



Translational Ophthalmology Research Center
Farabi Eye Hospital
Tehran University of Medical Sciences

Scientific Secretary: Hamid Riazi MD
Executive Secretary: Masoud Khorrani-Nejad PhD



Greeting 15:00 - 15:10

Subject	Speaker	Time	Affiliation
Keynote lecture "AI & the Future"	Arshin Adib-Moghaddam PhD	15:10 -15:30	SOAS University of London

Artificial Intelligence

15:30 – 17:00 (Tehran IR)

Moderators

Soheil Adib-Moghaddam MD, Renato Ambrósio MD, Ahmad Mirshahi MD

Enhanced Diagnostics for Corneal Ectasia: The Role of AI	Renato Ambrósio Jr MD PhD	15:30 -15:50	Adjunct Professor of the Federal University of the State of Rio de Janeiro (UniRio) Brazil President of the ISRS
Future of AI in Ophthalmology	Pouya Sojoudi MSc AI Researcher and Entrepreneur	15:50 -16:00	Founder of Hash-Tech LLC. Munich Universal Council of Ophthalmology: UCO
Artificial Intelligence for Anterior Segment Diseases: Emerging Applications in Ophthalmology	Moein Bahman PhD Candidate	16:00 -16:10	Tehran University of Medical Sciences Universal Council of Ophthalmology: UCO
Progress of Artificial Intelligence in Diabetic Retinopathy	Sare Safi PhD	16:10 -16:20	Ophthalmic Epidemiology Research Center, Research Institute for Ophthalmology and Vision Science, Shahid Beheshti University and Medical Sciences

10th Translational Ophthalmology Seminar – 11 Dec 2020
Robotics, Artificial Intelligence, and Image Processing



Translational Ophthalmology Research Center
Farabi Eye Hospital
Tehran University of Medical Sciences

Scientific Secretary: Hamid Riazi MD
Executive Secretary: Masoud Khorrami-Nejad PhD



10th Translational Ophthalmology Seminar – 11 Dec 2020
Robotics, Artificial Intelligence, and Image Processing

Subject	Speaker	Time	Affiliation
Artificial Intelligence in Retinal Disorders	Reza Mirshahi MD MPH	16:20 -16:35	Eye Research Center, The Five Senses Institute, Rassoul Akram Hospital, Iran University of Medical Sciences
Artificial Intelligence in Nanomedicine	Mojdeh Mohseni PhD	16:35 -16:45	Member of Scientific Group of Radiobiology Center, Iran University of Medical Sciences Universal Council of Ophthalmology: UCO
5G Applications in Healthcare and Medical Sciences	Hamidreza Bolhasani PhD, Data Scientist	16:45 -16:55	Mobile Communication Company of Iran: MCCI



Translational Ophthalmology Research Center
Farabi Eye Hospital
Tehran University of Medical Sciences

Scientific Secretary: **Hamid Riazi MD**

Executive Secretary: **Masoud Khorrami-Nejad PhD**



ARAS
ADVANCED ROBOTICS & AUTOMATED SYSTEMS

10th Translational Ophthalmology Seminar – 11 Dec 2020
Robotics, Artificial Intelligence, and Image Processing

ROBOTICS

17:30 – 19:00 (Tehran IR)

Moderators

Hamid D Taghirad PhD, Alireza Lashay MD, Seyed Farzad Mohammadi MD MPH FICO

Subject	Speaker	Time	Affiliation
1st part -Ophthalmology-Robotics: An Evolving Horizon			
Translating Ocular Surgery into Engineering Concepts	Seyed Farzad Mohammadi MD MPH FICO	17:30 -17:40	Tehran University of Medical Sciences
Robotic-Assisted Eye Surgery	Hamid D Taghirad PhD	17:40 -17:50	K N Toosi University of Technology
2nd part - ARASH-ASiST System for Vitreoretinal Surgery Training			
Vitreoretinal Surgical Training Challenges	Hamid Riazi Esfahanai MD	17:50 -18:00	Tehran University of Medical Sciences
ARASH-ASiST: ARAS Haptic System for EYE Surgery Training	Mohammad Motaharifard PhD	18:00 -18:20	University of Isfahan
3rd part – AI and VR in Eye Surgery Training System			
Cataract Surgery Training Complications	Parisa Abdi MD	18:20 -18:30	Tehran University of Medical Sciences, Tehran, Iran
Eye Surgery Training Prospects: Toward VR Development	Alireza Norouzzadeh PhD	18:30 -18:50	K. N. Toosi University of Technology
Data Mining and AI in Surgery Skill Assessment	Elham Ashrafi PhD	18:50 -19:00	Tehran University of Medical Sciences



Translational Ophthalmology Research Center
Farabi Eye Hospital
Tehran University of Medical Sciences

Scientific Secretary: **Hamid Riazi MD**

Executive Secretary: **Masoud Khorrani-Nejad PhD**



ARAS
ADVANCED ROBOTICS & AUTOMATED SYSTEMS

10th Translational Ophthalmology Seminar – 11 Dec 2020
Robotics, Artificial Intelligence, and Image Processing

Image Processing: An Introductory Workshop

19:30 -21:30 (Tehran IR) – “language: Persian”

Moderators

Hossien Arabalibeik PhD, Raheleh Kafieh PhD, Elias Khalili Pour MD

Subject	Speaker	Time	Affiliation
An Overview of Medical Image Processing and Analysis	Tahereh Mahmoudi, PhD Candidate	19:30 -19:45	Tehran University of Medical Sciences
Introduction of Image	Elias Khalilipour MD	19:45-19:55	Tehran University of Medical Sciences
Image Enhancement and Denoising	Zahra Amini PhD	19:55-20:10	Isfahan University of Medical Sciences
Image Segmentation	Raheleh Kafieh PhD	20:10-20:25	Isfahan University of Medical Sciences
Morphological Operations	Mahdad Esmaeili PhD	20:25-20:35	Tabriz University of Medical Sciences
Image Classification	Mahdad Esmaeili PhD	20:35-20:45	Tabriz University of Medical Sciences
Registration and Fusion	Tahereh Mahmoudi PhD	20:45-20:55	Tehran University of Medical Sciences