|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **UČNI NAČRT PREDMETA / COURSE SYLLABUS** | | | | | | | | | | | | | | | | | |
| **Predmet:** | | Magistrsko delo | | | | | | | | | | | | | | | |
| **Course title:** | | Master thesis | | | | | | | | | | | | | | | |
|  | | | | |  | | | | | | | |  | |  | | |
| **Študijski program in stopnja**  **Study programme and level** | | | | | **Študijska smer**  **Study field** | | | | | | | | **Letnik**  **Academic year** | | **Semester**  **Semester** | | |
| Podiplomski magistrski študijski program druge stopnje Elektrotehnika | | | | | Vse smeri | | | | | | | | 2 | | 2 | | |
| 2nd cycle masters study programme in Electrical Engineering | | | | | All fields | | | | | | | | 2 | | 2 | | |
|  | | | | | | | | | | | | | | | | | |
| **Vrsta predmeta / Course type** | | | | | | | | | | | | Obvezni – strokovni/ compulsory professional | | | | | |
|  | | | | | | | | | | | |  | | | | | |
| **Univerzitetna koda predmeta / University course code:** | | | | | | | | | | | | 64700 | | | | | |
|  | | | | | | | | | | | | | | | | | |
| **Predavanja**  **Lectures** | **Seminar**  **Seminar** | | | **Vaje**  **Tutorial** | | | **Lab. vaje**  **Laboratory work** | | | | **Druge**  **oblike študija** | | | **Samost. delo**  **Individ. work** | |  | **ECTS** |
| **0** | 0 | | | **0** | | | **0** | | | | **0** | | | **750** | |  | **30** |
|  | | | | | | | | | | | | | | | | | |
| **Nosilec predmeta / Lecturer:** | | | | | izbrani mentor/selected mentor | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | |
| **Jeziki /**  **Languages: SLO** | | | **Predavanja / Lectures:** | | | **-** | | | | | | | | | | | |
| **Vaje / Tutorial:** | | | **-** | | | | | | | | | | | |
| **Pogoji za vključitev v delo oz. za opravljanje študijskih obveznosti:** | | | | | | | | |  | **Prerequisites:** | | | | | | | |
| Opravljene vse ostale obveznosti iz študijskega programa (90 ECTS). | | | | | | | | |  | Completed all other obligations under the study program (90 ECTS). | | | | | | | |
| **Vsebina:** | | | | | | | |  | | **Content (Syllabus outline):** | | | | | | | |
| V magistrskem delu študent samostojno obdela strokovni problem, pri katerem izkaže svojo ustvarjalno sposobnost za razvojno in raziskovalno delo, predvsem pa zmožnost, da pridobljeno znanje uspešno in celovito uporabi pri izdelavi svojega dela. Magistrsko delo je lahko tudi rezultat dela več študentov, pri čemer mora biti jasno razviden prispevek posameznega študenta. | | | | | | | |  | | In the master's thesis, the student independently deals with an expert issue, showing his/her creative ability for research and development work and above all his/her ability to successfully and comprehensively apply the knowledge gained. Several students can work together to produce a single master's thesis; in such a case, each student’s contribution must be made clear. | | | | | | | |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Temeljni literatura in viri / Readings:** | | | | | |
|  | | | | | |
| **Cilji in kompetence:** | |  | | **Objectives and competences:** | |
| Študent v magistrskem delu, ki ga izdela pod vodstvom izbranega mentorja z UL Fakultete za elektrotehniko, dokaže, da je sposoben samostojnega reševanja problemov s področja elektrotehnike in širše. | |  | | The master's thesis prepared by the student under the mentorship of a selected mentor from the Faculty of Electrical Engineering of the UL is proof that the student is capable of independently resolving problems in the field of electrical engineering and beyond. | |
| **Predvideni študijski rezultati:**  **Znanje in razumevanje:** | | |  | **Intended learning outcomes:**  **Knowledge and understanding:** | |
| **Znanje in razumevanje:** Sposobnost opredelitve razvojno-raziskovalnega problema s področja elektrotehnike za naročnika (iz gospodarstva ali druge sfere) in analiza različnih možnih poti za njegovo reševanje.  **Uporaba**: Študent bo znanja in spretnosti, pridobljena med študijem, znal učinkovito uporabiti pri reševanju zahtevnih razvojno-raziskovalnih problemov s področja elektrotehnike in tudi širše.  **Refleksija:** Z magistrskim delom mora študent dokazati sposobnost iskanja novih rešitev in njihove kritične presoje. Pri tem zna izbrati in učinkovito uporabiti ustrezno literaturo ali druge vire ter izkazuje usposobljenost za razvojno-raziskovalno delo.  **Prenosljive spretnosti:** Sposobnost vodenja zahtevnih razvojno-raziskovalnih projektov ter pisnega in ustnega komuniciranja na visoki strokovni ravni. | | |  | **Knowledge and understanding:** The ability to define research-development problem in the field of electrical engineering for the client (from the economy and other spheres) and analysis of the different possible ways to address it.  **Application:** Students will be able to effectively use knowledge and skills acquired during their studies and complex research and development problems in the field of electrical engineering and beyond.  **Reflection:** In the thesis the students must demonstrate the ability to find new solutions and their critical judgment. In doing so, they are able to select and effectively use appropriate literature or other sources, and demonstrates the capacity for research and development work.  **Transferable skills:** The ability to manage complex research and development projects as well as written and oral communication at a high professional level. | |
|  | | |  |  | |
| **Metode poučevanja in učenja:** | | |  | **Learning and teaching methods:** | |
| individualno delo in posvetovanja z mentorjem | | |  | IIIndividual work and consultancy with the mentor | |
| **Načini ocenjevanja:**  Način (pisni izpit, ustno izpraševanje, naloge, projekt) | Delež (v %) /  Weight (in %) | | | | **Assessment:**  Type (examination, oral, coursework, project): |
| Tričlanska komisija (predsednik, član in mentor) oceni kandidatov pisni elaborat diplomskega dela z oceno 1-10. Komisija oceni tudi kandidatov zagovor diplomskega dela z oceno 1-10. Komisija na podlagi teh dveh ocen določi enovito oceno magistrskega dela (1-10). |  | | | | A three-member committee (chair, member and mentor) assesses the candidate’s written paper on a scale of 1 to 10. The committee also assesses the candidate’s defense of the thesis on a scale of 1 to 10. Based on these two grades, the committee determines the final grade of the master's thesis (1-10). |
| **Reference nosilca / Lecturer's references:** | | | | | |
| Nosilec je izbrani mentor s Fakultete za elektrotehniko Univerze v Ljubljani s habilitacijskim nazivom visokošolskega učitelja.  The lecturer is a selected mentor from the Faculty of Electrical Engineering of the UL with the proper habilitation title. | | | | | |