



University of Tehran



Baqiatalla University of  
Medical Sciences



Institute of  
Biochemistry and Biophysics



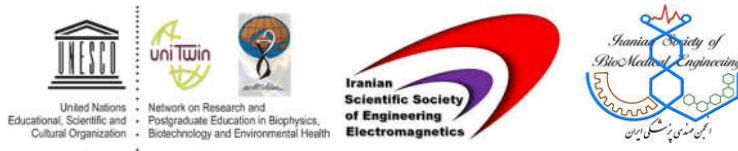
دانشگاه شاهد  
Shahed University

## 6<sup>th</sup> Iranian National and 1<sup>st</sup> International Conference on Bioelectromagnetics (INICBEM-2021)

(A virtual conference on Clinical, Biological, Basics and Environmental aspects as well as application and hazardous effects)

May 18-19, 2021

<https://www.icbems.ir>, <https://ibb.ut.ac.ir/INICBEM-2021>



**Institute of Biochemistry and Biophysics (IBB), University of Tehran, Tehran, Iran and  
Baghiatallah University of Medical Sciences**

in collaboration with

UNESCO/UNITWIN (Interregional NETWORK in Biophysics, Biotechnology and Environmental Health,  
Iranian Scientific Society of Engineering Bioelectromagnetics (ISSEB), Iranian Society of Biomedical  
Engineering (ISBEM) and Shahed University

**Session link:** [vclas9.tmu.ir/INICBEM-2021](https://vclas9.tmu.ir/INICBEM-2021)

**Live podcast:** Instagram: INICBEM-2021

**Free registration**

**[info@icbems.ir](mailto:info@icbems.ir)**

### Conveying message of INICBEM-2021 on Bioelectromagnetics


The functional state of the biological systems is based on their chemical composition alleviated by the laws of physics and is mainly manifested by Bio-Electromagnetics at atomic, molecular, cellular, organ and whole body levels. This biophysical nature of living systems not only provides the basis for electrophysiological diagnosis and treatment purposes but makes them susceptible to external electric, magnetic and electromagnetic manmade and natural fields.

In this virtual conference, we will try to address the intrinsic nature and the sources of Bioelectromagnetic fields, as well as the clinical instruments and approaches taken for diagnosis, therapeutics, stimulation and drug delivery purposes through Biomedical Engineering approaches. The hazardous effect of widespread of the electromagnetic fields (EMF) and side effects of the exposure of human and living creatures to EMF pollution mainly caused by telecommunication sources is also discussed.

We are honor to have some world known scholars sharing their invaluable knowledge and welcome all interested individuals to attend the free registration INICBEM-2021 conference to elaborate on the pros and cons of EMF for the sake of better life on the Earth.

#### Scientific Directors

Prof. Hamid Mobasheri (Basic Science aspects), Dr. Farideh Bahrami (Medical Science Aspects)



Iranian 6th National and 1st International Conference on  
**Bioelectromagnetics**  
 (INICBEM-2021)  
 May 18-19


Institute of Biochemistry & Biophysics of University of Tehran  
 and Baqiyatallah University of Medical Science

A virtual conference in collaboration with  
 Iranian Scientific Society of Engineering Bioelectromagnetics,  
 Iranian Society of Biomedical Engineering, Shahed University and  
 UNESCO/UNITWIN (Interregional NETWORK in Biophysics, Biotechnology and Environmental Health)

TOPICS

Therapeutic and diagnostic applications of EMF Cancer Cell, tissue and organ Covid-19 Psychological and Cognitive disorders Drug delivery	Basic science approaches Intrinsic biological electromagnetisms Theoretical approaches and simulation Bio radiation
Instrumentation Multimodal Spectroscopy	Measurement Stimulation Bio-feedback
Environmental Health Electromagnetic pollution Anti-pest application Standards and Regulations	

The registration for this virtual conference is free.

  
**For more information**  
[www.icbems.ir](http://www.icbems.ir) | [info@icbems.ir](mailto:info@icbems.ir)

## Program

### 6<sup>th</sup> Iranian National and 1<sup>st</sup> International Conference on Bioelectromagnetics (INICBEM-2021), 18-19, Tehran, Iran

#### Concepts in

Biological Sciences; (Cell and Molecular Biology, Zoology, Botany, Microbiology, etc.),

Basic Sciences; (Physics, Chemistry, Mathematics)

Clinical Sciences; (Medicine, Dentistry, Pharmacy, Paramedics)

Environmental and agricultural sciences; Pest and insect control

Medical Engineering; (Bioelectric, Biomechanics, Biomaterials)

08:30-09:00 (05:00-05:30 GMT)	<b>Registration</b>
09:00-09:30 (05:30-06:00 GMT)	<b>Inauguration</b> Quran Iran National Anthem Message of the Dean of IBB Message of Head of ISSEB Message of chairman of UNECO/UNITWEAN Message of INICBEM-2021) Scientific Directors

<p><b>Tuesday 18-5-2021</b>  <b>Morning Session</b>  <b>(09:30-12:45)</b>  (05:30-09:15 GMT)</p>	<h1 style="margin: 0;">Bioelectromagnetics</h1> <h2 style="margin: 0;">(Biophysical and basic aspects)</h2> <p style="margin: 0;">Concepts in  <u>Biological Sciences Basic Sciences</u>  <u>Clinical Sciences</u>;(Medicine, Dentistry, Pharmacy, Paramedics)  Environmental and agricultural</p>	
<p><b>Members of Panel</b>  Prof. H. Mobasheri, Prof S. M. Javad Mortazavi, Prof. Mehdi Fardmanesh</p>		
09:30-10:00 (06:00-06:30 GMT)	<p><b>Prof. Hamid Mobasheri</b>  Institute of Biochemistry and Biophysics,  University of Tehran, Iran</p>	Intrinsic biological sources of electromagnetic waves and fields
10:00-10:30 (06:30-07:00 GMT)	<p><b>Prof S. M. Javad Mortazavi</b>  Shiraz University of Medical Sciences,  Shiraz, Iran</p>	Radiation therapy approaches in biological systems
10:30-11:00 (07:00-07:30 GMT)	<p><b>Prof. Mehdi Fardmanesh</b>  Superconductor Electronics Research Lab.  School of Electrical Engineering, Sharif  University of Technology, Tehran, Iran</p>	High-Tc rf-SQUIDs based Magnetocardiography System using Magnetically Bi-layer Active Shield
11:00-11:15 (07:30-07:45 GMT)	Discussion	
<b>11:15-11:30</b> <b>(07:45-08:00 GMT)</b>	<b>Coffee Break /Video</b>	<b>Interdisciplinary aspects of Bioelectromagnetics</b>
<p><b>Members of Panel</b>  Prof. Sinerik Ayrapetyan, Prof. Faezeh Ghanati,</p>		
11:30-12:00 (08:00-08:30 GMT) (Armenia time 11:00-11:30)	<p><b>Prof. Sinerik Ayrapetyan</b>  (UNESCO/UNITWIN Network, Armenia)  UNESCO Chair in Life Sciences, Life  Sciences International Postgraduate  Yerevan, Armenia</p>	“Quantum-sensitive cell hydration as a biomarker for EMF dosimetry from the point of public health”
12:00-12:30 (08:30-09:00 GMT)	<p><b>Prof. Faezeh Ghanati</b>  Tarbiat Modares University, Tehran, Iran</p>	Effect of MF on iron level in plants
12:30-12:45 (09:00-09:15 GMT)	Discussion	
<p><b>Prayer and lunch break</b>  <b>12:45-14:00</b>  (09:15-10:30 GMT)</p>		

**6<sup>th</sup> Iranian National and 1<sup>st</sup> International Conference on Bioelectromagnetics  
(INICBEM-2021), 18-19, Tehran, Iran**

**Tuesday 18-5-2021**  
**Afternoon Session**  
**(1400-18:00)**  
**(10:30-14:30 GMT)**

**Bioelectromagnetics and Environmental health**

**Members of Panel**

Prof. Suleyman Dasdag, Dr Mehrdad Saviz, Prof. Vladimir Binhi

14:00-14:30  
(10:30-11:00 GMT)  
(Turkey time 12:30-13:00)

**Prof. Suleyman Dasdag**  
Department of Biophysics, Istanbul Medeniyet  
University, Istanbul Turkey

Electromagnetic Pollution and Reproduction

14:30-15:00  
(11:00-11:30 GMT)

**Dr Mehrdad Saviz**  
Medical Engineering Dep., Amirkabir Univ.  
Technology, Tehran, Iran

Novel standards in protecting living systems  
against electromagnetics irradiation

15:00-15:30  
(11:30-12:00 GMT)  
(Russian time, Moscow  
13:30-14:00)

**Prof. Vladimir Binhi**  
Dep. of Biophysics, Biological Faculty,  
Moscow State University, Russian Academy  
of Sciences, Moscow, Russia

Physical mechanisms of magnetic biological  
phenomena

15:30-15:45  
(12:00-12:15 GMT)

**Discussion**

**15:45-16:00**  
**(12:15-12:30 GMT)**

**Coffee Break**  
**Poster Presentation/Video**

**Presentation of Accepted poster**

**Members of Panel**

Dr Amin Khavasi, Prof. Mary-Hrachoochi Boghosian, Prof. Ahmad Amjadi

16:00-16:30  
(12:30-13:00 GMT)

**Dr Amin Khavasi**  
Dep. of Electrical Engineering, Sharif  
University of Technology, Tehran, Iran

Terahertz Metamaterials for Ultrasensitive  
Biosensing Applications

16:30-17:00  
(13:00-13:30 GMT)  
(Armenia, 16:00-16:30)

**Prof. Mary-Hrachoochi Boghosian**  
UNESCO/UNITWIN Network, Armenia

Electromagnetism and its Effect on Natural  
World

17:00-17:30  
(13:30-14:00 GMT)

**Prof. Ahmad Amjadi**  
Departments of Physics, Sharif  
University of Technology, Tehran, Iran

Liquid film electric motor

17:30-17:45  
(14:00-14:15 GMT)

Discussion

<b>Wednesday 19-5-2021</b> <b>Morning Session</b> <b>(09:00-12:30)</b> (05:30-08:45 GMT)	<b>6th Iranian National and 1st International Conference on Bioelectromagnetics (INICBEM-2021), 18-19, Tehran, Iran</b> <b>Tuesday, May 19, 2021</b> <b>Clinical aspects</b> <b>Aspects in</b> <b>Medicine, Electrophysiology, Medical Engineering;</b> <b>(Bioelectric, Biomechanics, Biomaterials)</b>	
<b>Members of Panel</b> Prof. Mohammad Firouzabadi, Dr Reza Khodabakhshi, Dr Zeinab Shankay,		
09:00-09:30 (05:30-06:00 GMT)	<b>Prof. Mohammad Firouzabadi</b> Department of Medical Physics , Univ. of Tarbiat Modares, Tehran, Iran	Basic of Electrochemotherapy
09:30-10:00 (06:00-06:30 GMT)	<b>Dr Reza Khodabakhshi</b> Clinical Oncologist, FayazBakhsh Hospital, Tehran, Iran	Clinical aspect of Electrochemotherapy
10:00-10:30 (06:30-07:00 GMT)	<b>Dr Zeinab Shankay</b> Dep. of Physiology and Medical Physics, School of Medicine, Baqiyatallah Univ. of Medical Sciences, Tehran, Iran	Magnetochemotherapy
10:30-10:45 (07:00-07:15 GMT)	Discussion	
10:45-11:00 (07:15-07:30 GMT)	<b>Coffee Break,</b> <b>Accepted Student poster presentation</b> <b>video</b>	<b>IBB and Iran Bioelectromagnetic Discoveries</b>
<b>Members of Panel</b> Dr Amir Jafarpisheh, Dr Giti Torkaman		
11:00-11:30 (07:30-08:00 GMT)	<b>Dr Amir Jafarpisheh</b> University of Social Welfare and Rehabilitation Sciences, Tehran, Iran	The Role of Motor Learning Biofeedback In Rehabilitation
11:30-12:00 (08:00-08:30 GMT)	<b>Prof. Giti Torkaman</b> Tarbiat Modares Univ., Medical School, Dept. of physiotherapy, Tehran, Iran	The effect of Electromagnetic Field On Bone Remodeling And Motor Balance
12:00-12:15 (08:30-08:45 GMT)	Discussion	
<b>Prayer and lunch break</b> <b>12:15-14:00</b> (08:45-10:30 GMT)		

<b>Wednesday 19-5-2021</b> <b>Afternoon Sessions</b> <b>(14:00-17:00)</b> <b>(10:30-14:00 GMT)</b>	<b>6th Iranian National and 1st International Conference on Bioelectromagnetics (INICBEM-2021), 18-19, Tehran, Iran</b>  <b>Interdisciplinary/integrative approach, Research, Discoveries, Inventions, Problem solving, Targeted horizons</b>	
<p align="center"><b>Members of Panel</b> Prof. Alberto Foletti, Dr Javad Mir Najafizadeh</p>		
14:00-14:30 (10:30-11:00 GMT) (Switzerland time 11:30-12:00)	<p align="center"><b>Prof. Alberto Foletti</b> International Research Group, Montagnola, Switzerland</p>	Bioelectromagnetics in clinical biophysics and approaches to relieve the pain
14:30-15:00 (11:00-11:30 GMT)	<p align="center"><b>Prof. Javad Mir Najafizadeh</b> Tarbiat Modares University, Medical School, Dept. of Physiology, Tehran, Iran</p>	Modulation of Brain Excitability With Deep Brain Stimulation
15:00-15:15 (11:30-11:45 GMT)	<p align="center">Discussion</p>	
15:15-15:30 (11:45-12:00 GMT)	<p align="center"><b>Coffee Break,</b> <b>Accepted Student poster presentation</b> <b>video</b></p>	<p align="center"><b>IBB and Iran Bioelectromagnetic Discoveries</b></p>
<p align="center"><b>Members of Panel</b> Dr Amir Shojaei, Dr Farideh Bahrami</p>		
15:30-16:00 (12:00-12:30 GMT)	<p align="center"><b>Dr Amir Shojaei</b> Tarbiat Modares University, Medical School, Dept. of Physiology, Tehran, Iran</p>	Modulation of Brain Excitability With Deep Brain Stimulation
16:00-16:30 (12:30-13:00 GMT)	<p align="center"><b>Dr Farideh Bahrami</b> Department of Physiology and Medical Physics, School of Medicine, Baqiyatallah University of Medical Sciences, Tehran, Iran.</p>	Sleep Spindle alteration
16:30-16:45 (13:00-13:15 GMT)	<p align="center"><b>Discussion</b></p>	
16:45-17:00 (13:15-13:30 GMT)	<p align="center"><b>Closing meeting</b></p>	