# Modeliranje in simulacija računalniških omrežij v orodju OMNeT++

Uredila dr. Miha Janež in prof. dr. Miha Mraz

december 2024

### Navodila za izdelavo druge seminarske naloge

- Vaše datoteke se nahajajo v direktorijih Skupina\*, kjer \* predstavlja številko vaše skupine glavna datoteka je main.tex.
- Slike shranjujte v svoj direktorij.
- Vse labele začnite z znaki g\*:, kjer \* predstavlja številko vaše skupine.
- Pri navajanju virov uporabite datoteko references.bib, ki se nahaja v korenskem direktoriju projekta.

V seminarski nalogi se boste ukvarjali z načrtovanjem in analizo omrežij in z INET ogrodjem simulacijskega okolja OMNeT++. INET ogrodje je dostopno na naslovu http://inet.omnetpp.org/.

Oddana seminarska naloga naj vsebuje:

- izvorne datoteke poročila v LaTeXu (poročilo naj vsebuje približno 15 strani),
- poročilo v pdf formatu,
- projekt z zgledi, ki naj vsebujejo razlago in komentarje,
- prosojnice za predstavitev (predstavitev naj traja približno 10 minut).

Vaše poglavje seminarja (uporabite predlogo v orodju LaTeX) naj vsebuje:

- 1. uvod.
- 2. zahtevane točke seminarja (priporočamo vnos enega razdelka oz. section za vsako točko),
- 3. opis izbranih parametrov in analiza njihovih vrednosti v vašem modelu,
- 4. analiza rezultatov,
- 5. zaključek in končni komentarji

Vsak seminar predstavlja eno poglavje v knjigi *Modeliranje in simulacija računalniških omrežij v orodju OMNeT++*.

Delo bo potekalo v skupinah s štirimi študenti. Za skupinsko delo uporabljajte repozitorij, kot je npr. dropbox<sup>1</sup> ali git<sup>2</sup>. Cilj seminarja so izdelki in poročila, ki jih

<sup>1</sup> https://www.dropbox.com

<sup>&</sup>lt;sup>2</sup> https://bitbucket.org

lahko ob zaključku združimo v celoto (glej rezultate seminarjev iz prejšnjih let). Poročilo pišite v okolju LaTeX, kjer lahko za lažje skupinsko delo uporabljate okolje, kot je npr. overleaf<sup>3</sup>. Za iskanje virov uporabljajte iskalnike znanstvene literature<sup>4</sup>. Rok za oddajo seminarja je 16. 1. 2025. Predstavitve nalog bodo 17. 1. 2025. Na predstavitvi bo imela vsaka skupina 10 minutno predstavitev svojega izdelka, nato bo sledila krajša diskusija.

Z ustreznimi viri (literaturo) polnite vašo BIB datoteko. Poročilo redno izpopolnjujte. Ker gre za skupinsko delo, mora biti na koncu poročila tudi poglavje z naslovom Doprinosi avtorjev, kjer v enem stavku zapišite, kakšen je bil doprinos posameznega člana skupine.

<sup>3</sup> https://www.overleaf.com/

<sup>4</sup> https://scholar.google.si, www.sciencedirect.com, https://www.scop us.com, https://arxiv.org, http://citeseerx.ist.psu.edu

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### Poglavje 1 Contribution Title

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Opis problema, ki ga naša rešitev reši.

### 1.2 Opis internetnega protokola TCP/IP

Opis protokola. Pri opisu se običajno sklicujemo na reference, npr. [1, 2, 3, 4].

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Opis knjižnic, modulov in omrežij, ki so bili uporabljeni za rešitev.

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Podroben opis rešitve. Sem spadajo načrtovanje, struktura omrežja, opis sprogramiranih modulov in omrežij.

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Use the standard equation environment to typeset your equations, e.g.

$$a \times b = c , \qquad (1.1)$$

however, for multiline equations we recommend to use the equarray environment<sup>1</sup>.

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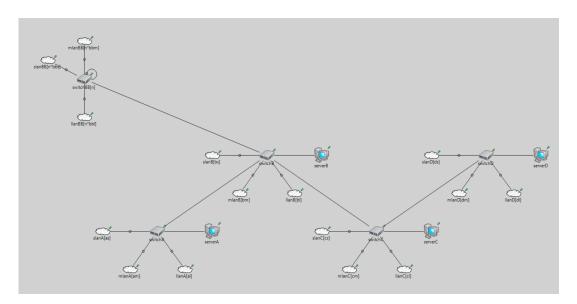
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Tabela 1.1: Please write your table caption here

Classes	Subclass	Length	Action Mechanism
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*Dokaz.* Proof text goes here.  $\Box$ 

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### **Appendix**

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$$a \times b = c \tag{1.3}$$

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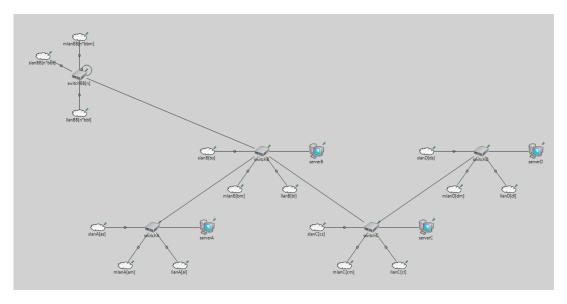
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