

Session on Science and Technology

- Concentrate on the topic of Science and Technology
- Discuss some of the programs and efforts that have been initiated by the government of RA, ASOF, and other organizations:
 - To strategically place Armenia in a position to compete globally in certain strategic areas (where it can have an impact)
 - To build and expand capacity in education, R&D, and industry to meet its economic and national security-related needs.

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Session on Science and Technology

Panelists

Hakob Arshakyan

Deputy speaker of the parliament of the Republic of Armenia

Nora Ayanian

Professor, Brown University

Karen Eguiazarian

Professor, Tampere University, Finland, and CEO of Noiseless Imaging Ltd

Hrant Khachatrian

Director of YerevaNN; Data Scientist at IntelinAir

Lilit Nersisyan

Director, Lab Leader, Armenian Bioinformatics Institute

Moderator: Oshin Perroomian

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Science and Technology Development Council

- Established late Fall 2023
- Chaired by PM of RA
- Members include members of government of RA, Parliament, Academia, and Industry
- Members include 5 ASOF Fellows.



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Advanced Research in Computational Sciences and AI (ARCS.ai Armenia)



Haig Alexander Eskandarian

Department of Systems Biology, Harvard Medical School
Biology, Medicine, Microbiology



Aram Galstyan

University of Southern California, Amazon
Artificial Intelligence, Computer Science



Ivan Aprahamian

Professor, Chair of the Chemistry Department, Dartmouth College
Organic Chemistry, Adaptive Materials



Oshin Peroomian (Treasurer)

CTO Metacomp Technologies, Inc. and Adjunct lecturer at AUA
Computational Fluid Dynamics, Computational Multi-Physics



Nora Ayanian (chair)

Professor, Brown University
Computer Engineering, Computer Science, Robotics



Vatche Sahakian (Secretary)

Burton Bettingen Professor in Theoretical Physics at Harvey Mudd College



Karen Eguiazarian (Vice-Chair)

Professor in Signal processing, Tampere University, Finland, and CEO of Noiseless Imaging Ltd
Computational imaging & optics

- Foundation registered in Armenian, Jan. 2025
- Council on Science and Technology (ASOF Committee)
- Appoints the Board

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Advanced Research in Computational Sciences and AI (ARCS.ai Armenia)



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Advanced Research in Computational Sciences and AI (ARCS.ai Armenia)

- Artificial Intelligence
- Life Sciences (BioTech)
- Smart Chemistry
- Robotics
- Aerospace Engineering (up to LEO)
- Materials Engineering

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Advanced Research in Computational Sciences and AI (ARCS.ai Armenia)

- Partnering with discerning organization and institutions in Armenia.



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Three Foundational Pillars

- Education
 - Research & Development (R&D)
 - Infrastructure
-
1. Support sustainable development
 2. Drive technological progress
 3. Enhance economic competitiveness

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Education Pillar



Develop human capital: skilled researchers, engineers, professionals



Integrate Robotics, AI, and Aerospace Engineering into education



Establish pathways: schools → Armath labs → universities



Invite top experts for lectures and workshops



Create specialized undergraduate programs



Affiliate scholars with local universities

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R&D Pillar



- Establish National Center for Robotics and AI



- Center for Aeronautical and Space Research



- Conduct cutting-edge research and pilot projects



- Promote industry-academia collaboration



- Publish in international scientific journals

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Infrastructure Pillar



- Provide high-performance computing (GPU/CPU)



- 2 Advanced robotics labs at the center



- 45 UAV + 60 Electronic Armath labs in schools



- Guidelines for robot deployment in various sectors



- Aerospace labs: wind tunnels, material testing, etc.



- Manufacturing & prototyping facilities

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Implementation Roadmap



- Set up robotics labs with top scholars



- Launch 4 robotics and 3 aerospace pilot projects



- Start education program (school → graduate)



- Secure funding from government and partners



- Build consortia and foster startups

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Timeline and Budget



- 7-year roadmap for both Robotics and Aerospace



- Estimated budget:



- Robotics: ~29 million USD



- Aerospace: ~41 million USD

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