UČNI NAČRT MIKRODOKAZILA / MICRO-CREDENTIAL SYLLABUS

Naziv mikrodokazila:	Upravljanje tehnologij in sprejemanje odločitev z uporabo odprtih izobraževalnih virov (OER)
Micro-credential title:	Management of technologies and decision making using OER

Študijsko področje po KLASIUS P-16 *Study field according to KLASIUS P-16:*	0413
Razvrstitev v SOK: *SQF Classification in*	7
Razvrstitev v EOVK: *QF-EHEA Classification*	6
Razvrstitev v EOK: *EQF Classification*	6
Univerzitetna koda/*University code:*	TBD
Način izvedbe (klasično, hibridno, na daljavo) *Method of implementation (classic, hybrid, online)*	hibridno hybrid

Predavanja *Lectures*	**Seminar** *Seminar*	**Vaje** *Tutorial*	**Terenske vaje** *Field work*	**Druge oblike študija** *Other forms of study*	**Samostojno delo** *Individual work*	**ECTS**
6	**8**	**6**	**-**	**-**	**10**	**1**

Nosilec predmeta/*Lecturer*:	prof.dr. Imre Cikajlo
(So)izvajalci/(*Co)-Lecturers:*	dr. Nenad Filipović

Jezik izvedbe *Language of instruction*	**angleški** **English**
Maksimalno število udeležencev *Maximum number of participants:*	30

Merila za izbor udeležencev v primeru večjega interesa od razpisanih mest: *Criteria for selecting participants in the event of greater interest than the number of places*

	available:
Študijski uspeh zaključenega študija oz ustreznost predhodno pridobljene izobrazbe.	Academic performance in the completed program or the equivalence of prior education.

Pogoji za vključitev:	*Prerequisites:*
Zaključen dodiplomski študij s tehnično, naravoslovno ali poslovno tematiko na 1. bolonjski stopnji oz primerljiv študij ekvivalentne stopnje.	Completion of an undergraduate degree in a technical, natural science, or business field at the first Bologna cycle level, or a comparable degree program of equivalent level.

Vsebina:	*Content (Syllabus outline):*
Predmet obravnava tehnologije, ki podpirajo razvoj, upravljanje in uporabo odprtih izobraževalnih virov (OER). Študenti spoznajo sisteme za upravljanje učenja, odprte repozitorije, digitalne platforme, standarde interoperabilnosti ter sodobne tehnologije, kot sta umetna inteligenca in analitika učenja. Poseben poudarek je namenjen učinkovitemu upravljanju OER, vključno z odprtimi licencami, zagotavljanjem kakovosti, dostopnostjo in dolgoročno vzdržnostjo virov. Predmet obravnava tudi sprejemanje odločitev pri izbiri in uvajanju OER ter pripadajočih tehnologij na podlagi pedagoških, organizacijskih, tehnoloških in ekonomskih meril. Študenti razvijejo kompetence za načrtovanje, vrednotenje in strateško uporabo odprtih izobraževalnih virov v različnih izobraževalnih okoljih.	The course examines the technologies that support the development, management, and use of Open Educational Resources (OER). Students explore learning management systems, open repositories, digital platforms, interoperability standards, and emerging technologies such as artificial intelligence and learning analytics. Particular emphasis is placed on the effective management of OER, including open licensing, quality assurance, accessibility, and the long-term sustainability of educational resources. The course also addresses decision-making processes related to the selection, implementation, and evaluation of OER and associated technologies based on pedagogical, organisational, technological, and economic criteria. Students develop the knowledge and skills required to plan, evaluate, and strategically integrate OER into a variety of educational contexts.

Literatura in viri/*Readings:*

1. UNESCO & Commonwealth of Learning. (2015). Guidelines for Open Educational Resources (OER) in Higher Education. UNESCO.
2. UNESCO. (2019). UNESCO Recommendation on Open Educational Resources (OER).
3. Romero C, Ventura S. Educational data mining and learning analytics: An updated survey. WIREs Data Mining Knowl Discov. 2020; 10:e1355. https://doi.org/10.1002/widm.1355

Druge pomembne sestavine (npr. licence, orodja, pripomočki ipd.):	*Other important components (e.g. licenses, tools, utilities, etc.):*

LMS (Moodle, MiTeam, etc)	LMS (Moodle, MiTeam, etc)
Cilji in kompetence:	*Objectives and competences:*
Cilj predmeta je študente usposobiti za razumevanje, vrednotenje in strateško uporabo tehnologij, ki podpirajo razvoj, upravljanje in uporabo odprtih izobraževalnih virov (OER). Študenti spoznajo ključne digitalne tehnologije, platforme in standarde za OER ter razvijejo sposobnost sprejemanja utemeljenih odločitev pri njihovem uvajanju v izobraževalna okolja. Poseben poudarek je namenjen zagotavljanju kakovosti, dostopnosti, trajnosti in učinkovitemu upravljanju odprtih izobraževalnih praks.	The goal of the course is to equip students with the ability to understand, evaluate, and strategically apply technologies that support the development, management, and use of open educational resources (OER). Students will become familiar with key digital technologies, platforms, and standards for OER and develop the ability to make informed decisions regarding their implementation in educational settings. Particular emphasis is placed on ensuring the quality, accessibility, sustainability, and effective management of open educational practices.
Predvideni učni izidi:	*Intended learning outcomes:*
Po zaključku predmeta bodo študenti sposobni: • analizirati in kritično ovrednotiti tehnologije ter platforme za podporo odprtim izobraževalnim virom; • izbrati ustrezne tehnološke rešitve glede na pedagoške, organizacijske in strateške potrebe; • načrtovati upravljanje, vzdrževanje in zagotavljanje kakovosti OER; • uporabljati digitalna orodja za ustvarjanje, prilagajanje, deljenje in ponovno uporabo odprtih izobraževalnih vsebin; • sprejemati odločitve na podlagi podatkov, analiz in potreb uporabnikov; • razumeti vpliv novih tehnologij, vključno z umetno inteligenco in analitiko učenja, na razvoj odprtega izobraževanja.	Upon completion of the course, students will be able to: • analyze and critically evaluate technologies and platforms that support open educational resources; • select appropriate technological solutions based on pedagogical, organizational, and strategic needs; • plan the management, maintenance, and quality assurance of OER; • use digital tools to create, adapt, share, and reuse open educational resources; • make decisions based on data, analyses, and user needs; • understand the impact of new technologies, including artificial intelligence and learning analytics, on the development of open education.
Metode učenja in poučevanja	*Learning and teaching methods:*
Različni moduli bodo obravnavani v obliki predavanj in praktičnih ur. • vaje za uporabo različnih metod in vrednotenje • učinkovitosti OER tehnologij • končni projekt vključuje pripravo	The various modules will be covered through a combination of lectures and hands-on sessions. • exercises on applying various methods and evaluating • the effectiveness of OER technologies

dokumentacije za objektivno sprejemanje odločitev z orodji OER	• the final project involves preparing documentation to support objective decision-making using OER tools

Način preverjanja in ocenjevanja: *Type of examination and assessment:*

Način (pisni izpit, ustni izpit, naloge, idr.)	Delež (v %): *Weight (in %)*	*Type (written exam, oral exam, assignments, etc.)*
• pisni izpit in • formalno poročilo in predstavitev projekta	50 / 50	• a written exam and • a formal report and project presentation

Pogoji za pridobitev mikrodokazila: *Minimal standards for obtaining micro-credential:*

Za pridobitev mikrodokazila je potrebna: • 100% udeležba na vseh predavanjih • Poročilo in predstavitev končnega projekta	To earn a micro-certificate, the following is required: • 100% attendance at all lectures • A report and presentation on the final project

Reference nosilca/*Lecturer's references:*

Dr. Imre Cikajlo, je redni profesor za področje elektrotehnike, je zagovarjal doktorat znanosti na področju robotike in elektrotehnike na Univerzi v Ljubljani leta 2003. Od leta 2003 do leta 2004 je bil podoktorski raziskovalec na Univerzi Tohoku v Sendai, na Japonskem in leta 2007 gostujoči raziskovalec na Univerzi v Tokiu, Japonska. Trenutno je dekan Poslovno-tehniške fakultete Univerze v Novi Gorici in višji znanstveni sodelavec na Univerzitetnem rehabilitacijskem inštitutu v Ljubljani. Dr. Cikajlo je sodeloval pri več projektih 7. okvirnega programa EU-(GENTLE/S, MIMICS, CORBYS) in H2020 (PD_manager) in inovativnih projektih za startupe (MindMyths Ltd) in gospodarstvo (Gorenje). Objavil je več kot 50 znanstvenih člankov, skupaj več kot 100, 5 poglavij v tujih znanstvenih monografijah. Je soavtor mednarodnega patenta v EU in ZDA. Leta 2000 je prejel Prešernovo nagrado na Fakulteti za elektrotehniko Univerze v Ljubljani. Njegova raziskovalna področja so analiza in sinteza gibanja ljudi in strojev, biomehanika, povezovanje senzoričnih informacij, nadzor nad strojem in človekovim gibom in rehabilitacijska robotika. Trenutno se ukvarja z razvojem rehabilitacijskih pripomočkov in postopkov, ki se uporabljajo v kliničnem in / ali domačem okolju z uporabo telerehabilitacijskih tehnik ter uvajanje virtualne resničnosti v rehabilitacijo. Je tudi član ISVR, IFMBE in IEEE.

Dr. Imre Cikajlo, is a full professor of electrical engineering and received his PhD degree in robotics and electrical engineering from the University of Ljubljana, Slovenia in 2003. From 2003 until 2004 he was a post-doc fellow at the Tohoku University, Sendai, Japan and in 2007 a visiting researcher at the University of Tokyo, Japan. Currently he is the Dean of the School of Engineering and Management at the University of Nova Gorica and a Senior Research Associate at the University

rehabilitation institute, Ljubljana, Slovenia. Prof. Cikajlo took part in several EU-FP7 projects (GENTLE/S, MIMICS, CORBYS), H2020 (PD_manager) and startup (MindMyths Ltd.) and company supported projects (Gorenje). He published more than 50 journal papers, altogether more than 100 papers, book chapters and books and holds a patent in EU and USA. In 2000 he received the Prešeren Award from Faculty of Electrical Engineering, University of Ljubljana. His research interests include human motion analysis and synthesis, biomechanics, integration of sensory information, control of machine and human movements and rehabilitation robotics. Currently he is involved in the development of rehabilitation devices and procedures that may be used in clinical and/or home environment through application of telerehabilitation techniques and introduction of virtual reality in rehabilitation. He is also a member of ISVR, IFMBE and IEEE.

Izbrane objave / Selected bibliography

CIKAJLO, Imre, MITIĆ, Jovana, BURGER, Helena. The effect of weight-bearing training with visual feedback on balance and prosthetic loading in trans-tibial amputees following vascular disease : a pilot randomized control trial. Annals of medicine. 2025, vol. 57, iss. 1, str. 1-9, ilustr. ISSN 1365-2060. DOI:

WOHOFSKY, Lukas, KROLL, Laura Nadine, DRECHSLEROVÁ, Anna, SCHUBERT, Peter, CIKAJLO, Imre, BIZOVIČAR, Nataša, KRAINER, Daniela. Integrability of a comprehensive telerehabilitation approach for post-stroke patients and therapists : a feasibility study. Applied sciences. Sept. 2024,

KATO, Yasuhiro, TSUJI, Toshiaki, CIKAJLO, Imre. Feedback type may change the EMG pattern and kinematics during robot supported upper limb reaching task. IEEE open journal of engineering in medicine and biology. Feb. 2024, str. 1-7, ilustr. ISSN 2644-1276. DOI: 10.1109/OJEMB.2024.3363137

CIKAJLO, Imre, HUKIĆ, Alma, UDOVČIĆ PERTOT, Anja. The size and behavior of virtual objects have influence on functional exercise and motivation of persons with multiple sclerosis : a randomized study. Scientific reports. Nov. 2022, vol. 12, art. no. 19375, 13 str.,

CIKAJLO, Imre, ČIŽMAN ŠTABA, Urša, VRHOVAC, Suzana, LARKIN, Frances, RODDY, Mark. A cloud-based virtual reality app for a novel telemindfulness service : rationale, design and feasibility evaluation. JMIR research protocols, ISSN 1929-0748, Jun. 2017, vol. 6, iss. 6, str. e108, ilustr. https://doi.org/10.2196/resprot.6849, doi: 10.2196/resprot.6849. [COBISS.SI-ID 2348905]

KRPIČ, Andrej, SAVANOVIĆ, Arso, CIKAJLO, Imre. Telerehabilitation : remote multimedia-supported assistance and mobile monitoring of balance training outcomes can facilitate the clinical staff's effort. International journal of rehabilitation research, ISSN 0342-5282. [Print ed.], 2013, vol. 36, no. 2, str. 162-171, doi: 10.1097/MRR.0b013e32835dd63b. [COBISS.SI-ID 1671017]