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Future Minds Lab Initiative

TERMS OF REFERENCE 81-9-25

Title: External Trainer – Vocational Training in Game Programming

Location: Bosnia and Herzegovina

Level of Effort: 3 training days, 6 days of mentoring (spanning across 6 month-period) and 3 preparation days

Reporting to: Project Manager, Future Minds Lab Initiative

Type of Contract: Short-term Individual Contract

1. Background

Bosnia and Herzegovina faces a critical shortage of skilled professionals in the field of digital technologies. According to the OECD and UNICEF, the country suffers from limited access to digital infrastructure and a mismatch between education outputs and labour market needs. This digital gap is particularly felt among youth aged 19 to 29, who often lack opportunities for structured, market-relevant training that leads to employment and careers in high-demand digital sectors.

In response, the Future Minds Lab Initiative, implemented by the University Sarajevo School of Science and Technology (SSST) under the SEDEP Program and supported by GIZ, aims to provide future-oriented digital, green, and entrepreneurial skills to young people. One of its flagship interventions is a 6-month vocational training program, hosted by the ReWire Institute, SSST's national vocational training institute for the IT sector.

This program focuses on three key specializations: Game Design, Cyber Security, and Cloud Computing. These areas have been identified as high-growth and high-demand in both the domestic and regional labour markets. As part of this program, participants will undergo intensive, lab-based and project-oriented training aligned with employer needs.

The Game Design track specifically aims to equip participants with the creative, technical and practical skills necessary to enter the growing gaming and digital media industries - whether through studio employment or independent development. The training is designed to be hands-on and modular, empowering youth to build real-world portfolios and gain confidence through applied learning.

This Call for Proposals relates to the Game Programming component, designed to provide learners with core technical competencies for game development using C++ and Unreal Engine, with attention to coding standards, version control, and collaboration within development teams.



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2. Objective

To engage a qualified external game programming trainer with proven experience to deliver structured, hands-on training modules to participants. The training will build foundational and intermediate skills in C++, Unreal Engine programming, and essential version control workflows.

3. Key responsibilities

- Develop detailed training content (curriculum, slides, exercises, assignment) covering C++ fundamentals, game programming principles, debugging techniques, and Unreal Engine integration for 3 modules (3 days per module).
- Introduce participants to Visual Studio, JetBrains Rider, and relevant IDEs.
- Teach version control workflows (Git-LFS, P4V, Unreal Game Sync).
- Deliver in-person training sessions at the ReWire Institute in Sarajevo.
- Facilitate practical exercises using industry-standard tools (Unreal Engine).
- Adapt teaching to the varying skill levels of participants and provide mentoring and guidance during the training.
- Participate in progress monitoring meetings with the Project Team.
- Submit a brief final report summarizing content and curriculum delivered, participants' progress, and recommendations (max 3 pages).

4. Deliverables

- **Training Curriculum – Structured game programming curriculum with learning outcomes /3 days of preparation/** (First payment: 20%)
- **Module Delivery – Facilitation of 3 three-day modules /3 days of training + 6 days of mentoring, total 9 days/** (Second payment: 50%)
- **Final Report – Summary of training delivered and recommendations** (Third payment: 30%)

5. Timeline for delivery

Deliverable	Due Date
Preparation of Training Curriculum and materials	September 2025
Module Delivery	October 2025 - March, 2026
Final Report Submission	March 31, 2026

6. Qualifications

- Minimum 3 years of professional experience in C++ game development and proficient with Unreal Engine 5



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- Familiarity with Git, P4V, JetBrains Rider
- Proven experience delivering trainings or workshops in game programming
- Excellent knowledge of Unreal Engine (industry-standard development engine)
- Ability to work with youth with mixed skill levels
- Excellent communication and presentation skills
- Fluency in local language; working proficiency in English.

7. Application requirements

Applicants must submit:

- CV detailing relevant experience
- Short motivation letter
- Short outline of proposed training approach (one page) including methodology, structure, tools to be used and learning outcomes
- Financial offer (daily fee rate).

8. Selection criteria

Criterion	Weight
Professional experience in C++ game development, Unreal Engine 5 and training	40%
Quality of proposed training approach	20%
Relevance to target group (youth, entry-level)	20%
Financial offer	20%

9. Language of the Assignment

Training will be conducted in the local language, while the final report must be submitted in English.

10. Submission Deadline

All interested candidates are to submit their bids with all supporting documents no later than August 27, 2025, 23:59. All bids are to be submitted electronically to the following email address: info@ssst.edu.ba, with the subject line: *81-9-25 FML External Trainer – Game Programming*. Any inquiries regarding the opportunity may be directed to the same address and subject line.



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Financial Proposal Form – 81-9-25

Name of Bidder:	[Insert Name of Bidder]	Date:	Select date
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Bidders are required to prepare their financial proposals following the below format and submit it with the technical offer. Any financial information provided in the technical proposal shall lead to the Bidder's disqualification.

The Financial Proposal should align with the requirements in the Terms of Reference and the Bidder's Technical Proposal.

Currency of the proposal: BAM

Table 1: Summary of Overall Prices

	Amount(s)
Professional Fees (from Table 2)	
Other Costs (from Table 3)	
Total Amount of Financial Proposal	

Table 2: Breakdown of Professional Fees

Name	Position	Fee Rate <i>A</i>	No. of Days/months/ hours <i>B</i>	Total Amount <i>C=A+B</i>
In-Country				
Home Based				
Subtotal Professional Fees:				

Table 3: Breakdown of Other Costs

Description	UOM	Quantity	Unit	Total Amount
Local transportation costs	Lump Sum			
Out-of-Pocket Expenses				
Other Costs: (please specify)				
Subtotal Other Costs:				



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Table 4: Breakdown of Price per Deliverable/Activity

Deliverable/ Activity description	Time (person days)	Professional Fees	Other Costs	Total
Deliverable 1				
Deliverable 2				
Deliverable 3				
.....				

Signature of authorized person:



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Inicijativa Future Minds Lab

PROJEKTNI ZADATAK 81-9-25

Naziv pozicije: Spoljni trener – stručno osposobljavanje iz programiranja video igara

Lokacija: Bosna i Hercegovina

Angažman: 3 dana obuke, 6 dana mentorisanja (u period od 6 mjeseci) i 3 dana pripreme

Izveštavanje: Projektni menadžer, Inicijativa Future Minds Lab

Vrsta ugovora: Kratkoročni angažman pojedinačnog spoljnog trenera

1. Kontekst

Bosna i Hercegovina se suočava s ozbiljnim nedostatkom kvalifikovanih profesionalaca u oblasti digitalnih tehnologija. Prema OECD-u i UNICEF-u, zemlja ima ograničen pristup digitalnoj infrastrukturi i nesklad između obrazovnih rezultata i potreba tržišta rada. Ovaj digitalni jaz posebno pogađa mlade od 19 do 29 godina, koji često nemaju priliku za strukturirane, tržišno relevantne obuke koje vode ka zapošljavanju u sektorima s visokom potražnjom.

Kao odgovor, Future Minds Lab Initiative, koju implementira Univerzitet SSST u okviru SEDEP programa i uz podršku GIZ-a, ima za cilj da mladima pruži digitalne, zelene i preduzetničke vještine usmjerene ka budućnosti. Jedna od glavnih aktivnosti je šestomjesečni program stručnog osposobljavanja koji vodi ReWire Institute – nacionalni institut SSST-a za IT sektor.

Program je fokusiran na tri ključne specijalizacije: Game Design, Cyber Security i Cloud Computing – oblasti prepoznate kao visoko rastuće i tražene na domaćem i regionalnom tržištu rada. Polaznici prolaze intenzivnu, laboratorijsku i projektno orijentisanu obuku, usklađenu sa potrebama poslodavaca.

Smjer Game Design ima za cilj opremiti polaznike kreativnim, tehničkim i praktičnim vještinama potrebnim za ulazak u industriju igara i digitalnih medija, bilo kroz rad u studiju ili samostalni razvoj. Obuka je praktična i modularna, omogućavajući mladima da izgrade stvarne portfolije i samopouzdanje kroz primijenjeno učenje.

Ovaj poziv se odnosi na komponentu Game Programming, osmišljenu da polaznicima pruži osnovne tehničke kompetencije za razvoj igara koristeći C++ i Unreal Engine, uz fokus na standarde kodiranja, kontrolu verzija i timsku saradnju u razvojnim okruženjima.

2. Cilj angažmana

Angažovati kvalifikovanog eksternog trenera za programiranje igara, sa dokazanim iskustvom, koji će polaznicima pružiti strukturiranu, praktičnu obuku. Obuka će izgraditi osnovne i srednje napredne vještine u C++-u, programiranju u Unreal Engine-u i osnovnim radnim procesima kontrole verzija.



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3. Ključne odgovornosti

- Razviti detaljan sadržaj obuke (kurikulum, prezentacije, vježbe, zadatke) koji pokriva osnove C++-a, principe programiranja igara, tehnike otklanjanja grešaka i integraciju s Unreal Engine-om, za 3 modula (3 dana po modulu).
- Upoznati polaznike sa Visual Studio, JetBrains Rider i drugim relevantnim IDE alatima.
- Podučiti procese kontrole verzija (Git-LFS, P4V, Unreal Game Sync).
- Izvoditi obuku uživo u prostorijama ReWire Instituta u Sarajevu.
- Omogućiti praktične vježbe koristeći alate industrijskog standarda (Unreal Engine).
- Prilagoditi način rada različitim nivoima znanja polaznika te pružati mentorstvo tokom obuke.
- Učestvovati u sastancima za praćenje napretka s projektnim timom.
- Dostaviti završni izvještaj (max 3 stranice) sa sažetkom sadržaja i kurikuluma, napretka polaznika i preporukama.

4. Rezultati angažmana (Deliverables)

- **Kurikulum** obuke – strukturiran plan programiranja igara sa jasno definisanim ishodima učenja /3 dana pripreme/ (prva uplata – 20%)
- **Realizacija modula** – izvođenje 3 trodnevna modula /ukupno 9 dana/ (druga uplata – 50%)
- **Završni izvještaj** – sažetak obuke i preporuke (treća uplata – 30%)

5. Vremenski okvir isporuke

Rezultati angažmana	Rok za isporuku
Priprema kurikuluma i materijala	septembar 2025.
Realizacija obuke	oktobar 2025. – mart 2026.
Predaja završnog izvještaja	31. mart 2026.

6. Kvalifikacije

- Minimum 3 godine profesionalnog iskustva u razvoju igara u C++-u i napredno poznavanje Unreal Engine 5
- Poznavanje Git-a, P4V-a, JetBrains Rider-a
- Dokazano iskustvo u izvođenju obuka ili radionica iz programiranja video igara
- Odlično poznavanje Unreal Engine-a kao industrijskog standarda
- Sposobnost rada s mladima različitih nivoa znanja
- Odlične komunikacijske i prezentacijske vještine
- Tečno poznavanje lokalnog jezika; sposobnost korištenja engleskog jezika u profesionalnom kontekstu.



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7. Potrebna dokumentacija za prijavu

- CV sa relevantnim iskustvom
- Kratko motivaciono pismo
- Kratki pregled predloženog pristupa obuci (jedna stranica) uključujući metodologiju, strukturu, alate koji će se koristiti i ishode učenja
- Finansijska ponuda (cijena po danu).

8. Kriteriji za odabir

Kriterij	Težina
Profesionalno iskustvo u razvoju video igara u C++, Unreal Engine 5	40%
Kvalitet predloženog pristupa obuci	20%
Relevantnost za ciljnu grupu (mladi, početnici)	20%
Finansijska ponuda	20%

9. Jezik angažmana

Obuka će se izvoditi na lokalnom jeziku, dok se završni izvještaj predaje na engleskom.

10. Rok za prijavu

Svi zainteresirani kandidati dužni su poslati svoje prijave sa pratećom dokumentacijom najkasnije do **27. augusta 2025. godine do 23:59 sati**. Prijave se dostavljaju isključivo elektronskim putem na slijedeću e-mail adresu: info@ssst.edu.ba, uz napomenu u predmetu e-maila: *81-9-25 FML External Trainer – Game Programming*. Pitanja i pojašnjenja u vezi sa pozivom mogu se poslati na istu adresu i uz isti predmet emaila.



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Forma finansijske ponude – 81-9-25

Ime ponuđača	[ime ponuđača]	Datum:	Odaberi datum
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Ponuđači su obavezni pripremiti svoje finansijske prijedloge prema dole navedenom formatu i dostaviti ih zajedno sa tehničkom ponudom. Svaka finansijska informacija koja bude pružena u tehničkoj ponudi rezultat će diskvalifikacijom ponuđača.

Finansijski prijedlog treba biti usklađen sa zahtjevima iz Projektnog zadatka i tehničkom ponudom ponuđača.

Valuta ponude: KM

Tabela 1: Sažetak ukupnih cijena

	Iznos(i)
Profesionalne naknade (iz Tabele 2)	
Ostali troškovi (iz Tabele 3)	
Ukupni iznos finansijskog prijedloga	

Tabela 2: Raspodjela profesionalnih naknada

Ime	Pozicija	Tarifa <i>A</i>	Broja dana/mjeseci/sati <i>B</i>	Ukupni iznos $C=A+B$
U zemlji				
Kod kuće				
Podzbir profesionalnih naknada:				

Tabela 3: Raspodjela drugih troškova

Opis	Mjera jedinice	Količina	Jedinična cijena	Ukupni iznos
Troškovi lokalnog transporta	Paušalni iznos			
Troškovi "iz džepa"				
Ostali troškovi: (molimo navedite)				
Podzbir drugih troškova:				



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Tabela 4: Raspodjela cijene po isporuci/aktivnosti

Isporuca/Opis aktivnosti	Vrijeme (osoba/dani)	Profesionalne naknade	Ostali troškovi	Ukupno
Isporuca 1				
Isporuca 2				
Isporuca 3				
.....				

Potpis ovlaštene osobe: