Co-funded by the Erasmus+ Programme of the European Union

TEHRAN UNIVERSITY OF MEDICAL SCIENCES

ediTec

Workshop

On "MediTec" Project
(Training for Medical Education via Innovative e-Technology)

Workshop Information Overview

Title: Instructional design and implementation of emerging technologies in medical education: The experience of Tehran University of Medical Sciences in Iran

Description:

As mentioned in description of MediTec[1] the aim of this project is *supporting and modernizing the medical education in Jordan, Iraq, and Iran by establishing innovative training centers with immersive medical learning platform and realistic simulation models in order to improve the practical and soft skills for students in medical education in Jordan, Iraq, and Iran.* Some wider Objectives include: training of trainers, staff and students on innovative technologies in EU universities, adapting the training on innovative technology in teaching process, enhancing training-methodical complexes on bases of modernized training courses, developing and delivering training program, multimedia and materials for training innovative technologies.

For this purpose, training workshops are held for participants from member countries. Universities from Slovakia, Czech Republic, Jordan and Malta have already held workshops. Meanwhile, Tehran University of Medical Sciences (TUMS) from Iran, as one of the MediTec participants, is the pioneer of e-learning, simulation based learning and integrating new technologies in education among Iranian universities. The University applies a user-friendly Learning Management System (LMS) and deploys different strategies including training workshops for faculty members to promote them in applying new technologies in education. Virtual School of TUMS, established in 2010, has been delegated as "The Center of Excellence for E-learning in Medical Education" since 2011. Also the school delivers MSc of "Medical Education", "Educational Technology in Medical Education" and MSc and PhD of "e-Learning in Medical Education" and has a great experience in implementing educational technologies.

[1] About MEDITEC, available from: http://meditec.just.edu.jo/Pages/about.aspx. July 29, 2019

So TUMS will be holding a workshop to share the experience of **Instructional design and implementation of emerging technologies in medical education** with other universities participating in MediTec. Regarding the COVID-19 crisis, the focus of the workshop would be on applying new technologies in respond to medical education challenges during this pandemic. In fact, presenting this regional experience would help to achieve MediTec objectives. Also TUMS would benefit from provided feedbacks and benchmarking its activities with European standards.

It is worth mentioning that we had planned to run a face-to-face workshop in June in Iran, meanwhile as COVID-19 crisis affected the plan, we shifted to deliver an e-workshop instead.

Length and date and venue

This workshop will be delivered during 3 weeks from August 31st to September 21st 2020 including both synchronous and asynchronous events.

Date	Platform*
Pre workshop start up	August 29th to August 31st
Week 1 August 31st to September 7th	Webinar 1: September 2nd, 11-13 GMT LMS activity: August 31st to September 7th
Week 2 September 7th to 14th	Webinar 2 September 9th, 11-13 GMT LMS activity: September 7th to 14th
Week 3 September 14th to 21st	Webinar 3: September 16th, 11-13 GMT LMS activity: September 14th to 21st
Closing session	Webinar 4: September 21st, 11-13 GMT

* Asynchronous platform: http://tumsnavid.vums.ac.ir (Usernames and passwords will be announced to the participants)
Synchronous platform: Zoom (Link will be announced)

Teaching strategies

This will be a virtual workshop including synchronous and asynchronous components. Two days before the workshop, participants will receive their usernames and passwords of TUMS' LMS (http://tumsnavid.vums.ac.ir). Within first 3 days, they will not only have access to workshop study guide and useful introductory presentations, but also get familiar with Iran and TUMS. During the workshop, related materials and slide presentations would be uploaded in the LMS. In addition, there would be chance of participating in a forum for further discussion. In synchronous

sessions, facilitators would deploy different instructional strategies including interactive lecture presentations and question and answer to promote participants' engagement.

Workshop evaluation

Participants would evaluate the workshop by filling a questionnaire. Besides, in the closing session, there would be a time for providing feedback on workshop quality.

Topics and Schedule

<table>
<tr><th colspan="2">Pre workshop Work shop start up</th></tr>
<tr><td colspan="2">Description: Building network among participants and facilitators, introduction of workshop agenda, getting familiar with Iran
Moderator: Dr. Rita Mojtahedzadeh</td></tr>
<tr><td rowspan="4">Asynchronous event</td><td>Creating a WhatsApp group and welcome to participants
Introduction of workshop agenda
Getting familiar with workshop platforms and resolving participants’ technical issues</td></tr>
<tr><td>Building network among participants</td></tr>
<tr><td>Virtual tour to Iran</td></tr>
<tr><td>An introduction to Tehran University of Medical Sciences (TUMS)</td></tr>
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Theme 1: Medical Education during COVID-19 crisis		
Moderator: Dr. Rita Mojtahedzadeh		
Webinar session 1 September 2nd 11-13 GMT	**Duration (minutes)**	**Title & presenter**
	10	Welcome speech By Dr. Ramin Kordi, TUMS' Vice Chancellor of International Affairs
	5	Workshop overview By Dr. Aeen Mohammadi
	15	Toward virtual internationalization in medical education, the impact of COVID-19 crisis By Dr. Mohammad Hossein Nekoofar
	15	Principals of medical students' assessment By Dr. Aeen Mohammadi
	20	Impact of COVID-19 on medical education and assessment: lessons learnt By Prof. Isabel Stabile
	20	Medical education during COVID-19 crisis: The experiences of MediTec partners (2 partner universities)
	35	Question and answer
Asynchronous workshop	The history of e-learning in Iran By Dr. Rita Mojtahedzadeh	
	e-Learning in medical sciences education: a brief review By Dr. Aeen Mohammadi	
	e-Learning team By Dr. Rita Mojtahedzadeh	
	Participants' teamwork: Common challenges in medical education during COVID-19 crisis Facilitated by Dr. Aeen Mohammadi	

Theme 2: e-Learning in medical education		
Moderator: Dr. Aeen Mohammadi		
Webinar session 2 September 9th 11-13 GMT	**Duration (minutes)**	**Title & presenter**
	15	An overview to e-learning/blended learning implementation in TUMS before and during COVID-19 crisis By Dr. Sina Marashi
	15	How to implement an e-learning system? The experience of Iranian universities of medical sciences before and during COVID-19 crisis By Dr. Rita Mojtahedzadeh
	15	e-Learning new trends: Mobile learning By Dr. Shoaleh Bigdeli
	10	e-Learning new trends: Micro learning By Dr. Rita Mojtahedzadeh
	30	Medical education during COVID-19 crisis: The experiences of MediTec partners (3 partner universities)
	35	Question and answer
Asynchronous workshop	The continuum of e-contents and e-content educational and technical standards By Dr. Mitra Gharib	
	e-Learning new pedagogical trends By Dr. Mitra Zolfagari	
	An introduction to Massive Open Online Courses (MOOCs) By Dr. Rita Mojtahedzadeh	
	Participants' teamwork: System analysis and identifying challenges of e-learning implementation in universities during COVID-19 crisis Facilitator: Dr. Rita Mojtahedzadeh	
	Virtual tour to Virtual School's acoustic studio: Getting familiar with e-content production process By Dr. Alireza Atashi	

Theme 3: Simulation in medical education		
Moderator: Dr. Shoaleh Bigdeli		
Webinar session 3 September 16th 11-13 GMT	**Duration (minutes)**	**Title & presenter**
	15	Simulation based medical education By Dr. Aeen Mohammadi
	15	Simulation in anatomy teaching By Dr. Fardin Amidi
	15	Gamification: a playful learning By Dr. Shadi Asadzandi
	15	Virtual hospital & virtual Pharmacy By Soroosh Ahmadi
	30	Medical education during COVID-19 crisis: The experiences of MediTec partners (3 partner universities)
	30	Question and answer
Asynchronous workshop 3	Active learning and simulation By Dr. Maryam Alizadeh	
	New trends of e-Learning: Augmented and virtual reality By Dr. Maryam Tayefeh Mahmoudi	
	New trends of e-Learning: Big data and learning analytics By Dr. Aeen Mohammadi	
	Crossing the chasm with information technology: e-Health By Dr. Alireza Atashi	
	Tele medicine for COVID-19 By Dr. Alireza Atashi	
	Participants' teamwork: Brainstorming of ideas about the future application of different types of simulations in medical education Facilitator: Dr. Maryam Alizadeh	

Workshop Facilitators (alphabetically)

Maryam Alizadeh Ph.D.

Dr Maryam Alizadeh is an assistant professor, she is director of the faculty development Unit, Education Development Center (EDC) of Tehran University of Medical Sciences. Her PhD is in Medical Education.

Fardin Amidi, Ph.D.

Dr Fardin Amidi

Shadi Asadzandi, PhD

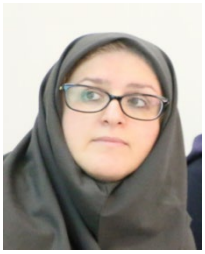
Dr Shadi Asadzandi has PhD degree in Library and Information Sciences. She has been working at TUMS' Virtual School as the librarian and then international office staff. She is skilled and passionate in gamification and educational game and also interested in e-learning.

Soroosh Ahmadi is the Phram. D and master student in medical education at Tehran University of Medical Sciences. He was the previous Erasmus student in University of Camerino, UNICAM in Italy.

Alireza Atashi, Ph.D.

Dr. Alireza Atashi is an assistant professor in Medical Informatics at Tehran University of Medical Sciences and also the founder and director of Medical Informatics department of Motamed Cancer Institute in Tehran. He Holds MSc in Mathematics and PhD in Medical Informatics. His PhD research area was medical registry design with risk score calibration for intensive care and cardiac surgery patients. Alireza has conducted several works in the field of medical data mining, fuzzy analysis and model based clinical decision support especially in the fields of cancer and intensive care. Now, he tries to extend his studies by newer medical services like telemedicine and E-health.

Shoaleh Bigdeli, Ph.D.



Dr. Shoaleh Bigdeli received her doctorate in Curriculum Theories and Implementation from Simon Fraser University (SFU), Canada. During 2010 and 2011, she received 7 medical education certificates from London Open University, UK. In 2015 she was invited by Professor David Kaufman to collaborate in a gamification project at SFU, Canada. She is Associate Professor in the department of Medical Education, Faculty of Medicine at Iran University of Medical Sciences. She has supervised more than 30 post-graduate theses in medical education, and has run more than 70 presentations and workshops at universities and conferences. She has published more than 40 articles and co-authored 7 books. She is member of Academy of Medical Sciences, Vice-Director for Research at Center for Educational Research in Medical Sciences (CERMS), member of National Agency for Strategic Research in Medical Education (NASR), international affairs adviser to different medical education institutes, and editorial member of several medical education journals.

Mitra Gharib, Ph.D.

Dr. Mitra Gharib is assistant professor at Virtual School of Tehran University of Medical Sciences. Mitra received her PhD. in Distance Education Planning from PNU, her MSc. in Medical Education from Iran university of Medical Sciences, furthermore another Master's degree in Nursing Education from Shahid Beheshti University of Medical Sciences. She has been working as faculty member since 1993. She has taught a wide range of courses on medical education and distance education at many universities in Iran; and she received teaching award as distinguished faculty of virtual school. She is active in many projects including curriculum development, and continuous professional development workshops. Her research interests include distance education planning in medical fields.

Sina Marashi, MD, Ph.D.

Dr. Sina Marashi has Ph.D. in Health Services Administration and is the faculty member of e-Health Department at TUMS' Virtual School. He currently serves as Dean of Virtual School and Director of TUMS' Statistics and Information Technology office simultaneously. His academic interests cover the following areas: research methodology and statistics, strategic planning and management, project management, working with academic databases and digital libraries, business administration, team management, business negotiations and contracts, hospital workflow management and academic curriculum development.

Aeen Mohammadi, MD, MPH, Ph.D. (Workshop scientific coordinator)

Dr. Aeen Mohammadi has PhD in Medical Education. He is one of the founders of Virtual School of TUMS and currently a faculty member of e-Learning in Medical Education Department in this school, meanwhile he is Vice Chancellor for Infrastructure and Information Technology of Virtual University of Medical Sciences (A new stablished university).

He has performed several developmental and research projects in the field of e-learning and medical education in Iran, some of which are as follows: academic ranking of medical schools, stratification of educational services, metrics systems for faculties members' activities, comprehensive educational award system, and comprehensive system of e-continuous medical education (e-CME), national institutional accreditation system of e-learning centers and so on. Now he, as the manager, is working on development and establishment of Iran's national Massive Open Online Courses (MOOCs) platform and national Learning Management System (LMS). He has published several articles and books in related fields.

Rita Mojtahedzadeh, MD, MPH, Ph.D.

Dr. Rita Mojtahedzadeh has PhD in E-learning Planning. She is one of the founders of Virtual School of TUMS and currently a faculty member of e-Learning in Medical Education Department in this school; meanwhile she is second-affiliated faculty member of Medical Education Department in Virtual University of Medical Sciences. She has been one of principal investigators of several research projects in the field of e-learning and medical education in Iran, some are as follows: academic ranking of medical schools, metrics systems of faculties members' activities, comprehensive educational award system, and comprehensive system of e-continuous medical education (e-CME), national institutional accreditation system of e-learning centers and so on. Now she, as the core responsible body, is working on development and establishment of Iran's national Massive Open Online Courses (MOOCs) platform and national Learning Management System (LMS). She has published several articles and books in related fields.

Prof. Mohammad Hossein Nekoofar, DDS, Ph.D.

Prof. Mohammad Hossein Nekoofar has PhD in physical and chemical characteristics of Mineral Trioxide Aggregate. He is Honorary Lecturer in Endodontics & Dental biomaterial. He is Assistant Professor of Endodontics. He is a member of "Endodontology Research Group", Department of Adult Dental Health, Cardiff University. Supervised more than twenty final projects and dissertations of BDs and DDs students in Iran and the UK. He also serves as the head of TUMS' Directorate of International Relations, Accreditation & Ranking.

Maryam Tayefeh Mahmoudi, Ph.D.

Dr. Maryam Mahmoudi is a faculty in IRAN Telecommunication Research Center (ITRC)**,** with expertise in: Artificial Intelligence, Human-computer Interaction and Information Science.

Mitra Zolfaghari, Ph.D.

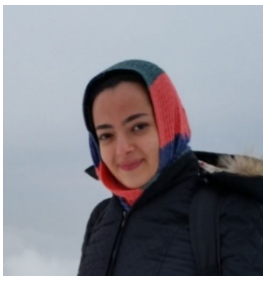
Mitra Zolfaghari is PhD in e-learning in medical education and associated professor of Tehran University of Medical Sciences. She was born in Shiraz (Iran) in 1970, educated in Shiraz University of Medical Science (SUMS) for bachelors and master of Nursing and in PNU University for PhD in e-Learning planning. She is Vice Dean of education in Virtual School at Tehran University of Medical Sciences and a member of Nursing & Midwifery Care Research Center at TUMS, Iran. She published more than 50 articles in education with H-index: 6 in Scopus

Coordinator Team (alphabetically)

Shadi Asadzandi

Tannaz Azadi

Zohreh Sadeghi



Ali Sayyadi

Azita Shahbazi