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| **UČNI NAČRT PREDMETA / COURSE SYLLABUS** | | | | | | | | | | | | | | | | | |
| **Predmet:** | | | Komunikacije in družba | | | | | | | | | | | | | | |
| **Course title:** | | | Communications and Society | | | | | | | | | | | | | | |
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| **Študijski program in stopnja**  **Study programme and level** | | | | | **Študijska smer**  **Study field** | | | | | | | | **Letnik**  **Academic year** | | **Semester**  **Semester** | | |
| **Elektrotehnika / II** | | | | | **Ni smeri** | | | | | | | | **Vsi letniki** | | **zimski** | | |
| **Electrical Engineering / II** | | | | |  | | | | | | | |  | |  | | |
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| **Vrsta predmeta / Course type** | | | | | | | | | | | | Izbirni predmet za študente netehniških študijskih programov  Elective course for students of non-engineering study programmes | | | | | |
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| **Univerzitetna koda predmeta / University course code:** | | | | | | | | | | | | 64316 | | | | | |
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| **Predavanja**  **Lectures** | **Seminar**  **Seminar** | | | **Sem. vaje**  **Tutorial** | | | **Lab. vaje**  **Laboratory work** | | | | **Teren. vaje**  **Field work** | | | **Samost. delo**  **Individ. work** | |  | **ECTS** |
| 45 | - | | | - | | | 15 | | | | - | | | 65 | |  | 5 |
|  | | | | | | | | | | | | | | | | | |
| **Nosilec predmeta / Lecturer:** | | | | | Janez Bešter, Andrej Kos, Matevž Pogačnik | | | | | | | | | | | | |
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| **Jeziki /**  **Languages:** | | **Predavanja / Lectures:** | | | | slovenski / Slovenian | | | | | | | | | | | |
| **Vaje / Tutorial:** | | | | slovenski / Slovenian | | | | | | | | | | | |
| **Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:** | | | | | | | | |  | **Prerequisits:** | | | | | | | |
| Izbirni predmet je namenjen študentkam in študentom netehniških študijskih programov ne glede na stopnjo njihovega matičnega programa.  Predmeta ne morejo izbrati študentke in študenti podiplomskega študijskega programa II. stopnje Elektrotehnika. | | | | | | | | |  | The elective course is intended for students of non-engineering study programmes irrespective of the level of their programme.  The students of master study programme Electrical Engineering are not entitled to elect this course. | | | | | | | |
| **Vsebina:** | | | | | | | |  | | **Content (Syllabus outline):** | | | | | | | |
| **Predavanja:**   * Komunikacijske storitve ter vpliv informacijsko komunikacijskih tehnologij (IKT) na gospodarski razvoj in bruto domači proizvod (BDP) * Informacijska pismenost (sposobnost ter znanje uporabe komunikacijskih naprav, storitev, uporabe programskih orodij, uporaba multimedijskih storitev kot študijskega/znanstvenega vira ...) * Socialnogeografski in sociološki vidiki/posledice množične razširjenosti IKT in komunikacijskih storitev * Arhitekture in delovanje telekomunikacijskih in multimedijskih sistemov * IKT kot ključne tehnologije za vzpostavitev nizkoogljične družbe ter sonaravnega trajnostnega razvoja * Internet prihodnosti * Konvergenca IKT in drugih branž (energetika, zdravstvo, javna uprava, turizem, transportni sistemi, ...) * IKT kot nosilec velikih sprememb šolskega sistema (e-šolstvo) * uporaba IKT pri depriviligiranih družbenih skupinah (invalidi, starostniki, socialno šibkejši, bolni ...) * Lastnosti in značilnosti uporabe in komunikacije preko socialnih omrežij (Facebook, MySpace, LinkedIn, Twitter ...) * Interaktivnost ter uporabniški vidiki sodobnih IKT storitev * IKT in podjetništvo ter primeri globalno uspešnih projektov   **Vaje:**   * Informacijska pismenost (sposobnost ter znanje uporabe komunikacijskih naprav, storitev, uporabe programskih orodij, uporaba multimedijskih storitev kot študijskega/znanstvenega vira ...) * Informacijska varnost * Multimedijsko izobraževanje * Analiza komunikacijskih tokov * Konfiguriranje uporabniške opreme * Strokovna ekskurzija (operater komunikacij, multimedijski center, center vodenja letalskega prometa, dom IRIS…) | | | | | | | |  | | **Lectures**   * Communication services and the impact of information and communication technologies (ICT) on the economic development and gross domestic product (GDP) * Information literacy (the ability and knowledge of the use of communication devices, services, software tools and multimedia services as academic / scientific source ...) * Socio-geographical and sociological aspects /consequences of the mass distribution of ICT and communication services * The architecture and operation of telecommunication and multimedia systems * ICT as a key technology for the creation of sustainable low-carbon society and sustainable development * The Future Internet * Convergence of ICT and other branches (energy, health, public administration, tourism, transport systems, ...) * ICT as a carrier of major changes in the school system (e-Education) * The use of ICT in disadvantaged social groups (disabled, elderly, socially disadvantaged people, ill ...) * The properties and characteristics of the use and communication via social networks (Facebook, MySpace, LinkedIn, Twitter ...) * Interactivity and user aspects of modern ICT services * ICT and entrepreneurship, and examples of globally successful projects   **Tutorial**:   * Information literacy (the ability and knowledge of the use of communication devices, services, software tools and multimedia services as academic / scientific source ...) * Information security * Multimedia based education * Analysis of communication flows * The configuration of user equipment * Excursion (communications operator, MMC, air traffic control center, home IRIS ...) | | | | | | | |

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| **Temeljna literatura in viri / Readings:** | | | | | |
| 1. Mitra, S., G. Bhatnagar , S. Mehta, Introduction to Multimedia Systems, Academic Press, 2001, 300 str., ISBN: 0-12500-452-4 2. Georgios Tselentis, Towards the Future Internet: A European Research Perspective, IOS Press, 2009 3. Ovidiu Vermesan & Peter Friess, Internet of Things - Global Technological and Societal Trends, River Publishers, 2011 4. Nagy Hanna, E-Transformation: Enabling New Development Strategies, Springer, 2010 5. Cheryl Rickman, The Digital Business Start-Up Workbook, Wiley, 2012 | | | | | |
| **Cilji in kompetence:** | |  | | **Objectives and competences:** | |
| Pregled področja IKT sistemov in družbenih vplivov tehnološkega razvoja. Analiza vpliva tehnologij na gospodarstvo in družbo, osnove informacijske pismenosti. Spoznavanje osnovnih pojmov s področja telekomunikacij in multimedije, razumevanja delovanja IKT sistemov s stališča arhitektur in uporabljanih tehnologij. Najpomembnejši primeri uporabe IKT storitev in vertikal. | |  | | Overview of ICT systems and societal impacts of the technological development. Analysis of the impact of technologies on the economy and society, basics of information literacy. Introduction to the basic concepts in telecommunications and multimedia, understanding of the functioning of ICT systems in terms of architectures and technologies used. The most important examples of the use of ICT services and verticals. | |
| **Predvideni študijski rezultati:** | | |  | **Intended learning outcomes:** | |
| Razumevanje pomembnih vprašanj v zvezi z delovanjem IKT in njenim vplivom na vsakdan končnih uporabnikov. Poznavanje najpomembnejših storitvenih vertikal in osnovno razumevanje tehnološkh aspektov.  Osvojitev ključnih znanj za uspešno uporabo komunikacijskih storitev in IKT v študijske in poslovne namene ter uspešno kariero. | | |  | Understanding of important issues relating to the operation of ICT and its impact on the daily lives of end users. Knowledge of the most important services and a basic understanding of technology aspects. Mastering the key skills for successful use of communication services and ICT in study and business purposes and a successful career. | |
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| **Metode poučevanja in učenja:** | | |  | **Learning and teaching methods:** | |
| Predavanja, praktični prikazi, laboratorijske vaje, ekskurzije. | | |  | Lectures, demonstrations, practical, tutorial and laboratory work, excursions. | |
| **Načini ocenjevanja:** | Delež (v %) /  Share (in %) | | | | **Assessment methods:** |
| Pisni in ustni izpit. Kandidat, ki na pisnem izpitu zbere vsaj 50 % možnih točk, lahko pristopi k ustnemu izpitu. Končna ocena se oblikuje na podlagi rezultata pisnega izpita in ustnega zagovora, pri katerem se upošteva tudi poročilo z vaj.    Ocenjevalna lestvica: nezadostno (od 1 do 5), zadostno (6), dobro (7), prav dobro (8), prav dobro (9), odlično (10).  Prispevki k oceni:  pisni izpit  ustni izpit | 50%  50% | | | | Written and oral exam. The candidate who passes the written exam with at least 50% of all possible points can take the oral examination. Final assessment is formed on the basis of the result of written and oral examination, which is subject also to a report from the practical work.     Grading scale: poor (1 to 5), adequate (6), good (7), very good (8), very good (9), excellent (10).  Contributions to final grade:  written exam  oral examination |
| **Reference nosilca / Lecturer's references:** | | | | | |
| 1. KOS, Andrej, PRISTOV, Damijan, SEDLAR, Urban, STERLE, Janez, VOLK, Mojca, VIDONJA, Tomaž, BAJEC, Marko, BOKAL, Drago, BEŠTER, Janez. Open and scalable IoT platform and its applications for real time access line monitoring and alarm correlation. Lect. notes comput. sci., str. 27-38, ilustr. [COBISS.SI-ID [9370964](http://cobiss.izum.si/scripts/cobiss?command=DISPLAY&base=COBIB&RID=9370964)]. 2. PAPIĆ, Marko, ZEBEC, Luka, POGAČNIK, Matevž, BEŠTER, Janez, ATANASIJEVIĆ-KUNC, Maja, LOGAR, Vito. Personalized learning environment E-CHO. EUROSIM simul. news Eur., Aug. 2011, vol. 22, no. 2, str. 17-24, ilustr. [COBISS.SI-ID [8957524](http://cobiss.izum.si/scripts/cobiss?command=DISPLAY&base=COBIB&RID=8957524)]. 3. UMBERGER, Mark, HUMAR, Iztok, KOS, Andrej, GUNA, Jože, ŽEMVA, Andrej, BEŠTER, Janez. The integration of home-automation and IPTV system and services. Comput. stand. *interfaces*. [Print ed.], Jun. 2009, vol. 31, no. 4, str. 675-684, ilustr. [COBISS.SI-ID [7093332](http://cobiss.izum.si/scripts/cobiss?command=DISPLAY&base=COBIB&RID=7093332)]. 4. Volk Mojca, Štular Mitja, Bešter Janez, Kos Andrej, Tomažič Saso. IMS - IP MULTIMEDIA SUBSYSTEM. V: Furth, Borko (ur.). Encyclopedia of Wireless and Mobile Communications, 1E (3 Vols.). 2007. ISBN: 978-1-4200-5564-1, pp. 462 – 473. 5. Volk Mojca, Guna Jože, Kos Andrej, Bešter Janez. Quality-assured provisioning of IPTV services within the NGN environment. IEEE Communications Magazine, 2008. vol. 46, issue 5. | | | | | |