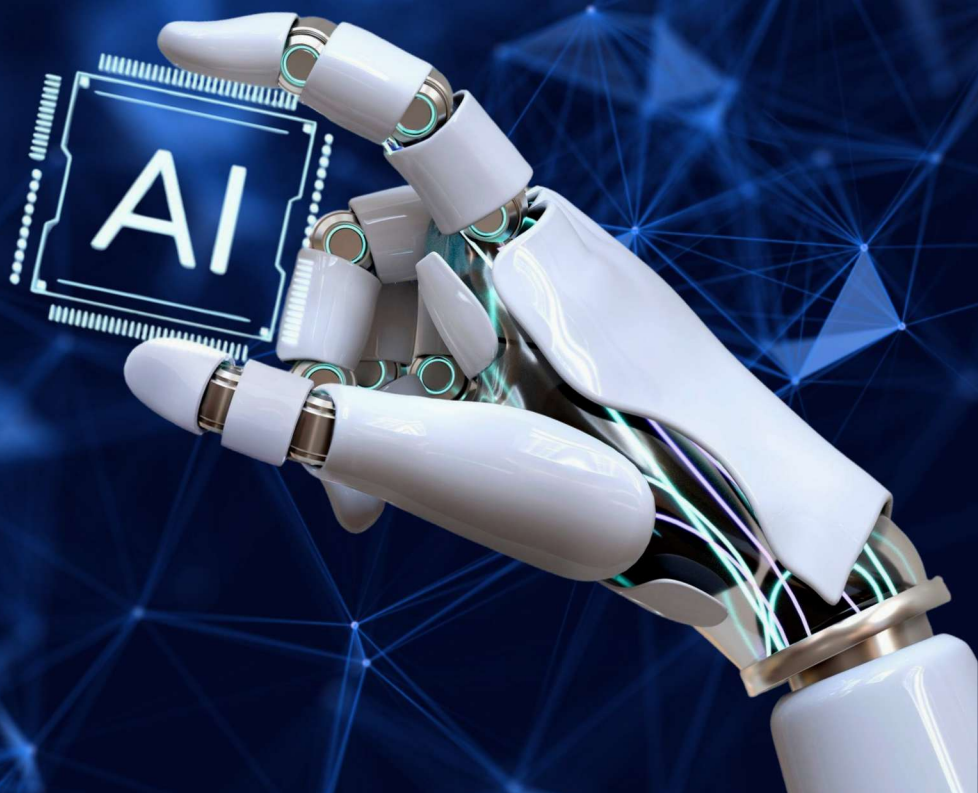


**AI SUMMER
SCHOOL**
on artificial intelligence



3rd Summer School ON ARTIFICIAL INTELLIGENCE

June 15–21

Astana, 2026

Format

In-person

Dates

June 15–21, 2026

Hosts

NNEF, AITU, IITU,
KBTU, UIB

Languages

Kazakh,
Russian, English

The Summer School on Artificial Intelligence

is an intensive, short-term academic program designed to provide participants with foundational knowledge and practical experience in the field of artificial intelligence.

Curriculum:

- Covers fundamental topics such as machine learning, deep learning, natural language processing, and computer vision.
- Includes advanced topics such as reinforcement learning, visual language models, AI ethics, and explainable AI.
- Covers issues related to digital transformation, AI governance, AI-driven universities, AI-enabled project management, agentic AI, multi-agent systems, and the ethics and regulation of artificial intelligence.

Format:

- The program consists of lectures, seminars, practical case studies, programming sessions, thematic studies, and group projects.
- The program will consist of two tracks: general and technical.
- The program will be led by international and Kazakhstani academics, industry professionals, experts, and researchers.

Target audience:

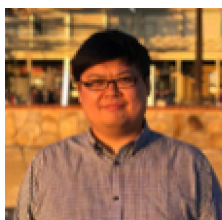
- Researchers, faculty, and administrators.

Speaker: Special Track



Prof. Munther Dahleh, William A. Coolidge Professor, MIT EECS. Founder and First Director of MIT IDSS. Member of the Laboratory for Information and Decision Systems (LIDS). Internationally recognized researcher in networked systems, control theory, decision-making, and systemic risk. He led MIT IDSS from its founding in 2015 until 2023.

Speakers: Technical direction



Peng Wang, PhD, Professor in School of Computer Science at Northwestern Polytechnical University, Xi'an, China



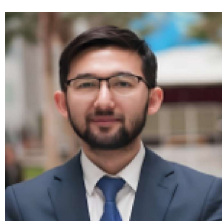
Le Liu, PhD, Associate Professor, Northwestern Polytechnical University, Xi'an, China.



Beibit Abdikenov, PhD, Assistant Professor, Director of the Artificial Intelligence Research Center at Astana IT University LLP. Member of the Presidium of the Council of Young Scientists of the National Academy of Sciences under the President of the Republic of Kazakhstan; Member of the National Council for Science and Technology under the President of the Republic of Kazakhstan.



Darkhan Zholtayev, PhD, Assistant Professor at Astana IT University LLP. Winner of the “Zhas Galym” project (2024–2026).



Medet Mukushev, PhD, Research Fellow at the Research Center of Astana IT University LLP. Project Leader of the “AI-YM: Kazakh Sign Language Dictionary” project.

Speakers:

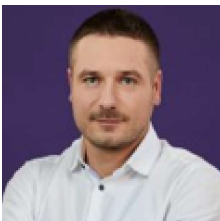
General direction



Sergey Bushuyev, Doctor of Technical Sciences, Professor at Kyiv National University of Construction and Architecture (Ukraine), Member of the Ukrainian Academy of Sciences and the New York Academy of Sciences; President of the Ukrainian Project Management Association (UPMA); Board Member of the International Project Management Association (IPMA); Honored Worker of Science and Technology of Ukraine.



Çetin Elmas, Prof. Dr. Gazi University, Faculty of Technology, Electrical-Electronics Department, Founder Global Head Artificial Intelligence IPMA-SIG, Turkey.



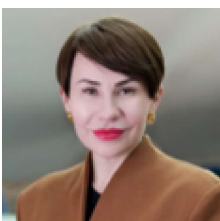
Bohdan Haidabrus, PhD, Associate Professor in the Department of Project and Project Portfolio Management at Riga Technical University (Latvia) Accenture Baltics, Release Engineering (RTE) Engineer.



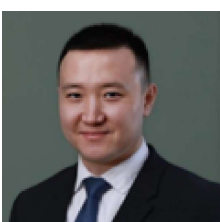
Oleksii Dnipro, Doctor of Law, Senior Researcher, Rector of the Kyiv National University of Construction and Architecture (Ukraine).



Denis Bushuyev, Doctor of Technical Sciences, Professor at Kyiv National University of Construction and Architecture (Ukraine).



Vera Ermakova, PhD in Philology, Associate Professor, Chair of the Department of Languages, MUIT JSC.



Syrym Zhakypbekov, PhD candidate and assistant professor in the Department of Information Systems, MUIT JSC.

SCHEDULE

June 15, 2026 – Day 1

8:30-9:30 | Atrium Check-in

10:00 – 10:15 | Assembly hall Opening Remarks

Opening Remarks:

Altair Akhmetov, Chairman of the Board and Rector of Astana IT University

Shcheglova Dinara Rinatovna, Vice Minister of Science and Higher Education of the Republic of Kazakhstan

Mun Dmitriy Andreevich, Vice Minister of Artificial Intelligence and Digital Development of the Republic of Kazakhstan

Nariman Abilshaikov, Managing Director of the “Halyk” Charitable Foundation

10:15 – 11:15 | Auditorium Keynote Presentations

AI in Industry: Transformation and New Product Development

Arai Bekembayev, Head of Business Development at InDrive (Kazakhstan)

Peng Wang, Professor, Northwestern Polytechnical University (China)

Erlan Esimseitov, Executive Director of Freedom Lifestyle (Kazakhstan)

11:15–11:35 | Coffee break

General Track

Classroom: C1.2.237

11:35–13:00

AI Governance

Speaker: S. Bushuyev

AI in PM

Speakers: B. Haidabrus,
D. Bushuyev

Technical Track

Classroom: C1.1.334

11:35–13:00

Lecture: Introduction to Multi-Agent Systems and Agentic AI

Speaker: Peng Wang

Lecture: Designing a Simple AI Agent: Roles, Goals, Tools, and Scenarios *Description: Defining the agent's task, inputs, outputs, tools, and expected behavior.*

Speakers: B. Abdikenov, D. Zholtayev, M. Mukushev

13:00 – 14:00 | Lunch

General Track

Classroom: C1.2.237

14:00–15:30

Agentic AI in Project Management

Speaker: Çetin Elmas

Technical Track

Classroom: C1.1.334

14:00–15:30

Lecture: Architecture of Multi-Agent Systems: Planning, Memory, Tools, and Agent Interaction *Description: Components of an agentic system and principles of interaction between agents.*

Speaker: B. Abdikenov

15:30–16:00 | Coffee break

General Track

Classroom: C1.2.237

16:00–17:30

AI in PM

Speakers: B. Haidabrus,
D. Bushuyev

Technical Track

Classroom: C1.1.334

16:00–17:30

Workshop: Creating a Basic Workflow with Multiple Agents

Description: Building a simple scenario for agents to collaborate on solving a task step by step.

Speakers: D. Zholtaev, M. Mukushev

18:00 | Gala Dinner

Science Fair (June 15, 2026 – Day 1)

14:00–15:30 | Open Space

Research Projects Presentation

Research project results demo

SCHEDULE June 16, 2026 – Day 2

8:30–9:30 | Atrium Check-in

9:30 – 10:30 | Assembly hall

Plenary Discussion

AI and the State: Balancing Innovation and Ethics

Moderator: Altair Akhmetov, Chairman of the Board and Rector of Astana IT University

Speakers:

Shcheglova Dinara Rinatovna, Vice Minister of Science and Higher Education of the Republic of Kazakhstan

Mun Dmitriy Andreevich, Vice Minister of Artificial Intelligence and Digital Development of the Republic of Kazakhstan

Sergey Bushuyev, Doctor of Technical Sciences, Professor at Kyiv National University of Construction and Architecture (Ukraine). Academician of the Ukrainian Academy of Sciences and the New York Academy of Sciences. President of the Ukrainian Project Management Association, Board Member of the International Project Management Association, Honored Worker of Science and Technology of Ukraine (Ukraine)

Munther Abdullah Dahleh, Professor MIT (USA)

Sergey Konev, co-founder of Ikigai Promotion, expert on AI implementation in business and the public sector

Mukushev Nariman Nurlanovich, Deputy Chairman of the Management Board at Halyk Bank

Maksat Kuanyshbay, Senior AI Engineer at Halyk Bank

10:30–10:50 | Coffee break

General Track

Classroom: C1.2.237

10:50–11:50

AI in PM

Speakers:
B. Haidabrus,
D. Bushuyev

Technical Track

Classroom: C1.1.334

10:50–11:50

Lecture: LLM Agents: Reasoning, Tool Use, Function Calling, and

Orchestration Description: Using large language models for reasoning, function calling, and tool management.

Speaker: B. Abdikenov

General Track

Classroom: C1.2.237

11:50–13:00

AI in PM

Speakers:
B. Haidabrus,
D. Bushuyev

Technical Track

Classroom: C1.1.334

11:50–13:00

Workshop: Developing an agent using external tools and APIs

Description: Connecting external services, configuring calls, and processing results within the agent.

Speakers: D. Zholtayev, M. Mukushev

13:00 – 14:00 | Lunch

General Track

Classroom: C1.2.237

14:00–15:30

AI in PM

Speakers:
B. Haidabrus,
D. Bushuyev

Technical Track

Classroom: C1.1.334

14:00–15:30

Lecture: Agent Coordination: Supervisor Agent, Planner Agent, Executor Agent

Description: The roles of the supervisor, planner, and executor agents in a team-based architecture.

Speaker: B. Abdikenov

Special Track

Classroom: C1.2.124

14:00–15:30

Lecture: Changes in the Labor Laws of the Republic of Kazakhstan

Speaker: V. Murzalina

15:30–16:00 | Coffee break

General Track

Classroom: C1.2.237

16:00–17:30

AI in PM

Speakers:
B. Haidabrus,
D. Bushuyev

Technical Track

Classroom: C1.1.334

16:00–17:30

Workshop: Implementing the “Team of Agents to Solve a Business Problem” Scenario

Description: A group of agents tasked with analyzing the problem, planning actions, and preparing the outcome.

Speakers: D. Zholtayev, M. Mukushev

Special Track

Classroom: C1.2.124

16:00–17:30

Workshop: Changes in Kazakhstan’s Labor Legislation

Speaker: V. Murzalina

18:00 | Cultural Program (artworks by Leonardo da Vinci, the Palace of Peace and Reconciliation)

SCHEDULE

June 17, 2026 – Day 3

8:30–9:30 | Atrium Check-in

9:30 – 10:30 | Assembly hall Plenary Discussion

AI in Education and Science: A Foundation for New Innovations

Moderator: Aidar Ispusinov, Vice Rector for Digitalization, Astana IT University

Speakers:

Ekaterina Smyshlyaeva, Member of the Mazhilis of the Parliament of the Republic of Kazakhstan

Altair Akhmetov, Chairman of the Board and Rector, Astana IT University LLP

Katerina Kolesnikova, Ph.D. in Engineering, Professor, Acting Rector of IITU JSC

Maratbek Gabdullin, PhD in Physics and Mathematics, Professor, Rector of the Kazakh-British Technical University

Anar Makhmetova, PhD in Engineering, Professor, Rector of K. Sagadiev International Business University

Oleksii Dniprov, Doctor of Law, Rector of Kyiv National University of Construction and Architecture (Ukraine)

10:30–10:50 | Coffee break

General Track

Classroom: C1.2.237

10:50–11:50

AI Driven University

Speaker: D. Bushuyev

11:50–13:00

«AI Examiner» Workshop

Speakers:

V. Ermakova,
S. Zhakypbekov

Technical Track

Classroom: C1.1.334

10:50–11:50

Lecture: Retrieval-Augmented Generation and Memory in Multi-Agent Systems

Description: External knowledge, contextual search,
and memory to improve the quality of agents' responses.

Speaker: B. Abdikenov

11:50–13:00

Workshop: Building an Agent with a Knowledge Base and Contextual Search

Description: Creating a RAG scenario that involves
loading sources and extracting relevant context.

Speakers: D. Zholtayev, M. Mukushev

Special Track MIT BootCamp

Classroom: C1.1.328

10:50–11:50

Lecture: Introduction to AI: The Full Lifecycle

Speaker: Munther A.
Dahleh

11:50–13:00

Workshop: Data Science, Machine Learning, and AI for Decision Making

Speaker: Munther A.
Dahleh

13:00 – 14:00 | Lunch

General Track

Classroom: C1.2.237

14:00–15:30

«AI Examiner» Workshop

Speakers:

V. Ermakova,
S. Zhakypbekov

Technical Track

Classroom: C1.1.334

14:00–15:30

Workshop: A Multi-Agent System for Document Analysis

Description: Agents for
reading, fact extraction, summarization, and drawing
conclusions from documents.

Speaker: B. Abdikenov

Special Track MIT BootCamp

Classroom: C1.1.328

14:00–15:30

Workshop: Data Science, Machine Learning, and AI for Decision Making

Speaker: Munther A.
Dahleh

15:30–16:00 | Coffee break

General Track

Classroom: C1.2.237

16:00–17:30

«AI Examiner» Workshop

Speakers:

V. Ermakova,
S. Zhakypbekov

Technical Track

Classroom: C1.1.334

16:00–17:30

Workshop: A Multi-Agent System for Automating Research Tasks

Description: Automating the search for and organization of
materials, the generation of hypotheses, and the
preparation of reports.

Speaker: Le Liu

Special Track MIT BootCamp

Classroom: C1.1.328

16:00–17:30

Workshop: Data Science, Machine Learning, and AI for Decision Making

Speaker: Munther A. Dahleh

18:00 | Cultural Program (Walking Tour of Downtown Astana)

SCHEDULE

June 18, 2026 – Day 4

8:30-9:30 | Atrium Check-in

9:30 – 10:30 | Assembly hall Keynote Presentations

AI in Healthcare and Social Services: Transforming Approaches

Jamwal Prashant, Professor, Nazarbayev University (Kazakhstan)

Shaddick Gavin, Professor, Cardiff University (UK)

Sultankulov Bolat, Arlan Biotech (Kazakhstan)

10:30–10:50 | Coffee break

General Track

Classroom: C1.2.237

10:50–11:50

AI in PM

Speakers:

B. Haidabrus,
D. Bushuyev

11:50–13:00

AI in PM

Speakers:

B. Haidabrus,
D. Bushuyev

Technical Track

Classroom: C1.1.334

10:50–11:50

Lecture: Security, Quality Assessment, and Limitations of Multi-Agent Systems

Description: Risks, reliability, quality control, limitations, and responsible use.

Speaker: B. Abdikenov

11:50–13:00

Workshop: Testing, Debugging, and Evaluating the Behavior of AI Agents

Description: Test scenarios, error checking, action tracing, and result evaluation.

Speakers: D. Zholtayev, M. Mukushev

Special Track MIT BootCamp

Classroom: C1.1.328

10:50–11:50

Lecture: Generative AI

Speaker: Munther A. Dahleh

11:50–13:00

Workshop:

Agent-Based AI: How It Works

Speaker: Munther A. Dahleh

13:00 – 14:00 | Lunch

General Track

Classroom: C1.2.237

14:00–15:30

AI in PM

Speakers:

B. Haidabrus,
D. Bushuyev

Technical Track

Classroom: C1.1.334

14:00–15:30

Lecture: Multi-Agent AI for Organizations: Case Studies in Education, Healthcare, Business, and the Public Sector

Description: Scenarios for implementing multi-agent solutions into organizational processes.

Speaker: B. Abdikenov

Special Track MIT BootCamp

Classroom: C1.1.328

14:00–15:30

Workshop: Agent-Based AI: How It Works

Speaker: Munther A. Dahleh

15:30–16:00 | Coffee break

General Track

Classroom: C1.2.237

16:00–17:30

AI in PM

Speakers:

B. Haidabrus,
D. Bushuyev

Technical Track

Classroom: C1.1.334

16:00–17:30

Workshop: Preparing a Group Project on a Multi-Agent System

Description: Concept, architecture, agent roles, and a plan for demonstrating the group project.

Speakers: D. Zholtayev, M. Mukushev

Special Track MIT BootCamp

Classroom: C1.1.328

16:00–17:30

Workshop: Agent-Based AI: How It Works

Speaker: Munther A. Dahleh

18:00 | Leisure time

SCHEDULE

June 19, 2026 – Day 5

8:30-9:30 | Atrium Check-in

9:30 – 10:30 | Assembly hall Keynote Presentations

AI in Culture and Society: Future Methodologies and National Priorities

Gulnar Yulgun, Harvard University (USA)

Beibit Abdikenov, PhD, Assistant Professor, Astana IT University LLP (Kazakhstan)

Le Liu, Associate Professor, Northwestern Polytechnical University (China)

10:30–10:50 | Coffee break

General Track

Classroom: C1.2.237

10:50–11:50

The Future of the World with AI

Speaker:
D. Bushuyev

11:50–13:00

AI in PM

Speakers:
B. Haidabrus,
D. Bushuyev

Technical Track

Classroom: C1.1.334

10:50–11:50

Lecture: From Prototype to Deployment: Deployment, Monitoring, and Management of AI Agents

Description: The transition from an experimental prototype to operation, monitoring, and management.

Speaker: B. Abdikenov

11:50–13:00

Workshop: Finalizing the Project and Preparing for the Demonstration

Description: Finalizing the prototype, reviewing scenarios, and preparing the presentation and roles.

Speakers: D. Zholtayev, M. Mukushev

Special Track MIT BootCamp

Classroom: C1.1.328

10:50–11:50

Lecture: Responsible and Ethical Use of AI

Speaker: Munther A. Dahleh

11:50–13:00

Workshop: Challenges in Regulating AI

Speaker: Munther A. Dahleh

13:00 – 14:00 | Lunch

General Track

Classroom: C1.2.237

14:00–15:30

Team Project Defense

Technical Track

Classroom: C1.1.334

14:00–15:30

Team Project Defense

Projects on multi-agent systems and Agentic AI: demonstrations of prototypes, architectures, scenarios, and results.

Special Track MIT BootCamp

Classroom: C1.1.328

14:00–15:30

Workshop: Challenges in AI Regulation

Speaker: Munther A. Dahleh

15:30–16:00 | Coffee break

16:00–17:00

Certificate Award Ceremony

**Closing Ceremony of the
Third «AI Summer School 2026»**

General Track Curriculum (72 hours)

Nº	Topic	Hours
1	The Concept of the AI-Driven University, the Digital Transformation of Universities, and the Integration of AI into Education and Administration	5
2	Principles of AI Governance, AI Regulation, Ethics, Risks, Responsible AI	5
3	Global AI Trends: The Impact of AI on the Economy, Education, the Labor Market, and Society	3
4	The use of AI in project management, AI-powered PM tools, process automation, and AI-assisted decision-making	14
5	Agentic AI, autonomous AI agents, multi-agent systems, AI copilots for project teams	5
6	Independent Study	40
Total		72

Technical Track Curriculum (72 hours)

Nº	Topic	Hours
1	Introduction to Multi-Agent Systems and Agentic AI	5
2	LLM agents, tool use, function calling, and orchestration	6
3	RAG, memory, knowledge bases, and document analysis	5
4	Safety, Quality Assessment, and Organizational Case Studies in Multi-Agent AI	5
5	Deployment, Monitoring, and a Group Project on AI Agents	5
6	AI Essentials (Daily Workshop)	6
7	Independent Study	40
Total		72