SEJONG UNIVERSITY

Office of International Affairs
209 Neungdong-ro, Gwangjin-gu, Seoul, Republic of Korea

OFFICIAL PROPOSAL

Short-Term Internship Program for Uzbek Young Scientists

at Sejong University, Seoul, Republic of Korea

TO: **Dr. Asror Norov**
Director, Agency for Innovative Development

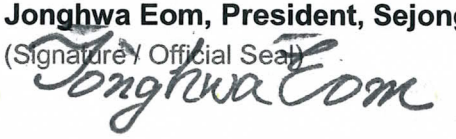
Mr. Jonibek Tavakalov
Executive Director, Fund for Financing Science and Innovative Support

FROM: President, Sejong University

DATE: 2026. 05. 27

Authorized by:

Jonghwa Eom, President, Sejong University
(Signature / Official Seal)



Proposal for a Short-Term Internship Program of Uzbek Young Scientists at the Sejong University

Suggested Research Topics

1. Faculty of Department of Computer Science and Engineering (CSE), College of AI Convergence at Sejong University (SJU)

Location(campus): campus of SJU at Daeyang AI Center

Scientific supervisor: Prof. Abolghasem Sadeghi-Niaraki, (Associate Professor)

No.	Program name	Maximum number of participants	Internship period	Program details (what will young scientists learn from the program)
1	Geo-AI for Smart Cities and Urban Analytics	2	3 months	Participants will learn how to integrate geospatial data with artificial intelligence techniques for smart city applications. Topics include spatial data analysis, GIS-based machine learning, urban sensing, and predictive modeling for environmental and urban challenges. Students will gain hands-on experience with real-world datasets and Geo-AI platforms.
2	Deep Learning for Environmental and Urban Prediction	2	3 months	Students will work on deep learning models (e.g., CNN, LSTM, Transformer) for environmental prediction tasks such as flood detection, air pollution analysis, and land-use classification using satellite imagery and spatial datasets.
3	AI-based Spatial Data Visualization and Digital Storytelling	2	3 months	This program focuses on transforming spatial data into meaningful visual narratives. Students will learn advanced data visualization techniques, storytelling with spatial data, and AI-assisted visualization tools for communication and media applications.

2. Faculty of AI Convergence at Sejong University (SJU)

Location(campus): Chungmu Building 1131, Sejong University

Scientific supervisor: Prof. Mohammad Abrar Shakil Sejan, (Assistant Professor)

No.	Program name	Maximum number of participants	Internship period	Program details (what will young scientists learn from the program)
1	Intelligent reflective surface assisted wireless communication simulation and Graph AI based solution	2	3 months	This program aims to equip young researchers with specialized expertise in simulating Intelligent Reflecting Surface (IRS)-assisted wireless communication and its integration into 6G architectures. Participants will gain hands-on experience in implementing Graph Neural Network (GNN) frameworks to address complex communication challenges. By exploring diverse optimization methodologies, each researcher will contribute to the development of novel, AI-driven solutions for next-generation network efficiency.
2	Visible light communication based IoT network design and implementation with machine learning	2	3 months	Participants will develop a comprehensive understanding of Visible Light Communication (VLC) systems, focusing on their inherent advantages in high-speed, secure data transmission. The program emphasizes the design and implementation of Machine Learning (ML)-based protocols tailored for Internet of Things (IoT) and Industrial IoT (IIoT) environments. Researchers will engage in rigorous algorithm design procedures to optimize communication protocols, ensuring robust connectivity in interference-heavy industrial settings.

3. Faculty of Department of Computer Science & Engineering at Sejong University (SJU)

Location(campus): Biomedical Intelligence & Machine Learning (BIML) Lab, campus of SJU at Daeyang AI Center

Scientific supervisor: Prof. Eunji Jun, (Assistant Professor, Department of Computer Science & Engineering)

No.	Program name	Maximum number of participants	Internship period	Program details (what will young scientists learn from the program)
1	Multimodal brain decoding for brain-to-image reconstruction with foundation models	2	3 months	Young researchers will learn how to design multimodal brain decoding pipelines that combine brain signals with visual and semantic priors from modern foundation models. They will explore multimodal representations, latent alignment, and generative reconstruction strategies to improve the semantic fidelity and perceptual quality of brain decoding outputs and reconstructed images.