

## The First Iranian School of Basic and Advanced Electroencephalography



**The First Iranian School of Basic and  
Advanced Electroencephalography**

**2023, Iran, Isfahan**



# The First Iranian School of Basic and Advanced Electroencephalography

The First Iranian School of Basic and Advanced Electroencephalography

2023, Iran, Isfahan

Date: November 9-10, 2023 | Isfahan, Iran

Time: 2 days

School on Basic and advanced Electroencephalography course is an intensive, 2-day course, designed to instruct in core competencies related to Interpret EEG and describe common EEG patterns (core competency 4) in children and adults

**Moderator:** Dr. Jafar Mehvari Habibabadi

## Faculty and Board Members

- Mahmood Motamedi
- Jafar Mehvari Habibabadi
- Seyed Sohrab Hashemi Fesharaki
- Mohammad Zare
- MohammadReza Najafi
- Mahmood Mohammadi
- Reza Shervin Badv
- MohammadReza Ghazavi
- Jafar Nasiri
- Omid Yaghini
- Reza Azizimalamiri
- Nasim Tabrizi
- Navid Naghibi
- Mohammad Hosein Kahnooji
- Mahyar Noorbakhsh

# The First Iranian School of Basic and Advanced Electroencephalography

## Learning objectives according to ILAE curriculum

- 1.4.1 Determine whom should receive EEGs, be familiar with sensitivity and specificity, and how to interpret the report in the clinical context, (L1).
- 1.4.2 Demonstrate knowledge on how to conduct EEG recordings, including technical requirements (e.g. mounting electrodes, use filters, amplifiers, electrode arrays, etc.), (L2).
- 1.4.3 Demonstrate knowledge of montages - advantages and disadvantages, (L2).
- 1.4.4 Interpret topographic (voltage) maps, (L2).
- 1.4.5 Recognize the indications for the different types of provocation methods, (L2).
- 1.4.6 Recognize the different types of EEG recordings and methodologies (e.g. invasive, scalp, stereo, video-EEG), (L2).
- 1.4.7 Recognize and describe background activity and sleep patterns in all age groups, (L2).
- 1.4.8 Recognize and distinguish artifacts and normal variants from abnormal EEG patterns, and take actions necessary for eliminating artifacts, (L2).
- 1.4.9 Recognize and describe interictal abnormalities, (L2).
- 1.4.10 Recognize and describe ictal patterns, (L2).

# The First Iranian School of Basic and Advanced Electroencephalography

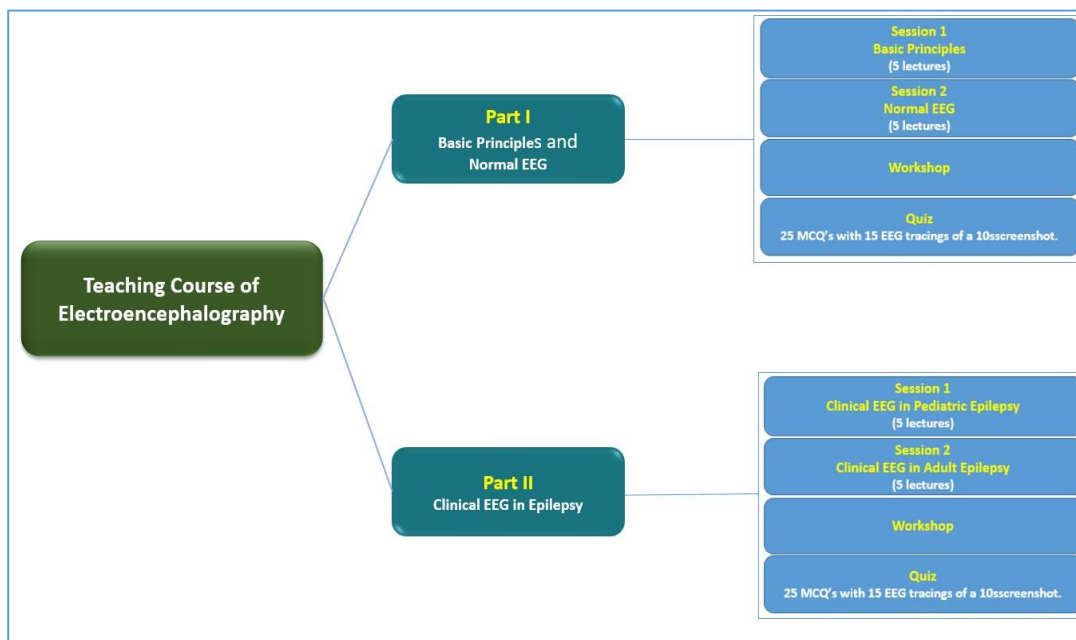
## Teaching course

- **Interactive lectures (Qs&As) and Buzz groups that cover a wide range of:**
  - 1) Basics of monitoring (general; dipole characters; electrodes; component requirements and montages),
  - 2) Physiological basics of EEG (maturation with age; changes with wake/sleep cycle; normal EEG tracing; recognition of artefacts and abnormal EEG tracings,
  - 3) Clinical EEG in pediatric and adult Epilepsy (Amplitude integrated EEG, electroclinical syndromes of infancy, childhood and adolescence, electroencephalography in epilepsy evaluation in adult generalized and focal epilepsies, the EEG in nonepileptic attacks)
- Case Based Discussions
- EEG workshops:  
After the theoretical training sessions, a practical workshop related to the topics of that part will be held in each part. Workshops are held simultaneously in six stations. The duration of each station is 20 minutes and the participants take part in all the stations in rotation.

## Teaching format

Consists of two Parts, each part consists of two sessions (each session consists of five lectures with Qs and As) and a workshop with a final exam (Including 25 MCQ's with 15 EEG tracings of 10 screenshots) at the end of each part.

# The First Iranian School of Basic and Advanced Electroencephalography



## Target group

Epileptologists, Clinical neurophysiologists, adult neurologists, child neurologists, senior adult neurology residents, senior child neurology fellows.

## Educational goals:

It is expected that at the end of the school, the participants will be familiar with the basic principles of clinical electroencephalography. Participants are also expected to acquire the necessary skills to perform, interpret and report EEG. Participants are expected to become familiar with artifacts, normal variations, and activation methods and learn EEG characteristics in pediatric and adult epilepsies.

# The First Iranian School of Basic and Advanced Electroencephalography

## Part I (First Day)

### Session 1

#### Basic Principles

**Moderators:** Dr. Zare, Dr. Najafi, Dr. Ghazavi

Time	Title	Speaker	Lecture format
8:00 – 8:30	Opening Ceremony and Welcome	Dr. Motamedi	
8:30 – 9:00	Neurophysiologic and Biophysical Aspects of EEG Generation	Dr. Mehvari	Q&A
9:00 – 9:30	Analog Signal Recording Principles vs Digital EEG	Dr. Kahnooji	Buzz Group
9:30 – 10:00	Technical Aspects of the EEG (including Filters)	Dr. Tabrizi	Buzz Group
10:00 – 10:30	Electroencephalographic Electrodes, Channels, and Montages. How They Are Chosen?	Dr. Naghibi	Q&A
10:30 – 11:00	Localization and Field Determination in Electroencephalography	Dr. Azizimalamiri	Q&A

Time	Title	
11:00 – 11:30	Break	

### Session 2

#### Normal EEG

**Moderators:** Dr. Mohammadi, Dr. Hashemi Fesharaki, Dr. Shervin Badv

Time	Title	Speaker	Lecture format
11:30 – 12:00	Activation Methods	Dr. Shervin Badv	Buzz Group
12:00 – 12:30	Normal EEG and Sleep: Pediatric	Dr. Mohammadi	Buzz Group
12:30 – 13:00	Normal EEG and Sleep: Adults	Dr. Zare	Q&A
13:00 – 13:30	Artifacts of Recording	Dr. Kahnooji	Buzz Group
13:30 – 14:00	Normal Variants in the Electroencephalogram	Dr. Hashemi Fesharaki	Q&A

Time	Title	
14:00 – 15:00	Break	

#### Basic Principles and Normal EEG

**Moderators:** Dr. Hashemi Fesharaki, Dr. Zare, Dr. Tabrizi, Dr. Mohammadi, Dr. Azizimalamiri, Dr. Kahnooji

Time	Title	
15:00 – 17:00	Workshop	

Time	Title	
17:15 – 18:00	Quiz 25 MCQ's with 15 EEG tracings of 10 screenshots.	

# The First Iranian School of Basic and Advanced Electroencephalography

## Part II (Second Day)

### Session 1

#### Clinical EEG in Pediatric Epilepsy

**Moderators:** Dr.Mohammadi, Dr.Nasiri, Dr.Tabrizi

Time	Title	Speaker	Lecture format
8:30 – 9:00	Amplitude integrated EEG	Dr. Shervin Badv	Buzz Group
9:00 – 9:30	Electroclinical Syndromes of Infancy	Dr. Yaghini	Buzz Group
9:30 – 10:00	Electroclinical Syndromes in Childhood and Adolescence	Dr. Azizimalamiri	Buzz Group
10:00 – 10:30	epileptic encephalopathy (EE) with spike wave activation in sleep (SWAS)	Dr. Mohammadi	Buzz Group
10:30 – 11:00	Case Base Discussion (Pediatric Epilepsy)	Dr. Hashemi Fesharaki	Q&A

Time	Title	Speaker
11:00 – 11:30	Break	

### Session 2

#### Clinical EEG in Adult Epilepsy

**Moderators:** Dr. Motamedi, Dr. Mehvari, Dr. Naghibi

Time	Title	Speaker	Lecture format
11:30 – 12:00	Electroencephalography in Epilepsy Evaluation	Dr. Naghibi	Q&A
12:00 – 12:30	The EEG in Adult Generalized Epilepsies	Dr. Noorbakhsh	Buzz Group
12:30 – 13:00	The EEG in Adult Focal Epilepsies	Dr. Motamedi	Q&A
13:00 – 13:30	Nonepileptic Attacks	Dr. Tabrizi	Buzz Group
13:30 – 14:00	Case Base Discussion (Adult Epilepsy)	Dr. Mehvari	Q&A

Time	Title	Speaker
14:00 – 15:00	Break	

#### Clinical EEG in Pediatric and Adult Epilepsy

**Moderators:** Dr. Motamedi, Dr. Mehvari, Dr. Mohammadi, Dr.Shervin Badv, Dr. Azizi malamiri , Dr.Naghibi

Time	Title	
15:00 – 17:00	Workshop	

Time	Title	
17:15 – 18:00	Quiz 25 MCQ's with 15 EEG tracings of 10s screenshots.	

# The First Iranian School of Basic and Advanced Electroencephalography

## Language

The school will be held in Farsi but simultaneous translation will be available if indicated.

## Evaluation

An exam (Including 25 MCQ's with 15 EEG tracings of 10 screenshots) at the end of each part.

## Outcome measures

A certificate on participants who pass exams.