

Proposal for a short-term internship program of Uzbek young scientists at Huazhong University of Science and Technology

Suggested research topics

1. Faculty of School of Electronic Information and Communications

Location (campus): East #17 Building, Huazhong University of Science and Technology

Scientific supervisor: Prof. You Yang, Doctor of Computer Sciences

No.	Program name	Maximum number of participants	Internship period	Program details (what will young scientists learn from the program)
1	Embodied Intelligence	5	5 months	Basic ideas and methods for embodied Intelligence. How robot can be operated in open world for specific tasks. Examples and applications of embodied Intelligence.
2	Computational Imaging	5	5 months	Basic ideas and methods for computational imaging. How to perform computations for multi-view multi-lighting multi-focus and other specific topics. Examples and applications of computational imaging.
3	Frontiers in Emergency rescue	5	5 months	State of the art technology for emergency rescue. Including emergency communications, video transmission, 3D reconstruction for the disaster areas.

2. Faculty of School of Electronic Information and Communications

Location (campus): East #17 Building, Huazhong University of Science and Technology

Scientific supervisor: Prof. Qiong Liu, Doctor of Computer Sciences

No.	Program name	Maximum number of participants	Internship period	Program details (what will young scientists learn from the program)
1	AI video coding	5	5 months	State of the art techniques for AI and non AI video coding. Progress of international standards On video coding.

3. Faculty of School of Electronic Information and Communications

Location (campus): National Anti-counterfeit Engineering Research Center, Huazhong University of Science and Technology

Scientific supervisor: Prof. Yuzhou Li, Doctor of Communication and Information Systems

No.	Program name	Maximum number of participants	Internship period	Program details (what will young scientists learn from the program)
1	Intelligent Wireless Communications	5	5 months	Principles of OFDM and OTFS. Recent advances on AI-based wireless OFDM and OTFS communications. Performance evaluation of representative algorithms on typical software or hardware platforms.
2	Intelligent Wireless Localization	5	5 months	Principles of wireless localization. Recent advances on AI-based wireless localization. Performance evaluation of representative algorithms on typical software or hardware platforms.