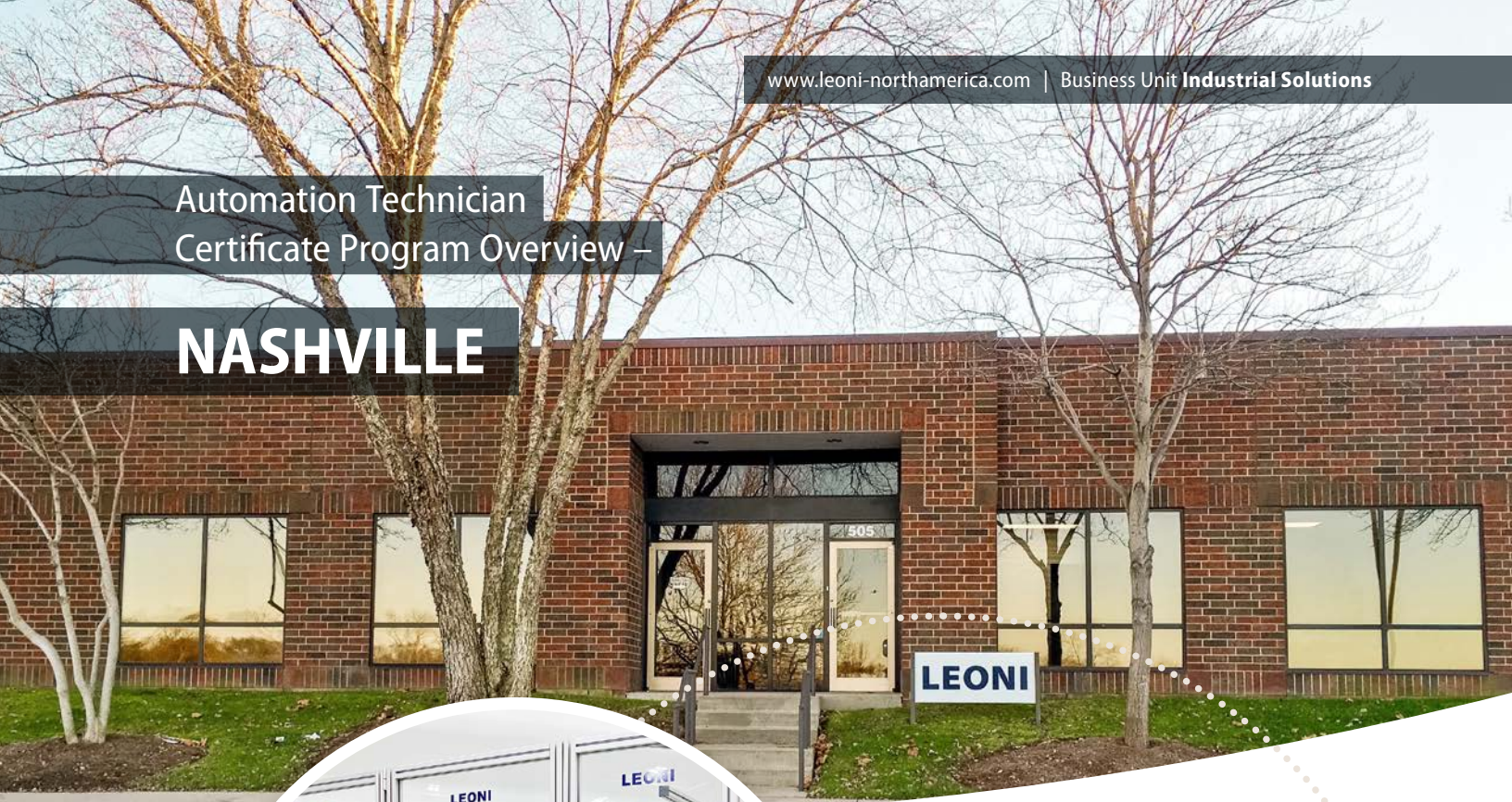


Automation Technician  
Certificate Program Overview –

# NASHVILLE



This certificate program is designed to prepare each student with the skills necessary to support operational programming and troubleshooting of plant floor automation equipment in a manufacturing environment. Students who successfully complete this program will learn how to operationally troubleshoot, program, and perform electrical maintenance on the latest automation equipment such as Fanuc Robotic Systems/ABB Robotic Systems, Allen Bradley/Rockwell Automation ControlLogix/GaurdLogix Systems and/or Siemens Step 7 PLC Systems including Software and Human Machine Interfaces (HMI), as well as Variable Frequency Drive (VFD) start-up, recovery, and troubleshooting.



**Training Auto Tech Program  
Nashville dates 2016**

- 10-31-16 ABB IRC5 Rat 1
- 11-7-16 ABB IRC5 Rat 2
- 11-14-16 GLX Cat 1
- 11-28-16 GLX Cat 2
- 12-5-16 GLX Cat 3
- 12-12-16 ABB/GLX Rat 3

# LEONI

# Program Overview

The six (6) week program consists of the following key courses:

**Program Type:** Instructor led, taught with a 50/50 theory to hands-on approach. Theory portions will be followed by lab exercises to ensure an in-depth understanding of all key topics. The latest in automation equipment including Robots, PLC's, HMI's, VFD's and all associated software with computers will be provided throughout the program.

**Program Length:** 6 weeks in total/40 hrs per course

**Prerequisites:** High School Diploma or GED, and/or applicable work experience, basic computer skills

**Program Cost:** \$ 9,900 per student – Group discounts available

# Courses

## Automation Safety & Robotics Applied Troubleshooting-1

- Automation Safety
- Robot Operational Troubleshooting
- Robot Operational Programming
- Specific robot applications such as:
  - Material handling
  - Dispense
  - Spot welding
- Robot programming standards specifications and guidelines

Course Code:

Robot AT-1

## Controls Applied Troubleshooting-2

- Programming techniques
- Communications networks such as:
  - ControlLogix processors or Siemens Step-7 processors
  - GuardLogix processors including programmable safety
- RSLogix5000 software or Siemens Step 7 software including:
  - Remote I/O
  - DeviceNet
  - EtherNet IP
  - PanelView Plus HMI

Course Code:

Controls AT-2

## Robotics Applied Troubleshooting-2

- Teach Pendant Error Message Overview & Troubleshooting
- Input & Output Configuration & Troubleshooting
- Communications Overview
- Electrical Troubleshooting
- Electrical Maintenance
- Preventive Maintenance

Course Code:

Robot AT-2

## Controls Applied Troubleshooting-3

- Variable Frequency Drive (VFD) start-up
- VFD Operation
- VFD Troubleshooting
- HMI Modules
- PLC System Troubleshooting

Course Code:

Controls AT-3

## Controls Applied Troubleshooting-1

- PLC Overview and Basic Programming
- Maintenance and Troubleshooting including:
  - Hardware and Software overview
  - Operating, Installing and Setup
  - Basic Operational Troubleshooting of the PLC

Course Code:

Controls AT-1

## Robot Applied Troubleshooting-3

- Robotic & PLC system recovery procedures
- Application system faults
- Program editing
- Safe start-up and shut down procedures
- Operator and cell controls
- Robot to cell I/O interfaces
- Robot to application I/O interfaces
- Robot to GuardLogix safety interfaces (Guard I/O)
- Software diagnostics and hardware troubleshooting
- Navigating through programming standards on the teach pendant

Course Code:

Robot AT-3