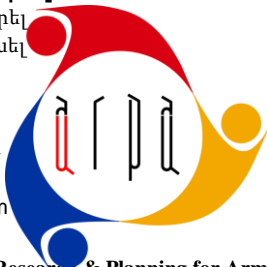


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**ARPA Institute**  
**NEWSLETTER**

ԱՐՓԱ Հիմնարկ  
Լրաբեր

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## *Newsletter Topics*

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**President's Message: My Dear Friend Adrin Gharakhani**

I am honored to present today the eulogy of someone who has been my friend, colleague, coworker and one of the pillars of the ARPA Institute. I am Hagop Panossian, the founder and president of the ARPA Institute. It is hard to believe that the ARPA Institute has lost one of its most dedicated and true patriotic members, Dr. Adrin Gharakhani. It is even harder for his beloved family and friends, of course. I can't imagine what will our ARPA Institute Board activities and especially the critiquing of the Invention Competitions for Young Scientists of Armenia will be like without Adrin. His in-depth analyses, meticulous evaluations, comparisons with similar inventions, critical thinking, creativity, and profound knowledge were invaluable. I have known Adrin from my early years at Rocketdyne where he also was an employee. I had back then just founded the Armenian Engineers and Scientists of America and I used to put together material for the AESA Newsletter, which I would write and submit a rough draft to him. In a true Adrin manner, he would spend a lot of time going through every word and make sure all the sentences have no spelling errors and the meanings are right, the pictures are clear, and the Newsletter is overall presentable. Even more, he would print, fold, and bring them to me for distribution and mailing.

The next phase in his life was getting his D.Sc. degree at MIT in fluid dynamics, which is one of the most difficult majors. I founded the ARPA Institute in 1992, with some experts to help resolve some of the critical issues in the newly independent Armenia and, we had started working with experts on the constitution, trying to establish the first modern Blood Bank and teach students health education and lifestyle when, after his graduation he joined the ARPA Institute and was elected Vice president. Ever since he has been tremendously helpful in almost every project and event organized by ARPA.

I have learned a lot from Adrin, he was bright, meticulous, and sharp as anyone could be. I can say for sure that I am a better person because I have known, worked with, and have had Adrin as a friend and a colleague. We have worked together for over 25 years, and it was a joy, for he always knew how to make things work and resolve issues, especially when they were complex issues. He would persist and never give up, even if it took him countless hours to complete a task. Nevertheless, he knew how to infuse fun into the most mundane tasks.

During the ARPA Institute's 30<sup>th</sup> Anniversary he was always there to help revamp the ARPA website, evaluate the inventions, work on the ARPA Newsletter, provide guidance and advice to scientists in Armenia on how they should write grant proposals, articles for technical journals and even technical reports, until the last days of his precious life. Here is an excerpt from a scientist in Armenia with whom Adrin was working on

a very vital project which could prove to be an invaluable turning point for the medical imaging industry:

Հազար ափսոս կորցրինք Ադրինին: Ադրինի հետ պայմանավորվել էինք իրականացնել Հայ-Ամերիկյան Նախագիծ, որի արդյունքում պիտի մշակվեր ժամանակի չափման նոր տեխնոլոգիա: Մենք ոգեվորված էինք: Ադրինը անշահախնդիր նվիրված էր այդ գաղափարին, սակայն հիվանդությունը խանգարեց մեզ սկսել այդ ուղղությամբ աշխատանքները: Նույնիսկ ծանր հիվանդ վիճակում Ադրինը օգնեց մեզ ստեղծել մրցողունակ Նախագիծ և ներկայացնել Հան-Չուկերբերգի ֆոնդին: Ես կորցրեցի իմ սիրելի եղբայրը:

I always wondered why he was so deeply saddened and personally impacted by the 44-day war perpetrated by Azerbaijan and Turkey on Armenia. I find it as no small coincidence that he passed away on November 9th, the day the cease fire was signed. It shows how compassionate of an Armenian he was. His passion was as strong as his knowledge and his devotion to his country. Despite his overwhelming sadness about our heavy losses both in life and lands in the 44-day war, he still managed to infuse a spirit of fun and humor into the most mundane tasks.

This is no time for mourning but for celebration of the wonderful life of a person who has touched so many lives, has helped numerous young men and women and made us all better persons. We will always remember his expressive smile, wonderful sense of humor, strong criticisms of things wrong and his compassion and love for Armenia, Armenians, and his loved ones. May his memory give us strength to continue and contribute more, work harder, be better persons and help those in need.

On behalf of the ARPA Institute Board of Directors, I would like to inform you that we have unanimously decided to name the ARPA Institute Invention Competition Awards in his name, The Adrin Gharakhani Awards. We hope that these awards will transcend Adrin's passion for educating and helping young scholars through generations to come. I personally and ARPA Board of Directors will sorely miss his commitment, passion, hard-work, and enthusiasm. We will honor Adrin by emulating him in our efforts to promote the vision of ARPA for the Armenian community. We will miss Adrin dearly and we offer our deepest condolences.

**We need people who know how science fairs work and who can help us in Armenia by working with schools and guiding them for the implementation of the science fairs. Please contact us at [info@arpainstitute.org](mailto:info@arpainstitute.org) if you can help**

# **The ARPA Institute 30th Anniversary Conference & Gala**

The one-day hybrid conference (Using ZOOM and livestreamed on Facebook) was held on June 11, 2022, 9:30 AM – 4:00 PM, in the California State University, Northridge Center room within the USU building. The Evening Gala Banquet was held in the evening 7:00-11:00 PM in the Sheraton Universal Hotel in Studio City, California.

The year 2022 was the 30<sup>th</sup> anniversary of the founding of the ARPA Institute. Since its founding and according to its name, Analysis, Research and Planning for Armenia, we organized the public conference that was devoted to Armenia, specifically on education, science, technology and healthcare and their impact on socio-economic wellbeing and political perspectives. The program was intended to promote public participation and dialogue.

Please view the video of the Banquet in the link: <https://youtu.be/va5Yq99j4kU>

## **In partnership with Gituzh and AESA**



The ARPA Institute 30<sup>th</sup> Anniversary celebrations included honoring distinguished members of the Community, such as Prof. Ara Apkarian, Distinguished Professor of Chemical Physics at the University of California, Irvine; Dr. Aram Tanielian, CEO and Director of Science & Technology at Revtek Inc, in Torrance, California; The late Dr. Adrin Gharakhani, Research Professor of Applied Mathematics at the Institute of Mathematical Sciences, Claremont Graduate University, and President and Founder of Applied Scientific Research, and the Vice President of the ARPA Institute for 25 years; Mr. Adrin Nazarian, the 46<sup>th</sup> Assembly District Assembly Member of California and an active member of the community; Mrs. Elizabeth Agbabian, a volunteer and indefatigable humanitarian in service to the general American milieu in Los Angeles and the Armenian community; and Mr. Harold Avedis DeMirdjian, President of Tramco and a founding member and long-time treasurer of the ARPA Institute;

The Banquet featured the very entrepreneurial and patriotic Alfred Eisaian, Co-founder and Board Member of IntelinAir, as the keynote speaker who presented his thoughts on “The Urgency of A Lifetime Commitment and the Imperative of Awakening to the Greatness Within Us!”, followed by Musical Renditions by the amazing Lorig Panossian, M.D., with her sweet voice, accompanied by the excellent pianist Esther Assilian.

The conference

### **The Desired Impact:**

The ARPA Institute Board of Directors believe that this event was an impactful public learning experience that offered the participants opportunities to draw upon the methods and insights of important subjects, as well as foster greater understanding among people. ARPA Institute also invited experts from Armenia to connect with their peers in California and promote better understanding of one another, appreciation of shared heritage of diverse cultures, for a more tolerant development of society. The content of the conference program, formulated by the 30<sup>th</sup> Anniversary Committee was tailored to promote wide public participation and encourage interactions between different communities, for potential collaboration between institutions and organizations. The fundamental objective was to relate experiences and/or contemporary issues of concern to the Armenian community in California, promote discussion of ideas and different points of view and deeper understanding, as well as encourage critical thinking and analysis, The Conference was a forum for dialogue to smooth diversity of views about topics of common interest, as well as a means for intergenerational discussions to inspire the new generation for higher achievements. The ARPA Institute always tries to offer participants opportunities to draw upon the new methods and approaches to solving inter-societal problems for greater understanding among people and concentrate on thoughtful reflection on important topics. The idea is to create links between one another to understand our shared experiences and knowledge, inspire civic participation, and shape a better future. The ARPA Institute 30<sup>th</sup> Anniversary program had a special focus on expanding public participation and reducing social and artificial barriers. Moreover, connecting Armenians in Armenia and those in California may invite collaboration between the two countries and may enhance social and political discourse as well as bring about economic benefits.

### **Resources Required**

To implement the conference, the 30<sup>th</sup> Anniversary Celebration Committee will hold the Conference in the California State University, Northridge, and a professional Live-Streaming team to provide the capability for on-line participation will be working on it. This will allow people of the same heritage in Armenia to participate, thus creating an atmosphere of friendship and mutual respect. The speakers, panelists, and moderators work on a voluntary basis and without compensation. In

addition, both the committee members and all the Board of Directors of the ARPA Institute are also volunteers and hence, there is no overhead at all.

ARPA Institute's Major Achievements ARPA Institute helps advance Science, Technology, Education, Healthcare, and other fields in Armenia by • Providing critical instrumentation and facilities for scientists and researchers • Offering technical and expert advice to guide and mentor scientists and researchers in global technologies • Encouraging and promoting innovation, the development of modern technologies, as well as business ventures and startups • Working with young scientists to help shape their specialization and future careers • Helping in Analysis, Research and Planning for the future developments in Armenia ARPA Institute has • Created the first modern Blood Bank in Armenia • Donated numerous critical instrumentations for scientific research in Biotechnology, Nanotechnology, Materials Science, Engineering, Medical Research, and Educational Equipment • Started SCIENCE FAIRS in Armenia, where for the second year official Science Fairs have taken place and winning teams have participated, for the first time, in the annual International Science and Engineering Fair (ISEF) in the USA, sponsored by Regeneron. They even won a prize! • Trained and financially supported medical experts, educators, researchers, and small businesses • In the process of establishing the FIRST CLASS-1000 CLEANROOM in Armenia • Instrumental in setting up and supporting development and advancement of nanotechnology and quantum technology • Organized and implemented Annual Invention Competitions for Young Scientists for the past 15 years • Supported and sponsored STEM education at all levels o Carried out public health education by the ARPA Institute Health Education and Lifestyle Program (HELP), which included ad campaigns and "stop smoking" education in over 60 schools in Armenia and Artsakh o Provided support to elementary and high schools, including science teacher training and obtaining grants to provide computer equipment and projectors for multiple schools in border villages of Armenia and Yerevan o Had multiple college and graduate school distance learning presentations, and provided research grants, as well as post-doc scholarships o Have worked extensively with several ministries, many institutes of the National Academy of Sciences of Armenia, and universities.

### **ԱՐՓԱ Հիմնարկի Նպատակներն ու Գործունեության Ամփոփ Պատկերը**

ԱՐՓԱ-ի ընդհանուր գաղափարը այսպես կարելի է ամփոփել՝ հետազոտութիւն, ուսումնասիրութիւն եւ ծրագրաւորում Հայաստանի համար: Մեր հիմնական նպատակն է՝ գիտական, կրթական, առողջապահական, տնտեսական եւ ճարտարարուեստի բնագաւառներուն մէջ օգտակար հանդիսանալ Հայրենիքին: ԱՐՓԱ-ի խումբին մէջ կան զանազան բնագաւառներու բազմաթիւ մասնագէտներ, որոնք երկրի բարելաւման համար ծրագրեր կը մշակեն եւ առ այդ կ'աշխատակցին տարբեր համալսարաններու, գիտութիւններու ակադեմիոյ եւ նախարարութիւններու հետ: Կազմակերպած ենք գիտաժողովներ, որոնցմէ առաջինը (1992) կը վերաբերէր ուժանիւթի մարզին եւ այդ կարգին՝ քննարկեցինք Մեծամորի աթոմակայանի հարցը: Այդ ժողովին արտասահմանէն մասնակցեցան 27 գիտնականներ եւ հաստատեցին, թէ պետք է վերանորոգել կայանը, որ Հայաստանի գոյատեւման երաշխիքն է: Մեր մասնագէտները նաեւ Սահմանադրութեան փոփոխութիւններու շրջագիծին մէջ քննարկումներ եւ այլ աշխատանքներ կատարեցին եւ առաջարկներ ներկայացուցին: ԱՐՓԱ-ն կարելոր դերակատարութիւն ունեցած է եւ կ'ունենայ առողջապահական մարզին մէջ ուր ընդգծելի է Էրեբունի հիւանդանոցին մէջ արեան կեդրոնի հիմնադրութիւնը: «Առողջ ապրելակերպ եւ կեանքի ոճ» անուանումով ծրագրի շրջանակին մէջ դպրոցական աշակերտներուն առողջ ապրելու ձեւեր ուսուցանած ենք, բացատրելով ծխախոտի, ոգելից ըմպելիներու կամ իւղոտ կերակուրի վնասները: Այս վերջին ծրագիրը որդեգրուեցաւ Կրթութեան եւ գիտութեան նախարարութեան կողմէ եւ այսօր 9-րդ դասարանի աշակերտութեան դասընթացքին մաս կը կազմէ: Նաեւ մեր անդամները տարբեր միջոցներով կը սատարեն Հայաստանի առողջապահական բնագաւառի բարելաւման ու անելի արդիւնաւետութեան: Ակադեմիոյ Սօլելուլային Կենսաբանութեան Հիմնարկին մէջ հաստատած ենք ծինաբանութեան (DNA-Genomics) կեդրոն մը, որպէսզի այդ մարզի ճարտարարուեստը զարգանայ, որու արդիւնքը շատ գոհացուցիչ է եւ շատ մը կարելոր յօդուածներ եւ նորարարութիւններ յառաջացած են այդ պատճառով: ԱՐՓԱ-ն նաեւ կը կազմակերպէ հեռակայ ուսուցման ծրագիր, ուր մասնագէտներ Հայաստանի ուսանողութեան եւ դասախօսներուն առջանց կը ներկայացնեն որոշ բնագաւառի մը ամենավերջին նորութիւնները: Ամեն տարի կը կազմակերպենք նորարարութեան մրցում երիտասարդ գիտնականներու եւ համալսարանական ուսանողներու համար, որպէսզի գիտական նորութիւններ կամ գիւտ հանդիսացող աշխատանքներ ներկայացնեն: Այս տարի լաւագոյն մրցանակը պիտի ըլլայ \$5000: Նաեւ «նորարարութիւն» եւ «գիւտարարութիւն» թեմաներով ԱՐՓԱ-ի կազմակերպած սեմինարներէն մեծապէս կ'օգտուին ուսանողները: Ամերիկեան դպրոցներու օրինակով Հայրենիքի մէջ ալ կը կազմակերպենք «Science fair»ի ծրագիրը, այսինքն աշակերտը գիտական մեթոտներով նորարարական ծրագիր մը կը

ներկայացնէ, փորձարկումներ կ'ընէ, փաստեր կը հաւաքէ... Եւ այլն, որպէսզի տրուի եւ իմանայ, թէ ի՞նչ կը նշանակէ գիտական մօտեցումով խնդիրներ լուծել: Այս առումով յառաջիկային վարժողական աշխատանքներ պիտի կազմակերպենք զանազան շրջաններէն եկած ուսուցիչներուն համար: Վերջին տարիներուն վարկեր կը տրամադրենք փոքր ձեռնարկութիւններուն, եթէ իրենց ներկայացուցած ծրագիրը հաւանութեան արժանանայ մեր արժեւորող յանձնախումբէն: Առաւել եւս իրենց ուղղութիւններ կը տրուի շահավետ եւ արդիւնաւետ դարձնելու համար իրենց գործունէութիւնը: Anniversary Celebration Conference and Banquet Մեր վարչական կազմը տասնըհինգ անդամ ունի: ԱՐՓԱ-ի կեդրոնատեղին Լոս Անճելըս կը գտնուի: Երբ մասնագետներ Լոս Անճելըս կ'այցելեն, զանոնք կը հրաւիրենք դասախօսելու իրենց մասնագիտութեան մասին, իսկ այս տարուան ընթացքին մեր բոլոր ամենամտայ դասախօսութիւններն ու բանավեճերը առցանց կը կատարենք: Արդէն տասնըութ տարիներ ի վեր այս գործունէութիւնը կը շարունակուի եւ տարուան ընթացքին 12-15 դասախօսութիւններ եւ կամ բանավեճեր կը կատարենք տարբեր նիւթերու մասին, Հայաստանի եւ կամ հայութեան հետ կապուած հարցերու առնչութեամբ: ԱՐՓԱ-ի գլխաւոր աշխատանքը Հայաստանի մէջ տեղի կ'ունենայ եւ մեր բոլոր ծրագրերը իրագործելու համար նուիրատուութիւններ կը ստանանք, որը բաւական դժուար է հայթայթել, մանաւանդ գիտութեան մարզին համար: Սովետական շրջանին Հայաստան գիտութեան տեսական մարզին մէջ զարգացած երկիր մըն էր, իսկ գործնականի մէջ՝ շատ տկար: Մենք շեշտը կը դնենք գործնականի վրայ: Պետք է ուժ տալ կիրառական բաժնին: Օրինակի համար, ԱՐՓԱ-ի վարչութիւնը կը հաւատայ որ Պաշտպանութեան նախարարութիւնը պետք է կազմէ խորհուրդ մը, որ Ամերիկայի օրինակով՝ միայն պաշտպանութեան հետ կապուած հետազոտութիւններ կազմակերպէ ի նպաստ գիտութեան կարիքներուն, անոր տրամադրելով ամենէն նոր եւ արդիական միջոցները: 1992-էն ի վեր կը քարոզենք նորարարութիւն, ճարտարարուեստ եւ գիտութիւն: Նորարարութիւնը այլեւ լայն ընդունելութիւն գտած է եւ մեր կարծիքով ատիկա արդիւնք է ցարդ տարուած աշխատանքներուն, իսկ ճարտարարուեստը եւ գիտութիւնը տակաւին զարգանալու բաւական կարիք ունին: Չուտ գիտական նախաձեռնութիւններէ անդին նաեւ արեւմտահայերէնի զարգացման ուղղութեամբ, ինչպէս նաեւ այլ կարեւոր հարցեր քննարկելու համար հանդիպումներ կը կազմակերպենք, ինչպէս նաեւ Հայաստանի մէջ արեւմտահայերէնի գործածութիւնը-որդէգրումը կը քաջալերենք: ԱՐՓԱ Հիմնարկի ամենավերջին ձեռնարկները Հայաստանի մէջ՝ Նանօ եւ Գուանտում տեխնոլոգիայի (Nano-Quantum Technology) հետազոտութիւններու կեդրոն մը ստեղծել եւ նաեւ Ալիսանեան Ազգային Տարրալուծարանին մէջ մաքրասենեակ (cleanroom) կառուցել է: Վերջինիս շինարարական աշխատանքները արդէն իսկ աւարտած են: Կը մնայ կարեւոր սարքաւորումներով յագեցնել տարրալուծարանը որպէսզի ամենարդիական փորձարկումները կարելի ըլլայ կատարել եւ համաշխարհային մակարդակով հետազոտութիւններով նորարական աշխատանքներ տանիլ: Շատ շնորհակալ ենք հայ համայնքին որ նիւթապէս կը սատարէ այս գործին յաջողութեան եւ շուտով կ'իրականանայ Հայաստանի առաջին նմանօրինակ մաքրասենեակի օգտագործումը: Վստահ ենք որ կարգ մը կարեւոր գիտահետազոտական ծրագիրներ թռիչքային յառաջդիմութիւն պիտի արձանագրեն մաքուր մթնոլորտի մէջ կատարելով իրենց հետազոտութիւնները եւ համաշխարհային չափանիշով բարձր մակարդակի արդիւնքներ պիտի ստանան:

## **ARPA Institute's Major Achievements**

ARPA Institute helps advance Science, Technology, Education, Healthcare, and other fields in Armenia by

- Providing critical instrumentation and facilities for scientists and researchers
- Offering technical and expert advice to guide and mentor scientists and researchers in global technologies
- Encouraging and promoting innovation, the development of modern technologies, as well as business ventures and startups
- Working with young scientists to help shape their specialization and future careers
- Helping by Analysis, Research, and Planning for new initiatives in Armenia



ARPA Institute has

- Created the first modern Blood Bank in Armenia
- Donated numerous critical instrumentation for scientific research in Biotechnology, Nanotechnology, Materials Science, Engineering, Medical Research, and Educational Equipment
- Started SCIENCE FAIRS in Armenia, where for the second year official Science Fairs have taken place and winning teams have participated, for the first time, in the annual International Science and Engineering Fair (ISEF) in the USA, sponsored by Regeneron. They even won a prize!
- Trained and financially supported medical experts, educators, researchers, and small businesses
- In the process of establishing the FIRST CLASS-1000 CLEANROOM in Armenia
- Instrumental in setting up and supporting development and advancement of nanotechnology and quantum technology
- Organized and implemented Annual Invention Competitions for Young Scientists for the past 15 years
- Supported and sponsored STEM education at all levels
- Carried out public school health education by the ARPA Institute's Health Education and Lifestyle Program (HELP), which included ad campaigns and "stop smoking" education in over 60 schools in Armenia and Artsakh
- Provided support to elementary and high schools, including science teacher training, and obtaining grants to provide computer equipment and projectors for multiple schools in border villages of Armenia, as well as in Yerevan
- Had numerous college and graduate school distance learning presentations, and provided research grants, as well as post-doc scholarships
- Have worked extensively with several ministries, many institutes of the National Academy of Sciences of Armenia, and the universities

### **ARPA Institute Invention Competition: List of Inventions in 2022**

1. Assessment of the Reproduction Potential in COVID-19 Vaccinated Girls, by Hasmik Bareghamyan, YSMU. Anna Darbinyan, Matrix LLC.
2. Solution combustion synthesis as a method of preparing Antiperovskite Nitrides such as superconductive Ni<sub>3</sub>CuN, by Narine Amirkhanyan, NAS RA.
3. A New Methodology of Prediction of Fuel Chemical Composition of Solid-Propellant Rocket, by Hovhannes Adonts, Individual, Armenia.
4. Creatine and herbal compounds promising combination of natural neuroprotectors against neurodegeneration, by Ruzanna Shushanyan, Anna Karapetyan, YSU.
5. New therapeutic approaches in the treatment of cancer using Armenian herbal extracts in combination with chemotherapeutic agents, by Edita Nadiryan, Mery Qocharyan, Svetlana Hovhannisyan, Nikolay Avtandilyan, YSU.
6. EcoProtein 3 problems, 1 solution, by Mher Kurghinyan, YSMU. Mane Kurghinyan and Mger Sarafyan, YSMU Heratsy School, Armenia.
7. Development of new technology for small-scale production of feedstuff (silage) with probiotic bacteria, by Arevik Israyelyan and Anyuta Sargsyan, Artsakh Sci. Cnt, Armenia. Flora Tkhruni, NAS RA, SNPO.
8. Bio-Feed, by Anahit Shirvanyan, Naira Sahakyan, Anush Babayan, Alvard Minasyan, YSU.
9. Modification of natural zeolite by anionic surfactant and its application for removal of metal-ions from multi-component aqueous systems. Lena Tangamyan, Lusine Harutyunyan, NAGUA.
10. New technologies in Green Agriculture: Plant Micronutrients-Growth Stimulants and Biodegradable Nursery Seedling Pots. Tigran Soghomonyan, NAS RA. Gurgen Aleksanyan and Hovhannes Mirimyan, NPUA,
11. Green synthesis of silver nanoparticles by microalgae and evaluation of their antibacterial activity, by Marina Timotina, RAU. Ani Harutyunyan, Tatevik Manutsyan, Lilit Gabrielyan. YSU
12. Development of 3D printable ceramic-based bioactive, by Marina Aghayan, Viktorya Rstakyan, ICP. Hayk Khachatryan, Enko, Finland. Miguel Rodriguez, Instituto de Cerámica y Vidrio, Spain.
13. Bioplastic produced by extremophiles based on agricultural waste, by Hovik Panosyan, Diana Ghevondyna, Raffi Shakhmuradian, YSU.
14. Keratin as a source of amino acids, by Hovik Panosyan, Mane Tadevosyan, YSU.
15. Magnetotactic bacteria for prediction of earthquakes, by Satenik Mirzoyan, Liana Vanyan, Hripsime Petrosyan, Lyudmila Zuloian, Heghine Gevorgyan, YSU.
16. Gas fixing biofilters, by Heghine Gevorgyan, Satenik Mirzoyan, Liana Vanyan, Toma Abaghyan, Lusine Davtyan, YSU.

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## **ARPA Institute 30<sup>th</sup> Anniversary Conference Program** **Co-Sponsored by CSUN Armenian Studies Program**

09:30 Continental Breakfast (Provided)

10:00 Introduction: Hagop Panossian, Ph.D., President of ARPA Institute

General Chair: Ara Apkarian, Ph.D., Distinguished Professor at UCI

10:20 Keynote Speaker: Mary Papazian, Ph.D., Former San Jose State University President  
Armenia's Science and Technology Future: Missed Opportunities or A Pathway to Sustainable Transformation?

### **Session I – Science, Education and Technology in Armenia**

10:45 SCIENCE, EDUCATION AND HIGH-TECHNOLOGY INDUSTRY IN ARMENIA

Chair: Artur Davoyan, Ph.D., UCLA

Speakers: Ani Aprahamian, Ph.D., Professor of Physics, U of Notre Dame, Director, AANL  
Armenia Marching Forward: Transforming AANL into Innovation & Technology HUB

Tigran Shahverdyan, Gituzh, Armenia  
The Gituzh Initiative in Armenia

Yervant Zorian, Ph.D., President of Synopsys Armenia  
Advanced Technology Trends and the Armenian World

Discussant: Alfred Eisaian, MBA, co-founder, and Board Member of IntelinAir

12:15 Panel Discussion; Q & A: A. Apkarian (Moderator), T. Shahverdyan, A. Aprahamian,  
A. Eisaian, A. Davoyan

**12:45 Lunch Break (Lunch Provided)**

### **Session II – Social and Political Development of Armenia**

13:45 THE SOCIAL AND POLITICAL DEVELOPMENT OF ARMENIA: THE ROLE OF DIASPORA

Chair: Sargis Sedrakyan, Ph.D., USC

Speakers: Irina Ghaplanyan, Ph.D., Professor at AUA  
Modernizing Governance and Social Contract in Armenia

Eric Hacopian, Political Consultant and Analyst, Yerevan, Armenia  
The Economy, Politics & National Security of Armenia

Shant Shekherdimian, MD, Professor at UCLA  
Armine Lulejian, Ed.D., USC Sr Director of Educational Initiatives for the  
USC MESH Academy, Assoc Director of Informatics Education  
Core with USC Clinical Translational Sciences Inst., Asst Prof in  
Population and Public Health Sci, Keck Sch. of Medicine  
Healthcare System in Armenia and the Need for Modernization

Discussant: Carla Garapedian, Ph.D., Filmmaker, Director, Writer, and Broadcaster

15:15 Panel Discussion; Q & A: A. Apkarian (Moderator), E. Hacopian, C. Garapedian, A. Lulejian, S. Sedrakyan

[Please view the video of the conference in the following link : https://youtu.be/TLArgY\\_DInc](https://youtu.be/TLArgY_DInc)

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## ARPA Institute Presentations and Panel Discussions During 2022

ARPA Institute organizes lectures and panel discussions on various topics related to Armenia or Armenians. *If you can and are willing to make a presentation, please contact us at [info@arpainstitute.org](mailto:info@arpainstitute.org)*

### ARTSAKH in 2026: Prospects for the Future”

By Eric Hacopian, Anna Ohanyan and Nerses Kopalyan, Moderated by Dr. Ani Shabazian

Held on Saturday, January 22, 2022 @ 10:00am, PST

YouTube Link: <https://youtu.be/gLLZq00Ffek>

**Abstract:** The ceasefire between Armenia and Azerbaijan remains fragile. A clear mandate for Russian peacekeepers, a regular communication channel for resolving urgent disputes and access for international aid organizations to the Armenian-populated areas of Nagorno-Karabakh is needed to help bring a measure of security and stability to the population. The Russian Mandate will end in 2026. What will happen after the Mandate is terminated? Will the status of Artsakh be determined by then and the issues between Azerbaijan and Armenia be resolved? The esteemed panelists will address these questions and analyze the political issues and international implications.



**Eric Hacopian** is a 30-year veteran of American politics, having worked on campaigns from the local to the presidential level. For the past 22 years, he has been the principle at EDH & Associates, a Southern California-based Democratic consulting firm. Eric is the host of the Insight's show on CivilNet, a weekly commentary show on politics in Armenia and the region. He has been living in Armenia since 2017.



**Dr. Anna Ohanyan** is the Richard B. Finnegan Distinguished Professor of Political Science and International Relations at Stonehill College, and two-time Fulbright Scholar to South Caucasus. Her latest three books are *Russia Abroad: Driving Regional Fracture in Post-Communist Eurasia and Beyond*, edited (Georgetown University Press, 2018), *Networked Regionalism as Conflict Management* (Stanford University Press, 2015), and *Armenia's Velvet Revolution*, co-edited with Laurence Broers (I.B. Tauris, 2020). She has also published numerous articles in journals and contributed to the *Washington Post*, *Foreign Policy* magazine, *The National Interest*, *Al Jazeera*, and *Wilson Quarterly* and others. Prof. Ohanyan served as a doctoral fellow at the Kennedy School of Government at Harvard University. Her research has been supported by IREX, the Woodrow Wilson International Center for Scholars, the German Marshall Fund, the U.S. State Department and Eurasia Foundation. She has consulted for numerous organizations such as the United Nations Foundation, the World Bank, the National Intelligence Council Project, the U.S. Department of State, the Carter Center, and USAID. Her fieldwork has taken her to Russia, Northern Ireland, the South Caucasus, and the Balkans.



**Dr. Nerses Kopalyan** is an assistant professor-in-residence of Political Science at the University of Nevada, Las Vegas. His fields of specialization include international relations, geopolitics, political theory, and philosophy of science. He has conducted extensive research on polarity, superpower relations, and security studies. He is the author of *World Political Systems After Polarity* (Routledge, 2017) and the co-author of *Sex, Power, And Politics* (Palgrave Macmillan, 2016). He also authored two policy papers for the Republic of Armenia, "Transitional Justice Agenda for the Republic of Armenia" (Ministry of Justice) and "Changing the Paradigm in Armenia-Diaspora Relations (Office of the High Commissioner for Diaspora Affairs). He serves as an advisor to the Office of the High Commissioner for Diaspora Affairs. His current research concentrates on geopolitical and great power relations with an emphasis on Eurasia. He has also done extensive work on political developments in Armenia prior and after Velvet Revolution, articles of which are published with EVN Report.



**Ani Shabazian, Ph.D.:** B.A. in History and Psychology from UCLA, M.A. in Human Development and Psychology, Harvard University, second M.A. UCLA and then PhD in Urban Schooling. Ani has served on the faculty of several universities, has trained in orphanages in Budapest, Hungary and Reggio Emilia, Italy. She has been the Executive Director of the UCLA Infant Development Program and now has dual appointments at the Loyola Marymount University, as a tenured Associate Professor School of Education and as the Director of the Children's Center. Dr. Shabazian has received the UCLA Distinguished Faculty Teaching Award and the LMU Crimson and Blue Distinguished Teaching Award. She has performed numerous trainings, made numerous conference presentations, and peer-reviewed journal publications. Ani has also authored three books and co-authored an international orphanage assessment, that is currently being validated as an international research tool and developed into an APP by Duke University. Further, Ani has travelled extensively through her work with Whole Child International, an NGO based in the UK, developing training programs for vulnerable children. Ani has served as a Governance Board member for the Ararat Charter School, the Paros Foundation, the Society for Orphaned Armenian Relief, and with the Ministry of the Diaspora for vulnerable children in Yerevan and Gyumri. She has served on many university committees, now serves on the Board of Trustees of the Hovnanian School and on the Board of Directors of Child360. Ani is the Secretary of the ARPA Institute.



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## “Trends in the Economy of Armenia: Prospects for the Future”

By Vache Gabrielyan, King Banaian, Rouben Indjikian and Discussant, Armen Kherlopian, Moderated by Dr. David Joulfaian

**Held on Saturday, February 26, 2022 @ 10:00 am, PST**

**YouTube Link: <https://youtu.be/U1WeiuQ-Xh4>**

**Abstract:** Innovation fuels growth, and it's often driven by small, nimble organizations. Over the past years, one such company achieved the \$1 billion valuation mark in Armenia, and several have risen to international levels of success. The new influx of funds to Armenian startups, leaves the impression that a change in the direction of economic development is here. However, prospects for areas other than IT seem to be stagnant, if not slowing down. The global economy has rebounded to a projected global GDP growth of 4.9% in 2022. Yet the average monthly salary in Armenia is about \$400 and is much lower outside of Yerevan. With low levels of economic activity and the geopolitical uncertainty in the region, the imperative to take decisive actions to bridge the socioeconomic and political divide has perhaps never been as strong. The panel will address the recent advances in the IT sector, as well as analyze the impact of the political situation on the economy of Armenia and assess prospects for the future.



**Vache Gabrielyan** has a Ph.D. in Public Administration from Rutgers University and specializes in public administration and economics. He has studied at the Yerevan State University, has served as Vice-Governor of the Central Bank of Armenia, Minister of Finance, Minister-Chief of Government Staff, Chief Advisor to the Prime Minister, as well as the Deputy Prime Minister of Armenia, and the Minister of International Economic Integration and Reforms. Dr. Gabrielyan serves as Dean of the Manoogian Simone College of Business and Economics. Vache is the author of scientific papers published in Armenia and abroad.



**King Banaian** is a professor in the Department of Economics and dean of the School of Public Affairs at St. Cloud State University. His Ph.D. in economics is from the Claremont Graduate School. He has consulted at central banks and ministries of finance in several developing countries, including three projects in Armenia. He is author of two books and over 50 articles discussing monetary policy and political economy. Dr. Banaian is a former Minnesota state legislator.



**Dr. Rouben Indjikian:** is a renowned expert and consultant on digital economy, international trade, finance, and commodities. He is a professor of economics and management at Webster University Geneva. Dr. Indjikian has 30 years of experience in the United Nations Conference on Trade and Development, where he led programs on trade finance, e-commerce and e-finance, and commodities. He founded the Digital Economy Report and Global Commodities Forum and was instrumental in initiating and implementing the UNCTAD business facilitation and institutional building projects in Africa, the Middle East and CIS, in particular Armenia. Dr. Indjikian is the author of book chapters, articles in academic and business journals, and one of the first books on OPEC. As a UN economist he has won a prize at the prestigious AMEX Bank Review Essay Competition on Finance and International Economy.



**Armen R. Kherlopian**, PhD, is a Data Scientist and Startup Investor. Moreover, his industry experience is cross-sector, and he is a Scientific Advisory Board Member at NASA-backed TRISH, a Founding Partner at the BAJ Accelerator. Armen is an early investor in a set of rising unicorns including Embodied, Scylla and Cognize. His previous work experience includes Genpact and Booz Allen. Dr. Kherlopian has received the U.S. National Science Foundation Graduate Research Fellowship, U.S. Department of Energy Computational Science Graduate Fellowship, is a Coca-Cola Scholar and a U.S. delegate to the Lindau Nobel Laureates Meetings. He holds a BS and MS in Biomedical Engineering with a focus on Algorithms from Columbia University, a PhD in Biophysics with a focus on Machine Learning from Cornell University and completed a fellowship in High Performance Computing and AI at Princeton University. Dr. Kherlopian is a Professor of AI at AUA.

## On “Digital Activities in Armenia and Future Trends”

By Ashot Vardanyan, Raffi Kassarjian, Moderated by Dr. Armen Kherlopian

**Held on Saturday, March 26, 2022 @ 11:00 am, PST**

**YouTube Link: <https://youtu.be/gmuhUXsTJfI>**

**Abstract:** Digital technologies have advanced more rapidly than any innovation in our history – reaching around 50 per cent of the developing world's population in only two decades and transforming societies. By enhancing connectivity, financial inclusion, access to trade and public services, technologies, such as Artificial Intelligence (AI) can be a great equalizer. Advancing AI through Math and High-Performance Computing, developed at Unum, prioritizes fundamental research and innovation over aggressive marketing. The main aim of this approach is to replace the entire platforms serving Apps, thus providing an order-of-magnitude higher speed and efficiency improvement over the State-of-the-Art data processing systems of today. This approach can and should be applied to a broader set of domains to ensure the future of Armenia in advanced technologies. Not just as a participant, but hopefully, as a leader! Armenia is proud to have the first Unicorn, Picsart and a burgeoning IT industry. Nevertheless, there are still other areas related to digital technologies that need to develop and advance as quickly as possible. These and other issues will be discussed and analyzed.

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**Ashot Vardanian** is a 26-year-old genius software developer and entrepreneur, born and raised in Russia. He started programming in elementary school and launched numerous successful software products before graduating from high school. He pursued a degree in Astrophysics, combining it with his research in Theoretical Computer Science and Artificial Intelligence, which led to Unum's creation in 2015. Since then, Ashot has travelled across 4 continents until settling in Armenia and calling it home, for himself and his company, Unum.



**Raffi Kassarian** BA and MBA from Stanford University. He is the CEO and Principal Advisor at Sensyan LLC, a boutique advisory firm focused on the growing Armenian technology sector. Previously, he was the Executive Director of the Union of Advanced Technology Enterprises (UATE), the Senior Vice President of Internet of Things, member of the Senior Leadership Team at TeamViewer GmbH, CEO of Monitis, Head of Product Management, Marketing and Retail Banking Services for Converse Bank, and CEO of iCON Communications. Prior to moving to Armenia, Raffi served as VP and General Manager at Fair Isaac Corp, NY, Sr Manager in Strategic Services at Accenture. He serves in the Board of Repat Armenia, Impact Hub Yerevan and EVN Report.



**Armen R. Kherlopian, PhD**, is a Data Scientist and Startup Investor. Moreover, his industry experience is cross-sector, and he is a Scientific Advisory Board Member at NASA-backed TRISH, a Founding Partner at the BAJ Accelerator. Armen is an early investor in a set of rising unicorns including Embodied, Scylla and Cognaze. His previous work experience includes Genpact and Booz Allen. Dr. Kherlopian has received the U.S. National Science Foundation Graduate Research Fellowship, U.S. Department of Energy Computational Science Graduate Fellowship, is a Coca-Cola Scholar and a U.S. delegate to the Lindau Nobel Laureates Meetings. He holds a BS and MS in Biomedical Engineering with a focus on Algorithms from Columbia University, a PhD in Biophysics with a focus on Machine Learning from Cornell University and completed a fellowship in High Performance Computing and AI at Princeton University. Dr. Kherlopian is a Professor of AI at AUA.

**«Հայկապահայության և Մշակութային Ժառանգության Փրկիչը՝ Արքեպիսկոպոս Արտաւազդ Սիւրմէան», Ձեկուցեց՝ Հեղնար Ձեյթեան Վաթենիփա:**

**Կայացաւ Շաբաթ, Մայիսի 16, 2022 @ 11:00 ԿԱ, PST**  
**YouTube Link: <https://youtu.be/cISJINRW5k0>**

**Ամփոփում՝** Արք. Արտաւազդ Սիւրմէան (1889-1951) Հայկաի Հայաստանեայց եկեղեցւոյ առաջնորդն էր 1925-էն մինչեւ 1940: Որպէս Սուրիոյ հայ համայնքին կրօնական եւ ազգային առաջնորդ, ան կարեւոր դեր ունեցաւ պատմութեան շատ ճակատագրական ժամանաշրջակի մը ընթացքին, եղեռնէն անմիջապէս ետք, Ֆրանսական իշխանութեան ատեն: Առաւել եւս, Սիւրմէան Հայկաի եւ Սուրիոյ տեսանելի մշակութային եւ մարդկային արժէքները հետազոտող բազմատաղանդ անձ մըն էր: Եղեռնէն առաջ Պոլսոյ ճարտարամիտ մտաւորականներէն, Հայկաի մէջ ան ուսումնասիրեց տեղւոյն հայկական ժառանգութիւնը, որը ներկայացուց իր բազմահատորիայ «Պատմութիւն Հայկապահայոց» երկով: Սիւրմէան նաեւ կարեւոր դեր ունեցաւ արձանագրելով եւ պահպանելով Օսմանեան կայսրութեան տարբեր տեղերու հայ մշակութային հարստութիւնը, մանաւանդ այն բոլոր սուրբ ձեռագրերն ու մատուցները որոնք Եղեռնի պատճառով եկեղեցիներէն դուրս հանուած եւ ցրուած էին: Այսպիսով Արքեպիսկոպոսը առաջնորդն էր եղեռնէն վերապրող հայ համայնքին եւ անոր պահպանման ու կենսունակութիւնը վերականգնող ղեկավարը, վայրագութիւններու, տեղահանութեան եւ գաղթականութեան յաջորդող օրերուն: Իր բազմաթիւ գործերը լոյս կը սփռեն Սուրիոյ եւ Լիբանանի հետեղեռնեան պատմութեան վրայ հայերու դժուար եւ տագնապալի օրերուն:



**Հեղնար Ձեյթեան Վաթենիփա** արուեստի Պատմութեան Փրոֆեսոր է Բալիֆորնիոյ Համալսարան - Տեյլիսի մէջ: Մասնագետ է Միջին Արեւելքի արուեստի պատմութեան: Իր առաջին գիրքը, որ Հայկաի ճարտարապետութեան մասին էր, արժանացաւ Ամերիկայի ճարտարապետութեան Պատմաբաններու Ընկերութեան գրքի մրցանակին: Իր նորագոյն գիրքը, Պակտոլ Էջերը (The Missing Pages), միակ գիրքն է, որ մրցանակ ստացած է թէ՛ Հայագիտական Ուսման Ընկերութենէն եւ թէ՛ Օսմանեան եւ Թրքական Ուսման Ընկերութենէն: Գիրքը նաեւ ստացաւ ոսկի մետալ մը Աշխարհի պատմութեան մէջ՝ Անկախ Տպագրիչներու կողմէ, եւ “shortlisted” եղաւ Ուիլիլմ Սարոյեան համաշխարհային Գրականութեան Մրցանակի կողմէ (ոչ-վիպական – non-fiction): Իր հետազոտութիւնները ստացած են նպաստ հետեւեալ հիմնադրամներէն- J. Paul Getty Trust, National Endowment for the Humanities, Fulbright-Hays, Social Science Research Council, Center for Advanced Study in the Visual Arts at the National Gallery of Art, the President of the University of California. Այս Տարի Փրոֆեսոր Վաթենիփա նշանակուած է մրցանակակիր Guggenheim հիմնադրամէն եւ National Endowment for the Humanities-էն:

**“Armenians in the Middle East and Future Prospects”**

**Panelists: Yeghia Tashjian, James Barry and Sarkis Balkhian; Hrach Tchilingirian as Discussant;**

**Held on Saturday, May 7, 2022 @ 11:00 am, PST**

**Moderated by Dr. Ani Shabazian**

**YouTube Link: <https://youtu.be/FJ2P2OHnxY0>**

**Abstract:** Armenians in the Middle East are mostly concentrated in Lebanon, Syria, Iran, Cyprus, Iraq, Jordan, and Jerusalem, although well-established communities exist in Egypt, Turkey, and other countries of the region. Many have left

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during the civil wars in Lebanon and Syria and during and the early years of the Islamic regime in Iran, for North America, Europe, or the Republic of Armenia. The Armenians who had sought refuge in Lebanon and Syria at the end of World War I were granted citizenship in 1939 under the French mandate. Following World War II, about 40,000 Armenians left Lebanon and Syria and immigrated to Soviet Armenia. Those remaining in Lebanon and Syria, formed strong, internally cohesive ethnic communities. However, in the past years the situation in Lebanon, Syria, Iraq, and Turkey has resulted in new waves of immigration, thus dwindling the strength and liveliness of these communities. The panelists will address the current state of Armenians in the Middle East and the potential future developments.



**Yeghia Tashjian** received his BA from the Haigazian University in political science and his MA from the American University of Beirut in Public Policy and International Affairs. In 2010, he founded the New Eastern Politics forum/blog. He was a research assistant at the Armenian Diaspora Research center at Haigazian University. Yeghia is the regional officer of Women in War, a gender-based think tank and has presented on minority rights and regional security issues in many international conferences. He is a contributor to various local and regional newspapers, a columnist in the Armenian Weekly, and a presenter of the “Turkey Today” program for Radio Voice of Van. He is an associate fellow at the Issam Fares Institute for Public Policy and International Affairs at the American University of Beirut and a Middle East-South Caucasus expert in the European Geopolitical Forum.



**James Barry** is an Associate Research Fellow with Alfred Deakin Institute for Citizenship and Globalisation at the university of Deakin, Melbourne Burwood Campus, Australia. James’ research interests involve the intersections of religious, linguistic, and national conceptions of identity in the Middle East, specifically Iran. Dr. Barry is the author of *Armenian Christians in Iran: ethnicity, religion, and identity in the Islamic Republic*, Cambridge University Press, 2018. James speaks Armenian and Persian-Farsi. He received his PhD from Monash University, where he was a lecturer from 2012 to 2014. He is currently researching the role of heritage in conflict between Armenia and Azerbaijan, and attitudes towards heritage reconstruction in Iraq and Syria.



**Sarkis Balkhian** is a human rights advocate focusing on the Middle East and the South Caucasus regions. He is the Executive Director of Aleppo-NGO, supporting refugees from Iraq, Iran, Lebanon, Syria, and Nagorno-Karabakh (Artsakh). He has worked at the Armenian Weekly in Massachusetts, Human Rights Watch, USA and for UN High Commissioner for Refugees in Washington, DC. Balkhian holds a BA in Political Science and Genocide Studies from Clark University and an MA in diplomacy and international relations from Yerevan State University.



**Hratch Tchilingirian**, Ph.D., scholar, sociologist and activist based in the United Kingdom, where he is an Associate of the Faculty of Oriental Studies at Oxford University, specializing in Middle Eastern and Armenian Studies, with a particular focus on cultural identity politics, homeland-diaspora relations, sociology of religion, and inter-ethnic conflicts in the Middle East and Eurasia. The author of numerous studies and publications ([www.hratch.info](http://www.hratch.info)), he has lectured internationally, recently drawing attention to the plight of minorities and Christian communities in the Middle East, especially in academic and policy-making circles. Following his PhD at the London School of Economics, he held executive positions including director of research on Eurasia and lecturer at Cambridge University’s business school an active community member, Tchilingirian strives to make Armenian heritage, identity, culture, and language a living experience.

## “Armenians in Turkey: Has Anything Changed Since the Ottomans?”

By Hrag Papazian, Christopher Sheklian and Ohannes Kılıçdağı, Moderated by Dr. Lerna Ekmekçiöğlü

Held on Saturday, May 21, 2022 @ 11:00 am, PST

YouTube Link: [https://youtu.be/QDo\\_QXPYcxw](https://youtu.be/QDo_QXPYcxw)

**Abstract:** Discussed will be matters pertaining to Armenians in Turkey, about 60,000 people and about .07% of the overall Turkish population. Composed of descendants of genocide survivors, they constitute a tiny fraction of surviving Armenians who stayed inside the borders of the Republic of Turkey after 1923. In the last century their numbers dwindled, but there still is a vibrant community holding on to their schools, churches, presses, charitable organizations as well as largely continuing to practice endogamy. In addition, in the last decade the public “learned” about the existence of groups of people, often referred to as “Islamized Armenians”, which are a usually misrepresented and vulnerable community. Dr. Sheklian and Dr. Kılıçdağı will tackle different disciplinary and historical perspectives to address questions related to Armenian endowments, churches, and the Patriarchate. Dr. Papazian will examine the discourse on “crypto-Armenians” to reveal its empirical inaccuracies and morally shaky grounds. The panel will therefore shed light to how Armenians sustain their group identity (even) in Turkey.



**Hrag Papazian**, has a D.Phil. in Anthropology from the University of Oxford. His dissertation, “Contesting Armenianness: Plurality, segregation, and multilateral boundary making among Armenians in contemporary Turkey”, received the David Parkin Prize from the School of Anthropology and Museum Ethnography, U of Oxford and an honorary mention in the Society for Armenian Studies Distinguished Dissertation Award competition. Currently a Promise Armenian Institute postdoctoral fellow in the Department of Anthropology at UCLA, he is working on a book manuscript. Papazian has previously taught at the American University of Armenia (2019-2021) and was a Visiting Scholar in the Faculty of Divinity at the University of Cambridge (July 2021 - March 2022).





**Christopher Sheklian**, Ph.D., is a Postdoctoral Researcher at Radboud University in the Netherlands, as a part of the “Rewriting Global Orthodoxy Project” in the Faculty of Philosophy, Theology and Religion. He received his PhD in Anthropology from the University of Chicago in 2017 with his dissertation, “Theology and the Community: The



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Armenian Minority, Tradition, and Secularism in Turkey.” From 2018-2020, Dr. Sheklian served as the Director of the Krikor and Clara Zohrab Information Center at the Eastern Diocese of the Armenian Church of America. He has published on liturgy and law in the lives of religious minorities, including “Promises of Property: Religious Foundations and the Justice and Development Party’s Ambiguous Attitudes towards Religious Minorities” in the **Journal of Turkish Studies** and “Venerating the Saints, Remembering the City: Memorial Practices and Community Formation in Contemporary Istanbul” in **Armenian Christianity Today**. Christopher is working on a monograph entitled “Liturgical Rights: Armenian Christian Presence in the Republic of Turkey”.

 **Ohannes Kılıçdağı**, Ph.D., has double major BA degrees from sociology and political science departments, and a PhD from the history department of Boğaziçi University, Istanbul. During 2017-2019 he was a post-doc fellow at the Center for the Middle Eastern Studies of Harvard University. Ohannes has published articles about the Ottoman-Turkish Armenian community, is a columnist in the Agos newspaper in Istanbul. Dr. Kılıçdağı is currently Dumanian Visiting Professor at the department of Near Eastern Languages and Civilizations, in the University of Chicago.

 **Lerna Ekmekçioğlu**, Ph.D., is Associate Professor of History at MIT. Her research focuses on the late Ottoman Empire, early Turkish Republic, and minorities, especially Armenian survivors of the genocide. Her first monograph, *Recovering Armenia: The Limits of Belonging in Post-Genocide Turkey*, was published by Stanford University Press in 2016. In 2006 she co-edited a volume in Turkish on the first five Armenian Ottoman feminists. Currently she is collaborating with Dr. Melissa Bilal (UCLA) for a book and digital humanities project titled “*Feminism in Armenian: An Interpretive Anthology and Documentary Archive*.”

**“In Quest of Historical Geoglyphs: Islam in Armenian Literary Culture. Texts, Contexts, Dynamics”**, By Seta Dadoyan. **Held on Sunday, June 26, 2022 @ 11:00 am, PST**  
**YouTube Link: [https://youtu.be/-dzXS\\_eRtng](https://youtu.be/-dzXS_eRtng)**

**Abstract:** The Armenian historical experience in the medieval and modern Near/Middle East - that was predominantly Muslim as of the second quarter of the seventh century - was and still is very interactive, diverse, and expansive. Armenian histories should have reflected this condition and seek paradigm shifts, but this has not been the case. Limited constructs based on the idea of an ancient, heroic, struggling and separate pre-modern nation are outdated. The lag in mapping of the total Armenian experience and role in their dynamic aspects with Worlds of Islam through fourteen centuries has seriously marginalized not only the discipline of Armenian Studies but the understanding of the actual and ongoing processes in the region and beyond.

*Islam in Armenian Literary Culture. Texts, Contexts, Dynamics (Louvain: Peeters, 2021). CSCO, Subsidia Tomus 147* is a quest into historical geoglyphs (large earth drawings seen from above) that reflect the Armenian experience in the Near/Middle East. It is a crowning of sorts of an existentially challenging and intellectually complicated process that started three decades ago and generated five volumes and tens of studies it what may be described as Armenian-Islamic Studies. The primary objective of this opus is to develop a closely textual, comprehensive, and sequential structure, which contains the basic material as well as the historical contexts and factors. The “Armenian Mahmet”, the “Armenian *Pax Islamica*” and the “Armenian *Ghurans*” are the basic themes that make a conceptual- logical tripod to carry the great number of textual citations and the arguments in the literature over fourteen centuries.



**Professor Seta B. Dadoyan** is a Doctor of Sciences in Philosophy, a historian, and a painter. From 1981 to 2011 she lectured on cultural studies, philosophy, history of art, history of technology and science, professional ethics, and Armenian Studies at the American University of Beirut (previously at Haigazian and the Lebanese-American Universities), Columbia University, St. Nersess Armenian Seminary, the University of Chicago and Yerevan State University. She is the recipient of three major awards in Armenian Studies for her exceptional contribution to the discipline: the SAS (Society for Armenian Studies) Lifetime Achievement Award (2021), the Medal of Mesrop Mashtots of the Catholicosate of Cilicia (2015) and the Medal and Certificate of Dawit’ Anghaght’ by the Philosophical Academy of the National Academy of Sciences of Armenia (1999). Her long research and critique focus on medieval as well as modern Armenian social-political and intellectual cultures and experiences. Her interdisciplinary and critical approach and introduction of novel sources, data and perspectives have raised awareness in international scholarship toward hitherto unstudied aspects of the Armenian experience and role in the Near Eastern region. She writes in Armenian and English. In addition to many lectures, she has authored ten books on Armenian painting, philosophy, and history, edited co-authored two volumes, and published over fifty extensive papers and entries in scholarly journals, and encyclopedias.

**“The Role of Armenian Women: DEMANDING A HANDSHAKE”**  
By Kristine Grigoryan, Irina Ghaplanyan and Hasmig Baran, Moderated by Ani Shabazian  
**Held on Saturday, July 23, 2022 @ 11:00 am, PST**

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**YouTube Link: <https://youtu.be/QIfQR45mIGo>**

**Abstract:** Gender norms describe how people of a particular gender and age are expected to behave in each social context. Women are the primary caretakers of children and elders in every country of the world. Harmful gender norms result in many types of inequalities between girls and boys. However, while gender norms can affect all children, they are proven to disproportionately affect girls. Statistics on the engagement of women in the political, economic, educational, and labor fields paint a very grim picture of the role that women play in the public and policy making arena. Although the work of the Office of the Human Rights Defender in Armenia on the prevention of violence against women and investigation of certain complaints shows some promise, yet the leadership roles are almost always taken by men. The conclusions on possible solutions to the systematic issues of women empowerment by the Defender is not promising. These and other issues related to women's' role will be discussed and analyzed.



**Kristinne Grigoryan**, B.A. and M.A. - Yerevan State University, Degree in Law - Northern University. Ms. Grigoryan is the Human Rights Defender of Armenia since 2022. Previously she was the Deputy Minister of Justice and the Head of International Legal Cooperation Department of the Ministry of Justice. Ms. Grigoryan worked in the USAID projects with National Assembly of Armenia as the Team Leader for Parliamentary Rules of Procedure and Ethics. She also worked as a national expert with the Civil Society and National Human Rights Institutions. Kristine Led the Armenian Delegation in the UN Human Rights Committee and the Group of States against Corruption, chaired the Multidisciplinary Council of Juvenile Justice, organized, and coordinated two national strategies and the National Strategy for Human Rights Protection. She was actively involved in the development and implementation of the Reform Strategy for RA Police, including the project of introduction of the Patrol Police in Armenia. Ms. Grigoryan is fluent in Russian, English and French, as well as German and Arabic.



**Dr Irina Ghaplanyan** is a political scientist, climate negotiator and published author. Her Ph.D. is in political science, University of Cambridge, MA, Diplomatic Academy of London and BA in International Relations, University of Malta. Dr Ghaplanyan was Deputy Minister of Environment for the Republic of Armenia and now acts as a Senior Advisor on Climate Change to the World Bank Group and teaches at AUA. Irina has worked in UNDP, Georgetown University, Eurasia Foundation, and Chatham House. She has been a catalyst for change in sustainable business and social entrepreneurship and was awarded a top social venture entrepreneur by the

Global Good Fund Leadership program in Washington DC. Dr Ghaplanyan has publications, such as "Post-Soviet Armenia: The New National Elite and the New National Narrative", published by Routledge.



**Hasmig Baran, Ed.D.** is an educator with a Doctor of Education Educational Psychology from the USC, an M.A. in Educational Leadership and Policy Studies from CSUN, and B.S. from the AUB. Her dissertation was on "The Role of Ethnic Culture in Work-Family Balance Among Armenian Women in Leadership Positions in Higher Education". Dr. Baran is a lecturer at CSUN, the Chair of Haigazian University Board of Trustees, in the Near East Committee of Armenian Missionary Association of America, Board member of Avedissian School in Armenia and of the Regents of Prelacy Armenian Schools in Southern locally, a member of Western Association

of Schools and Colleges, Association of California School Administrators and of Prelacy Armenian Language Revitalization Committee. She has published articles in journals, has participated in academic conferences, given public talks on "Women's Leadership and Cultural Identity", "Armenian Organizations as Vehicles for Identity Preservation", "Armenian Diaspora Relations", "Is Maintaining Armenian-ness in the Diaspora Possible?" "Teacher Training for the 21st Century", "Content and Pedagogy of Genocide Education in the 21st Century: The Armenian Case". She is a Board member of the ARPA Institute.

**«ԳՐԻԳՈՐ ՆԱՐԵԿԱՅԻ՝ ՏԻԵԶԵՐԱԿԱՆ ՎԱՐԴԱՊԵՏ», Լեւոն Արք. Զեփեան  
Արքեպիսկոպոս Զեփեանը կը Ներկայացնէ՝ Անի Շապագեան  
Կայացաւ Շաբաթ, Օգոստոս 6, 2022, 11:00 ԿԱ, PST  
YouTube Link: <https://youtu.be/52rcsMbEz6M>**

**Ամփոփում՝** Գրիգոր Նարեկացիի կերպարը կ'ուրուագրուի առանձնակի անկրկնելիութեամբ մը՝ երկիր մուրակի ծիրերէն ներս, այն ամէն ինչի նկատմամբ, որ կայ անոնց մէջ՝ մարդկեղէն, գեղեցիկ, վստեական: Ան ինքզինք կը հաստատէ բացարձակ հանճարին իբրեւ ամենէն յատկանշիչ երեւոյթներէն մէկը որ բովանդակ ժողովուրդի մը պաշտամունքի առարկայ դարձած է: Գրիգոր «բան» ըսած է, «խօսք». որովհետեւ մարդու խօսքին նաւաբեկումն է որ կ'ուզէ բացատրել: Մարդս և իր խօսքը երկփեղկած են, նաւաբեկած են: Նարեկը առաջին Բանէն մինչեւ վերջին Բանը մարդուն այդ գոյութեան ատկան (ոչիսկ), մարդը ինքը գոյութեան ոչիսկն է, եւ այսպէս կը հիւստի ամբողջ խօսքին զարգացումը. խօսքը նաւաբեկած է, խորագոյնս սուգուած է մարդկային խօսքին, մարդկային լեզուին, մարդկային «բան»ին: Ողբերգութիւնը այդ է, եւ ուր է փրկութիւնը, յախտեանական Բանն է՝ Միածին Որդին եւ Բանն Աստուած, որ կու գայ եւ մարդուն թերին կը լրացնէ: Այն պարապութիւնը, այն անողունը, որ կը գոյանայ, կը լեցուի անասանանօրէն յանճարական Բանին մարդեղութեամբ: Մարդկային, ուստի նաեւ աստուածաբանական խնդրարկումը այս կետէն կը

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մեկնի: Կայ ապա մեղքի զգացումը... Մեղքը մարդու սահմանափակումն է: Պէտք է մեր ակունքին վերադառնանք: Նարեկի մեզի համար ամենամեծ դասերէն մէկը այս է:



**Արհի. Գերայ. Տ. Լիլտն Արք. Չէրիեան՝** Ծնած է 21 Հոկտեմբեր 1943 ին Պոլիս: Բերա Սաքրգաղաճի Մխիթարեան Վարժարան, Վենետիկի Ս.Ղազարու դպրեվանք ուր 1967-ին ձեռնադրուած է կուսակրօն քահանայ եւ ապա Բարձրագոյն ուսումը Հռոմի Գրիգորեան Համալսարանը, ուր ստացած է իմաստասփրութեան և աստուածաբանութեան մագիստրոսութեան աստիճանները: Նաեւ երկու տարի հետեւած է աստուածաբանութեան դոկտորականի մասնագիտական դասընթացքներուն: Ստացած է փիլիսոփայութեան դոկտորի աստիճանը Իսթանպուլի Պետական Համալսարանէն: 1974-ին վերադարձած է Վենետիկ, օգնական Խմբագիր եւ ապա Խմբագրապետ «Բազմավէպ» հանդէսին, 1980-ին եւ Ս. Ղազարու Հայկական Ճեմարանին քարտուղար: Վարած է զանազան ուսուցչական պաշտօններ եւ դասաւանդած է հայերէն աշխարհաբար եւ գրաբար, յունարէն, փիլիսոփայութիւն, Հայ գրականութեան, ընդհանուր պատմութիւն: Եղած է Մուրատ Ռափայէլեան Վարժարանի տնօրէն, անդամ Հայագիտական Ուսմանց Միջազգային Ընկերակցութեան (AIEA / Association Internationale des Etudes Arméniennes) Վարչութեան, մաս կազմած է բազմաթիւ միջազգային գիտահաւաքներու կարգադիր յանձնախումբերուն, եւ հարիւրաւոր զեկոյցներ կարդացած միջազգային գիտաժողովներու մէջ ու գրած բազմաթիւ յօդուածներ: 2014-ի Մայիսի 21-ին նշանակուած է Պապական վճիռով Պոլսոյ և Թուրքիոյ Կաթողիկէ Հայոց առաջնորդ եւ տակաւին կը պաշտօնավարէ:

**«Հայերէնի մէջ ժամանակակից արհեստագիտութեան օգտագործումը»**

**Յակոբ Կիլլիւճեան, Մարատ Եավրումեան, Անահիտ Տօնապետեան եւ Վարդան**

**Թաշճեան: Ղեկավարեց՝ Ռազմիկ Փանոսեան**  
**Կայացաւ Շաբաթ, Սեպտեմբեր 10, 2022 @ 11:00 am, PDT**

**YouTube Link: <https://youtu.be/xZhmgaMY1B4>**

**Ամփոփում.** հայերէնի կրթութեան մէջ ժամանակակից արհեստագիտութեան (technology) օգտագործումը իսիստ անբաւարար է, յատկապէս Սփիւռքի մէջ: Օրինակ՝ Սփիւռքի հայկական վարժարաններուն մէջ հայերէն ստեղնաշարի ուսուցման եւ օգտագործման բացակայութիւնը անհասկնալի է, մանաւանդ երբ թուային արագացումը կրթութեան մէջ եւ ամենուրեք կը ներկայանայ որպէս ամենօրեայ հրամայական՝ ամբողջ համացանցի վրայ հայերէն լեզուի գործածութիւնը, համեմատաբար միւս լեզուներուն, միայն 0,03% է: Նորագոյն գործիքներու թեքնիք հնարաւորութիւնները հայերէնի առցանց ներկայութեան եւ կրթութեան համար օգտագործելը դարձած է անյետաձգելի: Մասնագէտներու կողմէ պիտի արծարծուի արդի մօտեցումներու եւ յառաջացած միջոցներու անհրաժեշտութիւնը՝ հայերէնի տարածման եւ լայնածաւալ օգտագործման ի նպաստ: Պիտի ներկայացուին նորագոյն արհեստագիտական ալկորիթմները՝ որ արդէն պատրաստ են եւ գործնականօրէն մատչելի:



**Փրոֆ. Յակոբ Կիլլիւճեան՝** վկայուած տնտեսագիտութեան մէջ (MBA) եւ գրականութեան դոկտորականով (Պուլեոս Այրէսի Յիսուսեան համալսարան, USAL): Ուսումնասիրած եւ հրատարակած է միջնադարեան եւ արդի ու յետարդի սփիւռքահայ բանաստեղծութեան, ինչպէս նաեւ ժառանգական լեզուի, մշակոյթի, սփիւռքներու եւ կարողականութեան (virtuality) փոխազդեցութեանց մասին: Այժմ կը դասաւանդէ հայերէն լեզու եւ գրականութիւն UCLA-ի մէջ: Ունի նաեւ խորհրդատուական փորձառութիւն, արհեստագիտութեան վերաբերող քաղաքականութեան շուրջ օժանդակած ըլլալով պետական հիմնարկներու, Արժանթինի պետութեան հրաւերով համահիմնադիր եղած ըլլալով Internet2 ակադեմիական եւ պաշտպանական ցանցին: Անցնող տասնամեակին ան յատկապէս գործօն գտնուած է արեւմտահայերէնի շուրջ հետազօտութեամբ ու ծրագիրներով՝ սկսելով ԻԻՆԵՍՔՈյի կողմէ լեզուի վտանգութեան մասին յայտարարութիւնը հիմնաւորող տեղեկագրէ մը մինչեւ լեզուական կենսունակութեան մասին նոր տեսութեանց եւ գործնական կիրառումներու առաջադրումը: Ասոնց կարգին են «Ժամանակայնօրէն պայմանաւորուած խորշաւորում»-ի յղացքը, սպառող ու արտադրող վճռական զանգուածի ապահովման կեդրոնական կարեւորութիւնը, եւ ասոր համար լեզուն «ապախորշաւորելու» եւ ստեղծագործ գրաճանաչութիւն տարածելու եղանակը:



**Մարատ Եավրումեան՝** «Հայերէն Ծառադարան» ծրագրի ղեկավար, բնական լեզուով գրութիւններու մեքենական վերլուծութեան համակարգերու ստեղծման գործընթացի եւ հայերէնը թուային հարթակի վրայ աւելի գործածելի եւ մատչելի դարձնելու, ինչպէս նաեւ մեծ կազմակերպութիւններու հետ համագործակցելու տարբերակներու մասին իր աշխատանքներով նպաստած է հայերէն լեզուի զարգացման եւ տարածման: Պայրոյթի Համալսարանէն (University of Bayreuth, Germany) լեզուագիտութեան դոկտորի վկայականով՝ Եավրումեան արեւելագիտութեան մարզին մէջ հմուտ հետազօտող մըն է: Մարատ Հայաստանի մէջ առաջին թուային գիրքերու հրատարակիչն է եւ հիմնադիրը Եավրուհրատ (Yavruhrat) ե-գիրքերու հրատարակչատան: 2017-էն ի վեր իր կողմէ սկսուած է իր առաջնորդութեամբ կը գործէ Armenian Dependency Treebank-ը, որ թուային լեզուաբանական համակարգ մըն է՝ նպաստելու համար հայերէն թուայնացման գործընթացին:



**Վարդան Թաշճեան** վարիչ խմբագիրն է «Տարբերակ21» առցանց հանդէսին եւ վարիչը Հայ կաթողիկէ Մերոպեան բարձրագոյն վարժարանի տեղեկատուական գրասենեակին, Լիբանան: Վկայուած է Պէյրութի Հայկազեան համալսարանի քաղաքագիտութեան ճիւղին: Լիբանանի մէջ հիմնած եւ ղեկավարած է շարք մը լրատուական միջոցներ, հայերէն լուրերու եւ մշակոյթին նուիրուած օրական եւ շաբաթական հաղորդումներու պատկերասփիւռային յայտագիրներ. հեղինակ է յօդուածներու, բեմագրութիւններու, կարճ թատերգութիւններու: Հիմնադրած եւ ղեկավարած է հայ կաթողիկէ պատրիարքութեան Դպրոցական հայագիտութեան զարգացման գրասենեակը եւ *Հայ Մանկավարժ* մասնագիտական հանդէսը: 1990-2000 ապրած եւ աշխատած է Հայաստանի եւ Լեռնային Ղարաբաղի մէջ որպէս մամուլի տարբեր օրկաններու ղեկավար եւ աշխատակից, 1997-2000 կամաւոր ծառայած է ԼՂՀ Պաշտպանութեան բանակին մէջ որպէս աւագ սպայ: Այժմ կը համադրէ արեւմտահայերէնի հիմնադարանի ձեւաւորման աշխատանքներ, որուն պիտի յաջորդէ արեւմտահայերէն text-to-speech եւ speech-to-text թուային գործիքներու մշակումը:



**Փրոֆ. Անահիտ Տօնապետեան-Տէմովուլու.** լեզուաբան, քերականագետ, Սորպոն-Նուվել համալսարանէն դոկտոր՝ Տօնապետեան 1991-էն ի վեր կը վարէ ԻՆԱԼՔՕ համալսարանի (Փարիզ, Ֆրանսա) հայագիտական՝ բաժանմունքը, որուն ծիրէն ներս հիմնած է եւրոպական չափանիշներով պետական ուսումնական ծրագրեր՝ հայերէն լեզուի եւ քաղաքակրթութեան Լիսանս (BA, 1996) եւ Մաստեր (MA, 2006): 2021-էն սկսեալ արձակած է լիովին առցանց եւ հայալեզու Միջազգային Հայագիտական Մաստեր (IMAS), որուն նպատակը քաջալերելն է հայերէնի կիրարկումը մասնագիտական ասպարէզի մէջ եւ միջազգային ցանցերէ ներս: Տօնապետեանի հետազոտութիւնները կը վերաբերին արեւմտահայերէնի քերականական կարգերուն, ընկերակազմաբանական հարցերուն, լեզուներու տիպաբանութեան եւ Փոքր Ասիա-Կովկաս-Իրան գօտիի լեզուներու շփման հետեւանքներուն՝ լեզուական փոփոխականութեան կապակցութեամբ: Ինալքօ համալսարանէն ներս պաշտօնավարած է որպէս MA ծրագրերու ընդհանուր ղեկավար, հետազոտական միաւորի հիմնադիր-տնօրէն, գիտական խորհուրդի եւ վարչական խորհուրդի անդամ: Հայաստանի Հանրապետութեան Ակադեմիայի արտասահմանեան անդամ է (2012) եւ Ֆրանսայի Պատուոյ Լեգէոնի ասպետ (2014): Եւրոպական եւ հայաստանեան գիտական հանդէսներու խմբագրութեան անդամ է, եւ 2010-2022՝ *Faits de Langues* (Brill) միջազգային հանդէսի գլխաւոր խմբագիր:



**Ռազմիկ Փանոսեան** Գալուստ Կիւլլէնկեան Հիմնարկութեան Հայկական Համայնքներու Բաժանմունքին տնօրէնն է 2013-էն սկսեալ: Իր պաշտօնավարութեան շրջանին, Բաժանմունքին գործունէութիւնը կեդրոնացած է նաեւ հայերէնի կենսունակութիւնը ապահովող ծրագիրներու վրայ, ներառելով թեքնաբանական կարեւոր նախաձեռնութիւններ, որոնք յատկապէս կը վերաբերին արեւմտահայերէնին: Փանոսեան ուսանած է Գանատա, McGill եւ York համալսարանները: Իր դոկտորական աւարտաճառը պաշտպանած է 2000 թուականին, London School of Economics and Political Science-ի մէջ, ուր նաեւ դասաւանդած է քաղաքագիտութիւն: Ան հեղինակն է *The Armenians: From Kings and Priests to Merchants and Commissars* գիրքին, ինչպէս նաեւ հայկական ինքնութեան, սփիւռքին եւ քաղաքականութեան մասին ակադեմական շարք մը հրատարակութիւններու: Փանոսեան վարած է Գանատական International Centre for Human Rights and Democratic Development պետական հաստատութեան ծրագիրներու տնօրէնութիւնը:

**“National Security and International law for Armenia and Artsakh”**

**Gassia Apkarian, Karnig Kerkonian and Vahagn Avedian, Moderator: Nerses Kopalyan**

**Held on Sunday, November 6, 2022 @ 10:00 am, PDT**

**YouTube Link: <https://youtu.be/rldz0w7nnhA>**

**Abstract:** There are two seemingly contradicting principles for resolving territorial conflicts: territorial integrity versus peoples’ right for self-determination. Which, according to international law are not contradicting. The EU and the US, as part of the OSCE Minsk Group have become more active, but Azerbaijan’s autocratic leadership is pushing for dismantling the group. One reason is the recent statements by both EU and US officials about Nagorno-Karabakh Armenian’s right for self-determination. Baku is vehemently rejecting this right, while some are pushing for Nagorno-Karabakh autonomy, while guaranteeing minority rights of the population of the region in a “multi-ethnic Azerbaijan”. The latter is substantiated by the principle of “territorial integrity,” specially since Russia’s invasion of Ukraine. However, following the OSCE Charter and considering the state of democracy in Azerbaijan, one can argue that remedial succession based on people’s right for self-determination is highly justified in the case of Nagorno-Karabakh and is the only viable solution for the conflict in accordance to existing norms and past precedent.



**The Honorable Gassia Apkarian** is a Judge of the Superior Court of California since 2014, in the County of Orange. She was born in Aleppo in 1967 and grew up in Lebanon. Apkarian immigrated to the United States at the age of 16, received her high school diploma in Irvine, California, and then graduated with a BA in political science, minoring in Russian, from the University of California, Irvine. Gassia received her JD from the University of LaVerne, College of Law and moved to Armenia as the Country Director for the Armenian Assembly of America. Hon. Apkarian came back to the US as Special Assistant to Ambassador Ruben

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Shugarian in the Embassy of the Republic of Armenia, continued as the Executive Director of Democrats 2000, a progressive PAC, Chaired by Vice President Al Gore. Upon a request from the Kocharyan Administration, she returned to Armenia with her young family to serve as special assistant. Soon after the Parliamentary assassinations in Armenia, Gassia returned to California to pursue her legal career as Deputy Public Defender. In 2008 she started her own law firm, Apkarian Defense, APC gaining extensive experience in criminal law. Days after the ceasefire of the 44-Day War in Artsakh, she helped establish the Center for Truth and Justice, teaching young law students and lawyers in Armenia and Artsakh how to collect testimonial evidence on war crimes. Judge Apkarian was awarded the 2022 Alba Witkin Humanitarian Award by both the California Judges and the Witkin Foundations.



**Karnig Kerkonian** is an international lawyer and experienced litigator. He currently leads the international and federal practice groups at Kerkonian Dajani LLP. Karnig has an A.B. in Government from Harvard University and two law degrees, a J.D. from the University of Chicago and a post-doctoral Diploma in Public International Law from Cambridge University, England, under James R. Crawford. Mr.

Kerkonian in 2003, began his own practice on litigation of foreign sovereign immunity, international business contracts, fiduciary duties, statutory and tort claims, international acquisitions, joint ventures and stock/asset sales, as well as international human rights issues. Karnig presents on public international law, the International Court of Justice, the European Court of Human Rights, and the application of international law in U.S. courts. He is an adjunct professor of public international law at Artsakh State University. Kerkonian has the following Bar Admissions: State Bar of Illinois, the U.S. District Courts for Columbia, Northern District of Illinois, and Colorado, as well as Courts of Appeals for the D.C. Circuit, Seventh Circuit, Ninth Circuit, and the Supreme Court of the United States.



**Vahagn Avedian** has a PhD in history and is a peace and conflict researcher focusing on human rights and democracy. His research has been on the legacy of the Armenian Genocide, its politics of memory, its impact on both the perpetrator and the victim, the inter-relations and the reconciliation process as well as international law and its political aspects. Avedian also studies post-conflict societies, how they are affected by the conflict, the viable path towards a sustainable solution and the role of the international community. One such case is the Nagorno-Karabakh Conflict between Armenia and Azerbaijan, impacting the region, their democratic and dictatorial systems, respectively, as well as the role of the international community.

Vahagn's forthcoming book (Routledge) is entitled "A Theory of Collective Reconciliation: A Trinity of Recognition, Responsibility and Reparation."



**Dr. Nerses Kopalyan** is an assistant professor-in-residence of Political Science at the University of Nevada, Las Vegas. His fields of specialization include international relations, geopolitics, political theory, and philosophy of science. He has conducted extensive research on polarity, superpower relations, and security studies. He is the author of *World Political Systems After Polarity* (Routledge, 2017) and the co-author of *Sex, Power, And Politics* (Palgrave Macmillan, 2016). He also authored two policy papers for the Republic of Armenia, "Transitional Justice Agenda for the Republic of Armenia" (Ministry of Justice) and

"Changing the Paradigm in Armenia-Diaspora Relations (Office of the High Commissioner for Diaspora Affairs). He serves as an advisor to the Office of the High Commissioner for Diaspora Affairs. His current research concentrates on geopolitical and great power relations with an emphasis on Eurasia. He has also done extensive work on political developments in Armenia prior and after the Velvet Revolution, articles of which are published with EVN Report.

### **"The Armenian Diaspora: Current Issues and Future Prospects"**

**Khachig Tölölyan, Hratch Tchilingirian and Vahe Sahakyan, Moderator: Ani Shabazian**

**Held on Saturday, December 10, 2022 @ 10:00 am, PST**

**Abstract:** There are Armenian researchers who have strong and well-developed views on why the idea of uniting and "governing" the diaspora is an impossible endeavor. Others have views about the gap between the Armenian public's idea of what the Diaspora is, how it behaves and thinks versus what the recent Armenian Diaspora Survey reveals. Scholars have written extensively on diasporas and transnationalism as it relates to many other diasporas, emphatically including the Jewish one. Many of the current issues related to the future of the Armenian Diaspora, its characteristics, capabilities, the problems it faces, and its relations with Armenia will be discussed and analyzed. Moreover, the several types of relationships that will prevail between the Homeland and Diaspora entities and institution will be examined.



**Khachig Tölölyan** is one of the founders of the field of diaspora studies and the founding editor of the Zoryan Institute's award-winning DIASPORA: A JOURNAL OF TRANSNATIONAL STUDIES, which he edited for nearly 30 years. Professor Tölölyan grew up in the Armenian diaspora communities of Syria, Egypt, and Lebanon, then immigrated to the US. He received his BA from Harvard in Molecular Biology and his PhD from Brown University in Comparative Literature. As an academia-based scholar, he has published numerous articles on literature,

Armenian terrorism, and diaspora studies; as an Armenian intellectual, he has published over 200 columns, reviews and articles on Armenian issues, principally in Paris' newspaper Haratch. He is currently interested in the challenges faced by countries that send migrants, those that receive them, and the ways in which the migrants form transnational communities, particularly diasporas – what political, economic and cultural challenges do they face, when and how do they overcome them, or fail to, and how do they function as the exemplary communities of global transnationalism?

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**Hratch Tchilingirian**, Ph.D., is a sociologist specializing in Middle Eastern and Armenian studies, with a particular focus on identity, culture, religion, homeland-diaspora relations, and inter-ethnic conflicts in the Middle East and the Caucasus. He is Associate in the Faculty of Asian and Middle Eastern Studies, University of Oxford, an Associate Professor of Armenian Studies (IMAS program) at Institut National des Langues et Civilisations Orientales, and the Director of Armenian Diaspora Survey, a 10-country, public opinion research project funded by the Gulbenkian Foundation, about which he has so far published two of the projected four edited volumes. He is the author of *The Struggle for Independence in the post-Soviet South Caucasus: Karabakh and Abkhazia* (2003), *The 'Other' Citizens: Armenians in Turkey between Isolation and (Dis)Integration* (2017), and numerous studies and publications ([www.hratch.info](http://www.hratch.info)). He has lectured internationally, recently drawing attention to the plight of minorities and Christian communities in the Middle East, especially in academic and policy-making circles.



**Vahe Sahakyan** is Research Associate and Senior Information Resources Specialist at the University of Michigan-Dearborn, Armenian Research Center. He received his PhD in Near Eastern Studies from the University of Michigan, Ann Arbor. He also holds a Candidate of Sciences degree in Sociology from Yerevan State University (YSU). Sahakyan has held teaching, research, and administrative appointments at YSU, and at the University of Michigan. During the past decade, he has conducted multi-sited empirical studies of the Armenian diaspora as part of his doctoral research, and later as member of the Academic Advisory Board of the Armenian Diaspora Survey. He is broadly interested in the study of diasporas, nationalism, and transnationalism from both theoretical and comparative perspectives. With the grant support of the Calouste Gulbenkian foundation, he compiled and edited *Spyurkagitutyun: Knakan Antologia [Diaspora Studies: A Critical Anthology]*, a volume bringing together Armenian-language translations of 19 fundamental articles and book chapters in *Diaspora Studies* by renowned Western scholars, which was published in 2022 by Yerevan State University Press.

### **[ARPA Institute: Organizing Science Fairs in Schools of Armenia:](#)**

The ARPA Institute has been working in Armenia on science fairs in schools with the Ministry of Science, Education, Culture and Sports (SECS), when the first science fair was organized and held in the National Academy of Sciences headquarters on Baghramian Ave. in October of 2017. Prior to that, a teacher-training program was carried out in the Heratsy school facilities, where around 80 teachers were in attendance. They were divided into teams of four and guided to perform a science project of their own, by experimenting on paper airplanes with each team optimizing a parameter, while all the other parameters were kept constant. The objective was to have them understand the real meaning of a science project and learn how to guide their students. 24 projects from various schools in Yerevan and the regions were presented in the science fair. A select group of judges were trained and asked to interview the students and the best 4 were awarded.

Since then, ARPA has been working with the current SECS Ministry, has had many on-line meetings with Deputy Minister Zhanna Andreasyan and her assistant Anna Khudoyan and Susanna Azadyan.

On October 11 at 3:30-5:30 PM an on-line teacher-training on science fairs was held with the participation of 147 teachers from all regions of Armenia. Presented were all the necessary steps that teachers must take to organize an effective science fair and guide the students to select projects, carry out research, do experiments, collect data, and make conclusions based on their data. Also, be able to present their results on display board and to judges. They were also given sample projects related to constructing paper airplane of different designs for experimentation. which they each carried out on their own and reported on their findings, as a student should do. In addition, the video on science fairs, which the ARPA Institute had prepared, were shown to the participants and their questions were answered in detail.

On October 12 at 3:30 PM the Science Fair on-line Teacher Training program was held for the second day with the participation of 89 teachers from various regions of Armenia. The presentations included a review of what was discussed yesterday, details on the organization of school science fairs and the role of the teachers in guiding students, finding judges, organizing the whole science fair. The scheduling of science fairs and helping students in selecting a topic/question, carrying out research, writing down a formal procedure for the implementation, a list of materials used, references, development of a prototype, carrying out experiments, writing down results on a spreadsheet, analyzing the data and making a conclusion. Finally, described was how to prepare a display board, how to present the results to judges. The final phase included development of paper airplanes by each teacher, deciding on what parameter to study, such as flight-time versus wingspan, distance flown versus flight time, angle of flight initiation versus distance travelled, etc. They were warned that the airplanes should be flown several times under each condition and the averages taken, they should all be flown with the same force, same height, and same direction. There was quite a bit of enthusiasm in some of them and they had quite a few questions. Overall, it was a very productive meeting.

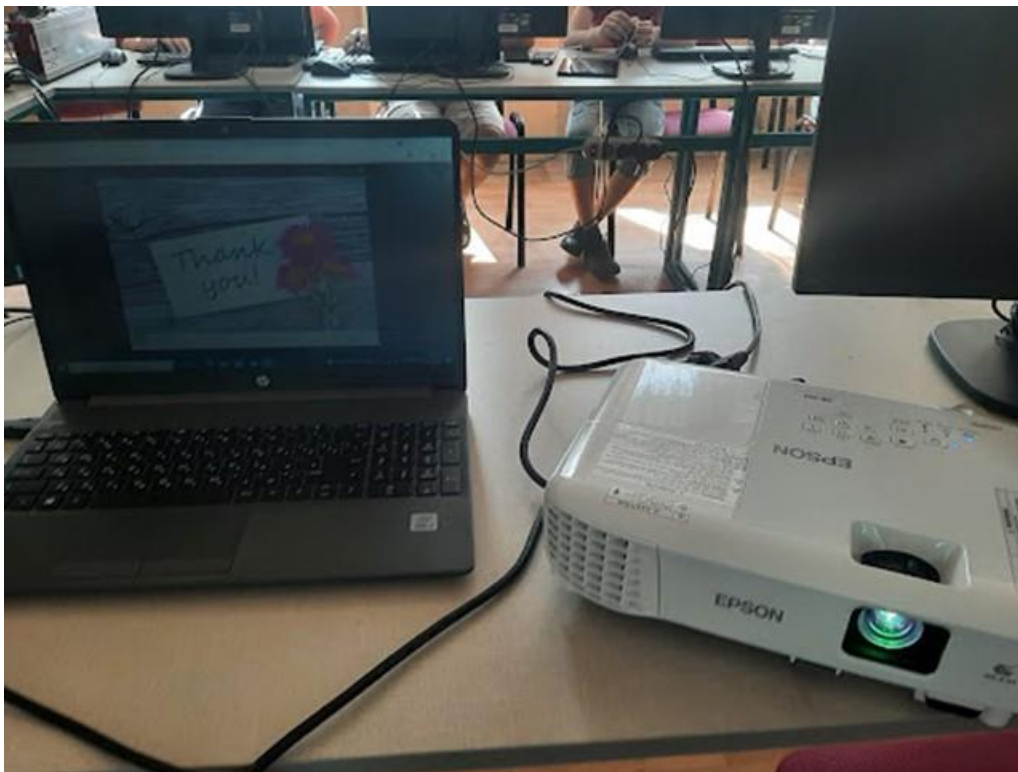
This year official announcements from SECS will go out to all schools in all the regions of Armenia and will solicit participation in the science fair in Yerevan. Teachers will be guided to help students select their project topics in December, carry out research on their topics in January, construct a prototype, perform experiments, and collect data in February and be ready for their regional science fairs in early March. The final *Գիտափետուազոտական Փառատուն* will be held in April in Yerevan. The winners will once again participate in the 2022 ISEF, most probably on-line again.

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Armenia Science Fair Poster

**Report From the ARPA Institute Executive Director in Armenia:** ARPA Institute applied for and received a \$5,000 grant from International Science and Engineering Fair (ISEF) to realize a project which would provide schools in the provinces (Marzs) a technology boost to extend internet access and computing resources to more students. ARPA Institute put together a list of the schools with the most need for the technology resources. Overall, 6 schools across Lori, Tavush, and Ararat Marazs (Artsni, Ayrum, Berd City Secondary, Berd City High, Ararat City Principal, and Vedi City Principal Schools) were identified and provided with a new laptop and projector. The laptop and projectors were set up to allow access for all students to use for science fair research and education projects (Please see image below). The hardware was personally delivered to each school and set up and configured. The school principals and teachers were very appreciative and excited to receive the laptops and projectors. Special thank you to Netcore LLC for working with ARPA in procuring and facilitating the delivery of the hardware.



My annual visit to Armenia to hand out the ARPA Institute Annual Invention Competition Awards to the winners and certificates to the participants, as well as to discuss relevant issues with the Ministries, the Rectors of Universities and other public organizations on advancing education, science, technology, healthcare, and other areas took place September 15-October 15,2022. Below, please read my report:

**TRIP REPORT 2022**

1. On September 18 at 10:00 AM I had a meeting in Yerevan with the ARPA Team in Armenia. Present were, Barkev Iskikian, Maro Aghazarian, and Sara Vorsganian. We discussed the issues related to science fairs and appointments with Ministries and University rectors. We also went over various activities of the ARPA Institute and the role and assistance the team could provide.



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2. On September 18 at 2:00 PM also met with the STEAMar team in the Mergelyan Institute facilities. Present were Hrachya, Yelena, Tatevik, Sara, and Hovhannes. Discussed were issues related to training teachers for science fairs and cooperating with STEMar and UITE (Union of Information Technologies Enterprises). It was concluded that an optimal approach will be to team up with UITE and have them be the main organizers of the country organizers of the science fairs, as well as training of teachers. Moreover, STEMar could then be the provider of various project kits in different areas of science.
3. On September 22 at 12:30 PM we had a visit with the Rector of the National Polytechnic University of Armenia, Mr. Gor Vardanyan. He presented his ambitious projects regarding the modernization of the university. We asked his help to encourage students to have greater participation in the ARPA Institute Invention Competition for Young Scientists, since there was only one submission in which one NPUA participant was a coauthor of one of the inventions this year. We also had Mr. Sevan Varteresian with us, a renewable energy expert who presented an outline of a course he wishes to teach to graduate students. Mr. Vardanyan welcomed the idea and made special arrangements to have the person in charge at NPUA work with Mr. Varteresian to take the necessary steps.
4. On September 22 at 4:00 PM we visited the Physical Research Institute, where the nanotechnology team of graduate students and their leader, Dr. Aram Manukyan presented to us the results of their findings related to the use of the Hypothermia device, which the ARPA Institute donated to the PRI, as well as the Magnetometer, which the ARPA Institute helped acquire. Their work is in developing a methodology whereby magnetic nanoparticles are inserted in a person's cancer-diagnosed are, heating the particles up to 45 degrees Celsius to kill the cancerous cells. Moreover, they are also working on developing special nanoparticle-based coatings that will be used to absorb EM signals from radars to avoid detection of military personnel. We encouraged them to work towards innovative techniques of applying nanoparticles and stay away from techniques that have already been developed and in use around the world.
5. On September 23 at 4:00 PM we had a meeting with the Human Rights Advocate of Armenia (ombudsman), Ms. Kristine Grigorian. We discussed the situation of international reporting of the real events related to the war crimes, human rights, and abuses by Azerbaijan. We suggested to try to find volunteers to help her, since she has a team of only 3 people working for her. We stressed the importance of constant media antipropaganda and the dissemination of pertinent fact-finding information data to the international community.
6. On September 25, we attended a conference in the Matenadaran on the Hakobavank Monastery in the Martagerd region of Artsakh. Issues related to Artsakh and religious freedom, as well as protection of cultural and religious heritage issues were presented and discussed.
7. On September 28 attended the Science and Technology Convergence Conference, held at the Best Western Congress Hotel. According to the organizers there were overall 850 people registered. I was a panelist in the Science and Technology Funding panel. I presented what the ARPA Institute is involved in for the past 30 years and specifically underscored the need for consolidating resources, development of advanced laboratories with multidisciplinary problem-solving capabilities and modern equipment for global cutting-edge research in areas of most global impact and the development of competitive products.
8. On September 28 at 11:00 AM had a one-hour meeting with the Minister of Economy, Mr. Vahan Kerobyan. He indicated that the economic developments in Armenia are well ahead of expectations with an economic growth of over 8%. However, he described the political situation as highly unpredictable. I presented to him the ARPA Institute Roadmap for Economic Development of Armenia and specifically discussed the need for diversification of the industry to develop highly complex products. I described the theory developed by the Italian scientist Pietronero, who evaluates the economic and developmental status of a country by the extent of the complexity of its product. The more complex they are the more developed a country becomes. I also proposed the establishment of a "Science Foundation" with members from Armenia and the Diaspora, with the task of reorganizing the educational system and the research institutes in Armenia and defining large and multidisciplinary project for the solution of global problems, which in turn can lead to the development of complex research and new products. I also suggested for Armenia to create a technology-transfer office with the legal system and mechanisms to give the capability of researchers to transform their innovations into commercial products. Moreover, I also passed on our experts' suggestion to start investment banking in Armenia, since our experts have been recommending such an approach for a while.
9. On September 29 at 4:00 PM a meeting was held at the United Advanced Technologies Enterprises (UATE) office with Mr. Haik Chobanyan, the former Minister of High Technology Industry, to discuss ways and means of cooperating to advance and expand science fairs in Armenia. We were told that UATE has around 600 ARMAT Laboratories, where they teach students robotics, engineering, software, etc. The program is after school, and teachers are trained to carry our STEM education. We proposed the idea that UATE get involved in organizing the science fairs, at least for their schools, and in training teachers. Mr. Chobanyan was agreeable to such an arrangement and said that they already have special working relations with the Ministry of Education, Science, Culture and Sports (ESCS) and it would be easy to extend that task.
10. On September 30 at noon, we met with the Minister of High Technology Industry (HTI), Mr. Robert Khachatryan. Also present were Mr. Gevorg Mantashyan, Deputy Minister, Ms. Eliz Gevorgyan Head of EU and International Relations and Armen Yeghiazaryan. We presented the history of the ARPA Institute and, especially the past and

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present important projects carried out in Armenia. Also discussed were the need for industry diversification, establishment of a "Science Foundation", establishment of Technology Transfer Offices, establishment of well-organized and managed research and development facilities and working on big project that may attract first class international scientists. They were interested in development of Space Technologies, as well as other advanced fields. We presented the past activities with international astrophysicists to evaluate the possibilities of renovating/repairing the ROT-54 space antenna on the Aragadz mountain. The Minister was interested to learn more about the antenna and our findings, and we provided him with relevant data.

11. On September 30 at 9:30 AM we had a meeting with the Deputy Minister of ESCS, Ms. Zhanna Andreasyan and Susanna Azadyan, the head of the Development and Implementation of General Extracurricular Programs. We presented the idea of having UATE involvement in the organizational and teacher-training tasks for the science fairs in Armenia. Ms. Andreasyan agreed to the idea and promised to discuss the details with Mr. Chobanyan. We also suggested that the science fairs be raised to the level of Olympiads, whereby it can easily benefit from funds allocated for such programs and be organized on a Marz-by-Marz manner. Moreover, the Marzbeds (Governors) could organize the events and promote it, thus encouraging the participation of more schools. They were also agreeable to this idea. We suggested the need for better communication with the Director of Science Fairs, and Ms. Andreasyan promised to discuss this issue with Harut.
12. The ARPA Institute Invention Competition Awards Ceremony was held on October 3, 2022, at 2:00 PM in the Yerevan State University (YSU) Rector's Hall (the Academic Council's Hall). Present were the Commissioner of Diaspora Affairs, the Honorable Zareh Sinanian, The Deputy Minister of High-technology Industry, the Honorable Davit Sahakyan, the Deputy Minister of Education, Science, Culture and Sports, the Honorable Karen Trchounyan and the Rector of the YSU, Mr. Hovhannes Hovhannisyanyan. Also present were over 40 graduate students and young scientists, as well as professors and guests. The certificates were handed over to each participant and then the winners were given their certificates and their awards by each of the Ministers or the rector. Each participating team gave a brief explanation of their invention, specifically stressing their innovation.
13. On Friday October 7, I visited the Cleanroom in the Alikhanyan National Laboratory and spoke with Narek Margaryan, the Director of the cleanroom. The 10 instruments that were donated by Dr. Aram Tanielian were laid down on the corridor floor in dust and dirt. Even so, they seem to be in good shape. However, we could not test any of them to see if they work or not because, Narek had not had a chance yet to study the manuals and see which one, if any can work with the local 220-volt power supply and if we need to use transformers. We had a video call with Aram Tanielian and showed him the devices. He explained what each one is and what it does. However, I immediately realized that Narek is not going to be able to use any of these instruments unless Aram travels to Armenia and teaches Narek the use of each one of them. I suggested to Aram to come to Yerevan, and he agreed. I asked Dr. Ani Aprahamian if they can provide accommodation for Aram, and she said yes. So, Aram will travel to Yerevan sometime in the coming weeks and work with Narek.
14. On October 10, 2022, at 1:00 PM a meeting was held with the Chairman of the Science Committee, Mr. Sargis Hayotsyan. Discussions were on the need for consolidation of both human and material/instrumentation resources for higher efficiency, raising the level of science fairs to Olympiad category, whereby science fairs will be organized region-by-region and the winners will participate in the Science Day in Yerevan. Moreover, presented were some of the reasons why the ROT-54 antenna on Aragats should be renovated. His response was positive on the first two and outright negative on the ROT-54
15. On October 10 at 2:15 PM a meeting was held with the Diaspora Special Commissioner, Mr. Zareh Sinanian and discussed were essentially the same issues. He responded positively on all and requested some information on the ROT-54.
16. On October 11 at 2:00 PM a scheduled meeting with the President of the NAS Armenia, Dr. Ashot Saghyan. However, he had been called on official government issues and he came in at 2:30 PM. In the meantime, a meeting was held with the Secretary of the NAS Armenia, Dr. Artur Ishkhanyan. All the issues which were presented to him, he tried to explain why it cannot be done and that without government initiatives no science can be done in Armenia. His assessment was not consolidation of resources, but distribution. Discussions with Dr. Saghyan went well. He listened to all the issues raised and agreed with all. His assessment was that similar issues are being considered with similar solutions as the ARPA Institute's.
17. On October 11 3:30-5:30 PM an on-line teacher-training on science fairs was held with the participation of 147 teachers from all regions of Armenia. Presented were all the necessary steps that teachers must take to organize an effective science fair and guide the students, as well as the judges to select projects, carry out research, do experiments, collect data, and make conclusions based on their data. Also, be able to present their results on display board and to judges. They were also given sample projects related to constructing paper airplane of different designs for experimentation. which they each carried out on their own and reported on their findings, as a student should do. In addition, the video on science fairs, which the ARPA Institute had prepared, were shown to the participants and their questions were answered in detail.
18. On October 12 at 1:00 PM the team that is working on the Radiofrequency Photo-Multiplier Tube presented their recent results that include less than 100 picosecond resolution in measuring single-photon phenomena. They also discussed several different potential applications in various industries, including positron-emission tomography,

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microscopy, and others. They are requesting assistance in building their second and miniaturized prototype and are planning to test with double the frequency of their previous test, that is above 1000 MH. It is based on a helical deflector, which performs circular or elliptical sweeps of the electrons, using electromagnetic fields in the frequency range 500–1000 MHz. The position sensitive detector is based on microchannel plates (MCP) and a delay line anode. The experiment with the RF synchronized femtosecond laser beam demonstrated ~10 picosecond resolution for RFPMT.

19. On October 12 at 3:30 PM the Science Fair on-line Teacher Training program was held for the second day with the participation of 89 teachers from various regions of Armenia. The presentations included a review of what was discussed yesterday, details on the organization of school science fairs and the role of the teachers in guiding students, finding judges, organizing the whole science fair. The scheduling of science fairs and helping students in selecting a topic/question, carrying out research, writing down a formal procedure for the implementation, a list of materials used, references, development of a prototype, carrying out experiments, writing down results on a spreadsheet, analyzing the data and making a conclusion. Finally, described was how to prepare a display board, how to present the results to judges. The final phase included development of paper airplanes by each teacher, deciding on what parameter to study, such as flight-time versus wingspan, distance flown versus flight time, angle of flight initiation versus distance travelled, etc. They were warned that the airplanes should be flown several times under each condition and the averages taken, they should all be flown with the same force, same height, and same direction. There was quite a bit of enthusiasm in some of them and they had quite a few questions. Overall, it was a very productive meeting.
20. On October 14 at 11:30 AM, a meeting was held with Armen Kherlopian and discussions were around the topic of problems related to working on new startups, teaching professionalism, efficiency, teamwork, honesty, and rigor in work. The advice given was continued and persistent ventures, working with the younger generation, patience, and perseverance. Also discussed was the importance of selectivity and making the right choice.

### **ARPA Institute Annual Invention Competition for Young Scientists of Armenia: Awards Ceremony**

The ARPA Institute's 15th annual Invention Competition for Young Scientists was held during 2022 and 16 submissions were evaluated by experts from various fields. The format was that each scientist/student present a one-page summary, these summaries are evaluated and those that are found with potential for further research and development into a product will be asked to send a full proposal of their invention. The full proposal is evaluated by experts, graded, and discussed thoroughly, with special emphasis on innovation, creativity, thoroughness, practical significance, applicability, experimental results, comparison with other similar concepts and the winner selected by a majority vote. The winner receives a \$5000 grant. The second best is given an honorarium of \$1000 for encouragement. In addition, if their continued research shows promising results, they may receive additional funding and guidance for practical implementation. Thus, this year three projects were essentially found semi-worth-while and none really were considered as winning projects. On October 3, 2022, during the awards ceremony pointers were given to each proposal to improve and advance their projects.



2022 ARPA Institute Invention Competition Winners. 2ed Picture, with First Place Winner. 3ed, Guests at the Ceremony.

### **Cooperation with Yerevan State University Microbial Biotechnological and Biofuel Innovation Center**

**Professor Karen Trchounian, Chairman of the Department of Biology and Deputy Minister of SECS.**

**The Microbial Biotechnological and Biofuel Innovation Center has been equipped with the two-channel Benchtop pH/mV/ISE Meter with electrodes and accessories thanks to the ARPA Institute. This device provides new opportunities to implement academic and scientific research. The equipment is used for measurements of specific ions, pH, ORP in the medium with use of the ion selective, pH or ORP electrodes. Simultaneous usage of two**



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channels is an advantage to achieve good results in a short time. Benchtop pH/mV/ISE Meter is applicable not only for scientific experiments, but also for the implementation of educational practice for students. These are a very powerful additions to the Microbial Biotechnological and Biofuel Innovation Center and will be used in Applied Microbiology Master program laboratory courses. The ARPA Institute continues to support good research in universities and help students in their innovative endeavors.



With Dr Trchounian and his students in their lab, the instrumentation donated by the ARPA Institute

### **Cooperation with Institute of Physical Research of the NAS Armenia in Ashtarak**

The magnetic heating measurements by hypothermia devices are highly important for the Physical Research Institute in Ashtarak, and the ARPA Institute has provided the solid-state physics laboratory a new well-designed Hyperthermia System (HS) equipment. The system is crucial to properly heat synthesized magnetic nanoparticles. The magnetic nanoparticles have wide applications in cancer research, especially localized heating of nanoparticles near cancerous cells in the human/animal body. Carbon nanoparticles in carbob-based matrices have been developed and are being tested with the HS to evaluate the heating characteristic properties under magnetic forces. In Figure 1 the heating effect on the magnetic nanoparticles is shown, by using the HS, under a frequency of 350 kHz and with 220 Gauss magnetic field.

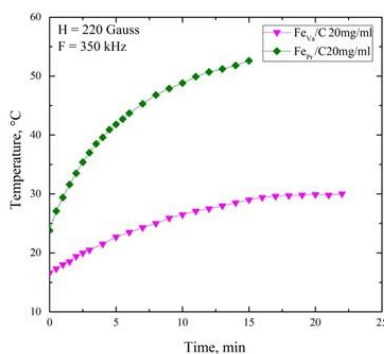


Figure 1-a) Magnetic Hyperthermia System measurement system. Figure 2. Vibrating Sample Magnetometer  
b) The heating curves under different iron concentrations

### **Cooperation with Alikhanyan National Laboratory of Armenia**

ANLA is the national science laboratory of Armenia since 2011. There are eight research divisions at ANLA. In any country competitive global science and technology requires infrastructure and instrumentation, training, and knowledge. That is the fundamental reason for the creation of an ISO-6 or Class-1000 cleanroom at ANLA that will be open for collaboration and use by all the universities and scientific institutes of Armenia as well as technology companies, as needed.

In addition, the ARPA Institute has been helping the team of Radio-Frequency Photo Multiplier Tube, led by Dr Amur Margaryan for their successful implementation of Radio Frequency timers of unsurpassed precision with huge potential in fundamental science and industrial applications with potential billions of EUR valuation in international markets. The ARPA

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Institute Board of Directors believe that providing the right infrastructure, especially a clean room will give Armenia a competitive edge in high level experimental projects.

For the development of thin films that are opaque to IR light, and which can be used in other technologies, a cleanroom at ANLA is of paramount importance. Its potential benefits to Scientific research and defense of the homeland could be significant. The cleanroom will allow fundamental and applied research to be carried out in a clean environment, will improve, and advance scientific research and enable advanced capabilities. It will also create collaboration between scientific institutes and private companies and even entice international researchers and scientists.

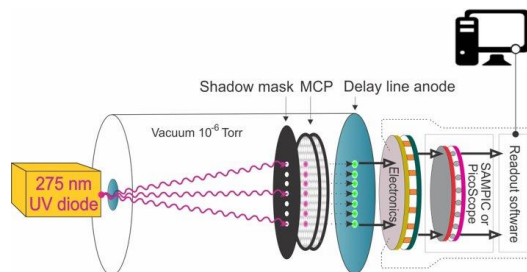
Letters of intent for use of the clean room have already been submitted by 7 public and private organizations.

The cleanroom is structurally completed and tested and has passed the degree of cleanliness requirement. Proper instrumentation and equipment are now being donated, purchased, installed, and the Cleanroom Director (Dr. Narek Margaryan) has been trained, a co-Director (Edward Alexanyan) has been appointed and the ARPA Institute cleanroom expert, Dr. Aram Tanielian will soon travel to Armenia to make sure that all necessary instruments and facilities are there, the users are well trained, and the necessary resources are available for continued operation and maintenance.

**Cleanroom YouTube Link:** <https://youtu.be/UMTLQ4E8-Jo>

### **The Radio Frequency Timer (RFT) group at ANLA**

The ARPA Institute working with the Yerevan Telecommunication Research Institute (YTRI), a new Radio Frequency synthesizer was developed, built, and tested and successfully used for spiral scanning of 2.5 keV electrons at ANLA. A new version of the Radio Frequency Photomultiplier Tube (RFPMT) will be developed, constructed, and tested. This new version will be demountable, by using Y2O3 cathode and other. This will be a joint ANLA, ARPA and Glasgow University project. Studies are in progress and excellent results have been received during testing at CANDLE with advanced laser systems and high frequency input signals.



**General view of the Test Setup    Young Scientists Working in the lab    Schematic of the Test Experimental Setup**

### **Cooperation with Armenian Bioinformatics Institute**

**One of the former winners of the ARPA Institute Annual Invention Competition for Young Scientists has a New Startup, called Armenian Bioinformatics Institute! Please check out their website: [abi.am](http://abi.am)**



The ARPA Institute is working with ABI to advance bioinformatics and biological sciences, including drug discover, biomedicine and biotechnology in Armenia. The First Place Winner of the ARPA Institute Invention Competition for Young Scientists in Armenia was Dr. Lilit Nersisyan, the young scientists who presented her work on “Computel: software for computation of mean telomere length from whole genome nextgeneration sequencing data” in 2015 and won first prize. She then worked with the Director of the Institute of Molecular Biology of the NAS Armenia to develop a computer program that estimates the telomere length of DNA, which now has worldwide use by numerous researchers. She has then founded the Bioinformatics Institute, which already has tremendous success and over two students/researchers and scientists working for ABI. The ARPA Institute helps provide technical advice, expertise and scholarships for post-doctoral students.

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# Donors to the ARPA Institute in 2022

Anonymous	\$50,000.00
Meher Babian DDS	\$25,000.00
Armen Hayrapetyan	\$10,203.54
Hagop Panossian	\$10,000.00
Adrin+ & Sosy Gharakhani	\$5,000.00
Ara Keshishian	\$9,183.74
Ani Shabazian	\$5,600.00
V A Apkarian	\$5,000.00
Custom Probiotics, Harry Bronozian	\$5,000.00
Adrin Nazarian	\$5,000.00
Armenian Missionary Association	\$3,000.00
Elizabeth A Agbabian	\$3,000.00
Karolin Gharakhani	\$3,000.00
Hratch Toumayan	\$2,041.11
Hasmig Baran	\$2,000.00
Sinanian	\$2,000.00
Raffi Mesrobian	\$2,000.00
Breadmasters ARA-Z, INC	\$2,000.00
Sarkis & Suzan Kitsinian	\$2,000.00
Dr. Aram Tanielian	\$2,000.00
Raffi Kendirjian	\$1,000.00
Shant Karnikian	\$1,020.80
Helen Haig	\$1,020.80
Annie Totah	\$2,000.00
Ourfalian & Ourfalian	\$1,000.00
Maral Anjargolian	\$1,000.00
ARMEN-AR (Nazareth Kevonian)	\$1,000.00
Avo Babian and Vanna. Kitsinian	\$1,000.00
Lara Dalian	\$1,000.00
Nicholas Hacopian	\$1,000.00
Zareh Gorjian	\$1,000.00
Gevork Martirosian	\$1,000.00
Khodam Rostomi (Rostamian)	\$1,000.00
Karakashian Mary & Ohannes	\$1,000.00
AHABA Elena Sagayan	\$1,000.00
Alec Bagdasarian	\$1,000.00
Aram Ter-Martirosyan	\$800.00
Sargis Sedrakyan	\$800.00
Meghedi Babakhanian	\$612.68
Sedik Toumayan	\$600.00

Marie-Louise Meneshian	\$600.00
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Armen & Hasmik Kocharian	\$600.00
Greg Marganian	\$510.65
Talene Kozanian	\$510.65
Zori Babroudi	\$510.65
Vahram Leon Shermmassian	\$500.00
Kapriel & Zepur Danadian	\$500.00
Robert Kurkjian	\$500.00
Ara Minassian	\$515.00
Razmig Arzoumanian	\$500.00
Dr. Silva Karayan	\$500.00
Armen Kherlopien	\$500.00
Rose Yeretsian	\$500.00
Nora K. Bezdikian	\$500.00
Vahan & Armine Garboushian	\$500.00
Hrair & Vartoug Tashjian	\$500.00
Paul Karlozian: aka Sam Karian	\$500.00
Ofik Abrahamian	\$408.62
Hrayr Karagueuzian	\$408.62
Karine Armen	\$408.62
Marina Soltani	\$400.00
Shant Shekherdimian	\$400.00
Shahin Antoinette Mastian	\$400.00
Sevag & Jacklin Ajemian	\$400.00
Anush Chalyan	\$400.00
Vache Shirikian	\$306.59
Ara Chutjian	\$300.00
Razmik Hartounian	\$255.58
Krikor & Marlene Yerevanian	\$250.00
Artin Ohanian	\$204.56
Tigran Shakhverdian	\$204.56
Ashkhen Bagoyan	\$204.56
Stephan Astourian	\$204.56
Eric M. Shax	\$204.56
Alex Beylerian	\$204.00
Michael A. Madzoeff	\$200.00
Medrik Minassian	\$200.00
Armen Der Kiureghian	\$200.00
Lori Panossian	\$200.00
Sarkis Barkhoudarian	\$200.00
Emil Dionysian	\$200.00
Hrant Khachatryan	\$200.00

Harutiun Harry Chinkezian	\$200.00
Lusine Yeghyan	\$200.00
Edvin Gevorkian	\$200.00
Karapet Khanoyan	\$200.00
Narbeh Kureghian	\$200.00
Zohrob Hovsapien	\$200.00
Levon Marashlian	\$200.00
Karolin Chitilian	\$200.00
Ara Assilian & Esther Assilian	\$200.00
Hermine Janoyan	\$200.00
Levon Filian	\$200.00
Andre Yarian	\$206.00
Sarkis Mazmanian	\$102.53
Demirjian Law Offices	\$102.53
Lori Panossian	\$100.00
Harutunian Insurance Agency Inc	\$100.00
Mark Abajian	\$100.00
Shant Apekian	\$100.00
Nora Avetyan	\$50.00
Snappy Style (Melody Nazarian)	\$30.00
Aslan Aslanyan	\$26.01
Stephen and Son Inc	\$1,500.00
AAmericanPayroll, Levon Minetyan	\$1,500.00
Takouhie & Bedros Kartounian	\$200.00
<b>Total For the ARPA Institute 30<sup>th</sup> Anniversary Celebrations:</b>	<b>\$ 194,911.52</b>
<b>In Memory of Adrin Gharakhani</b>	<b>Donation</b>
Raffy Toumayan	\$ 100.00
Stella Der Vartanian	\$ 204.56
Karineh Grigorian	\$ 51.52
Karapet Khanoyan	\$ 200.00
Emma Der-Mesropian	\$ 51.52
Ararat Tarbinian	\$ 100.00
Shahinn Mastian	\$ 102.53
Henrik & Shakeh Shahmirian	\$ 102.53
Daniel Motamed	\$ 255.58
Hratch Toumayan	\$ 255.58
Violet Rostami	\$ 50.00
Sedik Toumayan	\$ 153.55
Fred Velijanian	\$ 100.00
Sara Vorsganian	\$ 100.00
Gerald Toumayan	\$ 153.55
Harry Akoopie	\$ 102.53



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Rima Khadourian	\$ 50.00
Diran Deukmejian	\$ 150.00
Sahar & Mike Kiani	\$ 200.00
Roger Teherian	\$ 306.59
Joseph Russotti	\$ 51.52
Edmond Sardariani	\$ 204.56
Emil Dionysian	\$ 200.00
Razmig Hartunian	\$ 102.53
Ara Tahmassian	\$ 255.58
Ani Shabazian	\$ 200.00
Artur Davoyan	\$ 100.00
Aida Demirjian	\$ 204.56
Loretta Balanchi	\$ 100.00
Edward Alexanians	\$ 51.52
Paul Aslanian	\$ 100.00
Alice Varjabedian	\$ 50.00
Ron Taybi - Rami Designs	\$ 250.00
Margaret Vartanian	\$ 50.00
Ani & Aram Vartanian	\$ 150.00
Lydia Alishan Tutunjian	\$ 150.00
Norik Baboomian	\$ 100.00
Anita Abrahamian	\$ 100.00
Anahid Gharakhani	\$ 100.00
Anoush & Gevorg Martirosian	\$ 200.00
Harutiun Surmenian	\$ 500.00
Armen Hayrapetian	\$ 1,000.00
Hagop Panossian	\$ 204.56
Ruben Lusinians	\$ 306.59
Sargis Sedrakyan	\$ 102.53
Armen Kocharyan	\$ 204.56
Manushak Amzoyan	\$ 200.00
Jora Manoucherians	\$ 61.72
Lorig Panossian	\$ 255.58
Hasmig Baran	\$ 204.56
Meg Babakhalou	\$ 100.00
Armine Lulejian	\$ 100.00
Sosy Gharakhani	\$ 5,000.00
Artin Petrossians	\$ 100.00
Steven Alizadeh	\$ 250.00
Vartkes AI, Sandy Tomassian	\$ 200.00
	<b>\$ 14,300.41</b>

**There Is Much to Do For Armenia**

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Dr. Sargis Sedrakyan, ARPA Institute Treasurer  
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Glendale, CA 91201

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