needed in the respective course then this is required to study)</div> <div>Exercises (<i>After the each of the above mentioned video links are the Suggested Videos from the respective area is advisable to watch attentively in a quiet place in order to complete the short trainings/trade courses in time</i>) and projects</div></div>	6 or 9 Credit Hours		
<div>TOTAL HOURS REQUIRED TO BE COMPLETED FOR THE SHORT TRAININGS AND TRADE COURSES OR PROFESSIONAL CERTIFICATIONS= 2 sessions or parts will count 7 hours each (2 parts/courses x 7 hours study each = 14 hours total) + Suggested Video Exercises Minimum 6 hours = Grand Total 20 Hours OR 3 sessions or parts will count 7 hours each (3 parts/courses x 7 hours study each = 21 hours total) + Suggested Video Exercises Minimum 9 hours = Grand Total 30 Hours</div>			

CAREER AND SCOPE OF SHORT COURSES AND TRADE PROFESSIONAL CERTIFICATES?

A trade course certificate or short training certificate and practical training professional certificate can open the door to a rewarding career in fields such as automotive service, computer programming, computer & Laptop repairs and servicing, maintenance, electrical vehicles and electronics appliances repairs and maintenances, and other compatible services areas and so on.

COURSE MATERIAL

Besides using the traditional books GEPEA has also modernized the learning process by providing students with online portal consisting of –

- **Study Materials (Soft copies)** – PDF of books are provided to students making studies nomadic & convenient. GEPEA Department of Students Affairs will assign Study Materials via Email or other methods after registration and admission.
- The focal point of **GEPEA** study materials is enhancing Practical Education. **GEPEA** Kit provided to applicants is a world full of practical scenarios, explanation in terms of facts rather than theoretical phrases. Customized to be self-explanatory & easy to understand.
- **Faculty Guidance** – GEPEA panel of intellectuals guide students personally with regards to any query through email about any concept in the notes provided, being the author of the same.

EXAMINATION

GEPEA Professionals are given the privilege to answer exams from any examination center in the world along with the freedom to pick the exam schedule for the same, as time permits in the particular examination months of GEPEA. Students are allotted 2 modes of examinations – Home Based/Center Based.

- Question papers would be drafted by **GEPEA** panel of veteran professors which would be TMA (Tutor Mark Assignment), OBS (Open Book System) and MCQ study pattern. A single course will consist 100 marks based on these three pattern of exam types. In each program will consist a major (Thesis Research) course or theory in order to complete the respective Diploma Program.
- This unique & novel methodology teaches a student how to assess business situations and make decisions based upon those assessments, allowing students to display their potential.
- In case of home based/distance learning exams question paper would be emailed to the students, which they would have to answer & courier back to GEPEA office or GEPEA directed authority in the respectable exam slab.
- Candidate also has the option of appearing for Center Based Examination wherein they would have to visit one of the many GEPEA exam centers & complete answering the exam in the duration of 3 hours which wouldn't be an open book examination.

CASE STUDY METHOD & STUDY MATERIAL:

Today communication systems have advanced so much that it is much easier, convenient and quicker to gain expertise via online distance learning. GEPEA offer potential students the opportunity to study through an autonomous online distance learning program. This means that people who can't get traditional further education can still achieve what they want and get their qualifications through Online Distance Learning. That gives the opportunity for a much wider range of people to get the qualifications that they want.

Today, thanks to technological advances, higher education is more readily available to those who want it.

GEPEA is an institute of excellence offering widest range of autonomous programmes in the field of Business Management and different Professional Training education. In response to the rapidly changing economic environment and the process of globalization, the Academy has made sustained efforts to bring an international perspective to all its wide range of areas and activities.

BENEFITS AND FETURES:

- (i) **Flexible Programs & Curriculum:** You can earn and study at the same time! From GEPEA International Curriculum, Flexibility is the biggest advantage of distance learning courses. This stands true especially if you are a working professional. Not everyone has the luxury of taking their own time to finish their studies. For those who had to take a break from studies to start working, such courses are a boon and provide the opportunity to pursue higher education.
- (ii) **Saves Time & Energy:** You save up a lot of time and energy on commuting. You can stay at any place and pursue a course that is available at GEPEA. Or you might be based out of a remote village or town which does not have enough options for higher studies. Distance learning courses eliminate these obstacles.
- (iii) **MCQ, Case Based Learning:** MCQ, A Case-based approach engages students in discussion of specific situations, typically real-world examples of African, Asian and International companies. Allowing the students to put their theoretical knowledge to practice.
- (iv) **Study at your own Pace:** Not everyone has the same pace of learning. Some students pick up things fast, others need time to grasp a concept. One of the biggest advantages of distance learning is that you can study at a pace that is comfortable for you.
- (v) **Saves Money:** These courses are almost always cheaper as compared to their on-campus counter-parts. You also cut down on the costs incurred while commuting etc.
- (vi) **Personal Fulfillment:** An MBA is the key to unlocking both a professionally and personally rewarding future. Education is the foundation upon which you can build lifelong business and personal achievements. The GEPEA MBA program is designed to enrich your personal life, as well as to keep you informed about a constantly changing industry.
- (vii) **Convenient:** You can submit your assignment with the click of a button or simply drop it off at a post-office! It's sometimes as simple as that!
- (viii) **24X7 Access to Study Material & fellow Students:** This is the best way to study if you are comfortable with internet and technology. You can access your study material online whenever you want and also clear doubts, exchange views and discuss with your virtual class-mates!
- (ix) **Study any Topic You Want:** Since you'd already have all your books/online study material with you, you can pick up any topic/chapter that interests you and tackle that first! This way your interest in the subject is sustained.
- (x) **Higher Level of Self-Confidence:** The knowledge gained through our Correspondence MBA program will enhance your effectiveness in your current position and help define your future career path. It will sharpen your skills in critical business areas, giving you the self-confidence you need to become a leader in your profession.
- (xi) **Specialization:** We provide more than 80 specializations which allow students to gain additional knowledge and background on specific business topics.

ACCREDITATIONS AND RECOGNITIONS:

ITQSM Accredited & International Partnered Professional Academies.

GEPEA has proudly claimed the Excellence in Online Distance Learning Award presented by its Governing Body Really Matters as a token of appreciation for providing top notch education to professionals globally. This solely proclaims that GEPEA is one of the best Professional Academy in the field of online distance learning.

PROFESSIONAL FACULTIES:

GEPEA Faculty members are highly professional, qualified & experienced. Professors provide substantial assistance through 24*7 web support. Each & every query regarding studies, assignments, cases, projects, research are resolved on time & responded with clear, relevant answers on par with syllabus. They update themselves from time to time about the changing market scenario & syllabus. Thus working professionals have chance to get resourceful information by interacting with professors through web-support from time to time. Timely communication & assistance is key to our successful association with our students & our professors believe in same.

GEPEA (Global Educational & Professional Excellence Academy)

*In case any query, please feel free to contact us via E-Mail:
gepea.official@gmail.com , office@gepea.eu or visit Website: www.gepea.eu or
www.gepea.education*