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PROSPECTUS
HARDWARE
PROJECT

KERALA STATE RUTRONIX

www.keralastaterutronix.com

HARDWARE PROJECT

AIMS

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KERALA STATE RUTRONIX

www.keralastaterutronix.com

Kerala State Rutronix, set up by Government of Kerala in 1990 under the administrative control of Industries & Commerce Department, has been empowering the youth, especially women, through the usage of modern technology, affordable computer education and employment-oriented IT based training programmes. KERALA STATE RUTRONIX has reached its presence throughout the State and has established a unique identity of its own. It has implemented several software projects for several public sector organizations under the Government of India and the State Government, as well as for international agencies like the W.H.O.

As part of the Golden Jubilee Celebrations of our State and with the aim of empowering women through modern technology, Kerala State Rutronix had launched and successfully implemented programmes in software technology to provide 'Employment Oriented Computer Training at Affordable Cost to All'. In its second phase, Kerala State Rutronix launched the Multimedia programme to meet the industry demand in multimedia sector and with the objective of meeting the requirements of enterprises from local resources, while improving the skill-sets of trained manpower and to raise their earning capacity. As part of the third phase, KERALA STATE RUTRONIX introduced the Hardware based programmes.

Kerala State Rutronix has been pursuing the "Latest & Trending Technology Developments", with a centralized and disciplined "Monitoring & Resolution System" in multi-disciplined IT based domains. Our education system is equipped with academic & activity-based training methodologies that are on par with constantly changing global standards and persistently upgraded industrial requirements.

groware®
education solutions LLP

Groware Education Solutions LLP is the principal affiliate of KERALA STATE RUTRONIX. Groware has been supporting Kerala State Rutronix for more than a decade in conducting various courses in the 'Software', 'Hardware', and 'Multimedia' streams.

With a team of Academic Experts and Cyber Professionals, Groware has associated with Kerala State Rutronix to conceive, develop and implement several long-term and short-term Government projects in the IT Education sector and the synergized efforts have trickled down to various educational organizations, including Arts & Technology Institutes, Skill Development Centers, Colleges and Summer Vacation Programmes for schools. As part of Golden Jubilee Celebrations of the formation of Kerala State, SOFTWARE stream was launched in 2006, MULTIMEDIA stream was launched in 2008 and HARDWARE stream was launched in 2009 with the goal of providing "Employment Oriented Computer Education at Affordable Cost to All".

Since then, along with Rutronix, significant strides have been taken in developing and implementing statewide programme in Software, Hardware and Multimedia domains and by engaging IT Research teams to understand the developments in IT sector continuously and identify latest trends & skill sets needed to develop and upgrade courses accordingly.

AIMS
Hardware Education Project

IT Infrastructure Management is closely aligned with overall corporate operations, strategies, and goals required to deliver IT solutions and services to its employees, partners, and/or customers. Computers, servers, networks, data-storage, physical/virtual facilities as well as software, processes, policies, staffing, training, security, mobile/virtual functionality and cloud-based services come within IT infrastructure.

Advanced IT Infrastructure Management Services (AIMS) has been rapidly growing in importance. It is undergoing a paradigm shift, as the business ecosystem is evolving and accelerating toward digital data. AIMS(Advanced IT Infrastructure Management Studies) leads the way in preparing talented candidates and developing their technical skills towards a successful career. A variety of Training programmes in hardware stream have been launched by KERALA STATE RUTRONIX since 2009. Quality education has been provided in IT Infrastructure Management areas covering the process of installation, configuration, maintenance, and administration of IT services. With systems management, network management, storage management and hardware security management, these programmes inculcate extensive knowledge in deploying IT infrastructure at on-site, remote and hybrid locations.

HARDWARE PROJECT OBJECTIVES

- ✔ Promote top quality skill development and industry relevant technical excellence all across Kerala.
- ✔ Empower the generation with standardized computer education through hands - on experience.
- ✔ Provide vocational training and increase overall performance of the individual.
- ✔ Combine the positives of self-directed and lecture-driven training dimensions.
- ✔ Apply evaluation techniques and value based activities that improve the performance of the aspirant.

REGISTRATION & ADMISSION

For Registration and Admission, the student must report in person, accompanied by parent/ guardian at the specified Authorized Training Centre's (ATCs) in various locations of all districts with the duly filled up online application form, originals and a copy of qualification certificates as specified in each course. Registration fee has to be paid to specific banks as per the instruction from the registration portal after providing specific student details. Fee Concession will be provided to eligible candidates as per norms. Registration fees will be decided by KERALA STATE RUTRONIX from time to time and will be stated in the course prospectus. Registration fees once paid will not be refunded in any circumstances.

Selection/ Registration/ Admission granted will be cancelled and application rejected when, (a) Students fail to prove their eligibility or do not fulfill the prescribed eligibility conditions before the closing authenticated date of semester admission (b) The non-payment of registration fee (c) Application is not authenticated by the candidate and parent/ guardian wherever necessary.

FEE CONCESSION

Fee Concession for all courses of any duration are awarded by KERALA STATE RUTRONIX to students who belongs to Special categories like; Women, Spouse/ children of defense or police personnel who had laid their life in action, citizens with more than 50% disability, person who have received national honors (Civilian/ Defense/ Police/ Sports/ Bravery), citizens who had represented India in arts, sports, science domains and transgender. The Fee Concession amount ranges up to 20 percentage of maximum tuition fees.Examination fee is applicable and to be paid as per norms of KERALA STATE RUTRONIX.

STUDY MATERIALS

Simplified learning material covering major aspects of technology relevant course content, hard copy/ E-book will be provided to students through the study centre(ATC).

EXAMINATION & CERTIFICATION

Final examinations will be conducted by KERALA STATE RUTRONIX at the semester-end. The schedule for examinations will be informed to the students through ATC and media . Any student who has completed the prescribed term of a specified course - from the date of registration - is eligible to apply for the examination. In addition a minimum of 80% attendance is compulsory. ATC shall confirm the eligible students by verifying the list on KERALA STATE RUTRONIX website. The students should register for the examinations directly to KERALA STATE RUTRONIX and pay the examination fees as and when the course is completed to the satisfaction of the ATC. Internal Evaluation marks are awarded based on their performance in internal exams and model exams at ATC. Students who score a minimum of 40% marks each for every subject in the final theory exams, 50% marks in the final seminar (viva voce) examination and 50% overall average (internal, external and seminar marks putup together) would be declared successful.

COMMUNICATION

The students shall communicate with the ATC Director/ Principal on all matters. If their grievances are not given due attention by authorities of the ATC concerned, they may write to the KERALA STATE RUTRONIX at the following address.

MANAGING DIRECTOR

KERALA STATE RUTRONIX

PADMASREE, House No C11, T.C.29/1884,
Elankom Gardens, Vellayambalam,
Thiruvananthapuram 695 010
Phone: 9072151980
E-mail: md@keralastaterutronix.com
Web: www.keralastaterutronix.com

DIPLOMA/ CERTIFICATE PROGRAMMES

The Advanced IT Infrastructure Management Studies (AIMS) proposes to develop skills and competencies in technical professionals offering them an industry relevant, hands-on practice oriented training procedure. Our courses would benefit technical advancements in IT Infrastructure Server Administration, Wireless, Hardware and Networking systems.

The goal of the diploma courses is to offer detailed practical knowledge about the IT Infrastructure domain. Backed up by an academic edge, these courses train students to cope with real-time scenarios. Several opportunities are available for the IT Infrastructure professionals in India and abroad. Aspirants of the AIMS Diploma programmes can pursue any of the following courses.

01

Post Graduate Diploma in

INFRASTRUCTURE MANAGEMENT SERVICES

Duration : 720 Hours (1 Year)
Eligibility : Any Degree

This one year course covers the comprehensive study of major computer hardware and software assets, communication networking platforms, and security inducing technologies. Specifically designed for graduates, the course curriculum follows industry feedback and trade demand analysis of expected skillsets required by a workforce equipped with expertise in Infrastructure Management Services. It comes with a unique and highly specialized training methodology that prepares your career in IMS.

CAREER OPTIONS

On completing this program, you gain advanced skills that helps in endeavoring a promising career in Infrastructure Management services related to digital technologies. It enhances your career as an IT professional to handle complex IT processes under various job positions: IT Infrastructure Administrator, Windows System Administrator, IT Support Engineer, Infrastructure Analyst, Red Hat Linux System Administrator, Systems Engineer, Cisco Network Engineer, Network Administrator etc.

PROGRAMME STRUCTURE

Semester I

✔ Networking Fundamentals
✔ Installation, Storage, Compute with Windows Server 2016
✔ Networking with Windows Server 2016
✔ Identity with Windows Server 2016
✔ Securing Windows Server 2016

Semester II

✔ Red Hat System Administration 1 (RHEL8)
✔ Red Hat System Administration 2 (RHEL8)
✔ CCNA Routing & Switching
✔ CCNA Security
✔ CCNA Wireless

02

Diploma in

IT INFRASTRUCTURE MANAGEMENT SERVICES

Duration   :   440 Hours (6 Months)
Eligibility   :   +2 & Above

This six months course covers all major computer networking services in Windows Server 2016 and CISCO Router & Switch configurations. It introduces students to the life cycle of data and information including the aspects of system administration, remote administration and network administration in IT Infrastructure Management Services. This programme is specially designed for Plus Two, Graduate and Diploma holders, and exposes the students to latest technologies and global IMS trends.

CAREER OPTIONS

On completing this course, students gain advanced skills in managing digital infrastructure, and get better career options in the allied service sectors. Students learn to Administer Windows Server Operating Systems and to configure & administer Cisco Routers and Switches. It leads to job roles such as: Infrastructure Administrator, Windows System Administrator, Cisco Network Engineer, Network Administrator, IT Support Engineer, Windows Server Infrastructure Administrator etc.

PROGRAMME STRUCTURE

✔ Networking Fundamentals
✔ Installation, Storage, and Compute with Windows Server 2016
✔ Networking with Windows Server 2016
✔ Identity with Windows Server 2016
✔ Securing Windows Server 2016
✔ Switching Technologies
✔ Routing Technologies
✔ WAN Technologies
✔ Infrastructure Services
✔ Infrastructure Security
✔ Infrastructure Management

03

Diploma in

HARDWARE & NETWORK ENGINEERING

Duration : 680 Hours (1 Year)
Eligibility : 10th and Above

This one year course provides an in-depth study of Personal Computer Hardware, Server Operating Systems and Networking concepts. It prepares students to attain expertise in computer repairing, hardware troubleshooting and basic computer network administration. Prime focus is on the identification, installation, configuration, administration & troubleshooting of the Windows Server OS, Linux Server OS, PC Hardware and Communication Network.

CAREER OPTIONS

Upon completion of this program, students can gain advanced skills that will endeavour them to find a better career in Hardware and Network Engineering. The course aims to enhance their skill sets as an IT professional in handling the most complex of IT Hardware and Networking Services. It opens up job opportunities in various positions such as: Hardware Engineer, Windows System Administrator, IT Support Technician, Red Hat Linux System Administrator, Systems Support etc.

PROGRAMME STRUCTURE

Semester I

✔ Fundamental of Computers and Basic Electronics
✔ Assembling a Personal Computer
✔ Operating System Installation and Configuration
✔ Troubleshooting and Maintenance

Semester II

✔ Networking Fundamental
✔ MCSA 2016
✔ RHCSA 8
✔ Laptop Maintenance

04

Diploma in

HARDWARE & NETWORK ENGINEERING- (Fast Track)

Duration   :   680 Hours (Fast Track-6 months)
Eligibility   :   10th and Above

This six months fast track course provides an in-depth study of Personal Computer Hardware, Server Operating Systems and Networking concepts. It prepares students to attain expertise in computer repairing, hardware troubleshooting and basic computer network administration. Prime focus is on the identification, installation, configuration, administration and troubleshooting of the Windows Server OS, Linux Server OS, PC Hardware and Communication Network.

CAREER OPTIONS

Upon completion of this program, students can gain advanced skills that will endeavour them to find a better career in Hardware and Network Engineering. The course aims to enhance their skill sets as an IT professional in handling the most complex of IT Hardware and Networking Services. It opens up job opportunities in various positions such as: Hardware Engineer, Windows System Administrator, IT Support Technician, Red Hat Linux System Administrator, Systems Support etc.

PROGRAMME STRUCTURE

✔ Fundamental of Computers and Basic Electronics
✔ Assembling a Personal Computer
✔ Operating System Installation and Configuration
✔ Troubleshooting and Maintenance
✔ Networking Fundamental
✔ MCSA 2016
✔ RHCSA 8
✔ Laptop Maintenance

05

Diploma in
COMPUTER
HARDWARE MAINTENANCE

Duration : 360 Hours (6 Months)
Eligibility : 10th and Above

This six months course is designed for those who aspire to work as a professional in computer hardware maintenance. It helps acquire essential skills in hardware identification, installation, troubleshooting, configuring, optimizing, repairing, upgrading, ongoing maintenance and preventive maintenance on PCs, Operating Systems and Communication Networks. This course sets a solid base for a career in computer hardware, and meets the requirements for CompTIA A+ certification.

CAREER OPTIONS

Upon completing this program, students gain advanced skills that help them endeavour a promising career in Desktop PC installation, system configuration, troubleshooting, repairing and overall maintenance. It helps in enhancing the career of aspiring students as skilled Hardware Technician, and makes them eligible for job roles in Desktop computers under various designations such as: Hardware Maintenance Engineer, Desktop Service Engineer, Hardware Technician, etc.

PROGRAMME STRUCTURE

✔ Basics of Electronics
✔ Fundamentals of Computers
✔ Peripherals Management
✔ Assembling a Personal Computer
✔ Hardware Troubleshooting
✔ Printers & Scanners
✔ Software Troubleshooting
✔ Operating System Installation and Configuration
✔ Diagnostic Utilities
✔ System Security

06

Diploma in

SYSTEM ADMINISTRATOR IN NETWORKING

Duration   :   320 Hours (6 Months)
Eligibility   :   10th and Above

This six months course focuses on the study of system networking and is designed to help build a professional career in administration of networking systems. It prepares students to acquire skills in configuring network hardware like servers, routers, switches, in implementing security measures, and in managing Servers, Operating Systems, Cisco routers, and Switch administration. The course covers Networking fundamentals, MCSA 2016, RHCSA 8 and Cisco Routing & Switching.

CAREER OPTIONS

Upon completing this program, students acquire the skills to find promising career growth in the world of IT infrastructure as administrator of systems network. It helps enhance the student's career as an IT professional who can handle a variety of specialized designations such as: IT Infrastructure Administrator, Windows System Administrator, Network Administrator, Technical Support, Red Hat Linux System Administrator, Cisco Network Engineer, IT Support Engineer, etc.

PROGRAMME STRUCTURE

✔ Networking Fundamentals
✔ Installation, Storage, and Compute with Windows Server 2016
✔ Networking with Windows Server 2016
✔ Identity with Windows Server 2016
✔ Securing Windows Server 2016
✔ Red Hat Enterprise Linux Server 8 Administration
✔ Switching & Routing Technologies
✔ WAN Technologies
✔ Infrastructure Services
✔ Infrastructure Security & Management

07

Diploma in

COMPUTER HARDWARE & NETWORKING

Duration : 320 Hours (6 Months)
Eligibility : 10th and Above

This six months programme strengthens the career prospects of students because of its scope for ever-green job opportunities. It helps acquire extensive knowledge and experience in computer hardware and networking. You will learn the concepts of computers, electronics, operating systems, networking and security services while building up hands-on experience in assembling, servicing, troubleshooting, diagnosing & maintenance of PC or Laptop.

PROGRAMME STRUCTURE

- ✔ Computer Hardware
- ✔ Basic Electronics
- ✔ Desktop PC Servicing
- ✔ Laptop PC Servicing
- ✔ Operating System
- ✔ Computer Networking
- ✔ Diagnosing & Troubleshooting

CAREER OPTIONS

On completing this course, students learn to configure, monitor, diagnose, troubleshoot and service computer-hardware; and can also easily set up a real-time network environment. It enhances career options, making you ready for job positions like: Service Desk Analyst, Desktop Support Administrator, System Support Specialist, Associate Network Engineer, Technical Support Specialist, Field Service Technician, Help Desk Technician, etc.

08

ADMINISTRATIVE OFFICE COMPUTING

Duration : 547 Hours (1 Year)
Eligibility : 10th and Above

This one year course that provides an in-depth study on the PC, office accounting, software applications, interpersonal skills and English communication. There is an increasing demand for Administrative Assistants and Secretaries in offices of corporates, doctors, lawyers, government agencies, schools, hospitals and trusts. Admission to this course is open to all who have passed their 10th std. and above, or those possessing equivalent qualification.

CAREER OPTIONS

Upon completing this program, students can gain advanced skills that will endeavour them to find a better career in Office Administration. This can enhance your career as an Office Administrator who can handle the most complex of Office processes with various designations as: Office Manager, Office Coordinator, Administrative assistant, Secretaries, Customer Service Representative etc.

PROGRAMME STRUCTURE

Semester I

✔ Fundamentals of Computer
✔ Operating Systems
✔ Computer Peripheral Management
✔ MS-Office suite
✔ Office productivity Tools, Internet Usage
✔ Communicative English I

Semester II

✔ Business Financial Processing
✔ Communicative English II
✔ Administrative skills
✔ Organizational Behavior

09

ADMINISTRATIVE
OFFICE COMPUTING-(Fast Track)

Duration : 360Hours (Fast Track-6 months)
Eligibility : 10th and Above

This six months program provides an in-depth study of using the PC, office accounting, software applications, interpersonal skills and English communication. There is an increasing demand for Administrative Assistants and Secretaries in offices of corporates, doctors, lawyers, government agencies, schools, hospitals and trusts. Admission to this course is open to all who have passed their 10th std. and above, or those possessing equivalent qualification.

CAREER OPTIONS

Upon completing this program, students can gain advanced skills that will endeavour them to find a better career in Office Administration. This can enhance your career as an Office Administrator who can handle the most complex of Office processes with various designations as: Office Manager, Office Coordinator, Administrative assistant, Secretaries, Customer Service Representative etc.

PROGRAMME STRUCTURE

✔ Fundamentals of Computer
✔ Operating Systems
✔ Computer Peripheral Management
✔ MS-Office suite
✔ Office productivity Tools, Internet Usage
✔ Communicative English I
✔ Business Financial Processing
✔ Communicative English II
✔ Administrative skills
✔ Organizational Behavior

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Certified Course in

INFRASTRUCTURE MANAGEMENT SERVICE

Duration   :   120 Hours (3 Months)
Eligibility   :   +2 and Above

This three months course covers major computer network essentials and Cisco Certified Network Associate (CCNA) Routing & Switching. It improves ones ability to handle network administration, install, configure, operate and troubleshoot Cisco Routers and Switches. The course is specially designed for Plus Two, Graduate and Diploma holders. It provides exposure to the latest infrastructure management tools and technologies that handle todays' international IMS industry.

CAREER OPTIONS

On completion of this program, students achieve advanced skills that help them endeavor superior careers in systems networking and IT infrastructure management services. Pursuing this course can enhance one's career as an IT professional who learns to handle CISCO Routers and CISCO Switches most efficiently and effectively. Skill sets covered in this course offers job positions that include: Cisco Network Engineer, Network Administrator, Network Manager, Network Support Engineer, etc.

PROGRAMME STRUCTURE

✔ Overview of Networking
✔ Networking Technologies
✔ Network Architectures
✔ IP Addressing
✔ Switching Technologies
✔ Routing Technologies
✔ WAN Technologies
✔ Infrastructure Services
✔ Infrastructure Security
✔ Infrastructure Management

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Certified course in

ETHICAL HACKING

Duration : 240 Hours (3 Months)
Eligibility : +2 and Above

This three months course focuses on acquiring core knowledge about the latest hacking methods and the tools needed to identify security vulnerabilities on the working systems, networks, and web applications. Using bash shell scripting on Kali Linux, cryptographic communication, reconnaissance, and sniffers, you learn to track & rectify potential threats, to safeguard confidential information, and to adopt counter measures in preventing future security breach.

CAREER OPTIONS

On completion of this course, you learn to identify cyber security threats faced by computer systems and communication networks. You then acquire knowledge on risk mitigation strategies that help eliminate potential threat issues. The course helps develop a promising career in ethical hacking and several organizations offer exciting job roles such as: Security Analyst, Information Security Analyst, Information Security Manager, System Administrator, etc.

PROGRAMME STRUCTURE

✔ Introduction to Ethical Hacking
✔ Working with Kali Linux & Essential Tools
✔ Cryptography & Reconnaissance
✔ Working with Exploits
✔ Client-Side, System & Web Application Attacks
✔ Session Hijacking & Port Redirection
✔ Securing Cloud & Security Essentials

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Certified Course in

SERVER MANAGEMENT SERVICE

Duration   :   360 Hours or 200 Hours (3 Months)
Eligibility   :   +2 and Above

This three months course covers all the major and minor services in Microsoft Windows Server OS or Red Hat Linux Server OS and helps understand Windows/Linux Server Administration. Students get to learn the functioning and working of system processes, and there is an alternative option to learn the functionality and working of the server file system as a windows administrator. This course provides exposure to latest technologies and showcases current IMS trends in the international IT Market.

CAREER OPTIONS

Upon completing this program, students can gain advanced skills that will endeavour them to find a better career in IT Infrastructure. The course will help students enhance their career as an IT professional with the ability to handle the most complex of IT processes with various job positions under following designations: IT Infrastructure Administrator, Windows System Administrator, IT Support Engineer, Linux System Administrator, Network Administrator, Systems Engineer, etc.

PROGRAMME STRUCTURE

✔ Overview of Networking
✔ Networking Technologies
✔ Network Architecture
✔ IP Addressing
✔ MCSE 2016
- Installation, Storage, and Compute with Windows Server 2016
- Networking with Windows Server 2016
- Identity with Windows Server 2016
- Securing Windows Server 2016
OR
✔ RHCE 8
- Red Hat System Administration 1 (RHEL8)
- Red Hat System Administration 2 (RHEL8)

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Certified Course in

MOBILE PHONE SERVICE & MAINTENANCE

Duration : 240 Hours (3 Months)
Eligibility : 10th and Above

This 3 months programme is a comprehensive study of mobile phone technologies and includes understanding the electronics, electricals, wireless communication systems involved and provides training in troubleshooting the OS, hardware & software systems followed by the process of repairing component parts or fixing the digital platform. This course provides basic knowledge of the core structure of any device, and this helps a student to repair any available mobile phone brand or model.

CAREER OPTIONS

Upon completing this program, students acquire advanced skills that can help them pursue a regular and freelance career in Mobile device repairing and troubleshooting. It helps students enhance their career as a reliable Mobile Device Technician who can handle most of the mobile brands that are available in the market today. Job positions that are open globally include various designations such as: Mobile Phone Service Engineer, Mobile Phone Maintenance Engineer, Mobile Phone Technician, etc.

PROGRAMME STRUCTURE

- ✔ Basics of Electronics
- ✔ Mobile Phone Service Providers & Manufactures
- ✔ Mobile Communication
- ✔ Mobile OS Fundamentals
- ✔ Tools and Equipments
- ✔ Peripherals/ Accessories Management
- ✔ Internal Architectural Units
- ✔ Subscriber Identify Modules
- ✔ Hardware Troubleshooting
- ✔ Software Troubleshooting

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Certified Course in
CLOSED CIRCUIT TELEVISION TECHNICIAN

Duration   :   180 Hours (3 Months)
Eligibility   :   10th and Above

This three months course helps students learn everything about CCTV technology, offering an opportunity to acquire skills and expertise required for installation and maintenance of CCTV and also Lightning Protection needs. The course of study is a steady progress from the design, installation and maintenance of CCTV & Lightning Systems, to the acquisition of expertise to continually monitor the entire surveillance process. Entry to this programme is open for 10th pass-outs and above.

CAREER OPTIONS

Upon completing this program, students acquire advanced skills that help them endeavour a specialized independent career in installation, troubleshooting, and maintenance of CCTV needs. The course enhances your ability as a CCTV Technician to professionally install an entire CCTV environment along with the lightning protection system. Job positions open for recruitment include: CCTV Technician, CCTV Operator, CCTV Network Engineer, Electronic Security Specialist, etc.

PROGRAMME STRUCTURE

✔ Essentials of Security System
✔ CCTV Tools and Accessories Management
✔ CCTV Camera Models
✔ Camera Lens
✔ Transmission Media Technology
✔ Camera Connectivity
✔ Digital Video Recorder System
✔ IP Camera
✔ Wireless Camera
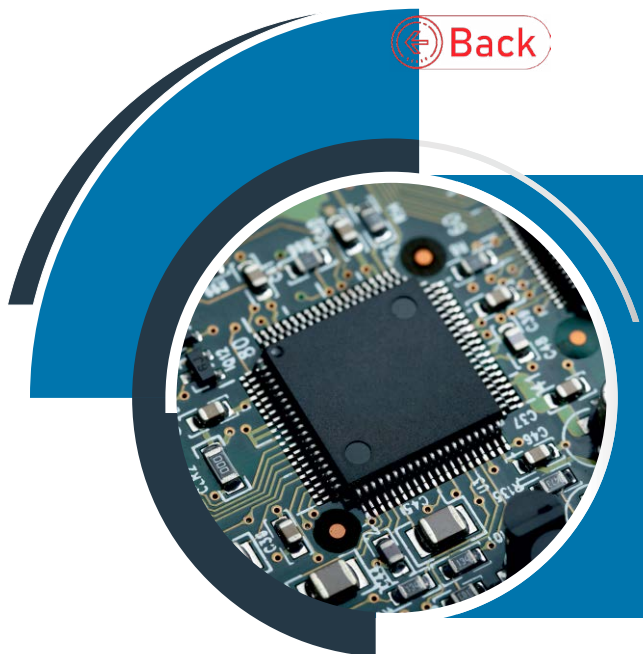✔ CCTV Networking

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Certified Course in
CHIP LEVEL DESKTOP & LAPTOP SERVICING

Duration : 160 Hours (2 Months)
Eligibility : 10th and Above

This two months program deals with the study of computer servicing and repairing at the chip level. The course is gaining prominence because chip level servicing is among the fastest growing industries in the present world. In this course, you will learn the concepts of electronics, detailed study of PC and Laptop components, assembling & disassembling of desktop and laptop computers, and its chip level repairing processes.

CAREER OPTIONS

On completion of this course, students receive core level training through practical sessions in tracking faults, determining solutions and repairing PC and Laptop components, as also chip level components. Job positions available in the IT industry for skill sets acquired by this course include: Computer Chip Level Service Technician, Computer Repair & Service Technician, Desktop Chip Level Engineer, Laptop Chip Level Engineer, etc.

PROGRAMME STRUCTURE

✔ Electronics & Electrical Fundamentals
✔ Repairing Tools & Testing Equipment
✔ Assembling & Disassembling process
✔ Understanding Motherboard Sections
✔ Motherboard Components
✔ Troubleshooting Hardware Faults
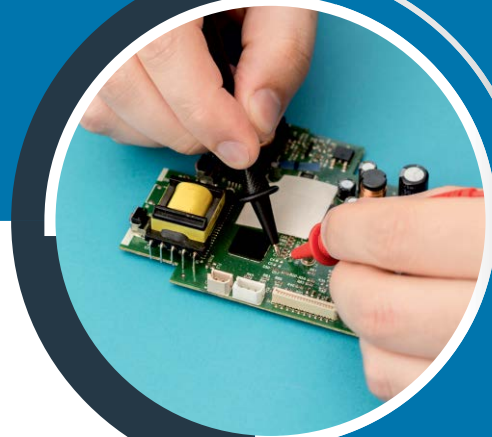✔ Troubleshooting Software Faults

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Certified Course in

ROBOTICS USING ARDUINO

Duration   :   160 Hours (2 Months)
Eligibility   :   +2 and Above

This two months programme is a great way to start learning about general and digital electronics, basics of electricity, embedded systems, input sensors and their collective application in robotics. The objective is to introduce students to Arduino programming and to write programs that perform operations like basic maths, lighting up LEDs, controlling motors, interacting with sensors, commanding home automation tools and robotic devices etc.

CAREER OPTIONS

On completion of this course, students acquire intensive practical sessions in designing robotic circuits and gain hands-on programming experience in Arduino software programming, which eventually make the robots go functional. The course helps you handle robotic sensors, computations and motors and offers job positions like: Robotic Technician, Robotics Test Engineer, Robotics Programmer, Robot Design Technician, etc.

PROGRAMME STRUCTURE

✔ Introduction to Robotics
✔ Introduction to Electronics
✔ Introduction to Digital Electronics
✔ Introduction to Embedded Systems
✔ Programming with Arduino
✔ Working with Sensors
✔ Building Robots

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Certified course in

VMWARE DATA CENTER VIRTUALIZATION

Duration   :   160 Hours (2 Months)
Eligibility   :   +2 and Above

This two months course prepares you to administer VMware vSphere infrastructure for organizations. You learn how to administer a VMware vSphere infrastructure by interacting with virtual machines, VMware ESXi hypervisor, vSphere server etc. This is a must-study course for almost any other VMware technologies in the software-defined data-centre domain, and is designed for system administrators looking to pursue a career in virtualization-administration.

CAREER OPTIONS

On completion of this course, you would be administering VMware vSphere infrastructure for organisations of any size and computing capability. You will be having detailed practical sessions in building and working on virtual machines, vSphere environment, recovery & backups, and networking & storage services. Job positions that await you include: Virtualization Administrator, VMware Data Center Administrator, VMware Infrastructure Engineer, etc.

PROGRAMME STRUCTURE

✔ Introduction to Virtualization Technology
✔ VMware vSphere Software-Defined Data Center
✔ Designing & Installing a vSphere Environment
✔ Creating & Managing Virtual Machines
✔ vSphere Networking & Storage
✔ vMotion, DRS, VDS & vApps
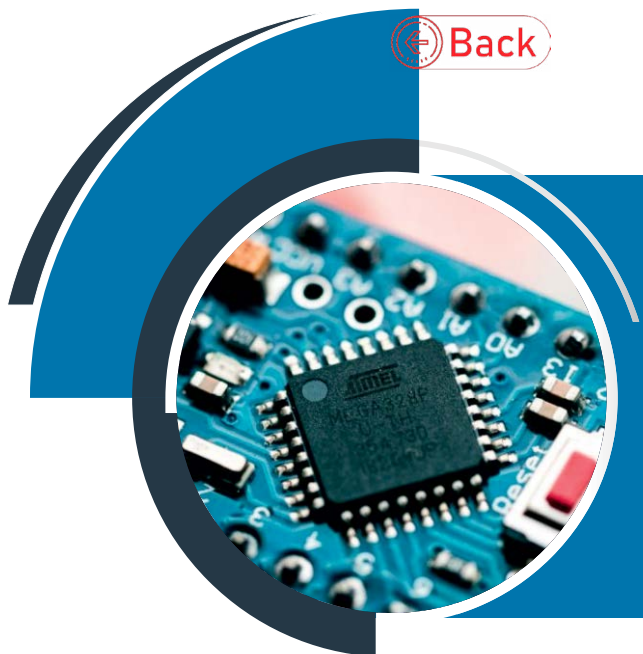✔ vSphere Disaster Recovery & Backups

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Certified course in

IOT USING ARDUINO

Duration   :   160 Hours (2 Months)
Eligibility   :   +2 and Above

This two months course is the study of hands-on application of IoT principles such as sensing, actuation and communication. It helps develop skills and expertise in applying smart cyber technologies that have the potential to simplify real-time tasks and thus transform our world. In this course, you will learn Arduino programming, different types of hardware interfacing of sensors, analog to digital conversion for IoT applications and data logging systems from cloud platforms.

CAREER OPTIONS

On completion of this course, you will be handling IoT hardware and implementing IoT applications with ease using the Arduino board and its programming software. You will go through detailed practical sessions in handling various sensors and devices for usage in the IoT stream and the programming tools for cross device communications. The course enhances your skill sets for a career in IoT with job roles such as IoT Specialist, IoT Robotics Programmer, Robotics Technician, etc.

PROGRAMME STRUCTURE

✔ Introduction to Internet of Things
✔ Arduino Programming
✔ Introduction to Sensors
✔ Implementation of Cloud
✔ Working with Protocols
✔ Interface Cloud with IoT Devices
✔ IoT Security

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Certified course in

SOLAR TECHNOLOGY

Duration   :   160 Hours (2 Months)
Eligibility   :   10th and Above

This two months course that prepares you to gain practical knowledge on solar photovoltaic (PV) system components and installation. It helps you gain hands-on experience that is required to become an entrepreneur or a technician in the field of solar technology. You will learn the fundamentals of electrical science, components of PV systems, solar instrumentation, designing PV systems, critical calculations involved, and installation of the solar PV system.

CAREER OPTIONS

On completion of this course, students attain technical skills and expertise of a solar technician and can take-up or supervise the responsibility of installing solar panels at customer premises. You get practical experience on testing, designing and installing solar photovoltaic systems with confidence. You can either follow a business or part-time career in Solar Technology or pursue specific jobs like Solar Power Technician, Solar Panel Installation Technician etc.

PROGRAMME STRUCTURE

✔ Introduction to Solar Energy
✔ Basic Electrical
✔ Solar Photovoltaic System Types
✔ Solar PV System Components
✔ Solar Instrumentation
✔ Solar PV System Design & Calculation
✔ Solar PV System Installation

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Certified course in

LAPTOP SERVICING

Duration : 160 Hours (2 Months)
Eligibility : 10th and Above

This two months training programme that covers the intricate details of laptop service and maintenance quite intensively and addresses the basics of desktop computers. This course not only helps students to learn the essential theoretical concepts of computer systems in depth, but also engages them with intensive experiential training that instills enough confidence to set their hands on any new-generation systems of top quality brands like Dell, Lenovo, HP, Toshiba, and the like.

CAREER OPTIONS

Upon completing this program, students gain advanced skills and the technical finesse in systems repairing, which helps them either in endeavouring a full-time potential career, or in pursuing a part-time vocation in professional Laptop Servicing (also desktops). The course enhances ones skill sets in opting for a career in system servicing and in handling popular brands of portable computers under various job roles like Laptop Repair Engineer, Laptop Technician, System Service Engineer etc.

PROGRAMME STRUCTURE

✔ Basics of Electronics
✔ Fundamentals of Computers
✔ Peripherals Management
✔ Assembling of PC
✔ Hardware Troubleshooting
✔ Fundamentals of Portable Computers
✔ Disassembly and Reassembly of Laptops
✔ Windows OS Installation & Configuration
✔ Linux OS Installation & Configuration
✔ Data Recovery & Maintenance

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Certified Course in

PRINTER SERVICE TECHNICIAN

Duration   :   80 Hours (1 Month)
Eligibility   :   10th and Above

This one month programme is a very useful course where students acquire quick knowledge about printer components, mending tools and rectifying techniques for repairing printers, as well as service and maintenance process, which are followed for different types of printers that are available in the market today. With printers occupying almost every office and home, there is a massive demand in printer service technician jobs.

CAREER OPTIONS

On completion of this course, students gain experience dealing with hardware & software components of printers. They learn to install, troubleshoot, repair and provide maintenance services for the printer as they undergo detailed practical sessions in disassembling, reassembling, servicing and troubleshooting of a printer. You can either be a freelancer, or take up job positions like: Printer Service Technician, Printer Chip Level Service Technician, etc.

PROGRAMME STRUCTURE

✔ Printing Technology
✔ Types of Printers
✔ Electronics & Electrical Fundamentals
✔ Printer Components
✔ Disassembling & Assembling
✔ Troubleshooting Hardware Faults
✔ Troubleshooting Software Faults

HARDWARE
PROGRAM

Advanced IT Infrastructure Management Studies (AIMS) endeavors to provide quality training in IT Infrastructure Management Services and Technologies. AIMS leads the way in preparing candidates and developing their technical skills towards professional expertise required for a great career, Scholarships are awarded by KERALA STATE RUTRONIX to commendable and talented students.

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