

UNIVERZITET U SARAJEVU -
ELEKTROTEHNIČKI FAKULTET
Sarajevo
Zmaja od Bosne bb

Na osnovu čl. 5. i 6. Odluke Vijeća Univerziteta u Sarajevu - Elektrotehničkog fakulteta o definiranju procedure realizacije naučnoistraživačkih seminara na trećem ciklusu studija – doktorskom studiju (broj: 01-503/21 od 01.02.2021. godine) i Odluke Vijeća Univerziteta u Sarajevu - Elektrotehničkog fakulteta (broj: 01-3345/25 od 01.09.2025. godine), Univerzitet u Sarajevu - Elektrotehnički fakultet, daje

O B A V I J E S T
o odbrani seminara

Studentica trećeg ciklusa studija - dokorskog studija, Mubina Kamberović, magistar elektrotehnike - diplomirani inženjer elektrotehnike, branit će Naučnoistraživački seminar 1.2. pod naslovom "Sentence Encoder-Based Clustering Method for Modeling Students' Learning Programming Behavior".

Seminar je izrađen u saradnji sa akademskom savjetnicom, dr.sc. Senkom Krivić, docenticom Univerziteta u Sarajevu - Elektrotehničkog fakulteta.

Odbrana seminara održat će se 12. septembra 2025. godine (petak), s početkom u 12:00 sati, u prostorijama Univerziteta u Sarajevu - Elektrotehničkog fakulteta (Sala BitLab, treći sprat).

Odbrana seminara je javna.

Obavijest o odbrani i sažetak seminara, oglašavaju se na oglasnim pločama i internet stranici Univerziteta u Sarajevu - Elektrotehničkog fakulteta.

Oglašeno:
Sarajevo, 03.09.2025. godine



Akadska savjetnica: Doc. dr. Senka Krivić

Studentica: Mubina Kamberović

magistar elektrotehnike – diplomirani inženjer elektrotehnike

Naziv naučnoistraživačkog seminara 1.2:

**Sentence Encoder-Based Clustering Method for Modeling
Students' Learning Programming Behavior
(Sažetak/Abstract)**

Introductory programming courses are widely known for their difficulty among students. Success in courses is commonly measured in the form of final grades, which might not capture the challenges students face during their learning process. In this paper, we predict students' success and their future compiler errors based on previously made errors. Furthermore, we examine the effect of applying two clustering techniques before making the predictions and identify key weeks and errors that have the greatest impact on predictions. Experimental results show that students' compiler errors observed through the semester are an important predictor of students' achievement and future struggles. Predictions are further improved using sentence encoder-generated embeddings with K-Means algorithm. Our study suggests that students' errors, particularly the most recent ones, enable meaningful clustering that enhances performance prediction after only three weeks of the semester.

