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, enhancement of training-methodical complexes on bases of modernized training courses, development and providing training program, multimedia and materials for training on innovative technologies.

For this purpose, training workshops are held for participants from member countries. Universities from Slovakia, Czech Republic, Jordan and Malta held workshops already. 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 all educational departments. 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 "e-Learning in Medical Education" and has a great experience in implementing educational technologies.

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[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. Presenting this regional experience would help to achieve MediTec objectives. Also TUMS would benefit from provided feedbacks and benchmarking its activities with European standards.

Length, date and venue

This would be a four-day workshop to be held in February 2-5, 2020 in Virtual School of TUMS, Tehran, Iran.

Date	Venue (9:00 to 16:00)
February $2^{nd} – 4^{th}$	Virtual School of TUMS * and Site visits
February 5th	Site visits accompanied by TUMS' team

 * Address: No. 2, Dolatshahi Alley, Naderi St., Keshavarz Blvd. Virtual School,Tehran.

Teaching strategies

This would be a blended workshop including e-learning and face to face components. Two weeks before the workshop, participants would receive their usernames and passwords of TUMS' LMS (http://tumsnavid.vums.ac.ir) . They would have access to workshop study guide and useful presentations. Also there would be practical information to 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 face to face sessions, facilitators would deploy different instructional strategies including interactive lecture presentation, question and answer, group discussion and team-work to promote participants' engagement.

Workshop evaluation

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

Topics and Schedule

Day 1:	
Theme: Medical Education	
Description: Introduction to principles of medical education and new technologies	
9:00-9:30	Welcome and registration
9:30-9:40	Welcome speech By Dr. Ramin Kordi, TUMS' Vice Chancellor of International Affairs
9:40-10:20	Internationalization in medical education By Dr. Mohammad Hossein Nekoofar
10:20- 10:40	Workshop overview and self-introduction of facilitators and participants By Dr. Aeen Mohammadi
10:40-11:00	Break- open discussion
11:00- 11:40	New trends in medical education By Dr. Rita Mojtahedzadeh
11:40-12:20	Students' characteristics in third Millennium By Dr. Hanieh Mohammad Alizadeh
12:20-13:45	Break - open discussion
13:45-15:00	Measurement, assessment, and evaluation: Introduction and definitions, Miller pyramid, work place based assessments and item analysis By Dr. Aeen Mohammadi
15:00-16:00	Participants' teamwork: Common challenges in medical education Facilitated by Dr. Rita Mojtahedzadeh, Dr. Maryam Alizadeh, and Dr. Aeen Mohammadi

	Day 2: **Theme:** e-Learning in medical education
	Description: Introduction to TUMS e-learning activities, challenges and achieved goals, steps of e-learning system establishment
9:00-9:15	Summary of the previous day
9:15-9:45	An overview to e-learning/blended learning implementation in TUMS By Dr. Sina Marashi
9:45-10:45	How to implement an e-learning system? • Steps and important considerations • Context analysis and educational needs assessment • The experience of TUMS within last 10 years By Dr. Rita Mojtahedzadeh Participants' teamwork: System analysis and identifying challenges of e-learning implementation in universities
10:45-11:05	Break- open discussion
11:05-11:45	Learning Management System (LMS): the experience of developing an LMS in Iran By Dr. Aeen Mohammadi
11:45- 12:20	An introduction to educational e-contents: The continuum of e-contents and e-Content educational and technical standards By Dr. Mitra Gharib
12:20-13:45	Break- open discussion
13:45- 14:20	Ethics in e-Learning By Dr. Mitra Zolfaghari
14:20-15:00	Iran's National MOOCs By Dr. Rita Mojtahedzadeh
15:00-16:00	Site visit of Virtual School' acoustic studios: Getting familiar with e-content production process

Day 3: Theme: Simulation	
Description: Introduction and implementation	
9:00-9:15	Overview on the previous day
9:15-9:50	The use of trained patient instructors for teaching basic science: infusing simulation in the classroom By Dr. Samira Alesaeidi
9:50-10:30	Active learning and simulation By Dr. Maryam Alizadeh
10:30-10:50	Break- open discussion
10:50-11:30	Simulated patients By Dr. Mandana Shirazi
11:30-12:10	Game based learning and gamification By Dr. Shadi Asadzandi
12:10-13:30	Break - open discussion
13:30-14:10	Simulation in anatomy teaching By Dr. Fardin Amidi
14:10-16:00	Site visit of Skill Lab in Medical School of TUMS Coordinated by Dr. Maryam Alizadeh and Dr. Fardin Amidi

Day 4 Theme: Site visit	
9:00-16:00	• Virtual University of Medical Sciences • Tehran University of Medical Sciences

Social event	
Day 2: 17:00-19:00	• Iranian National Museum of Medical Sciences History

Topics covered in LMS (Multimedia e-contents):	
1.	An introduction to TUMS
2.	TUMS' Summer School By Dr. Enayat A. Shabani
3.	New trends of e-Learning: Augmented and virtual reality By Dr. Maryam Tayefeh Mahmoudi
4.	New trends of e-Learning: Learning analytics in e-learning By Dr. Azadeh Shaabani
5.	Crossing the chasm with information technology: e-Health By Dr. Alireza Atashi

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.

Hanieh Mohammad Alizadeh

Hanieh Mohammad Ali Zadeh is the Phram. D and master student in medical education at Tehran University of Medical Sciences. She was the previous Erasmus student in University of Camerino, UNICAM in Italy.

Samira Alesaeidi MD

Dr Samira Alesaeidi is an assistant professor of Rheumatology and manager of electronical activities (e-health, e-learning, Information technology) of Tehran University of Medical Sciences.

Fardin Amidi Ph.D.

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.

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.

Azadeh Shabani, MD, Msc

Dr. Azadeh Shaabani, works as staff in Virtual School of Tehran University of Medical Sciences. Trained as a physician, she has worked as physician/researcher in Immunology, Asthma and Allergy Research Institute of Tehran University of Medical Sciences and has some publication in mentioned field. Since 2012, she's been working in Virtual School of Tehran University of Medical Sciences. Her area of interests includes Clinical Guideline and Clinical Pathway development, instructional Design of LMSs, instructional Design of educational platforms and mobile learning .

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

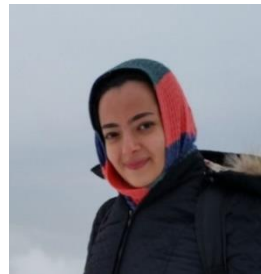# Coordinator Team (alphabetically)

Shadi Asadzandi

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