

Hands-on Workshop for Surveying Digital Mammography Units



Milwaukee, WI
March 13-14, 2010

MTMI

Medical Technology
Management Institute

This workshop provides
15 hours of
Medical Physics
Continuing Education Credit
(MPCEC)
more than satisfying
the MQSA requirement!

Making Technology Work for You!

About the Workshop

Full field digital mammography (FFDM) holds promise to improve image quality and reduce radiation dose in the detection of breast cancer. Commercial systems have been approved by the FDA and make up over half of the systems in the clinical setting. The Mammography Quality Standards Act (MQSA) requires 8 hours of training on all new modalities, such as FFDM, before performing surveys on these units. The FDA also strongly recommends that the required training include hands-on instruction on surveying these units. This workshop provides an opportunity to receive hands-on training for both FFDM surveying and quality control procedures on units from several manufacturers.

Who Should Attend

This workshop is for medical physicists wanting to learn surveying and quality control procedures on FFDM units as well as to obtain the 8 hours of training required by the FDA before surveying these units. It is also appropriate for medical physics students, residents and fellows, biomedical engineers, state and federal mammography facility inspectors and others interested in the surveying of FFDM units.

Workshop Format

The workshop will consist of lecture as well as laboratory training. Lectures will review the technology and surveying/QC procedures. There will be 6 laboratory sessions. Attendees will be divided into small groups to rotate through all 6 labs. **FFDM machines from Fuji, GE, Hologic and Siemens will be used to demonstrate the set up, collection and analysis of survey and QC data.** A syllabus with supporting material for the lectures and labs will be provided to all attendees as well as a CD-ROM with lectures, software, and test images.

Acknowledgements

Appreciation is expressed to the following companies for their support and participation to make this workshop possible:

FUJIFILM



HOLOGIC GE Healthcare
CLARITY OF VISION

SIEMENS

Educational Objectives

By participating in this workshop attendees will:

- Review the various technologies being used for full field digital mammography.
- Collect survey data required for FFDM units.
- Learn the quality assurance procedures approved for various manufacturers units.
- Analyze survey and QC data for various manufacturers FFDM units.
- Become familiar with the DICOM Part 14 Gray Scale Display Standard.
- Perform appropriate QC tests on soft copy display devices.

Faculty

J. Ed Barnes, Ph.D.

Executive Director
MTMI

Jerry A. Thomas, MS, DABR, CHP, DABSNM

Via Christi Regional Medical Center

Laboratory Instructors

Marcia Hill

GE Healthcare

Robert Pizzutiello, MS
Hologic

Don Jacobson, Ph.D.

FUJIFILM Medical Systems

To be announced

Siemens Medical Solutions

Continuing Education Credit

This workshop will provide 15 hours of continuing education on surveying of full field digital mammography units. Approval has been received from CAMPEP for up to 15 hours of Medical Physics Continuing Education Credit (MPCEC) for qualified medical physicists. A certificate documenting attendance will be provided to all participants.

Workshop Schedule

Day One ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦

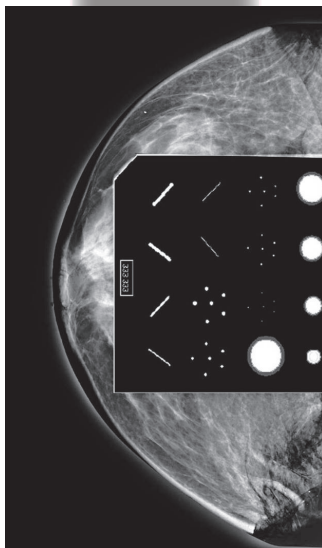
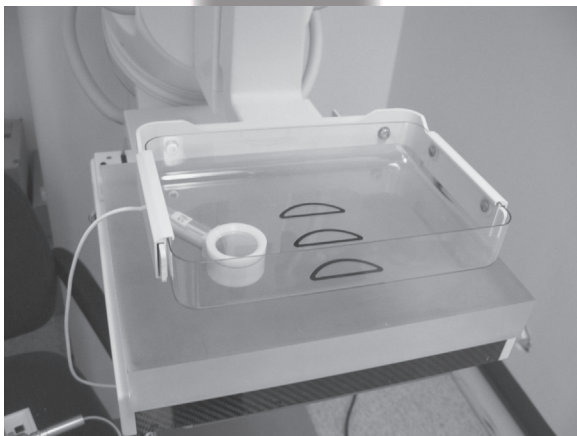
- 7:30 am **Registration**
- 8:30 am **Review of Digital Detectors in Mammography** Barnes
- Overview of detector technologies used in digital mammography
 - detector design
 - expected resolution
 - Future applications of digital mammography
- 9:45 am **Informal Discussion and Break**
- 10:00 am **Quality Assurance Measurements** Thomas
- Detector measurements: Direct, Indirect & CR
 - flat field
 - AEC
 - SNR/CNR
 - field uniformity
 - MTF
- 12:00 pm **Lunch (provided)**
- 12:30 pm **Lab Session 1**
- 2:00 pm **Informal Discussion and Break**
- 2:15 pm **Lab Session 2**
- 3:45 pm **Lab Session 3**
- 5:15 pm **Discussion**
- 5:30 pm **Adjourn for the Day**

Day Two ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦ ♦

- 7:00 am **Coffee**
- 7:30 am **Workstation Performance/QC** Thomas
- Monitor design/types
 - high resolution CRT
 - phosphor types
 - luminance limitations
 - flat panel displays
 - DICOM Part 14 Gray Scale Display Standard
 - meaning
 - usefulness
 - how it is applied to workstations
 - Techniques to validate DICOM Part 14 Gray Scale Standard
- 8:45 am **Hard Copy Device QC** Thomas
- Acceptance testing
 - NEMA tests
- 9:30 am **Break and Informal Discussion**
- 9:45 am **Lab Session 4**
- 11:15 am **Lunch (provided)**
- 12:00 pm **Lab Session 5**
- 1:30 pm **Lab Session 6**
- 3:00 pm **Wrap Up and Evaluations**
- 3:30 pm **Adjourn**






Workshop Labs

- | | |
|--|--|
| Lab A
Collecting the survey data
GE FFDM machine | Lab B
Survey/QC Procedures for
Fuji CR FFDM system |
| Lab C
Survey/QC Procedures for
Siemens FFDM machine | Lab D
Survey/QC Procedures for
Hologic FFDM machine |
| Lab E
Analysis of survey/QC data
GE display station | Lab F
Calibration and QC of
display monitors |



Registration

To register for this seminar:

-  go to www.mtmi.net or
-  complete the registration form below and
-  mail it with your tuition to **MTMI**, or
-  call **(800) 765-6864** using MasterCard or Visa, or
-  fax the form to **(262) 717-9171** w/credit card info

Refunds, minus a \$50 administration fee, will be granted for cancellations received prior to 10 days before the course. Cancellations received within 10 days of the course will receive a credit toward a future **MTMI** program, minus the \$50 processing fee. No refunds will be made after the course.

MTMI reserves the right to cancel any scheduled program because of low advance registration or other reasons. **MTMI's** liability is limited to a refund of any program tuition paid.

Membership

Membership in the Medical Technology Management Institute includes:

- ◆ discounts on **MTMI** services
- ◆ member newsletter
- ◆ web access to replace certificates
- ◆ yearly transcripts
- ◆ special benefits throughout the year exclusive to members

Joining **MTMI** with this registration qualifies you for the member discount. Indicate your interest in membership on the registration form or call **MTMI**. Annual membership dues for physicians is \$59. Discount effective immediately. Also available, discounted **Group** Membership.

Registration Form *Hands-on Workshop for Surveying Digital Mammography Units* Milwaukee, WI-3/13-14/10

Please Print Clearly - This is how your name will appear on your certificate.

Name: _____ degree/title: _____

Home Address: _____ City: _____

State: _____ Zip code: _____ e-mail: _____

registration confirmation will be sent to this e-mail address - **print clearly**

Day phone () _____ Eve. phone () _____

I am a Medical Physicist; MQSA Inspector; Biomedical Engineer; other; specify: _____

I work in the following: Mammography, CT, MRI, Ultrasound, Nuc Med, Rad Therapy, XR.



Call 800-765-6864
if you have
special needs.

Please enclose payment to **MTMI**: \$995

MTMI member discount: \$960

Yes, I want to become an **MTMI** member! \$59

(discount effective immediately)

Total enclosed:

\$ _____

Credit Card Number: _____ Master Card Visa Amex

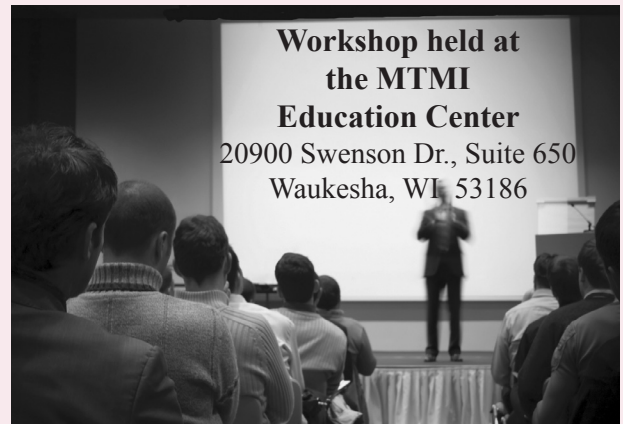
Expiration Date: _____ Signature _____

Return to: **MTMI** ♦ 20900 Swenson Dr., Suite 650 ♦ Waukesha, WI 53186

800-765-**MTMI**(6864) or 262-717-9797 or fax 262-717-9171 or e-mail custservice@mtmi.net

Your satisfaction with **MTMI** programs is guaranteed, a guarantee we are confident you won't need to use.

Location & Accommodations



Sleeping rooms at the Marriott West

W231 N1600

Corporate Court

Waukesha, WI 53186

262-574-0888 (front desk)

www.marriott.com/mkemw

Room Rate: single \$98, double \$121

Make reservations at least

2-weeks in advance of workshop,

to assure availability.

Telephone reservations call **877-651-7666**

and mention you are a part of the **MTMI** group.

Marriott reservation includes:

- airport shuttle
- daily shuttle to **MTMI** and back to the Marriott
- breakfast buffet
- high speed internet access
- microwave & refrigerator (upon availability)