

## **Pravilnik**

za vrednovanje publikovanih naučnih rezultata u časopisima za  
**Stručno veće za tehničko-tehnološke nauke**  
**Univerziteta u Novom Sadu**

### **Uvod**

Predlog vrednovanja bazirano je na sledećim dokumentima:

1. PRAVILNIK o postupku i načinu vrednovanja, i kvantitativnom iskazivanju naučnoistraživačkih rezultata istraživača (Nacionalni savet za naučni i tehnološki razvoj), dostupno na sajtu:  
[http://www.zbus.rs/cir/pdf/pravilnik\\_o\\_zvanjima.pdf](http://www.zbus.rs/cir/pdf/pravilnik_o_zvanjima.pdf)
2. Vrednovanje časopisa po naučnim oblastima na KoBSON-u dostupno na sajtu:  
[http://kobson.nb.rs/servisi/pretrazivanje\\_casopisa.84.html](http://kobson.nb.rs/servisi/pretrazivanje_casopisa.84.html)
3. Posebnim odlukama nadležnih Matičnih naučnih odbora (MNO) o vrednovanju naučnih časopisa, dostupno na sajtu:  
[http://www.kobson.nb.rs/nauka\\_u\\_srbiji/kategorizacija\\_casopisa\\_33.html](http://www.kobson.nb.rs/nauka_u_srbiji/kategorizacija_casopisa_33.html)

### **Kategorizacija časopisa koji imaju Impakt Faktor**

Evidenciju časopisa po kategorijama M21, M22 i M23 vodi Narodna biblioteka Srbije. Ovi podaci su javno dostupni na sajtu ([http://kobson.nb.rs/servisi/pretrazivanje\\_casopisa.84.html](http://kobson.nb.rs/servisi/pretrazivanje_casopisa.84.html)). Matični naučni odbori Ministarstva koriste ove podatke za klasifikaciju časopisa. Međutim, postoje slučajevi kada za neka godišta časopisa ne postoje podaci o Impakt Faktoru (IF). Dakle, određivanje kategorije časopisa na osnovi IF za godine u kojima nema podataka o IF potrebno je dodatno definisati. Postoji više razloga za nedostajanje IF za pojedina godišta. Na primer, jedan od razloga može biti da uredništvo časopisa nije dostavilo, ili je kasno dostavilo potrebnu dokumentaciju Tomson Rojtersu. Drugi razlog može biti da časopis ne ispunjava sve uslove za dodelu IF. Pored toga, na sajtu [http://kobson.nb.rs/servisi/pretrazivanje\\_casopisa.84.html](http://kobson.nb.rs/servisi/pretrazivanje_casopisa.84.html), postoje periodi godišta u kojima nijedan časopis nema informaciju o IF.

Analizom javno dostupnih podataka o IF za časopise utvrđeno je sledeće:

- Godina 1981. je najranija godina u kojoj se pojavljuju IF.
- Postoje časopisi kojima nedostaju IF za pojedina godišta.
- Podaci o IF ne postoje ni za jedan časopis u sledećim godinama: 1989-1991, 1993-1997. Podaci o IF za časopise koji pripadaju društvenim naukama ne postoje ni za 1992. godinu.

Na osnovu navedenih podataka posebno treba razmatrati određivanje kategorija časopisa za godišta u kojima nedostaju IF. To su godišta pre 1981. godine, a zatim i periodi od 1989 do 1997 godine. To znači da je potrebno definisati pravila za određivanje kategorije časopisa za sledeće slučajeve:

1. Određivanje kategorije časopisa za godine u kojima postoje podaci o IF.
2. Određivanje kategorija časopisa za godišta pre 1981. godine.

3. Određivanje kategorije časopisa za godine u kojima ne postoje podaci o IF časopisa, ali koje su u neposrednoj blizini godina u kojima časopis ima IF, odnosno pripada nekoj od kategorija po Pravilniku Ministarstva (M21, M22, M23).
4. Određivanje kategorije časopisa za godišta od 1989 do 1997 godine.
5. Određivanje kategorije časopisa za sva godišta koja nisu obuhvaćena prethodnim stavkama.

Časopis može da bude rangiran u više naučnih disciplina u listama koje objavljuje Tomson Rojters. Dakle, iako ima jedan IF za određenu godinu, časopis može da u jednoj naučnoj disciplini bude bolje rangiran nego u drugoj zavisno od ostalih časopisa koji pripadaju tim disciplinama. To znači da časopis za istu godinu može da ima različite kategorije u različitim disciplinama. Na primer, u **tabeli 1** prikazani su dvogodišnji impakt faktori za časopis *Journal of the American Society for Information Science and Technology* u periodu 2001-2009. U trećoj i četvrtoj vrsti su navedene pozicije časopisa u odgovarajućim naučnim disciplinama.

Godina	2001	2002	2003	2004	2005	2006	2007	2008	2009
Impakt faktor	1.641	1.773	1.473	2.086	1.583	1.555	1.436	1.954	2.300
Disciplina: Computer Science, Information Systems	11/73	9/76	18/78	12/78	20/83	22/87	29/92	25/99	19/116
Disciplina: Information Science & Library Science	4/55	3/55	7/55	6/54	6/55	6/53	13/56	12/61	7/65

**Tabela 1.** Podaci za časopis *Journal of the American Society for Information Science and Technology*

Časopis „Journal of the American Society for Information Science and Technology“ u 2007. godini pripada naučnim disciplinama „Computer Science, Information Systems“ i „Information Science & Library Science“. Unutar prve naučne discipline časopis je na 29 mesto od 92 i pripada kategoriji M22 (u svojoj disciplini je svrstan između prvih 30% i 50%). Unutar druge naučne discipline časopis zauzima 13 mesto od 56 časopisa i pripada kategoriji M21 (u svojoj disciplini je svrstan među prvih 30%).

Pošto stručna veća treba da odrede kategoriju nekog časopisa u odgovarajućoj naučnoj oblasti, potrebno je prvo za svaku Užu Naučnu Oblast (UNO) odrediti koje joj pripadaju naučne discipline po Tomson Rojters-u kao i koje joj pripadaju liste Matičnih Naučnih Odbora (MNO) resornog Ministarstva Republike Srbije. Nakon toga potrebno je odrediti pravilo koje će utvrditi kako se određuje kategorija časopisa koji ima objavljen IF u više naučnih disciplina. U **Prilogu 1** su za usvojene UNO navedene naučne discipline po Tomson Rojters-u, a u **Prilogu 2** su za usvojene UNO navedene Liste MNO.

Za određivanje kategorije časopisa u zavisnosti od naučnih disciplina usvojeno je sledeće Pravilo:

**Pravilo 1.** Ako je časopis koji treba da se kategoriše u određenoj naučnoj oblasti, za određenu godinu kategorisan u barem jednoj od usvojenih naučnih disciplina te naučne oblasti, tada se za kategoriju tog časopisa usvaja najpovoljnija kategorija časopisa unutar tih usvojenih disciplina. Ako časopis za određenu godinu nije kategorisan ni u jednoj od usvojenih naučnih disciplina te naučne oblasti, tada se za kategoriju tog časopisa usvaja najmanja kategorija časopisa unutar svih disciplina u kojima je časopis kategorisan.

Pošto je 1981. najranija godina u kojoj se pojavljuju IF to znači da su časopisi, koji su za ovu godinu imali IF, i pre 1981. imali značajan rejting. Ako je časopis poboljšao svoj rejting u periodu 1981-1983 to takođe ukazuje na rejting časopisa i u godinama pre 1981. Na osnovu ovog usvojeno je sledeće Pravilo:

**Pravilo 2.** Ako časopis ima IF za 1981. godinu tada se svim godištima pre 1981. godine dodeljuje najpovoljnija kategorija koju je taj časopis ostvario u periodu 1981-1983.

Analizom podataka o IF za časopise utvrđeno je da postoje časopisi kojima nedostaju IF za pojedina godišta a da je očuvan kvalitet časopisa. Na primer, u **tabeli 2** prikazani su dvogodišnji impakt faktori za časopis *Advances in Chemical Physics* u periodu 2001-2010, kao i odgovarajuće kategorije nakon primene prva dva pravila. Međutim, podaci o IF ne postoje za godišta od 2004 do 2008 godine. U ovim slučajevima usvojeno je sledeće Pravilo:

Godina	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Impakt faktor	2.828	2.095	2.105	-	-	-	-	-	2.471	4.294
Oblast: Physics, Atomic, Molecular & Chemical	6/30	12/31	9/33	-	-	-	-	-	11/33	4/33
Kategorija	M21	M22	M21						M22	M21

**Tabela 2.** Podaci za časopis *Advances in Chemical Physics*

**Pravilo 3.** Ako časopis za neku godinu nema podataka za IF na osnovu kojeg bi mu se odredila kategorija, onda mu se za tu godinu dodeljuje najpovoljnija kategorija iz perioda od tri godine (godina pre, godina publikovanja i godina posle publikovanja ili dve godine pre publikovanja i godina publikovanja).

Posle primene Pravila 3 za časopis sa podacima u tabeli 2 godištima 2004 i 2005 dodeljuje se kategorija M21, a godištu 2008 dodeljuje se kategorija M22. Međutim, časopis za godišta 2006 i 2007 nakon primene pravila 3 ostaje bez kategorije međunarodnog časopisa (ovakvi slučajevi pokriveni su Pravilom 5).

Kao što je prethodno rečeno podaci o IF ne postoje ni za jedan časopis u godinama: 1989-1991, 1993-1997, a podaci o IF za časopise koji pripadaju društvenim naukama ne postoje ni za 1992. godinu. Na primer, u **tabeli 3** prikazani su dvogodišnji impakt faktori za časopis *Essays in Biochemistry* u periodu 1988-1998, kao i odgovarajuće kategorije dobijene nakon primene prva tri pravila.

Godina	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Impakt faktor	3.556	-	-	-	-	-	-	-	-	-	0.905
Oblast: Biochemistry & Molecular Biology	27/151	-	-	-	-	-	-	-	-	-	214/295
Kategorija	M21	M21	M21							M23	M23

**Tabela 3.** Podaci za časopis *Essays in Biochemistry*

Očigledno je da zbog ovog velikog niza godina bez IF nakon primene pravila 3 časopis neće imati kategoriju u svim ovim godinama. Zbog toga je usvojeno sledeće pravilo:

**Pravilo 4.** Za sve godine od 1989. do 1997. još jedanput se primenjuje pravilo 3, pri čemu sada susedne godine mogu imati i kategoriju koja je časopisu dodeljena prvom primenom pravila 3 na časopis. Ako posle toga postoje godišta časopisa iz intervala od 1988. do 1997. koja nemaju kategorije tada se tim godištima dodeljuje vrednost vremenski najbliže poznate kategorije tog časopisa iz perioda 1989-1997. Ukoliko za neko godište postoje dve različite kategorije na istom vremenskom rastojanju tada se uzima povoljnija od njih.

Posle primene svih do sada navedenih pravila moguće je da ni jedno godište iz periodu 1989-1997 nije dobilo kategorizaciju jedino ako časopis pored nedostajućih IF za 1989-1991 i 1993-1997 nije imao IF ni 1985, 1986, 1987, 1988, 1992, 1998, 1999.

Posle primene Pravila 4 za časopis sa podacima u tabeli 4 godišta 1989, 1990, 1991, 1992, 1993 i 1994 dobijaju kategoriju M21, a godišta 1995, 1996 i 1997 dobijaju kategoriju M23.

Za časopise koji nisu dobili kategorizaciju posle primene prethodno navedenih pravila usvojeno je sledeće Pravilo:

**Pravilo 5.** Ako posle primene Pravila 1, 2, 3 i 4 za posmatrani časopis ostanu još godišta kojima nije dodeljena kategorija, tim godištima se dodeljuje kategorija M52 (Časopis nacionalnog značaja).

Vrednovanje naučnih rezultata objavljenih u časopisima. Na kraju ostaje da se vrednuje publikovani rad u časopisu. Za ovo se takođe mogu usvojiti različita pravila. Evidentno je da od momenta recenzija do momenta objavljivanja rada u međunarodnom časopisu prođe neko vreme pa je opravdano gledati i kategorije časopisa u godinama koje su prethodile godini u kojoj je rad objavljen. Isto tako, rad može uticati na dobijanje bolje kategorije časopisa u godinama koje slede godinu u kojoj je rad objavljen. Iz ovih razloga usvojeno je sledeće Pravilo:

**Pravilo 6.** Ako časopis u periodu dve godine pre objavljivanja do jedne godine posle objavljivanja rada ima IF, rad će dobiti najpovoljniju kategoriju časopisa u kojem je objavljen iz ovog perioda, u suprotnom rad će dobiti broj poena koji po Pravilniku Ministarstva odgovara kategoriji časopisa u godini u kojoj je rad objavljen.

Ovim pravilom je obezbeđeno da se radu publikovan u časopisu može dodeliti najpovoljnija kategorija samo iz perioda od tri godine (godina pre, godina publikovanja i godina posle publikovanja ili dve godine pre publikovanja i godina publikovanja).

Navedenim pravilima se određuje kategorija rada publikovanog u časopisu. Pravilnikom Ministarstva je predviđeno da se autoru efektivni broj poena za publikovani rad dodeljuje u zavisnosti od broja autora po pravilima koje za datu naučnu oblast utvrđuje nadležni matični naučni odbor, što takođe može biti podržano servisom softverskog sistema CRIS UNS.

### **Kategorizacija časopisa bez Impakt Faktora**

Pravila navedena u prethodnom odeljku pokrivaju sve časopise koji su bar u nekom periodu svog izlaženja imali impakt faktor. Ostale kategorije časopisa su:

- Časopis međunarodnog značaja verifikovanog posebnom odlukom (M24)
- Vodeći časopis nacionalnog značaja (M51)
- Časopis nacionalnog značaja (M52)
- Naučni časopis (M53)

Matični naučni odbori Ministarstva za svoje naučne oblasti izdaju godišnje listu časopisa po prethodno navedenoj klasifikaciji. Ove liste za tehničko-tehnološke nauke postoje od 2009. godine. Dakle, za ove godine časopisi dobijaju kategorije navedene u ovim listama. Za ostale godine potrebno je dodatno odrediti kategorizaciju tih časopisa. Za ovu kategorizaciju usvojeno je sledeće pravilo:

**Pravilo 7.** Časopisi koji su na listama Ministarstva u bar jednoj godini u periodu 2009-2011 imali kategoriju M24 u svim prethodnim godinama dobijaju kategoriju M51. Ostali časopisi koji se nalaze na listi dobijaju za sve prethodne godine najpovoljniju kategoriju iz perioda 2009-2011 godine.

Primena navedenih pravila se može automatizovati što je i urađeno u sistemu CRIS UNS. Naravno, nakon primene ovih pravila komisija na osnovu svog stručnog mišljenja ili na osnovu nekih drugih bibliometrijskih parametara može eksplicitno promeniti kategoriju nekog časopisa za određenu godinu. Za svaku promenu kategorije mora postojati obrazloženje dostupno javnosti.

Ukoliko neki časopis dobije impakt faktor (dospe na SCI listu), vrši se rekategorizacija po odgovarajućim Pravilima. Ukoliko za neke godine na osnovu različitih pravila časopis dobije različite kategorije usvojiće se povoljnija kategorija.

### **PRILOG 1: Naučne discipline po Tomson Rojters-u:**

#### **UNO: Automatika i upravljanje sistemima**

23 Automation & Control Systems  
55 Computer Applications & Cybernetics (current - Computer Science, ...)  
56 Computer Science, Artificial Intelligence  
60 Computer Science, Interdisciplinary Applications  
79 Education & Educational Research  
80 Education, Scientific Disciplines  
86 Energy & Fuels  
87 Engineering (current - Engineering, ...)  
89 Engineering, Biomedical  
92 Engineering, Electrical & Electronic  
99 Engineering, Multidisciplinary  
142 Instruments & Instrumentation  
163 Materials Science, Biomaterials  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
175 Mechanics  
177 Medical Informatics  
182 Medicine, Research & Experimental  
191 Multidisciplinary Sciences  
196 Neurosciences  
203 Operations Research & Management Science  
253 Rehabilitation  
256 Remote Sensing

#### **UNO:Automatika i upravljanje sistemima - biomedicinski inženjering**

23 Automation & Control Systems  
55 Computer Applications & Cybernetics (current - Computer Science, ...)  
56 Computer Science, Artificial Intelligence  
60 Computer Science, Interdisciplinary Applications  
79 Education & Educational Research

80 Education, Scientific Disciplines  
86 Energy & Fuels  
87 Engineering (current - Engineering, ...)  
89 Engineering, Biomedical  
92 Engineering, Electrical & Electronic  
99 Engineering, Multidisciplinary  
142 Instruments & Instrumentation  
163 Materials Science, Biomaterials  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
175 Mechanics  
177 Medical Informatics  
182 Medicine, Research & Experimental  
191 Multidisciplinary Sciences  
196 Neurosciences  
203 Operations Research & Management Science  
253 Rehabilitation  
256 Remote Sensing

**UNO: Automatika i upravljanje sistemima - geoinformatika**

8 Agriculture, Multidisciplinary  
21 Astronomy & Astrophysics  
23 Automation & Control Systems  
59 Computer Science, Information Systems  
60 Computer Sciences, Interdisciplinary Applications  
63 Construction & Building Technology  
77 Ecology  
79 Education & Educational Research  
80 Education, Scientific Disciplines  
93 Engineering, Environmental  
94 Engineering, Geological  
99 Engineering, Multidisciplinary  
103 Environmental Sciences  
117 Geochemistry & Geophysics  
119 Geography, Physical  
120 Geology  
121 Geosciences (current - Geosciences, Interdisciplinary)  
122 Geosciences, Multidisciplinary (Geodesy, Photogrammetry, Cartography and GIS)  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
191 Multidisciplinary Sciences  
256 Remote Sensing  
268 Soil Science

**UNO: Teorije i interpretacije geometrijskog prostora u arhitekturi i urbanizmu**

15 Archaeology (AHCi)  
16 Archeology  
17 Architecture (AHCi)  
18 Area Studies  
19 Art (AHCi)  
55 Computer Applications & Cybernetics  
59 Computer Science, Information Systems  
60 Computer Science, Interdisciplinary Applications  
61 Computer Science, Software Engineering  
62 Computer Science, Theory & Methods  
63 Construction & Building Technology  
77 Ecology  
79 Education & Educational Research  
80 Education, Scientific Disciplines  
81 Education, Special  
91 Engineering, Civil  
93 Engineering, Environmental  
99 Engineering, Multidisciplinary  
103 Environmental Sciences  
104 Environmental Studies  
130 History & Philosophy of Science  
131 History & Philosophy of Science (AHCi)  
137 Imaging Science & Photographic Technology  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
191 Multidisciplinary Sciences  
256 Remote Sensing  
264 Social Sciences, Interdisciplinary  
282 Urban Studies

**UNO: Mehanika deformabilnog tela (KatedraZamehaniku-054)**

2 Aerospace Engineering & Technology (current - Engineering, Aerospace)  
31 Biophysics  
72 Dentistry & Odontology (current - Dentistry, Oral Surgery & Medicine)  
79 Education & Educational Research  
87 Engineering (current - Engineering, ...)  
88 Engineering, Aerospace  
89 Engineering, Biomedical  
91 Engineering, Civil  
98 Engineering, Mechanical  
99 Engineering, Multidisciplinary  
168 Materials Science, Multidisciplinary  
173 Mathematics, Applied

174 Mathematics, Interdisciplinary Applications  
175 Mechanics  
191 Multidisciplinary Sciences  
194 Nanoscience & Nanotechnology  
219 Physics, Applied  
222 Physics, Fluids & Plasmas  
223 Physics, General (current - Physics, ...)  
224 Physics, Mathematical  
226 Physics, Multidisciplinary  
276 Thermodynamics

**UNO: Mehanika (KatedraZamehaniku-054)**

1 Acoustics  
23 Automation & Control Systems  
31 Biophysics  
79 Education & Educational Research  
80 Education, Scientific Disciplines  
87 Engineering (current - Engineering, ...)  
89 Engineering, Biomedical  
91 Engineering, Civil  
98 Engineering, Mechanical  
99 Engineering, Multidisciplinary  
168 Materials Science, Multidisciplinary  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
175 Mechanics  
218 Physics (current - Physics, ...)  
219 Physics, Applied  
222 Physics, Fluids & Plasmas  
223 Physics, General (current - Physics, ...)  
224 Physics, Mathematical  
276 Thermodynamics

**UNO: Biomehanika (KatedraZamehaniku-054)**

31 Biophysics  
72 Dentistry & Odontology (current - Dentistry, Oral Surgery & Medicine)  
79 Education & Educational Research  
80 Education, Scientific Disciplines  
87 Engineering (current - Engineering, ...)  
89 Engineering, Biomedical  
98 Engineering, Mechanical  
99 Engineering, Multidisciplinary  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications



175 Mechanics  
218 Physics (current - Physics, ...)  
219 Physics, Applied  
222 Physics, Fluids & Plasmas  
223 Physics, General (current - Physics, ...)  
224 Physics, Mathematical  
276 Thermodynamics

**UNO: Računarska grafika**

17. Architecture (AHCi)  
19. Art (AHCi)  
59. Computer Science, Information Systems  
60. Computer Science, Interdisciplinary Applications  
61. Computer Science, Software Engineering  
62. Computer Science, Theory & Methods  
79. Education & Educational Research  
80. Education, Scientific Disciplines  
91. Engineering, Civil  
92. Engineering, Electrical & Electronic  
96. Engineering, Manufacturing  
98. Engineering, Mechanical  
99. Engineering, Multidisciplinary  
110. Film, Radio, Television (AHCi)  
135. Humanities, Multidisciplinary (AHCi)  
137. Imaging Science & Photographic Technology  
173. Mathematics, Applied  
174. Mathematics, Interdisciplinary Applications  
177. Medical Informatics  
191. Multidisciplinary Sciences

**UNO: Električna merenja**

58 Computer Science, Hardware & Architecture  
60 Computer Science, Interdisciplinary Applications  
61 Computer Science, Software Engineering  
80 Education, Scientific Disciplines  
87 Engineering (current - Engineering, ...)  
92 Engineering, Electrical & Electronic  
99 Engineering, Multidisciplinary  
142 Instruments & Instrumentation  
256 Remote Sensing

**UNO: Logistika i intermodalni transport**

8 Agriculture, Multidisciplinary  
23 Automation & Control Systems

34 Business  
55 Computer Applications & Cybernetics (current - Computer Science, ...)  
56 Computer Science, Artificial Intelligence  
59 Computer Science, Information Systems  
60 Computer Science, Interdisciplinary Applications  
62 Computer Science, Theory & Methods  
77 Ecology  
78 Economics  
79 Education & Educational Research  
80 Education, Scientific Disciplines  
87 Engineering (current - Engineering, ...)  
93 Engineering, Environmental  
95 Engineering, Industrial  
96 Engineering, Manufacturing  
99 Engineering, Multidisciplinary  
103 Environmental Sciences  
113 Food Science & Technology  
125 Health Care Sciences & Services  
160 Management  
168 Materials Science, Multidisciplinary  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
191 Multidisciplinary Sciences  
203 Operations Research & Management Science  
264 Social Sciences, Interdisciplinary  
279 Transportation  
280 Transportation Science & Technology  
282 Urban Studies

**UNO: Telekomunikacije i obrada signala**

1 Acoustics  
4 Agricultural Engineering  
8 Agriculture, Multidisciplinary  
22 Audiology & Speech-language Pathology  
23 Automation & Control Systems  
32 Biotechnology & Applied Microbiology  
55 Computer Applications & Cybernetics (current - Computer Science, ...)  
56 Computer Science, Artificial Intelligence  
57 Computer Science, Cybernetics  
58 Computer Science, Hardware & Architecture  
59 Computer Science, Information Systems  
60 Computer Science, Interdisciplinary Applications  
61 Computer Science, Software Engineering  
62 Computer Science, Theory & Methods

63 Construction & Building Technology  
77 Ecology  
79 Education & Educational Research  
80 Education, Scientific Disciplines  
86 Energy & Fuels  
87 Engineering (current - Engineering, ...)  
88 Engineering, Aerospace  
89 Engineering, Biomedical  
91 Engineering, Civil  
92 Engineering, Electrical & Electronic  
93 Engineering, Environmental  
95 Engineering, Industrial  
96 Engineering, Manufacturing  
99 Engineering, Multidisciplinary  
103 Environmental Sciences  
104 Environmental Studies  
114 Forestry  
121 Geosciences (current - Geosciences, Interdisciplinary)  
122 Geosciences, Multidisciplinary  
125 Health Care Sciences & Services  
137 Imaging Science & Photographic Technology  
142 Instruments & Instrumentation  
149 Linguistics  
168 Materials Science, Multidisciplinary  
171 Mathematical & Computational Biology  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
177 Medical Informatics  
178 Medical Laboratory Technology  
182 Medicine, Research & Experimental  
191 Multidisciplinary Sciences  
194 Nanoscience & Nanotechnology  
195 Neuroimaging  
196 Neurosciences  
205 Optics  
219 Physics, Applied  
226 Physics, Multidisciplinary  
252 Radiology, Nuclear Medicine & Medical Imaging  
256 Remote Sensing  
261 Robotics  
271 Statistics & Probability  
274 Telecommunications  
280 Transportation Science & Technology

**UNO: Organizacija, tehnologija gradnja i menadžment**

56 Computer Science, Artificial Intelligence  
60 Computer Science, Interdisciplinary Applications  
63 Construction & Building Technology  
78 Economics  
79 Education & Educational Research  
87 Engineering (current - Engineering, ...)  
91 Engineering, Civil  
99 Engineering, Multidisciplinary  
160 Management  
203 Operations Research & Management Science  
249 Public Health (current - Public, Environmental & Occupational Health)  
250 Public, Environmental & Occupational Health

**UNO: Zgradarstvo-građevinske i arhitektonske konstrukcije**

17 Architecture (AHCi)  
63 Construction & Building Technology  
79 Education & Educational Research  
87 Engineering (current - Engineering, ...)  
91 Engineering, Civil  
99 Engineering, Multidisciplinary  
103 Environmental Sciences  
104 Environmental Studies

**UNO: Poštanski saobraćaj i komunikacije**

23 Automation & Control Systems  
34 Business  
56 Computer Science, Artificial Intelligence  
57 Computer Science, Cybernetics  
58 Computer Science, Hardware & Architecture  
59 Computer Science, Information Systems  
60 Computer Science, Interdisciplinary Applications  
61 Computer Science, Software Engineering  
62 Computer Science, Theory & Methods  
71 Demography  
78 Economics  
79 Education & Educational Research  
80 Education, Scientific Disciplines  
81 Education, Special  
87 Engineering (current - Engineering, ...)  
92 Engineering, Electrical & Electronic  
99 Engineering, Multidisciplinary  
105 Ergonomics  
141 Information Science & Library Science

159 Logic  
160 Management  
168 Materials Science, Multidisciplinary  
172 Mathematics  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
191 Multidisciplinary Sciences  
203 Operations Research & Management Science  
230 Planning & Development  
248 Public Administration  
264 Social Sciences, Interdisciplinary  
265 Social Sciences, Mathematical Methods  
271 Statistics & Probability  
274 Telecommunications  
279 Transportation  
280 Transportation Science & Technology  
282 Urban Studies

**UNO: Građevinski materijali, procena stanja i sanacija konstrukcija**

63 Construction & Building Technology  
79 Education & Educational Research  
87 Engineering (current - Engineering, ...)  
90 Engineering, Chemical  
91 Engineering, Civil  
92 Engineering, Electrical & Electronic  
93 Engineering, Environmental  
162 Materials Science (current - Materials Science, ...)  
164 Materials Science, Ceramics  
165 Materials Science, Characterization & Testing  
167 Materials Science, Composites  
168 Materials Science, Multidisciplinary  
234 Polymer Science

**UNO: Umetnost primenjena na arhitekturu, tehniku i dizajn**

17 Architecture (AHCi)  
19 Art (AHCi)  
63 Construction & Building Technology  
67 Cultural Studies  
68 Culutural Studies (AHCi)  
70 Dance (AHCi)  
79 Education & Educational Research  
91 Engineering, Civil  
92 Engineering, Electrical & Electronic  
98 Engineering, Mechanical

99 Engineering, Multidisciplinary  
104 Environmental Studies  
110 Film, Radio, Television (AHCi)  
128 History  
129 History (AHCi)  
135 Humanities, Multidisciplinary (AHCi)  
150 Literary Theory & Criticism  
160 Management  
168 Materials Science, Multidisciplinary  
191 Multidisciplinary Sciences  
192 Music (AHCi)  
215 Philosophy (AHCi)  
232 Poetry (AHCi)  
275 Theater (AHCi)

**UNO: Elektronika**

23 Automation & Control Systems  
Biochemistry & Molecular Biology  
31 Biophysics  
41 Ceramics Chemistry  
44 Chemistry, Applied  
49 Chemistry, Multidisciplinary  
51 Chemistry, Physical  
54 Communication  
55 Computer Applications & Cybernetics (current - Computer Science, ...)  
56 Computer Science, Artificial Intelligence  
57 Computer Science, Cybernetics  
58 Computer Science, Hardware & Architecture  
59 Computer Science, Information Systems  
60 Computer Science, Interdisciplinary Applications  
61 Computer Science, Software Engineering  
62 Computer Science, Theory & Methods  
79 Education & Educational Research  
80 Education, Scientific Disciplines  
82 Electrochemistry  
86 Energy & Fuels  
87 Engineering (current - Engineering, ...)  
89 Engineering, Biomedical  
90 Engineering, Chemical  
91 Engineering, Civil  
92 Engineering, Electrical & Electronic  
94 Engineering, Geological  
95 Engineering, Industrial  
96 Engineering, Manufacturing

97 Engineering, Marine  
98 Engineering, Mechanical  
99 Engineering, Multidisciplinary  
121 Geosciences (current - Geosciences, Interdisciplinary)  
122 Geosciences, Multidisciplinary  
142 Instruments & Instrumentation  
162 Materials Science (current - Materials Science, ...)  
163 Materials Science, Biomaterials  
164 Materials Science, Ceramics  
165 Materials Science, Characterization & Testing  
166 Materials Science, Coatings & Films  
167 Materials Science, Composites  
168 Materials Science, Multidisciplinary  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
175 Mechanics  
191 Multidisciplinary Sciences  
194 Nanoscience & Nanotechnology  
197 Nuclear Science & Technology  
203 Operations Research & Management Science  
205 Optics  
218 Physics (current - Physics, ...)  
219 Physics, Applied  
220 Physics, Atomic, Molecular & Chemical  
221 Physics, Condensed Matter  
226 Physics, Multidisciplinary  
227 Physics, Nuclear  
256 Remote Sensing  
261 Robotics  
269 Spectroscopy  
274 Telecommunications

#### **UNO: Geodezija i geoinformatika**

21 Astronomy & Astrophysics  
60 Computer Sciences, Interdisciplinary Applications  
121 Geosciences (current - Geosciences, Interdisciplinary)  
122 Geosciences, Multidisciplinary (Geodesy, Photogrametry, Cartography and GIS)  
256 Remote Sensing

#### **UNO: Planiranje, regulisanje i bezbednost saobraćaja**

23 Automation & Control Systems  
24 Behavioral Sciences  
54 Communication  
55 Computer Applications & Cybernetics (current - Computer Science, ...)

56 Computer Science, Artificial Intelligence  
59 Computer Science, Information Systems  
60 Computer Science, Interdisciplinary Applications  
77 Ecology  
78 Economics  
79 Education & Educational Research  
80 Education, Scientific Disciplines  
86 Energy & Fuels  
87 Engineering (current - Engineering, ...)  
91 Engineering, Civil  
93 Engineering, Environmental  
98 Engineering, Mechanical  
99 Engineering, Multidisciplinary  
103 Environmental Sciences  
105 Ergonomics  
125 Health Care Sciences & Services  
160 Management  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
191 Multidisciplinary Sciences  
203 Operations Research & Management Science  
217 Photographic Technology (current - Imaging Science & Photographic Technol.)  
230 Planning & Development  
237 Psychology  
238 Psychology, Applied  
242 Psychology, Educational  
243 Psychology, Experimental  
245 Psychology, Multidisciplinary  
249 Public Health (current - Public, Environmental & Occupational Health)  
250 Public, Environmental & Occupational Health  
271 Statistics & Probability  
279 Transportation  
280 Transportation Science & Technology  
282 Urban Studies

**UNO: Kvalitet, effektivnost i logistika**

34 Business  
59 Computer Science, Information Systems  
77 Ecology  
78 Economics  
79 Education & Educational Research  
87 Engineering (current - Engineering, ...)  
93 Engineering, Environmental  
95 Engineering, Industrial



96 Engineering, Manufacturing  
99 Engineering, Multidisciplinary  
103 Environmental Sciences  
104 Environmental Studies  
160 Management  
173 Mathematics, Applied  
174 Mathematics, Interdisciplinary Applications  
203 Operations Research & Management Science  
230 Planning & Development  
271 Statistics & Probability  
279 Transportation  
280 Transportation Science & Technology

**UNO: Mehanika fluida**

1. Acoustics  
2. Aerospace Engineering & Technology (current - Engineering, Aerospace)  
8. Agriculture, Multidisciplinary  
23. Automation & Control Systems  
55. Computer Applications & Cybernetics (current - Computer Science, ...)  
56. Computer Science, Artificial Intelligence  
60. Computer Science, Interdisciplinary Applications  
63. Construction & Building Technology  
79. Education & Educational Research  
80. Education, Scientific Disciplines  
81. Education, Special  
86. Energy & Fuels  
87. Engineering (current - Engineering, ...)  
88. Engineering, Aerospace  
90. Engineering, Chemical  
91. Engineering, Civil  
93. Engineering, Environmental  
95. Engineering, Industrial  
96. Engineering, Manufacturing  
97. Engineering, Marine  
98. Engineering, Mechanical  
99. Engineering, Multidisciplinary  
100. Engineering, Ocean  
101. Engineering, Petroleum  
103. Environmental Sciences  
104. Environmental Studies  
113. Food Science & Technology  
139. Industrial Relations & Labor  
142. Instruments & Instrumentation  
162. Materials Science (current - Materials Science, ...)

163. Materials Science, Biomaterial  
165. Materials Science, Characterization & Testing  
166. Materials Science, Coatings & Films  
167. Materials Science, Composites  
168. Materials Science, Multidisciplinary  
172. Mathematics  
173. Mathematics, Applied  
174. Mathematics, Interdisciplinary Applications  
175. Mechanics  
184. Metallurgy & Metallurgical Engineering  
185. Metallurgy & Mining (current - relevant discipline)  
186. Meteorology & Atmospheric Sciences  
188. Microscopy  
190. Mining & Mineral Processing  
191. Multidisciplinary Sciences  
194. Nanoscience & Nanotechnology  
197. Nuclear Science & Technology  
203. Operations Research & Management Science  
205. Optics  
218. Physics (current, Physics,...)  
219. Physics, Applied  
220. Physics, Atomic, Molecular & Chemical  
221. Physics, Condensed Matter  
222. Physics, Fluids & Plasmas  
223. Physics, General (current - Physics, ...)  
224. Physics, Mathematical  
225. Physics, Miscellaneous (current - Physics, ...)  
226. Physics, Multidisciplinary  
227. Physics, Nuclear  
228. Physics, Particles & Fields  
230. Planning & Development  
234. Polymer Science  
243. Psychology, Experimental  
244. Psychology, Mathematical  
245. Psychology, Multidisciplinary  
246. Psychology, Psychoanalysis  
256. Remote Sensing  
261. Robotics  
268. Soil Science  
269. Spectroscopy  
276. Thermodynamics  
279. Transportation  
280. Transportation Science & Technology  
286. Water Resources

287. Welding Technology (current - relevant discipline)

**UNO: Hidropneumatska tehnika**

1. Acoustics
2. Aerospace Engineering & Technology (current - Engineering, Aerospace)
8. Agriculture, Multidisciplinary
23. Automation & Control Systems
55. Computer Applications & Cybernetics (current - Computer Science, ...)
56. Computer Science, Artificial Intelligence
60. Computer Science, Interdisciplinary Applications
63. Construction & Building Technology
79. Education & Educational Research
80. Education, Scientific Disciplines
81. Education, Special
86. Energy & Fuels
87. Engineering (current - Engineering, ...)
88. Engineering, Aerospace
91. Engineering, Civil
93. Engineering, Environmental
95. Engineering, Industrial
96. Engineering, Manufacturing
97. Engineering, Marine
98. Engineering, Mechanical
99. Engineering, Multidisciplinary
100. Engineering, Ocean
101. Engineering, Petroleum
103. Environmental Sciences
104. Environmental Studies
113. Food Science & Technology
139. Industrial Relations & Labor
142. Instruments & Instrumentation
162. Materials Science (current - Materials Science, ...)
163. Materials Science, Biomaterial
165. Materials Science, Characterization & Testing
166. Materials Science, Coatings & Films
167. Materials Science, Composites
168. Materials Science, Multidisciplinary
172. Mathematics
173. Mathematics, Applied
174. Mathematics, Interdisciplinary Applications
175. Mechanics
184. Metallurgy & Metallurgical Engineering
185. Metallurgy & Mining (current - relevant discipline)
188. Microscopy

- 190. Mining & Mineral Processing
- 191. Multidisciplinary Sciences
- 194. Nanoscience & Nanotechnology
- 197. Nuclear Science & Technology
- 203. Operations Research & Management Science
- 205. Optics
- 218. Physics (current, Physics,...)
- 219. Physics, Applied
- 220. Physics, Atomic, Molecular & Chemical
- 221. Physics, Condensed Matter
- 222. Physics, Fluids & Plasmas
- 223. Physics, General (current - Physics, ...)
- 224. Physics, Mathematical
- 225. Physics, Miscellaneous (current - Physics, ...)
- 226. Physics, Multidisciplinary
- 227. Physics, Nuclear
- 228. Physics, Particles & Fields
- 230. Planning & Development
- 256. Remote Sensing
- 261. Robotics
- 268. Soil Science
- 269. Spectroscopy
- 276. Thermodynamics
- 279. Transportation
- 280. Transportation Science & Technology
- 286. Water Resources
- 287. Welding Technology (current - relevant discipline)

**UNO: Gasna i naftna tehnika**

- 1. Acoustics
- 2. Aerospace Engineering & Technology (current - Engineering, Aerospace)
- 8. Agriculture, Multidisciplinary
- 23. Automation & Control Systems
- 55. Computer Applications & Cybernetics (current - Computer Science, ...)
- 56. Computer Science, Artificial Intelligence
- 60. Computer Science, Interdisciplinary Applications
- 63. Construction & Building Technology
- 79. Education & Educational Research
- 80. Education, Scientific Disciplines
- 81. Education, Special
- 86. Energy & Fuels
- 87. Engineering (current - Engineering, ...)
- 88. Engineering, Aerospace
- 90. Engineering, Chemical

91. Engineering, Civil  
93. Engineering, Environmental  
95. Engineering, Industrial  
96. Engineering, Manufacturing  
97. Engineering, Marine  
98. Engineering, Mechanical  
99. Engineering, Multidisciplinary  
100. Engineering, Ocean  
101. Engineering, Petroleum  
103. Environmental Sciences  
104. Environmental Studies  
113. Food Science & Technology  
139. Industrial Relations & Labor  
142. Instruments & Instrumentation  
162. Materials Science (current - Materials Science, ...)  
163. Materials Science, Biomaterial  
165. Materials Science, Characterization & Testing  
166. Materials Science, Coatings & Films  
167. Materials Science, Composites  
168. Materials Science, Multidisciplinary  
172. Mathematics  
173. Mathematics, Applied  
174. Mathematics, Interdisciplinary Applications  
175. Mechanics  
184. Metallurgy & Metallurgical Engineering  
185. Metallurgy & Mining (current - relevant discipline)  
188. Microscopy  
190. Mining & Mineral Processing  
191. Multidisciplinary Sciences  
194. Nanoscience & Nanotechnology  
197. Nuclear Science & Technology  
203. Operations Research & Management Science  
205. Optics  
218. Physics (current, Physics,...)  
219. Physics, Applied  
220. Physics, Atomic, Molecular & Chemical  
221. Physics, Condensed Matter  
222. Physics, Fluids & Plasmas  
223. Physics, General (current - Physics, ...)  
224. Physics, Mathematical  
225. Physics, Miscellaneous (current - Physics, ...)  
226. Physics, Multidisciplinary  
227. Physics, Nuclear  
228. Physics, Particles & Fields

230. Planning & Development  
256. Remote Sensing  
261. Robotics  
268. Soil Science  
269. Spectroscopy  
276. Thermodynamics  
279. Transportation  
280. Transportation Science & Technology  
286. Water Resources  
287. Welding Technology (current - relevant discipline)

**UNO: Primenjene računarske nauke i informatika**

Automation & Control Systems  
Computer Applications & Cybernetics (current - Computer Science, ...)  
Computer Science, Artificial Intelligence  
Computer Science, Cybernetics  
Computer Science, Hardware & Architecture  
Computer Science, Information Systems  
Computer Science, Interdisciplinary Applications  
Computer Science, Software Engineering  
Computer Science, Theory & Methods  
Engineering, Multidisciplinary  
Information Science & Library Science  
Mathematical & Computational Biology  
Medical Informatics  
Multidisciplinary Sciences  
Robotics

**UNO: Grafičko inženjerstvo i dizajn**

19. Art (AHCi)  
54 Communication  
60 Computer Science, Interdisciplinary Applications  
80 Education, Scientific Disciplines  
93 Engineering, Environmental  
95 Engineering, Industrial  
96 Engineering, Manufacturing  
99 Engineering, Multidisciplinary  
110 Film, Radio, Television (AHCi)  
137 Imaging Science & Photographic Technology  
141 Information Science & Library Science  
150 Literary Reviews (AHCi)  
166 Materials Science, Coatings & Films  
168 Materials Science, Multidisciplinary  
169 Materials Science, Paper & Wood

170 Materials Science, Textiles  
188 Microscopy  
191 Multidisciplinary Sciences  
194 Nanoscience & Nanotechnology  
205 Optics  
217 Photographic Technology (current - Imaging Science & Photographic Technol.)  
234 Polymer Science  
261 Robotics  
269 Spectroscopy

## **PRILOG 2: Liste MNO resornog Ministarstva Srbije**

### **UNO: Automatika i upravljanje sistemima**

Elektronika i telekomunikacije  
Elektronika, telekomunikacije i informacione tehnologije  
Industrijski softver i informatika  
Mašinstvo

### **UNO:Automatika i upravljanje sistemima - biomedicinski inženjering**

Elektronika i telekomunikacije  
Elektronika, telekomunikacije i informacione tehnologije

### **UNO: Automatika i upravljanje sistemima - geoinformatika**

Matematika, računarske nauke i mehanika  
Elektronika, telekomunikacije i informacione tehnologije  
Industrijski softver i informatika

### **UNO: Teorije i interpretacije geometrijskog prostora u arhitekturi i urbanizmu**

Saobraćaj, urbanizam i građevinarstvo

### **UNO: Mehanika deformabilnog tela (KatedraZamehaniku-054)**

Matematika i mehanika  
Matematika, računarske nauke i mehanika  
Mašinstvo

### **UNO: Mehanika (KatedraZamehaniku-054)**

Matematika i mehanika  
Matematika, računarske nauke i mehanika  
Mašinstvo

### **UNO: Biomehanika (KatedraZamehaniku-054)**

Matematika i mehanika  
Biologija

**UNO: Računarska grafika**

Matematika, računarske nauke i mehanika  
Elektronika, telekomunikacije i informacione tehnologije  
Industrijski softver i informatika

**UNO: Električna merenja**

Elektronika i telekomunikacije  
Elektronika, telekomunikacije i informacione tehnologije

**UNO: Logistika i intermodalni transport**

Saobraćaj, urbanizam i građevinarstvo

**UNO: Telekomunikacije i obrada signala**

Elektronika i telekomunikacije  
Elektronika, telekomunikacije i informacione tehnologije

**UNO: Organizacija, tehnologija građenja i menadžment**

Materijali i hemijske tehnologije  
Saobraćaj, urbanizam i građevinarstvo

**UNO: Zgradarstvo-građevinske i arhitektonske konstrukcije**

Saobraćaj, urbanizam i građevinarstvo

**UNO: Poštanski saobraćaj i komunikacije**

Elektronika i telekomunikacije  
Elektronika, telekomunikacije i informacione tehnologije

**UNO: Građevinski materijali, procena stanja i sanacija konstrukcija**

Saobraćaj, urbanizam i građevinarstvo  
Materijali i hemijske tehnologije

**UNO: Umetnost primenjena na arhitekturu, tehniku i dizajn**

Saobraćaj, urbanizam i građevinarstvo

**UNO: Elektronika**

Elektronika i telekomunikacije  
Elektronika, telekomunikacije i informacione tehnologije

**UNO: Geodezija i geoinformatika**

Geonauke i astronomija  
Matematika, računarske nauke i mehanika  
Elektronika, telekomunikacije i informacione tehnologije



**UNO: Planiranje, regulisanje i bezbednost saobraćaja**

Saobraćaj, urbanizam i građevinarstvo

**UNO: Kvalitet, efektivnost i logistika**

Energetska efikasnost

**UNO: Mehanika fluida**

Matematika i mehanika

Mašinstvo

**UNO: Hidropneumatska tehnika**

Mašinstvo

**UNO: Gasna i naftna tehnika**

Mašinstvo

**UNO: Primenjene računarske nauke i informatika**

Matematika, računarske nauke i mehanika

Elektronika, telekomunikacije i informacione tehnologije

Industrijski softver i informatika

**UNO: Grafičko inženjerstvo i dizajn**

Matematika, računarske nauke i mehanika