



University of Tehran



Baqiatalla University of  
Medical Sciences



Institute of  
Biochemistry and Biophysics



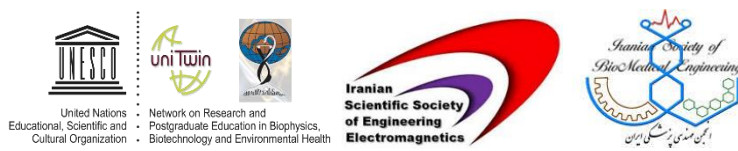
دانشگاه شاهد  
Shahed University

## 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  
Baghiatallh 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: [vroom.ut.ac.ir/corona](https://vroom.ut.ac.ir/corona)**

**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>Bioelectromagnetics</h1> <h2>(Biophysical and basic aspects)</h2> <p>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, Dr Mehrdad Saviz, Prof. Mehdi Fardmanesh</p>		
<p>09:30-10:00  (06:00-06:30 GMT)</p>	<p><b>Prof. Hamid Mobasheri</b>  Institute of Biochemistry and Biophysics,  University of Tehran, Iran</p>	<p>Bioelectromagnetics at atomic and  molecular levels</p>
<p>10:00-10:30  (06:30-07:00 GMT)</p>	<p><b>Dr Mehrdad Saviz</b>  Medical Engineering Dep., Amirkabir Univ.  Technology, Tehran, Iran</p>	<p>Novel standards in protecting living systems  against electromagnetics irradiation</p>
<p>10:30-11:00  (07:00-07:30 GMT)</p>	<p><b>Prof. Mehdi Fardmanesh</b>  Superconductor Electronics Research Lab.  School of Electrical Engineering, Sharif  University of Technology, Tehran, Iran</p>	<p>High-Tc rf-SQUIDs based  Magnetocardiography System using  Magnetically Bi-layer Active Shield</p>
<p>11:00-11:15  (07:30-07:45 GMT)</p>	<p>Discussion</p>	
<p><b>11:15-11:30</b>  <b>(07:45-08:00 GMT)</b></p>	<p><b>Coffee Break /Video</b></p>	<p><b>Interdisciplinary aspects of Bioelectromagnetics</b></p>
<p><b>Members of Panel</b>  Prof. Sinerik Ayrapetyan, Prof. Faezeh Ghanati</p>		
<p>11:30-12:00  (08:00-08:30 GMT)  (Armenia time 11:00-  11:30)</p>	<p><b>Prof. Sinerik Ayrapetyan</b>  (UNESCO/UNITWIN Network, Armenia)  UNESCO Chair in Life Sciences, Life  Sciences International Postgraduate  Yerevan, Armenia</p>	<p>Quantum-sensitive cell hydration as a  biomarker for EMF dosimetry from the  point of public health</p>
<p>12:00-12:30  (08:30-09:00 GMT)</p>	<p><b>Prof. Faezeh Ghanati</b>  Tarbiat Modares University, Tehran, Iran</p>	<p>Effect of MF on iron level in plants</p>
<p>12:30-12:45  (09:00-09:15 GMT)</p>	<p>Discussion</p>	
<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, Prof S. M. Javad Mortazavi, Prof. Vladimir Binhi

14:00-14:30 (10:30-11:00 GMT) (Turkey time 12:30-13:00)	<b>Prof. Suleyman Dasdag</b> Department of Biophysics, Istanbul Medeniyet University, Istanbul Turkey	Electromagnetic Pollution and Reproduction
14:30-15:00 (11:00-11:30 GMT)	<b>Prof S. M. Javad Mortazavi</b> Shiraz University of Medical Sciences, Shiraz, Iran	Why do we need to know the source of funding before making firm conclusions about the health effects of electromagnetic fields? A new look at the 5G Issue
15:00-15:30 (11:30-12:00 GMT) (Russian time, Moscow 13:30-14:00)	<b>Prof. Vladimir Binhi</b> Prokhorov General Physics Institute of the Russian Academy of Sciences, Russia	Physical mechanisms of magnetic biological phenomena
15:30-15:45 (12:00-12:15 GMT)	<b>Discussion</b>	
<b>15:45-16:00</b> <b>(12:15-12:30 GMT)</b>	<b>Coffee Break</b> <b>Poster Presentation/Video</b>	<b>Presentation of Accepted poster</b>

**Members of Panel**

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

16:00-16:30 (12:30-13:00 GMT)	<b>Dr Amin Khavasi</b> 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)	<b>Prof. Mary-Hrachoochi Boghosian</b> UNESCO/UNITWIN Network, Armenia	Electromagnetism and its Effect on Natural World
17:00-17:30 (13:30-14:00 GMT)	<b>Prof. Ahmad Amjadi</b> Departments of Physics, Sharif University of Technology, Tehran, Iran	Liquid film electric motor
17:30-17:45 (14:00-14:15 GMT)	Discussion	

<p><b>Wednesday 19-5-2021</b>  <b>Morning Session</b>  <b>(09:00-12:30)</b>  (05:30-08:45 GMT)</p>	<p align="center"><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></p>	
<p align="center"><b>Members of Panel</b>  Prof. Mohammad Firouzabadi, Dr Reza Khodabakhshi, Dr Zeinab Shankay</p>		
<p>09:00-09:30  (05:30-06:00 GMT)</p>	<p align="center"><b>Dr Zeinab Shankay</b>  Dep. of Physiology and Medical Physics,  School of Medicine, Baqiyatallah Univ. of  Medical Sciences, Tehran, Iran  <b>Mahsa Mansourian</b>  Department of Medical Physics, School of  Medicine, Isfahan University of Medical  Sciences, Isfahan, Iran</p>	<p align="center">Basic of Electrochemotherapy</p>
<p>09:30-10:00  (06:00-06:30 GMT)</p>	<p align="center"><b>Dr Reza Khodabakhshi</b>  Clinical Oncologist, FayazBakhsh Hospital,  Tehran, Iran</p>	<p align="center">Clinical aspect of Electrochemotherapy</p>
<p>10:00-10:30  (06:30-07:00 GMT)</p>	<p align="center"><b>Elham Raeisi</b>  Assistant Professor of Medical Physics School  of Allied Medical Sciences Clinical  Biochemistry Research Center Basic Health  Sciences Institute Shahrekord University of  Medical Sciences</p>	<p align="center">Electrochemotherapy: recent research</p>
<p>1030-10:45  (07:00-07:15 GMT)</p>	<p align="center">Discussion</p>	
<p>10:45-11:00  (07:15-07:30 GMT)</p>	<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>  Prof. Giti Torkaman, Dr. Amir Jafarpisheh, Dr. Ali Shafiei</p>		
<p>11:00-11:30  (07:30-08:00 GMT)</p>	<p align="center"><b>Prof. Giti Torkaman</b>  Tarbiat Modares Univ., Medical School,  Dept. of Physiotherapy, Tehran, Iran</p>	<p align="center">The effect of Electromagnetic Field on bone remodeling and motor balance</p>
<p>11:30-12:00  (08:00-08:30 GMT)</p>	<p align="center"><b>Dr Amir Jafarpisheh</b>  University of Social Welfare and  Rehabilitation Sciences, Tehran, Iran</p>	<p align="center">The role of motor learning biofeedback based on electrophysiological bio signal in rehabilitation</p>
<p>12:00-12:30  (08:30-09:00 GMT)</p>	<p align="center"><b>Dr. Ali Shafiei</b>  Qom Medical Science University, Tehran, Iran</p>	<p align="center">Applying External electric field and brain response</p>
<p>12:30-12:45</p>	<p align="center">Discussion</p>	

(09:00-09:15 GMT)		
<b>Prayer and lunch break</b> <b>12:45-14:00</b> (09:15-10:30 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>	
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<b>Members of Panel</b> Prof. Alberto Foletti, Dr Javad Mir Najafizadeh		
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14:00-14:30 (10:30-11:00 GMT) (Switzerland time 11:30-12:00)	<b>Prof. Alberto Foletti</b> International Research Group, Montagnola, Switzerland	Bioelectromagnetics in clinical biophysics and approaches to relieve the pain
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14:30-15:00 (11:00-11:30 GMT)	<b>Prof. Javad Mir Najafizadeh</b> Tarbiat Modares University, Medical School, Dept. of Physiology, Tehran, Iran	The modulation of synaptic activity by electrical stimulation
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15:00-15:15 (11:30-11:45 GMT)	Discussion	
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15:15-15:30 (11:45-12:00 GMT)	<b>Coffee Break,</b> <b>Accepted Student poster presentation</b> <b>video</b>	<b>IBB and Iran Bioelectromagnetic Discoveries</b>
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<b>Members of Panel</b> Dr. Amir Shojaei, Dr. Esmail Riahi, Dr Farideh Bahrami		
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15:30-16:00 (12:00-12:30 GMT)	<b>Dr. Amir Shojaei</b> Tarbiat Modares University, Medical, School, Dept. of Physiology, Tehran, Iran	The anti-epileptic effect of electrical low-frequency stimulation on neuronal epileptogenic activity in hippocampal slices
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16:00-16:30 (12:30-13:00 GMT)	<b>Dr. Esmail Riahi</b> Dept. of Physiology, Medical School, Tehran University of Medical Science, Tehran, Iran	Deep brain stimulation and addictions
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16:30-17:00 (13:00-13:30 GMT)	<b>Dr Farideh Bahrami</b> Department of Physiology and Medical Physics, School of Medicine, Baqiyatallah University of Medical Sciences, Tehran, Iran.	Sleep Spindle alteration
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17:00-17:15	<b>Discussion</b>	
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(13:30-13:45 GMT)		
17:15-17:30 (13:45-14:00 GMT)	<b>Closing meeting</b>	