



Technical Education
and Skills Development Authority

Webliography

The Webliography is an electronic bibliographic listing of topics related to the qualification titles of a particular TVET priority sector, with pre-searched *URLs* (uniform resource locators) and descriptions (abstracts).

The pre-searched *URLs* provide contents in reference to the title of promulgated Training Regulations (TR). By clicking the weblinks (underlined *URLs* in blue text), your internet browser will direct you to the website/webpage where you can find the topic related to the title you selected. The Webliography is a useful tool for trainers who are designing and developing competency-based curriculum and learning materials.

[TESDA](#) » [Webliography](#) » [Electrical and Electronics Sector](#)

INTERNET RESOURCES

Electrical and Electronics Sector

Scope:

Electronics technology deals with the emission and effects of electrons and the operation of electronic devices usually powered by small amounts of electricity. It is actually the science on how to control electric energy in which electrons have a fundamental role. Electronics deals with electrical circuits that involve active electrical components such as vacuum tubes, transistors, diodes and integrated circuits, and associated passive electrical components and interconnection technologies.

Source:

<http://en.wikipedia.org/wiki/Electronics>

List of qualifications:

- Computer Systems Servicing NC II
- Consumer Electronics Servicing NC II, III and IV
- Electrical Installation and Maintenance NC II, III and IV
- Electronic Products Assembly and Servicing NC II
- Electronics Back-End Operation NC II
- Electronics Front-of-line Operation NC II
- Instrumentation and Control Servicing NC II, III and IV
- Mechatronics Servicing NC II, III and IV
- Semiconductor Back-End Operation NC II
- Semiconductor Front-of-line Operation NC II

❖ Definition of electronics

<http://www.thefreedictionary.com/electronics>

This webpage provides definition and meaning of technical terms including translations.

[Retrieved 8 April 2015]

❖ Electronics engineer job description

http://www.prospects.ac.uk/electronics_engineer_job_description.htm

This webpage provides description on the job of an electronics engineer including typical work activities, job duties, etc.

[Retrieved 8 April 2015]

❖ Job description of an industrial electronics technician

http://study.com/articles/Job_Description_of_an_Industrial_Electronics_Technician.html

This webpage provides information about the job required of an industrial electronics technician including duties and career outlook.

[Retrieved 8 April 2015]

❖ The Philippine electronics industry

<http://siteresources.worldbank.org/INTPHILIPPINES/Resources/ErnestoSanTiago.pdf>

This webpage presents the status of electronics Philippines.

[Retrieved 8 April 2015]

❖ Electronics jobs in the Philippines

<http://job-search.jobstreet.com.ph/philippines/browse/electronics-communication-engineering-jobs/>

This webpage provides a list of job providers, job opportunities, contact information and other related information.

[Retrieved 8 April 2015]

❖ LG career

<http://www.lg.com/ph/career>

This website provides suggestions for choosing a career in LG electronics.

[Retrieved 8 April 2015]

❖ Philips career

<http://www.philips.com.ph/a-w/careers/homepage.html>

This webpage provides a list of job opportunities in electronics functional areas i.e. engineering, design, quality, intellectual property, sales, finance, HR, marketing, legal, supply chain, research and procurement.

[Retrieved 8 April 2015]

❖ SGS training services

<http://www.sgs.ph/en/Training-Services/Industry-Based-Training/Consumer-Goods-and-Retail/Electrical-and-Electronics.aspx>

This webpage provides a list of career training in electronics and other industries. Training experts can help incorporate critical compliance requirements from the design stage to the end of the production life cycle.

[Retrieved 8 April 2015]

INTERNET RESOURCES

Computer Systems Servicing NC II

Core Competencies

- Install and configure computer systems
- Set-up Computer Networks
- Set-up Computer Servers
- Maintain and Repair Computer Systems and Networks

❖ Computer maintenance definition

http://en.wikipedia.org/wiki/Computer_maintenance

This webpage defines computer maintenance as the practice of keeping computers in a good state of repair.

[Retrieved 5 May 2015]

❖ Computer services jobs

http://en.wikipedia.org/wiki/Computer_maintenance

This webpage provides information and instructions on preparing for a career as computer technician. This includes the responsibilities as computer technician to work in various computer platforms and manufacturer brands, the skills required to be a computer support specialist, salary of a pc technician and job descriptions.

[Retrieved 5 May 2015]

❖ Computer systems repair jobs

<http://www.indeed.com/q-Computer-Systems-Repair-jobs.html>

This webpage provides information about career opportunities in computer systems servicing including certification requirements.

[Retrieved 5 May 2015]

❖ Careers and job center: job industry reporting

<http://www.indeed.com/q-Computer-Systems-Repair-jobs.html>

This webpage provides information about the computer industry including history, development, career opportunities and scope of work in computer systems servicing jobs.

[Retrieved 5 May 2015]

❖ Computer systems analyst

http://jobsearchtech.about.com/od/computerjob13/a/systems_analyst.htm

This webpage provides information about the career as computer analyst which includes job duties, job qualifications, salary, employment, and job outlook.

[Retrieved 5 May 2015]

❖ Jobrapido

http://sg.jobrapido.com/?w=jobs+computer%27s&r=auto&utm_source=yahoo&utm_medium=cpc&utm_campaign=YSM_SG_JOB_SEARCH&utm_term=jobs%2Bcomputer%27s

This webpage provides a list of job opportunities as computer technician in Singapore including location and contact information.

[Retrieved 5 May 2015]

❖ Computer hardware servicing II in the Philippines

<http://www.finduniversity.ph/majors/computer-hardware-servicing-2-philippines/>

This webpage provides admission requirements for the training program in the country. It includes subjects and career opportunities in computer hardware servicing.

[Retrieved 8 April 2015]

❖ PC clinic- No. 1 computer service center in the Philippines

<http://pcclinic.com.ph/about.htm>

This website provides technical support in computer and related peripheral, providing total solution of information technology, including software troubleshooting and hardware repair of all brands of PC, laptop, printer, LCD, monitorm scanner, etc.

[Retrieved 8 April 2015]

❖ CTS computer training systems

<http://www.ctsys.com/>

This website provides online training courses with online training demos, products and request information.

[Retrieved 5 May 2015]

INTERNET RESOURCES

❖ The independent: Host computer services

<http://courses.independent.co.uk/training-provider/host-computer-services-ltd-12638>

This webpage provides information about host computer services including hands-on systems training, networking services, open courses and bespoke training solutions for IT professionals.

[Retrieved 5 May 2015]

❖ JobSpace: inservice training for computer systems engineering

http://www.jobspace.co.za/jobs/in-service_training_for_computer_systems_engineering-jobs

This webpage provides information about job opportunities in computer systems engineering including career opportunities other than IT.

[Retrieved 5 May 2015]

❖ Fujitsu Philippines, Inc.

<http://pcclinic.com.ph/about.htm>

This webpage provides a list of job opportunities and career in computer science, engineering, information technology, electronics and communications engineering and other computer-related courses.

[Retrieved 8 April 2015]

❖ University of Perpetual Help system data

<http://perpetualdelta.edu.ph/academics/tesda-courses>

This webpage provides information on TESDA courses being offered by the school.

[Retrieved 8 April 2015]

❖ Consumer electronics definition

http://en.wikipedia.org/wiki/Consumer_electronics

This webpage provides descriptions of consumer electronics as electronic equipment intended for everyday use, most often in entertainment, communications and office productivity. In British English they are often called brown goods by producers and sellers

[Retrieved 8 April 2015]

❖ Consumer products

<http://www.sony.com.ph/section/product>

This webpage provides a list of consumer electronic products.

[Retrieved 8 April 2015]

❖ Consumer electronics

<http://www.euromonitor.com/consumer-electronics-in-the-philippines/report>

This webpage provides information about the condition of consumer electronics industry in the Philippines. This includes data in on trends and market projections about the viability of consumer products of various manufacturers.

[Retrieved 8 April 2015]

❖ Philippines consumer electronics report Q2 2015

<http://www.marketresearch.com/Business-Monitor-International-v304/Philippines-Consumer-Electronics-Q2-8769461/>

This webpage provides information about the status of consumer electronics industry in the Philippines for the second quarter of 2015. This includes data in on growth and the industry performance of 2014.

[Retrieved 8 April 2015]

❖ 204 consumer electronics jobs in Philippines

<http://www.careerjet.ph/consumer-electronics-jobs.html>

This webpage provides information and online list of career opportunities for consumer electronics practitioners in the country. Job opportunities range from technicians, instructors, up to managerial level.

[Retrieved 8 April 2015]

❖ Consumer electronics world 2015

Consumer Electronics NC II Core Competencies

- Assemble/ Disassemble Consumer Electronic Products and Systems
- Maintain and Repair Audio/ Video Products and Systems
- Maintain and Repair Electronically-Controlled Domestic Appliances
- Maintain and Repair Cellular Phones

Consumer Electronics NC III Core Competencies

- Commission consumer electronic products and systems
- Develop servicing systems for consumer electronic products and systems
- Train Service Technicians

Consumer Electronics NC IV Core Competencies

- Manage servicing systems for consumer electronics products and systems
- Train Service Technician

INTERNET RESOURCES

Supervisors

Electrical installation and maintenance NC II

Core Competencies

- Prepare electrical power and hydraulic tools
- Perform roughing-in activities for communication and distribution systems
- Install wiring devices for floor and ground fault current interrupting outlets
- Install electrical protection system for lighting and grounding
- Install electrical lighting systems on auxiliary outlets and lighting fixtures

Electrical installation and maintenance NC III

Core Competencies

- Perform roughing-in and wiring activities for three-phase distribution system for power, lighting and motor control panel.
- Perform installation of data measurement and control system on electrical and auxiliary equipment
- Install, assemble, test and maintain motor control system

Electrical installation and maintenance NC IV

Core Competencies

- Prepare Electric and hydraulic tools.
- Perform roughing-in and wiring for activities for bus and underfloor ducts.
- Perform installation of wiring devices for floor and ground fault current interrupting outlets.
- Perform installation of standard electrical protection system for lightning and

<http://www.philippinesfair.com/events/consumer-electronics-world-2015/>

This webpage invites enthusiasts and professionals to attend the convention at the SMX Convention Center, MOA Complex, Metro Manila on April 23-25, 2015

[Retrieved 8 April 2015]

❖ Description of building wiring maintenance

<http://www.telecom.co.nz/phoneline/phoneline/existingcustomers/wiringmaintenance/service/>

"This webpage describes the role of building maintenance in construction."

❖ Installing aluminum building wire

<http://ecmweb.com/content/installing-aluminum-building-wire>

"This webpage advertises the use of aluminum cables for electrical applications."

❖ Powered platform for building maintenance installations (OSHA)

https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=standards&p_id=9727

"This webpage from the US Department of Labor is a Safety Regulation Standard for powered platform installation."

❖ Wiring maintenance

<http://www.telecom.co.nz/mytelecom/mylandline/wiringmaintenance/>

"This webpage provides information and tips on communication wiring maintenance."

❖ Basic electrical wiring techniques

<http://www.diyadvice.com/diy/electrical/how-to/>

"This webpage is for do-it-yourself enthusiasts who prefer to perform basic electrical installations."

❖ Wire maintenance plan

<http://www.clarencetelinc.com/PDFs/Wire%20Maintenance%20Plan.pdf>

"This webpage describes briefly how a wiring maintenance plan is planned."

❖ Datacomm office wiring: recommended procedures

<http://ecmweb.com/content/datacom-office-wiring-recommended-procedures>

"This webpage describes the EIA/TIA standards for wiring the office."

❖ Fire alarm system facts

<http://ecmweb.com/code-basics/fire-alarm-system-facts>

"This webpage advertises Article 760 that explains how to install wiring and equipment for fire alarm systems."

❖ What is electrical maintenance

<http://www.wisegeek.org/what-is-electrical-maintenance.htm>

"This webpage explains how electrical maintenance is required with illustrations."

❖ Building wire and cable

<http://www.nema.org/products/Pages/Building-Wire-and-Cable.aspx>

"This webpage introduces the products of NEMA for electrical wires and cables."

❖ Flexible cords, cables and fixture wire

<http://ecmweb.com/code-basics/flexible-cords-cables-and-fixture-wire>

"This webpage provides the wiring requirements of article 400, including guidelines for flexible cords, cables and fixtures."

❖ Wiring a building switchboard from an outdoor transformer

INTERNET RESOURCES

grounding.

- Perform installation of electrical lighting systems, auxiliary outlets and lighting fixtures.
- Perform installation of data measurement and control system on electrical and auxiliary equipment.
- Assemble and install electrical lighting and motor control systems.
- Perform maintenance and troubleshooting works.
- Supervise/Monitor installation and maintenance on electrical systems, auxiliary including control, lighting, power and protection equipment.
- Perform commissioning of electrical equipment/system.
- Perform programming and installation of basic PLC systems

Electronic Products Assembly and Servicing NC II

Core Competencies

- Assemble Electronic Products
- Service consumer electronic products and systems
- Service industrial electronic modules, products and systems

Electronics Back-End Operation NC II

Core Competencies

- Set up back-end operations workplace for electronics production line
- Analyze, carry-out and monitor back-end operations for electronics production line

<http://ecmweb.com/content/wiring-building-switchboard-outdoor-transformer>

"This webpage explains the rules when installing outdoor transformers."

❖ Lighting controls

<http://www.facilitiesnet.com/lighting/article/With-Lighting-Controls-Facility-Managers-Should-Understand-Products-Buildings-Wiring--13122>

"This webpage explains the importance of carefully selecting lighting control products."

❖ Printed circuit boards: The benefits of machine-assembly vs. hand-assembly

https://www.electronicproducts.com/Manufacturing/IC_and_Board_Assembly/Printed_circuit_boards_The_benefits_of_machine-assembly_vs_hand-assembly.aspx

This webpage provides information on the history and assembly of printed circuit boards (PCBs) for electronic components and assemblies.

[Retrieved 8 January 6, 2019]

❖ Troubleshooting and Repair of Consumer Electronic Equipment

<https://www.repairfaq.org/sam/tshoot.htm>

This webpage provides a manual of information on the repair of electronic components and assemblies.

[Retrieved 8 January 6, 2019]

❖ Industrial Electronics Repair

<http://www.yorkrepair.com/industrial-electronics-repair>

This webpage provides information and instructions on repairing industrial electronic products and assemblies.

[Retrieved 8 January 6, 2019]

❖ A Guide to Manufacturing Production

<https://www.thebalancesmb.com/manufacturing-process-2221376>

This webpage provides information on setting up a production line for small scale business. It describes the requirements and methods to customize the production line.

[Retrieved 8 January 6, 2019]

❖ Electronic Product Manufacturing

<https://www.startupbizhub.com/electronic-product-manufacturing.htm>

This webpage provides information on setting up a production line for business. It also includes links to related topics.

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- Check quality compliance of back-end operations for electronics production line

Electronics Front-of-line Operation NC II

Core Competencies

- Set up front-of-line (FOL) operations workplace for electronics production line
- Analyze, carry-out and monitor front-of-line (FOL) operations for electronics production line
- Check quality compliance of front-of-line (FOL) operations for electronics production line

Instrumentation and Control Servicing NC II

Core Competencies

- Install Instrumentation and Control Devices
- Calibrate Instrumentation and Control Devices
- Configure Instrumentation and Control Devices

Instrumentation and Control Servicing NC III

Core Competencies

- Loop Check Instrumentation and Control Devices
- Maintain and Repair Instrumentation and Control Devices

Instrumentation and Control Servicing NC IV

Core Competencies

- Start-up and Commissioning Instrumentation & Control Systems
- Diagnose and Troubleshoot

[Retrieved 8 January 6, 2019]

❖ What makes a good production plan?

<httpsttps://www.bdc.ca/en/articles-tools/operations/operational-efficiency/pages/production-plan-top-tips-improving-operations.aspx>

This webpage provides information and strategies to maximize productivity of a production line company.

[Retrieved 8 January 6, 2019]

❖ How to Set Up a Lean Factory That Works, Part I

<https://www.industryweek.com/continuous-improvement/how-set-lean-factory-works-part-1>

This webpage provides information on setting up a lean-oriented production layout for seamless flow of people, material and information.

[Retrieved 8 January 6, 2019]

❖ Seven Common KPIs for Production Monitoring

<http://www.redlion.net/resources/white-papers/seven-common-kpis-production-monitoring>

This webpage provides strategic philosophers or practices in manufacturing using Kaizen, Six Sigma, Total Quality Management and Continuous Improvement.

[Retrieved 8 January 6, 2019]

❖ Product Inspection Monitoring

<https://www.qima.com/quality-control-services/product-and-manufacturing-inspections>

This webpage provides strategies in inspecting various stages of the manufacturing process to help secure production and safeguard quality of products.

[Retrieved 8 January 6, 2019]

❖ Instrumentation and control servicing definition

http://en.wikipedia.org/wiki/Instrumentation_and_control_engineering

This webpage provides descriptions of Instrumentationandcontrolengineeringas the art and science of measurement and control of process variables within a production or manufacturing area..The process variables used in industries are Level, Pressure, Temperature, Humidity, Flow, pH, Force, Speed etc.

[Retrieved 8 April 2015]

❖ Instrumentation and control servicing NC II in the Philippines

<http://www.courses.com.ph/instrumentation-and-control-servicing-nc-ii-tesda-course-philippines/>

This webpage provides brief introduction of the course including admission, assessment and certification requirements.

[Retrieved 8 April 2015]

❖ I&CS

<http://www.wow-professions.com/wowguides/wow-tailoring-guide.html>

This website provides information on products, services and solutions provided by I&CS which is a leading instrumentation and control company from 1985 to present. Their goal is to provide a wide range of quality systems and products.

[Retrieved 8 April 2015]

❖ Yokogawa course catalog

<http://www.yokogawa.com/ph/tsd/training-solutions/course-catalog.htm?nid=left>

This webpageoffers TSD standard courses from basic industrial process, instrumentation & control, basic and advanced PLC to Industrial IT Fundamentals. Below are the standard courses offered in Yokogawa Philippines through its Training Solutions & Development Department

[Retrieved 8 April 2015]

❖ 142 Instrumentation and control jobs in the Philippines

INTERNET RESOURCES

Instrumentation & Control Systems

Mechatronics Servicing NC II

Core Competencies

- Install Mechatronics Devices
- Configure and Test Mechatronics Devices

Mechatronics Servicing NC III

Core Competencies

- Develop Mechatronics Control Circuits and Software Application Programs
- Maintain and Repair Mechatronics Devices

Mechatronics Servicing NC IV

Core Competencies

- Commission Mechatronics Systems
- Diagnose and Troubleshoot Mechatronics Systems

Semiconductor Back-End Operation NC II

Core Competencies

- Set up back-end operations workplace for semiconductor production line
- Analyze, carry-out and monitor back-end operations

<http://www.careerjet.ph/instrumentation-and-control-jobs.html>

This webpage provides information and list of career opportunities for instrumentation and control technicians, engineers and managers.

[Retrieved 8 April 2015]

❖ Mechatronics definition

<http://en.wikipedia.org/wiki/Mechatronics>

This webpage provides descriptions of mechatronics as a multidisciplinary field of engineering that includes a combination of mechanical engineering, electrical engineering, telecommunications engineering, control engineering and computer engineering. As technology advances the subfields of engineering multiply and adapt. Mechatronics' aim is a design process that unifies these subfields.

[Retrieved 8 April 2015]

❖ Manufacturing engineering and management

<http://www.dlsu.edu.ph/academics/colleges/coe/mem/mre.asp>

This webpage from DelaSalle University offers BS MEM Specialization in mechatronics and robotics engineering (MEM-MRE). The Mechatronics and Robotics Engineering (MRE) is a pioneering program in this country that offers an intensive training in the exciting field of robotics, automation engineering and product design. Engineering expertise imparted to students is centered on a hands-on multidisciplinary approach called Mechatronics, where mechanical design electronics, innovative and practical software engineering are used to create solutions to local manufacturing related problems

[Retrieved 8 April 2015]

❖ Mechatronics technologies corporation

<https://www.facebook.com/notes/mechatronics-technologies-corporation/courses-offered/937553919629597>

This webpage provides a list of courses offered by MTC.

[Retrieved 8 April 2015]

❖ Mechatronics Servicing NC II in the Philippines

<http://www.courses.com.ph/mechatronics-servicing-nc-ii-tesda-course-philippines/>

This webpage provides information about the mechatronics course offering of TESDA

[Retrieved 8 April 2015]

❖ 19 Mechatronics engineer jobs in the Philippines

<http://www.careerjet.ph/mechatronics-engineer-jobs.html>

This webpage provides information and list of job opportunities in mechatronics industry from technician level up to mechatronics engineers.

[Retrieved 8 April 2015]

❖ Mechatronics and robotics society of the Philippines

https://jrcanedo2.files.wordpress.com/2008/02/mrsp_overview.pdf

This webpage provides information about the MRSP, its mission and objectives, research, education and training certification, promotion, information network, membership and linkages benefits, addresses and contacts.

[Retrieved 8 April 2015]

❖ A Guide to Manufacturing Production

<https://www.thebalancesmb.com/manufacturing-process-2221376>

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❖ Electronic Product Manufacturing

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INTERNET RESOURCES

for semiconductor production line

- Check quality compliance of back-end operation for semiconductor production line

Semiconductor Front-of-line Operation NC II

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- Analyze, carry-out and monitor front-of-line (FOL) operations for semiconductor production line
- Check quality compliance of front-of-line (FOL) operations for semiconductor production line

business. It also includes links to related topics.

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❖ What makes a good production plan?

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[Retrieved 8 January 6, 2019]