



University of Tehran



Baghiatalla University of
Medical Sciences



Institute of
Biochemistry and Biophysics



دانشگاه شاهد
Shahed University

6th Iranian National and 1st 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: <http://icbems.ir/en/get-involved>

Live podcast: Instagram: Persian_bioelectromagnetics

Free registration

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)

Program

6th Iranian National and 1st 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)	Registration
09:00-09:30 (05:30-06:00 GMT)	<p>Inauguration</p> <p>Quran</p> <p>Iran National Anthem</p> <p>Message of the Dean of IBB</p> <p>Message of Head of ISSEB</p> <p>Message of chairman of UNECO/UNITWEAN</p> <p>Message of INICBEM-2021 Scientific Directors</p>

<p>Tuesday 18-5-2021 Morning Session (09:30-12:45) (05:30-09:15 GMT)</p>	<p>Bioelectromagnetics (Biophysical and basic aspects)</p> <p>Concepts in</p> <p><u>Biological Sciences Basic Sciences</u> <u>Clinical Sciences</u>; (Medicine, Dentistry, Pharmacy, Paramedics) Environmental and agricultural</p>	
<p>Members of Panel</p> <p>Prof. H. Mobasheri, Dr Mehrdad Saviz, Prof. Mehdi Fardmanesh</p>		
09:30-10:00 (06:00-06:30 GMT)	<p>Prof. Hamid Mobasheri 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>Dr Mehrdad Saviz Medical Engineering Dep., Amirkabir Univ. Technology, Tehran, Iran</p>	Novel standards in protecting living systems against electromagnetics irradiation
10:30-11:00 (07:00-07:30 GMT)	<p>Prof. Mehdi Fardmanesh 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	
11:15-11:30 (07:45-08:00 GMT)	Coffee Break /Video	Interdisciplinary aspects of Bioelectromagnetics
Members of Panel Prof. Sinerik Ayrapetyan, Prof. Faezeh Ghanati		
11:30-12:00 (08:00-08:30 GMT) (Armenia time 11:00-11:30)	Prof. Sinerik Ayrapetyan (UNESCO/UNITWIN Network, Armenia) UNESCO Chair in Life Sciences, Life Sciences International Postgraduate Yerevan, Armenia	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)	Prof. Faezeh Ghanati Tarbiat Modares University, Tehran, Iran	Effect of MF on iron level in plants
12:30-12:45 (09:00-09:15 GMT)	Discussion	
Prayer and lunch break 12:45-14:00 (09:15-10:30 GMT)		

6th Iranian National and 1st 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)	Prof. Suleyman Dasdag Department of Biophysics, Istanbul Medeniyet University, Istanbul Turkey	Electromagnetic Pollution and Reproduction
14:30-15:00 (11:00-11:30 GMT)	Prof S. M. Javad Mortazavi 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)	Prof. Vladimir Binhi Prokhorov General Physics Institute of the Russian Academy of Sciences, Russia	Physical mechanisms of magnetic biological phenomena

(Russian time, Moscow 13:30-14:00)		
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	

Wednesday 19-5-2021 Morning Session (09:00-12:30) (05:30-08:45 GMT)	6th Iranian National and 1st International Conference on Bioelectromagnetics (INICBEM-2021), 18-19, Tehran, Iran Tuesday, May 19, 2021 Clinical aspects Aspects in Medicine, Electrophysiology, Medical Engineering; (Bioelectric, Biomechanics, Biomaterials)	
Members of Panel Prof. Mohammad Firoozabadi, Dr Reza Khodabakhshi, Dr Elham Raeisi, Dr Zeinab Shankay, Dr Mahsa Mansourian		
09:00-09:30 (05:30-06:00 GMT)	Dr Zeinab Shankay Dep. of Physiology and Medical Physics, School of Medicine, Baqiyatallah Univ. of Medical Sciences, Tehran, Iran Mahsa Mansourian Department of Medical Physics, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran	Basic of Electrochemotherapy
09:30-10:00 (06:00-06:30 GMT)	Dr Reza Khodabakhshi Clinical Oncologist, FayazBakhsh Hospital, Tehran, Iran	Clinical aspect of Electrochemotherapy
10:00-10:30 (06:30-07:00 GMT)	Elham Raeisi Assistant Professor of Medical Physics School of Allied Medical Sciences Clinical Biochemistry Research Center Basic Health Sciences Institute Shahrekord University of Medical Sciences	Electrochemotherapy: recent research
10:30-10:45 (07:00-07:15 GMT)	Discussion	
10:45-11:00 (07:15-07:30 GMT)	Coffee Break, Accepted Student poster presentation video	IBB and Iran Bioelectromagnetic Discoveries
Members of Panel Prof. Giti Torkaman, Dr. Amir Jafarpisheh, Dr. Ali Shafiei		
11:00-11:30 (07:30-08:00 GMT)	Prof. Giti Torkaman Tarbiat Modares Univ., Medical School, Dept. of Physiotherapy, Tehran, Iran	The effect of Electromagnetic Field on bone remodeling and motor balance
11:30-12:00 (08:00-08:30 GMT)	Dr Amir Jafarpisheh University of Social Welfare and Rehabilitation Sciences, Tehran, Iran	The role of motor learning biofeedback based on electrophysiological bio signal in rehabilitation
12:00-12:30 (08:30-09:00 GMT)	Dr. Ali Shafiei Qom Medical Science University, Tehran, Iran	Applying External electric field and brain response
12:30-12:45	Discussion	

(09:00-09:15 GMT)		
Prayer and lunch break 12:45-14:00 (09:15-10:30 GMT)		

Wednesday 19-5-2021 Afternoon Sessions (14:00-17:00) (10:30-14:00 GMT)	6th Iranian National and 1st International Conference on Bioelectromagnetics (INICBEM-2021), 18-19, Tehran, Iran Interdisciplinary/integrative approach, Research, Discoveries, Inventions, Problem solving, Targeted horizons	
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Members of Panel 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)	Prof. Alberto Foletti 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)	Prof. Javad Mirnajafizadeh 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)	Coffee Break, Accepted Student poster presentation video	IBB and Iran Bioelectromagnetic Discoveries
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Members of Panel Dr. Amir Shojaei, Dr. Esmail Riahi, Dr Farideh Bahrami		
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15:30-16:00 (12:00-12:30 GMT)	Dr. Amir Shojaei 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)	Dr. Esmail Riahi 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)	Dr Farideh Bahrami 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	Discussion	
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(13:30-13:45 GMT)		
17:15-17:30 (13:45-14:00 GMT)	Closing meeting	