

Servicing the GE Innova/Optima/IGS Digital Cath Lab Family: Innova 2100/3100/4100, Optima 320, IGS 5XX, IGS 6XX



RADIOLOGICAL SERVICE TRAINING INSTITUTE

Introduction

The GE Innova/IGS/Optima Digital Cath Lab Family course is a skills development course designed to provide the experienced service professional with the skills necessary to fully service and calibrate this single/dual detector cath lab system. The Innova/IGS/Optima system is built around the JEDI generator. The Innova 2100/3100/4100, Optima 320, IGS 520/530/540, & IGS 620/630 will be covered in this course.

Note: The Innova 2121 and 3131 are dual C-Arm (BiPlane) versions of the Innova 2100 and 3100.

Prerequisites

To attend this course, the service professional must have completed RSTI's Phases I-III or equivalent experience is required.

Objectives

- Describe the GE Innova cath lab system components
- Describe the function of the basic components of the GE Innova digital cath lab
- Demonstrate an understanding of the installation procedures associated with the GE Innova Cath lab
- Perform the necessary digital performance monitoring and quality assurance procedures

- Perform all system calibrations and adjustments to maintain the highest quality images
- Evaluate circuit functions to facilitate troubleshooting
- Perform a complete and thorough preventive maintenance inspection on the unit

Course Outline

DAY 1

- Digital cath lab overview
- Digital imaging process overview
- Innova Family system overview
 - o Compare & Contrast systems
- Major system components
 - o LC Positioner
 - o Detector sizes
 - 21/31/41cm
 - 520/530/540
 - 620/630
 - o C1 Cabinet
 - o C2 Cabinet
 - o Table
 - Omega table
 - Elegance table
 - o Smart box
 - o TSSC
 - o Chillers
 - Tube chiller
 - Detector chiller
 - o User interface
- Innova System evolution
- System logins and passwords

DAY 2

- Documentation
- System terms & acronyms
- Required tools & test equipment
- System specifications
- Innova system operation
- Lab Activities
 - o Basic system operation
 - o DL system software
 - o Image acquisition
 - o Image viewer
 - o Software navigation

DAY 3

- Operations
 - o DL – Digital Leader
 - o Revolution Detector
 - o Innova system
 - o Innova digital
 - o Positioner
 - o Alarm systems
 - o QAP – Quality Assurance Procedure
 - o Advantage Workstation
- Lab Activities:
 - o DL operation
 - o QAP
 - o Advantage Workstation

DAY 4

- Removal of covers & panels
- Component Identification
- Lab Activities:
 - o Covers & panels
 - DL
 - AW
 - Table
 - LC

Servicing the GE Innova/Optima/IGS Digital Cath Lab Family: Innova 2100/3100/4100, Optima 320, IGS 5XX, IGS 6XX



RADIOLOGICAL SERVICE TRAINING INSTITUTE

- JEDI generator
- Component Identification
- Schematic location
- Physical location
- Connector locations
- Fuse location/identification

DAY 5

- Site planning and installation
- Network configuration
 - Ethernet config
 - ArcNet Bus
 - CAN Network
 - Troubleshooting Innova internal Networks
- Service
- ITU/InnovaCentral Touchscreen replacement & configuration
- Lab Activities
 - Mechanical alignments
 - Setups
 - Software configuration
 - Network Configuration
 - Configure and test output devices Output devices
 - PACS
 - Laser printer
 - RWS
 - Media
 - Configure and test input devices
 - Modality worklist

DAY 6

- Lab Activities:
 - Calibrations
 - DL
 - AW
 - Table
 - LC

- JEDI generator
- KVM
- Monitors
- Dosimeter
- Detector
- Collimator
- Functional checks
- System backups
- System restore
- Lab Activities
 - Full system calibration
 - System backups
 - System restore

DAY 7

- Lab Activities
 - Full system calibration (Cont'd)
 - DL
 - AW
 - Table
 - LC
 - JEDI generator
- Functional Checks (Cont'd)
 - DL
 - AW
 - Table
 - LC
 - JEDI generator

DAY 8

- Preventive maintenance
 - Positioner
 - Table
 - Cabinet
 - Conditioners
 - Tube chiller
 - Detector chiller
 - Tube
 - Collimator

- Dose
- Power distribution
- UPS
- System service procedures
 - Software reload
 - DL
 - RTAC
 - JEDI
 - Options
 - Networking
- Lab Activities
 - PM
 - Load from Cold (LFC)

DAY 9

- System schematics
 - AWS
 - Gantry
 - Generator
- Troubleshooting
- Error codes
- System diagnostics
- Lab Activities
 - Review system diagrams and communication
 - Troubleshooting
 - System diagnostics
 - Access Error logs
 - Central Listing
 - Test Points
 - LED's
 - Networking
 - Power Distribution/Supplies

DAY 10

- Course review
- Course evaluation
- Final exam