

The e-NEWSLETTER

Modernisation and Internationalisation of Iranian HEIs via collaborative TEL-based curriculum development in engineering and STEM/UNI-TEL

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



WEBSITE: <https://unitelproject.net/>



Editorial

The UNITEL project is going on and we have reached more than 70% of its goals so far as is clarified in the Introduction part. Thanks to the valuable efforts of the management team and all the contributors, about 90 professors and instructional designer have been trained with new skills which can surely make a difference in the quality of their teaching. Furthermore, the dissemination plan has also shown its positive effects demonstrated in UNITEL team involvement in more events both nationally and internationally. The 8th Iranian International Conference on Engineering Education is one of the significant events ahead (for more information please see: <https://iseec.ut.ac.ir/>). All interested readers are invited to join this great event and the contributions of the UNITEL team in it.

Please let us know your valuable comments after reading this newsletter and show us how we can be more helpful in future.

OVERVIEW:

- *Editorial*
- *Introduction*
- *UNITEL WP3*
 - *Aims*
 - *Organized Webinars*
 - *Training Report (e-Course)*
 - *Training Report (Face to Face Sessions)*
 - *Conclusions & Accumulated Results*
- *Upcoming Conferences*



UNITEL e-newsletters to be produced every 12 months, describing progress on the project and project topics. The e-newsletter contains information related to the project and similar projects and events concerning the main issues.

➔ Introduction

The main goal of the UNITEL project is to support modernization, internationalization and accessibility of the HE system within Iran through the development of innovative pedagogical approaches based on collaborative technology enhanced learning methodologies.

The UNITEL project addresses a twofold track: improving technology enhanced learning methodologies within participant universities and boosting current trends in pedagogy in order to enhance self-directed and collaborative learning. The development of modernized curriculum in engineering and STEM studies will be one of the main results of the project approach.

In order to proceed its goals, UNITEL applies a systematic approach divided into 7 coherent work packages (WP). WP1-2-3-4 are content based and develop and implement the UNI-TEL training path methodology. The core WPs will be supported by Project management, Quality and Evaluation and Dissemination and exploitation WPs (WP5, WP6 and WP7).

The work programme has been designed for the effective achievement of the project results and covers all the necessary phases for this purpose: preparation (WP1), development (WP2, WP3 and WP4), quality and evaluation (WP5), dissemination and exploitation (WP6) and Project management (WP7).

WP1 included research activities and reports drafting on the State of the Art of HEIs in Engineering and STEM studies both in Iran and in Europe, aiming at creating a common body of knowledge for harmonization and strengthening the accessibility of higher education in Iran. WP2 contributed to fulfilling the project's first specific objective, namely to enhance skills and competences of professors and instructional designers on innovative collaborative ICT-based practices as a means to increase curriculum modernisation and internationalisation.

The e-course training path was developed in WP2, detailing the range of topics that the e-course will be covering, including essentials and basic principles and practices of the e-learning concept, pedagogical scripts and instructional scaffolding in order to enhance self-directed and collaborative learning and self-assessment procedures.

The following sections of the document provide a report concerning the WP3 aims and expected results, activities, as well as the training results of participants in both the VLE platform and the face to face sessions that took place in each university. Lastly, a brief summary of the outcomes of the WP3 is available.

Furthermore, to get more information, you can reach the UNITEL website or its social media platforms using the following links:



Website:

<https://unitelproject.net/>



Instagram:

https://instagram.com/unitel_project?igshid=YmMyMTA2M2Y=



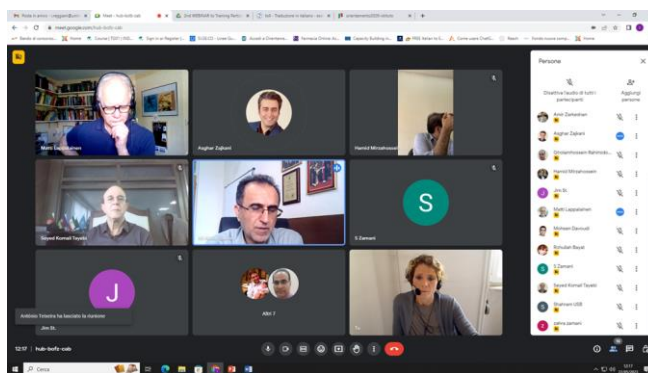
ResearchGate:

<https://www.researchgate.net/profile/Unitel-Project>



LinkedIn:

<https://www.linkedin.com/company/unitel-project/>



❖ Aims

Main Purpose of the WP3:

WP3 contributed to fulfilling the project's first specific objective, namely to empower Engineering and STEM departments at Iranian universities in enhancing the skills and competences of professors and instructional designers on innovative collaborative ICT-based practices as a means to increase curriculum modernization and internationalisation. The expected results were:

- ✓ motivating the academic staff to acquire key competences and skills crucial for the integration of TEL-based pedagogical approaches in university curricula;
- ✓ promoting a rational application of new collaborative teaching and learning ICT-based methodologies

Efficient completion of the activities in WP3 was a precondition for the start of actual work in WP4.

The expected results were achieved with the implementation of the training activities with professors and instructional designers (at least 91, 13 each PC HEI). Also, at least 75% of all the lessons were attended and completed so that attendees could obtain a Certificate of Accomplishment.

In summary, WP3 and WP4 represent two steps of the piloting phase of the project. The first step (WP3) was the training of professors and instructional designers. The second step (WP4) is that the trained professors and instructional designers will use the acquired skills and competences to modernise their own (department) courses.

❖ Organized Webinars

Throughout the WP3, various webinars took place between the partners discussing and analyzing the participation of the course, the issues that occurred throughout the training activities and the equipment's purchase as well as the best solutions for each situation.

❖ Training Report (e-Course Related)

• Imam Khomeini International University (IKIU):

There are eighteen participants in total who attended the course from the Imam Khomeini International University. Thirteen of those participants completed the course successfully.

Certificate Achievement Ratio: 72%

• Shahid Chamran University (SCU):

There are twenty-one participants in total who attended the course from the Shahid Chamran University.

Fifteen of those participants completed the course successfully.

Certificate Achievement Ratio: 71%

• Shiraz University (SU):

There are twenty-one participants in total who attended the course from the Shiraz University.

Seventeen of those participants completed the course successfully.

Certificate Achievement Ratio: 80%

• University of Sistan and Baluchestan (USB):

There are twenty-five participants in total who attended the course from the University of Sistan and Baluchestan.

Seventeen of those participants completed the course successfully.

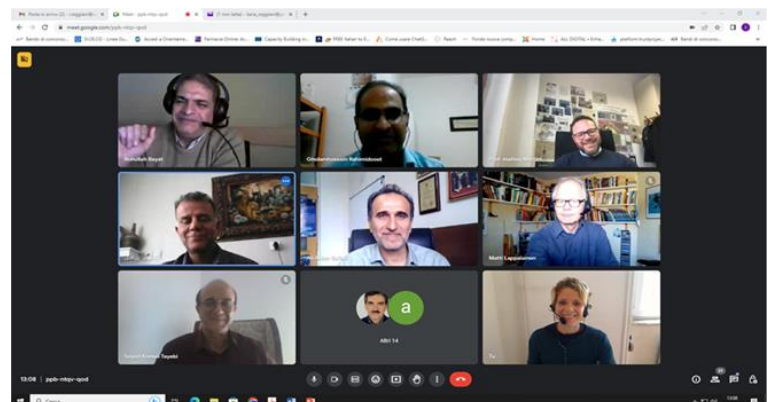
Certificate Achievement Ratio: 68%

• University of Isfahan (UI):

There are eighteen participants in total who attended the course from the University of Isfahan.

Seventeen of those participants completed the course successfully.

Certificate Achievement Ratio: 94.4%



❖ Training Report (Face to Face Sessions)

- **Imam Khomeini International University (IKIU)**

- Event1 date: May 8 2023
- Event2 date: June 7 2023

- **Shahid Chamran University (SCU)**

- Event1 date: March 13 2023
- Event2 date: May 21 2023

- **University of Isfahan (UI)**

- Event1 date: January 18 2023
- Event2 date: July 03 2023

- **Shiraz University (SU)**

- Event1 date: January 9 2023
- Event2 date: January 18 2023

- **University of Sistan and Baluchestan (USB)**

- Event1 date: Feb 22 2023
- Event2 date: May 3 2023

- **Gallery**



❖ Conclusion

In conclusion, the WP3 of UNITEL has been challenged with several factors such as the global pandemic, server issues as well as technical issues.

However, despite these facts, there has been a solid progress concerning the main goal which is none other than the enhancement of learning methodologies and the development of innovative pedagogical approaches based on collaborative technology. All of the professors offered great help and the best of themselves in order to make the e-course and the face-to-face sessions as helping and enhancing as possible.

Moreover, a solid percentage of participants (about 77% overall) have been active both remotely and face to face, have completed the E-course successfully and therefore have benefited greatly from the course. University of Isfahan scored an exceptionally high achievement ratio of 94.4%. As concerns the number of participants, each university should have had at least 13 attendants and at least 91 participants in total should have been enrolled in the course. Every university has met the attendants number goal and there were 103 enrolled participants in total inside the course.

Lastly, it should be noted that there has been a rise in women's participation. In total, there were twenty-six (26) women that participated in the courses. The percentage ratio is about 26. University of Sistan and Baluchestan had the best number of women participants (9).

Imam Khomeini International University:

There are eighteen (18) participants and thirteen (13) of them have successfully completed the course successfully

Shahid Chamran University:

There are twenty-one (21) participants and fifteen (15) of them have completed the course successfully.

Shiraz University:

There are twenty-one (21) participants and seventeen (17) of them have completed the course successfully.

University of Sistan and Baluchestan:

There are twenty-five (25) participants and seventeen (17) of them have completed the course successfully.

University of Isfahan:

There are eighteen (18) participants and seventeen (17) of them have completed the course successfully.

❖ Accumulated Results

Total amount of participants: 103

Total amount of women participants: 27

Total amount of successfully completed course certificates: 79

➔ Upcoming Conferences

❖ The 8th Iranian International Conference on Engineering Education

The Iranian engineering education conference started by the Iranian Engineering Education Association at the University of Tehran in 2009. The conference has been held every two years and Iran University of Science and Technology (IUST) will host the 8th Iranian International Conference on Engineering Education in November 2023.

Unitel project will be collaborating in keynote speeches and panel discussions according to the following schedule.

1. The key note speech of Prof. Ali Akbar Safavi and prof. Ghasem Salimi entitled: "Industries 4.0 and 5.0 and the issue of empowering engineering students: International evidence and Iranian experience" at Monday Nov. 6, at 11:30 am till 12:00 (Iran Time).

هشتمین دوره کنفرانس بین المللی آموزش مهندسی ایران
8th Iranian International Conference on Engineering Education

جدول زمانبندی سخنرانی های کلیدی
هشتمین کنفرانس بین المللی آموزش مهندسی ایران
Schedule of Keynote Speakers of the
8th Iranian Int'l Conference on Engineering Education

15 آبان 6 November

<p>موضوع: صنایع نوین و آینده مشاغل مهندسی Impact of Artificial Intelligence on future of engineering careers</p> <p>10:30 - 11:00 (IRAN TIME) 7:00 - 7:30 (UTC)</p> <p>دکتر فاطمه مهدیزاده عضو هیات علمی دانشگاه علم و صنعت ایران Professor at Iran University of Science and Technology</p>	<p>انبارهای دیجیتال و وزارت بهداشت با تاکید بر اعتبار بخشی / اعتبار علمی تحصیلات تکمیلی Time line of accreditation process in Ministry of Health and Medical Education focusing on undergraduate medical education</p> <p>10:00 - 10:30 (IRAN TIME) 6:30 - 7:00 (UTC)</p> <p>دکتر غلامرضا حسن زاده عضو هیات علمی دانشگاه علوم پزشکی تهران Professor at Tehran University of Medical Sciences</p>
<p>نقدهای انقلابی، چهارم و پنجم صنعتی و مسائل نوآموزسازی دانشجویان مهندسی، خواننده بین المللی و تجربه ایرانی Industries 4.0 and 5.0 and the issue of empowering engineering students: International evidence and Iranian experience</p> <p>11:30 - 12:00 (IRAN TIME) 8:00 - 8:30 (UTC)</p> <p>دکتر علی اکبر صفاوی و دکتر غاسم سلیمی Prof. Safavi and Dr. Salimi اعضای هیات علمی دانشگاه شیراز Professors at Shiraz University</p>	<p>ارتقای آموزش مهندسی با استفاده از تجارب زیسته مهندسان Enriching Engineering Education based on the Real Life Experiences of Engineers</p> <p>11:00 - 11:30 (IRAN TIME) 7:30 - 8:00 (UTC)</p> <p>دکتر رحمت سوتوده عضو هیات علمی دانشگاه تهران Professor at University of Tehran</p>

Address : School of Railway Engineering, Iran University of Science and Technology, Tehran, Iran
آدرس: دفتر خانه میلان، میدان خواجه نصیر، دانشگاه علم و صنعت ایران، دانشکده مهندسی راه آهن
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2. The key note speech of Prof. Antonio Teixeira titled: "Reengineering Higher Education: how intelligent digital technologies are transforming universities" at Tuesday Nov. 7, 2023 at 10:00 am till 10:30 (Iran Time).

هشتمین دوره کنفرانس بین المللی آموزش مهندسی ایران
8th Iranian International Conference on Engineering Education

جدول زمانبندی سخنرانان کلیدی
Schedule of Keynote Speakers of the
8th Iranian Int'l Conference on Engineering Education

۱۶ آبان / 7 November

پاز مهندسی آموزش عالی:
چگونه فناوری های دیجیتال هوشمند
دانشگاهها را متحول می کنند؟
Reengineering Higher Education:
how intelligent digital technologies
are transforming universities

10:00 - 10:30 (Tehran)
6:30 - 7:00 (UTC)

دکتر آنتونیو تکسیرا
عضو هیات علمی دانشگاه ابرتا پرتغال
Professor at University of Aberta, Portugal

ارزایی بر مبنای تسلط بر محتوای
پودمانی/ماگولار
Modular Mastery-based Model (M3)
for Higher Education

17:00 - 17:30 (Tehran)
13:30 - 14:00 (UTC)

دکتر محمدمهدی صادق وزیری
عضو هیات علمی انستیتو تکنولوژی نیوجرسی آمریکا
Professor at New Jersey Institute of Technology

Address : School of Railway Engineering, Iran University of Science and Technology, Tehran, Iran
آدرس: دبیرخانه ۵۴۵ میدان رسالت، خیابان هنگام، دانشگاه علم و صنعت ایران، دانشکده مهندسی راه آهن
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❖ ICeLeT2024

After the successful collaboration of the UNITEL project with ICeLeT2023, the 17th National and the 11th International Conference on e-Learning and e-Teaching (ICeLeT2024) will be held in Isfahan University in joint collaboration with the Iranian Association of e-Learning (YADA) and ECOSF, where again the UNITEL project will be contributing a great deal.

This conference, similar to the previous one, ICeLeT2023, provides the premier interdisciplinary forum for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns, practical challenges encountered and the solutions adopted in the field of e-Learning and e-Teaching.

University of Isfahan is one of the UNITEL project partners, and is hosting this year's conference.

3. Panel discussion entitled:

“Evolution in technology-based engineering education with the help of university professors: necessities and challenges”.

at Tuesday Nov. 7, 2023, 10:30 am till 12.00 (Iran time) with the following panel members:

Prof. Jafar Towfighi (Panel Chair) (Tarbiat Modares Univ., Iran)

Prof. Ali Akbar Safavi (Shiraz Univ., Iran)

Prof. Antonio Moreira Teixeira (Aberta Univ., Portugal)

Ms. Ilaria Reggiani (Marconi Univ., Italy)

Prof. Seyed Komail Tayebi (ECOSF, Pakistan)

➔ Partners:

Università degli Studi
Guglielmo Marconi - USGM

University of Turku (UTU)

Universidade Aberta (UAb)

PRISMA ELECTRONICS SA
(PRISMA)

Imam Khomeini
International University
(IKIU)

University of Sistan
and Baluchestan

University of Sistan and
Baluchestn (USB)

Shiraz University (SU)

University of Isfahan (UI)

University of Tehran (UT)

Shahid Chamran University of Ahvaz
(SCU)

Namvaran Pzshouhesh va Tose-
a (NPT)

➔ Valorization Team:

The Valorization team has been setting up as follows:

Prof. Ali Akbar Safavi (SU)

Prof. Ghasem Salimi (SU)

Dr. Abolfazl Jowkar (SU)

Ms. Mehrnoosh Soltanian (SU)

Ms. Fateme Rezaian (SU)

Ms. Fatemeh Mirghafari (SU)

جدول زمانبندی نشست های تخصصی
Schedule of Focus Sessions of the
8th Iranian Int'l Conference on Engineering Education

۱۶ آبان ماه ۱۴۰۲
7 November, 2023

دانشگاه علم و صنعت ایران، دانشکده مهندسی راه آهن
Iran University of Science and Technology
School of Railway Engineering

نشست تخصصی ۴
Focus Sessions 4

تجریبات بین المللی آموزش مهندسی در خارج از کشور
International Experiences in Engineering Education

نشست تخصصی ۵
Focus Sessions 5

تحول در آموزش مهندسی مبتنی بر فناوری به کمک استادان دانشگاهها:
ضرورت ها و چالش ها
Evolution in technology-based engineering education
with the help of university professors:
necessities and challenges

نشست تخصصی ۶
Focus Sessions 6

ترویج فرهنگ ارزیابی کیفیت در دانشگاه های صنعتی و دانشکده های مهندسی
Promoting Culture of Quality Assessment in
Universities of Technology and Faculties of Engineering

Address : School of Railway Engineering, Iran University of Science and Technology, Tehran, Iran
آدرس: دبیرخانه ۵۴۵ میدان رسالت، خیابان هنگام، دانشگاه علم و صنعت ایران، دانشکده مهندسی راه آهن
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