INTRODUCTION TO THE SIGNIFICANCE OF **IMRT** IN MODERN RADIATION ONCOLOGY

Koç University Hospital, a leading institution in healthcare, prioritizes ethical values, innovative approaches, and international standards in education, research, and healthcare services. The hospital's collaboration with **MD Anderson** Cancer Center and its team of highly skilled professors and medical professionals who are members of the Türkiye Radiation Oncology Association, highlights their commitment to delivering cutting-edge radiation oncology treatments and practices

The second IMRT Training Pre- Registration has started

For more detail about the training program please fill out the Pre-Registration form on the website.

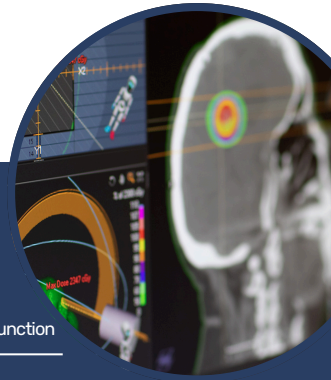
Deadline: September
(The exact deadline will be announced soon)

Venue: Koç University Hospital

Course Description:

Explore the best practices and new trends in Intensity-Modulated Radiation Therapy (IMRT). This on-site course is made for both beginner and experienced radiation therapists, along with medical physicists. Its main goal is to help beginners meet current practice standards and keep advanced users informed about the latest industry advancements.

Our innovative blended learning approach combines on-site lectures with pre-recorded sessions. The curriculum is organized thematically and comprehensively covers key technological aspects, including treatment planning, image guidance and adaptation, and treatment delivery.



Theoretical Program Contents

- IMRT Precautions and Concerns
- IMRT Dose Delivery Techniques
- Inverse Planning; Optimization algorithm and cost function

- Patient-Specific QA
- IGRT Technologists
- IGRT Correction Strategies; Online and Offline
- Adaptive Treatments; Concepts and Approaches MR-Guided Radiotherapy

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- Management of Respiratory Motion
  - *4DCT and Motion Encompassing Techniques
  - * Respiratory Gated Techniques
  - *Real-time Tumor Tracking Techniques
- Uncertainties and Margins in Radiotherapy
- Image Registration Protocols for Different Treatment Sites
- IGRT Dose

- Mechanical and Dosimetric Tests
- Small Field Dosimetry
- Flattering Filter Free Beams
- TPS Commissioning and end-to-end Test

Practical Program Contents

Day 1:

- Introduction to IMRT: Principles, history, and evolution
- Indications and benefits of IMRT in cancer treatment
- Intra-observer Variation and Challanges in Organ Delineation
- Head and Neck IMRT; OAR Delineation
- Prostate IMRT; OAR Delineation
- Brain IMRT; OAR Delineation

Day 2:

- Patient positioning and CT simulation protocol for H&N IMRT
- Patient positioning and CT simulation protocol for Prostate IMRT
- Patient positioning and CT simulation protocol for Left Breast IMRT
- Surface guided applications in IMRT (patient positioning and monitoring)
- Practical Session on multi-modality imaging registration (rigid/deformable) for Brain, H&N and Prostate cases in TPS
- Inverse Planning,optimization algorithms and dose constraints

Day 3:

- Treatment planning for Nasopharynx + Lymph node case
- Treatment planning for Prostate + Lymph node case
- Treatment planning for Left Breat + Lymph node case
- Practical hands-on session on Nasopharynx + Lymph node planning
- Practical hands-on session on Prostate + Lymph node planning
- Practical hands-on session on Left Breat + Lymph node planning

Day 4:

- IGRT protocols and registration techniques for different treatment sites
- Practical session on IGRT techniques; (CBCT and KV/KV imaging of an Anthropomorphic Phantom, Image registration and offsets review)
- Offline CBCT review for two Nasopharynx + Lymph node Cases (Normal case & Challenging case with tumor shrinkage or weight loss)
- Offline CBCT review for two Prostate + Lymph node Cases (CBCT with appropriate organ filling & CBCT with significant changes in organ fillings)
- Practical session on MLC QA procedures for IMRT/VMAT
- Patient Specific QA for Nasopharynx + Lymph node case
- Patient Specific QA for Prostate + Lymph node case

Day 5:

- Patient safety considerations in IMRT
- Managing potential risks and complications of IMRT; Incident Management and Reporting
- Case studies and group discussions on patient safety
- Evaluation of treatment outcomes in IMRT
- Assessment of plan quality and plan evaluation metrics
- Multidisciplinary collaboration in IMRT treatment

Certification:

Upon completion of the course and the assessment, participants will receive certification from the University Hospital mentioned, endorsed by the Iranian Society of Clinical Oncology (ISCO).

Faculty:

Prof. Dr. Uğur Selek
Head of Turkish Radiation Oncology Association

Prof. Dr. Yasemin Bölükbaşı
Supervisor Board Members of Turkish Radiation Oncology Association

Assoc. Prof. Duygu Sezen
Department of Radiation Oncology Koç University Hospital

Dr. Şükran Şenyürek
Department of Radiation Oncology Koç University Hospital

Note: For more information about Registration and Cost, please fill out the registration form on the website.

Contact Information

General Email: info@technomedikal.com
Web Address: www.Technomedikal.com
Tel: +90 (546) 469 7973
Address: Mecidiyeköy Mahallesi, Burç Sk, Burç Apt, No:34387 ,I/I, Şişli, Istanbul/Turkey