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8th Young Scientists Festival

DEC 2024

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Young Scientists Festival

Report on
the 8th Closing Ceremony of the Young Scientists Festival (YSF)
Held on December 17, 2024
Organized by the Jamili Science and Technology Foundation
Hosted by the University of Tehran, Iran

The 8th Young Scientists Festival, driven by its mission of supporting basic sciences for the development of technology and innovation, concluded on December 17th, 2024 at the University of Tehran's Central Library, Tehran, Iran. In our pursuit of promoting knowledge and innovation, the festival made strides in supporting applied projects stemming from basic sciences, including chemistry, physics, mathematics, computer science, biology / environmental sciences, geology, and AI, aligning with the SDG goals.

The festival, organized by the Jamili Science and Technology Foundation, received spiritual support from a variety of national and international partners, such as Iran's Government Spokesperson, the Minister of Science, Research, and Technology, the Head of the Iranian National Commission for UNESCO, and the President of the University of Tehran. In addition, distinguished ambassadors and attaches from Germany, India, Malaysia, Nicaragua, Norway, Saudi Arabia, South Africa, and Switzerland, along with many other scientists, directors, and entrepreneurs attended the event.

The closing ceremony of the festival featured the participation of local and international representatives from organizations such as the ECO Science Foundation (ECOSF), IORA Regional Centre for Science and Technology Transfer (IORA RCSTT), BRISEC, and LAZSTA (Met South West Science Teachers Association), either in-person or online. Collaboration from international universities was also present, with contributions from Harvard University, Birkbeck College of the University of London, and Tsinghua University. Research teams that participated in the Young Scientists Festival had distant collaborators from international institutes in countries such as Canada, China, France, Germany, Spain, Sweden, Turkey, UK, and USA.

The festival consisted of two distinct sections: one dedicated to ideators and another for startup owners. The event emphasized the importance of fostering innovative ideas and transforming them into viable businesses and products.

From a group of 534 talented participants with qualified proposals, ten research teams and four startup teams were recognized as laureates and awarded for their innovative ideas and potential contributions to the scientific community.

The festival concluded with the awarding of a total of 33/150/000/000 rials in research and development grants to the festival's laureates. The first laureate from the startup team received the highest grant, valued at 5/000/000/000 rials. Among the research teams, 9 researchers received equal grants of 1/500/000/000 rials each, while the 10th research team received 1/800/000/000 rials, reflecting a 20% increase due to the inclusion of an international member in their team. In addition to the laureates, 21 proposals with high potential were selected for support, though they did not receive laureate status.

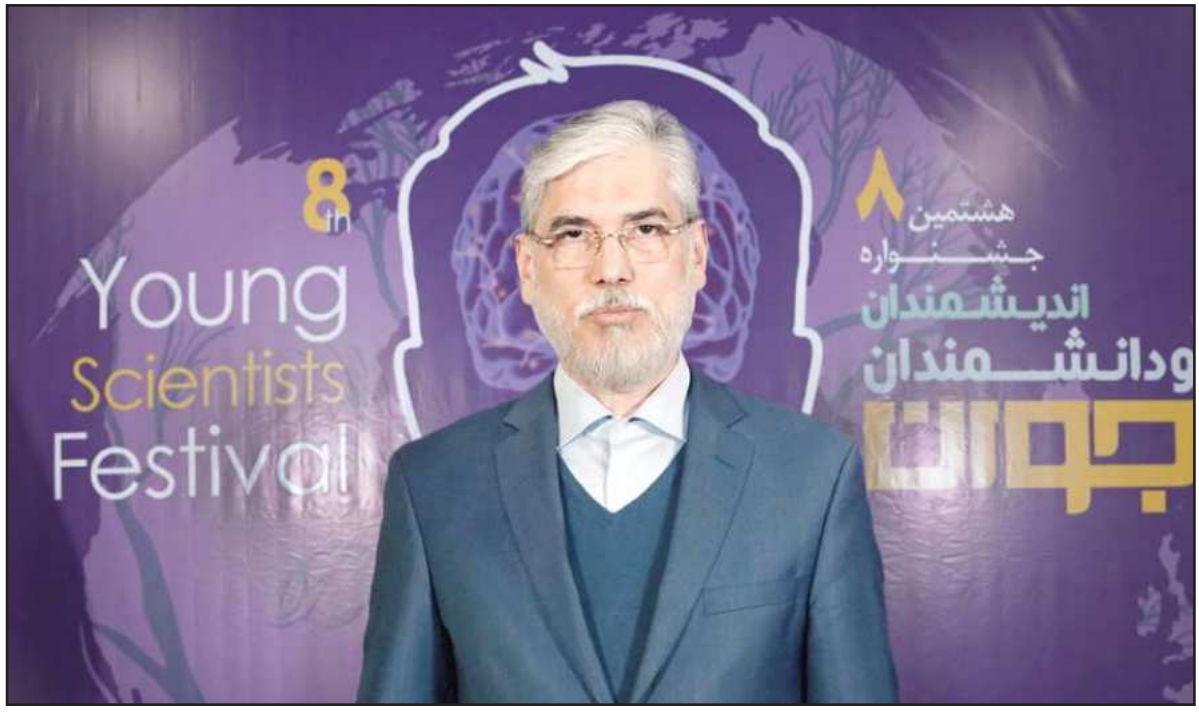
Notably, 10% of the grants were given as cash prizes during the ceremony, while the remaining amount was allocated to their respective projects. This demonstrates a significant investment by the Jamili Science and Technology Foundation, a non-governmental organization in basic science research that nurtures the continuous development of young scientists.

Additionally, it should be mentioned that within the basic science faculty members section, no proposals were selected for grants during the 8th YSF, as none met the required standards for top-level consideration.

The Young Scientists Festival has a rigorous review process for proposals submitted to the festival›s website, which includes provisions for international cooperation. To ensure a fair and unbiased evaluation process, proposals are reviewed by three independent jury committee members. The review committee brings global perspectives and knowledge to the judging process by the diversity and expertise of the reviewers.

| Dr. Hossein Simaei Sarraf | Minister of Science, Research, and Technology

Science Festivals are a Symbol of Love for Iran and Hope for the Future



Such scientific events like the Young Scientists Festival ignite passion and enthusiasm among young scientists. The involvement of outstanding NGOs such as the Jamili Science and Technology Foundation showcases their passion for Iran, commitment to its future, and unwavering hope for its progress. By believing in the skills and ideas of young Iranian scientists, these organizations position themselves as leaders in this noble initiative, emphasizing education as a vital element in shaping the nation's future.

Iran is fortunate to have numerous philanthropists who have made substantial contributions across various sectors, from constructing mosques to schools and universities. These initiatives are vital and praiseworthy. It is heartening to see that charity foundations are now channeling their resources towards science and technology when engaging in charitable acts, in line with human progress. In this context, I would like to congratulate Mr. Jamili, President of the Jamili Science and Technology Foundation, for his innovative and creative vision. I wish all festival participants and winners great success. Such services and charitable acts instill hope in our youth and play a crucial role in preventing the migration of talented individuals. This event serves as a foundation for attracting and retaining the brightest talents in our nation, securing a hopeful future.

| Dr. Fatemeh Mohajerani | Government's Spokesperson

The Jamili Science and Technology Foundation; Being Among the First in Identifying and Nurturing Talents

The Jamili Science and Technology Foundation fulfills its social responsibility by enhancing individuals' intellectual and social capabilities, fostering a sense of self-worth, and recognizing and nurturing talents. The potential of each individual in society, and how to cultivate it, is of the utmost importance to the country. As education became recognized as a key governmental responsibility, providing it to all members of society became a top priority. This implies that we aim to offer a basic level of education to everyone. Now, we must determine the necessary steps to be taken so that individuals, based on their intellectual capabilities, can effectively contribute to solving societal issues. Governmental efforts should be in line with the diverse talents of individuals to effectively nurture them and help them reach their full potential.

I am truly delighted that the Jamili Science and Technology Foundation, as a non-profit organization, has taken on part of this responsibility in a completely non-commercial manner. Moreover, we must consider how we can connect talent to societal issues - a crucial topic in public education as a formal institution. While similar festivals have been held for years, creating a platform that fosters connections between individual talents and societal issues is of great importance and merits acknowledgment.

Witnessing people's ability to tackle issues significantly contributes to their sense of belonging, effectiveness, and satisfaction. I express my appreciation to the Jamali Foundation for taking steps in this direction. It's worth noting that organizations in the economic sector might choose not to engage in such initiatives, focusing their energy and resources on economic matters instead.

Recognizing the desire of individuals to make a difference in public efforts is truly a matter that deserves acknowledgment and appreciation. It is genuinely heartening that our society, despite its challenges, is enriched by individuals who think beyond themselves, focusing on the future and considering those who may not have had the opportunity to fully realize their intellectual potential due to a lack of access to essential resources.

The impact and role of this festival in society can be summarized in three key points:

1. Enhancing the intellectual and social capabilities of individuals
2. Fostering a sense of self-worth and impacting society beyond material concerns
3. Highlighting the social responsibility of non-profit organizations in identifying and nurturing young researchers

Prof. Seyed Hossein Hosseini| President of the University of Tehran|

Focusing on Basic Sciences; A Step Towards Technology and Social Development

Focusing on fundamental sciences is crucial for technology creation, as demonstrated by its recent significant impact on our world. However, despite its importance, our country faces obstacles and cultural gaps that impede investment and attention in this vital field of research. The Young Scientists Festival strives to overcome these challenges and ensure progress in this critical area.

It is important to mention that rather all the progress in science and technology we see worldwide can be traced back to advancements in fundamental sciences.

The Young Scientists Festival, now in its 8th year, proudly promotes the perspective that basic sciences are vital for progress. This festival encourages young scholars to actively participate, fostering creativity and innovation through their involvement in startups and the generation of new ideas in the field of basic sciences.

Another reason to praise the festival's organizers is their thoughtful decision to include 'young' in the festival's title. By emphasizing youth, the "Young Scientists Festival" instills a sense of inspiration and hope in the younger generation of our country. This inclusivity serves as a powerful reminder that the future of scientific advancement lies in the hands of passionate, innovative young minds.

A significant third impact of this festival lies in its dedication to environmental preservation and the encouragement of entrepreneurship. By connecting innovation with sustainable practices, the Young Scientists Festival cultivates an environment where young minds can explore novel solutions that not only advance scientific understanding but also protect our planet. This emphasis on responsible development ensures that our collective future remains viable and thriving.

Prof. Mahmoud Reza Aghamiri|President of the Shahid Beheshti University|

Basic Sciences Shape the Discourse on Scientific Authority and the Frontiers of Society's Knowledge

A variety of tools are needed to turn ideas into reality which include determination, allowing them to achieve great things. Another tool is paying attention to specific contexts and situations, while the third tool involves striving for excellence in a particular field. Together, these tools empower young researchers to drive innovation and bring ideas to fruition.

One reason for the remarkable growth in emerging scientific phenomena, such as nanotechnology, is the active involvement of young people in this field. The energy and presence of our youth, particularly over the last quarter-century, have been instrumental in driving this progress, achieving results that were once thought impossible. Their determination and enthusiasm have played a significant role in shaping the current scientific landscape.

The Young Scientist Festival is a crucial and commendable initiative because it recognizes the value of young people and provides a platform for their ideas to be seen and appreciated. Fundamental sciences remain a critical field that requires ongoing investment. In recent years, our country has taken significant steps to prioritize and allocate resources to this area, fostering a supportive environment for scientific advancements and innovation.

It is essential to recognize that progress in engineering, chemistry, biochemistry, and other basic sciences hinges on the foundation of fundamental sciences. Without ongoing attention and investment in these core fields, we cannot achieve substantial advancements in these applied sciences and technologies. The interconnected nature of scientific disciplines underscores the necessity of prioritizing fundamental sciences in our educational and research endeavors.

Prof. Peyman Salehi| Deputy Minister of Research at the Ministry of Science, Research, and Technology|

A Festival for the Younger Generation: From Idea to Market

I will now outline the journey from idea to market and explain what has happened in the field of basic sciences in our country over the past three decades, and how individuals active in this domain have brought great honors to Iran.

Innovation, contrary to some beliefs, does not mean merely doing new things but rather transforming ideas into products and bringing them to market. Someone who first conceives an idea is at Technology Readiness Level (TRL) 0 or 1. To reach TRL 9—the market stage—you must understand that this is a continuous process, and no one can jump directly from the first rung of the ladder to the last. In other words, you cannot have an idea today and launch it in the market tomorrow.

Continuous innovation entails progressing through various TRL stages and performing the necessary actions at each step, ensuring a methodical and strategic approach to product development and market entry.

Let's start from TRL 1, 2, and 3 and move up to TRL 9. In 1996, Iran ranked 54th globally with 851 published scientific articles. Today, our rank has risen to 16th, with the number of scientific articles reaching 78,000. To date, 975,000 articles from Iran have been indexed on Scopus.

Interestingly, the number of students and professors in basic sciences is far smaller than in other fields. Yet, basic sciences have brought to Iran significant achievements in scientific output. In 2005, 35.5% of Iran's total articles were published in basic sciences. This figure dropped to 30% in 2010, remained at 30% in 2015, and reached 29% in 2020. This shows that despite the limited human resources in basic sciences, this field accounts for up to 40% of the country's scientific output. Next, we examine the exponential growth of Iran's scientific articles in chemistry, mathematics, geology, biology, and physics since 2000. This growth reflects our remarkable progress in these fields.

The next phase covers TRL 4 to 6. After conducting research and ideation in TRL 1–3, the focus shifts to prototyping and standardization. These stages fall under the responsibility of science and technology parks, growth centers, and innovation hubs.

Any young person in Iran with an idea can access an innovation center, incubator, or science and technology park in the shortest time and, with minimal risk, commercialize their idea.

Today, large science and technology parks can be found in all 31 provinces of Iran, complemented by 59 university science and technology parks. A prime example is the University of Tehran, which boasts its own science and technology park, providing a platform for aspiring entrepreneurs and researchers to develop and refine their innovative ideas.

Currently, 140,000 people are employed in our science and technology parks. These individuals work in knowledge-based and tech companies, receiving salaries and benefits, which highlights the strength of Iran's science and technology ecosystem.

Prof. Mahmoud Kamarei| President of the Young Scientists Festival|

The Young Scientists Festival is an Event for Young Scientists and Ideators to Foster New Opportunities

I am delighted to announce that the Young Scientists Festival, with the support and efforts of the Ministry of Science, Research, and Technology, has officially become one of the recognized and official festivals in the country, alongside other prominent national festivals.I would like to extend my heartfelt gratitude to the Jamili Science and Technology Foundation, the jury committee, innovators, pioneers, participating researchers, team leaders, the festival's secretary, and everyone who has worked tirelessly to ensure the success of this event.

Basic sciences require accumulative support, even though fundamental scientific ideas may not yield immediate results and can take time to produce outcomes. Fortunately, the Jamili Science and Technology Foundation has taken steps to address this issue.The outcomes of research and scientific activities can be categorized into three stages:

1. The first outcome is the publication of an article, which does not immediately solve problems on its own.
2. The second outcome is a tangible product derived from research findings that has a direct impact on people's lives.
3. The third and most crucial outcome is when the previous two stages result in a positive influence on human life, ultimately enhancing the quality of people's living conditions.

We hope that this festival provides a platform for young scientists to translate their innovative ideas into tangible solutions that improve the quality of life for people worldwide.

In the eighth Young Scientist Festival, we received 407 proposals in the Idea section, 52 submissions in the Business/Startup section, and 75 resumes from young faculty members of Basic Science. After careful evaluation, 17 teams were selected from the 407 Idea proposals, based on high standards of excellence. Additionally, 4 standout teams were chosen from the 52 submissions in the Startup category.

We aim to elevate the quality and scientific outcome of this festival and aspire to make it more international by expanding our global collaborations. Our ultimate goal is to further contribute to the success and achievements of innovators in various fields, driving advancements in science, technology, and innovation, both in Iran and globally.

Mr. Ebrahim Jamili|President of the YSF Policy Council|

Leveraging Knowledge and Wealth: Paving iran's Path Towards Sustainable Development and a Prosperous Future

Today, we have gathered to celebrate the 8th Young Scientists Festival. Participating in this festival is like stepping into a new world that celebrates and cultivates innovative ideas, research, and startups. I am here today to express my unwavering dedication to all those who share a deep love for our country and its development. It is our great honor to have Prof. Abbas Mosallanejad, our nation's greatest science philanthropist, who has joined us for the closing ceremony of the 8th Festival. We are proud to recognize his remarkable contributions to research infrastructure in the country and we see him as a role model for the efforts we undertake in organizing the Young Scientists Festival.

As we move forward, I would like to invite the innovators to turn their thoughts toward the challenges that human beings are facing and direct their attention to the areas that have been overlooked or underrepresented. By addressing these imbalances, specifically the shortages that negatively impact our production, we can work together to develop solutions that will lead to a brighter and more prosperous future for all which will be our central focus in the 9th Festival.

Certainly, we cannot rely on short-term solutions to effectively manage our country's issues and we need to address these challenges head-on, seeking innovative and sustainable solutions that will improve the lives of our citizens and secure a more promising future for the world.

Furthermore, our future plan includes participation and engagement in festivals held in other countries. we are honored to host ambassadors and representatives from various embassies at our festival, fostering international dialogue and collaboration. We aim to exchange ideas, share best practices, and address global challenges through international collaborations. In conclusion, I wish everyone health, prosperity, and success, and all the best for our beloved country, Iran.

|Dr.Elnaz Jamili|

Inspired by the Power of Creativity: Exploring the Paths to Success of Innovators and Idea Creators

I would like to extend my deepest gratitude to the festival's secretariat colleagues for their unwavering dedication and hard work. Their commitment over the past year has made it possible for us to gather here today to celebrate the 8th Young Scientists Festival. I am also sincerely thankful to the University of Tehran, the esteemed professors, ambassadors, researchers, and innovators for their invaluable contributions and participation in this remarkable event. History has shown us that those who recognise and embrace their creative potential often leave lasting impacts. Their life stories are truly inspiring as we learn about the journeys they have undertaken, the setbacks they have endured, and the resilience they have displayed. Despite challenges, they have always risen stronger, turning obstacles into stepping stones toward even greater achievements. Their journeys serve as powerful testaments to the transformative power of creativity and determination. It is a great honour that, over the past eight years, many creative innovators have presented thousands of ideas at this festival, each with the potential to make a meaningful impact on our beloved country and the world. Recently, I had the privilege of attending the Web Summit, the world's largest technology gathering, where nearly 72,000 individuals came together to share innovative ideas. This incredible experience highlighted the abundance of creativity that exists in today's world, reminding us how fortunate we are to live in an era full of great opportunities. In closing, I extend my best wishes to all the researchers attending this festival. Each of you is a winner, and your ideas hold the power to shape the future.

Prof. Reza Ameri|Dean of the College of Basic Sciences, University of Tehran|

Trust in Youth: The Key Strategy for Nurturing Researchers and Advancing Science and Technology

Undoubtedly, organizing a festival focused on basic sciences is both original and valuable. The primary objective of the Young Scientists Festival is to empower young individuals by providing a platform to develop their ideas in two critical areas including environmental preservation and artificial intelligence. By integrating these key domains, the festival encourages the pursuit of knowledge while fostering a commitment to sustainable practices and cutting-edge technology.

In today's interconnected world, the findings from these fundamental fields have far-reaching impacts that extend beyond the laboratory walls, influencing various aspects of daily life and fostering innovation on a global scale.

Many cutting-edge technologies that have emerged in the new century, spanning multiple disciplines, owe their foundations to basic sciences. One prime example is the internet and mobile systems. Their existence fundamentally depends on the progress made in basic sciences, highlighting their indispensable role in shaping our modern world.

Another recent example of the crucial role of basic sciences can be seen in the global response to the COVID-19 pandemic. It was the dedicated work of scientists, particularly those in the field of basic sciences, that enabled the rapid development of vaccines, treatments, and diagnostic measures. This collective effort underscores the importance of ongoing research and investment in basic sciences, as they serve as a critical line of defense against unforeseen challenges and crises. To briefly highlight the impact of basic sciences on technology and innovation, it is essential to consider the following key aspects:

1. Basic sciences primarily drive the advancement and creation of new knowledge, paving the way for engineering designs and providing tools and techniques across various fields.
2. They serve as a source for enhancing efficiency and knowledge bases by offering tools and techniques for assessments.
3. Basic sciences function as a research tool, promoting further scientific discoveries.
4. Investment in basic sciences ensures a nation's independence and self-reliance by developing the necessary resources and capacities.
5. Recognizing the importance of basic sciences encourages the education and training of skilled individuals who can contribute to various scientific domains.
6. Ultimately, promoting basic sciences establishes a strong foundation for global development and progress, promoting long-term growth and stability.

The Jamili Science and Technology Foundation sets an outstanding example in our community. Their support manifests in two key aspects: providing crucial financial backing and assisting in transforming the accomplishments of universities and research centers into tangible products. The Young Scientist Festival mirrors these efforts on a smaller scale, by fostering a brighter future by placing trust in our youth, empowering them with knowledge, and offering the necessary support to unleash their innovative potential.

Dr. Hassan Fartousi|Secretary General of the Iranian National Commission for the UNESCO|

Young Scientists Festival Provides an innovative thriving atmosphere for the Young Generation

The Young Scientist Festival distinguishes itself by placing emphasis on basic sciences and environmental concerns. This unique focus reflects the importance of nurturing a deep understanding of fundamental sciences while encouraging sustainable practices. The festival's organizers are committed to creating an atmosphere that fosters scientific progress and innovation while promoting a more sustainable future.

A key aspect of the Young Scientist Festival is its emphasis on young people, which aligns perfectly with UNESCO's objectives. By focusing on youth, the festival promotes a constructive and effective environment that encourages the next generation of scientists and innovators to excel in their fields while addressing pressing global challenges.

Encouraging an entrepreneurial spirit among young scientists not only drives innovation but also empowers them to tackle pressing global challenges and contribute to a more sustainable future. The most valuable contribution that the National Commission for UNESCO can make to this festival is to raise its international profile, ensuring global recognition for this significant event. We will share a report of the Young Scientists Festival activities with UNESCO, utilizing their platform to reach a broad audience and highlight the importance of this gathering in promoting basic sciences and fostering innovation.

We aspire to see this festival evolve from a national to an international event, connecting young scientists from around the world and providing them with a platform to share their ideas and innovations. By moving toward this goal, we will enable global collaboration, pushing the boundaries of science and driving progress in various fields.

Dr. Hojatollah Seyedi |Head of Iran's Securities and Exchange Organization (SEO)|

Supporting New Ideas is a Pathway to a Sustainable Economy

Upon examining global development rankings, it becomes apparent that research is prioritized over factors such as the number of universities or the abundance of natural resources. Investing in research enables nations to unlock their true potential, fostering innovation and economic growth. By prioritizing research, countries can harness their intellectual capital, surpassing the limitations of finite resources and securing a prosperous future.

I am honored to see that Mr. Jamili, a distinguished entrepreneur in our country, has taken the initiative to organize the Young Scientist Festival which celebrates science and the scientific method, promoting a culture of innovation and research.

Within the capital market, where I serve, we have established an innovation market specifically designed for investing in ideas. These ideas often enter the market in their raw form, and investors may be hesitant to act due to the inherent risks involved. Basic science ideas need time, resources, and development to become viable, commercialized ventures. The innovation market exists to bridge this gap, providing a platform that connects idea-driven entrepreneurs with investors willing to take calculated risks to support groundbreaking concepts.

It is a matter of pride for us to have the opportunity to leverage the innovation market to support these groundbreaking ideas. The recent approval of project companies under the law promoting production and infrastructure development aims to facilitate the entry and growth of these innovative concepts. By providing a pathway for commercialization, these knowledge-based companies can harness the potential of new ideas and contribute to the overall development and advancement of our economy.

Inspiring Video Messages from International Figures at the 8th Young Scientists Festival

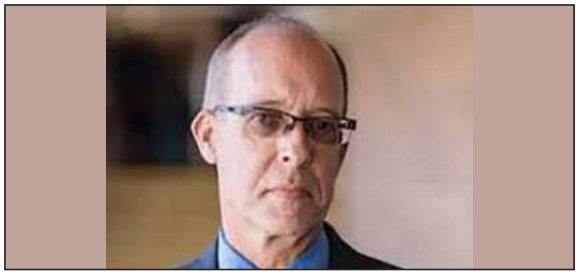
These initiatives are essential for nurturing an entrepreneurial mindset among young scientists. By connecting budding entrepreneurs with industry stakeholders, investors, and government support, the Young Scientists Festival promotes the commercialization of ideas into viable products.
This dynamic alignment between scientific discovery and entrepreneurial development is key to Malaysia's pursuit of a knowledge-driven economy, spurring economic growth, job creation, and technological progress. As Malaysia's Ambassador to Iran, I am proud to emphasize our nation's unwavering dedication to science, technology, and innovation.

Ambassador of Malaysia
Dr. Khairi Omar

Your achievements are a result of your hard work, dedication, passion, inquisitive mind, and desire to develop your giftedness and talents in various fields of basic science.
The Young Scientists Festival has been held annually since 2017, with the goal of supporting young scientists in transforming their ideas in basic science into viable businesses and products.
This festival aims to ignite the fire in your heart and your belly - the fire of entrepreneurship and innovation. It also aims to encourage collaboration between the wealth of academia and the wealth of industry.

Ambassador of South Africa
Dr. Francis Moloi

It is an honor to talk with you today and to highlight the importance of initiatives like the Young Scientists Festival and organizations such as the Jamili Science and Technology Foundation. Platforms like these play a crucial role in fostering the next generation of scientists, innovators, and decision-makers. By providing young minds with the opportunity to explore STEM fields, they help spark curiosity and passion for science and technology. Furthermore, these platforms give emerging scientists the support and guidance they need to turn their ideas into real-world solutions – whether through mentorship, funding, or connecting with like-minded individuals. The future is driven by those who understand the science behind the innovations that shape our lives.



LAZSTA Vice President
Dr. Kenneth Silburn

My name is Sarah Hart. I am a mathematician based in London, a Professor Emerita at Birkbeck College, University of London. For me, the role of mathematics in all aspects of our lives is profound and fundamental. I encourage all of you to research and follow your interests and passions to create new mathematical ideas. Who knows where they will lead?

Professor at Birkbeck College, University of London
Dr. Sara Hart

International Exposures: A Year of Collaboration Leading up to the 8th Young Scientists Festival

Over the past year, our team from the Young Scientists Festival has engaged in numerous roundtable discussions with ambassadors and science attaches from various countries. The main focus of these meetings was to foster connections between Iranian researchers and their international counterparts. By sharing experiences and knowledge, we aimed to strengthen our scientific communities and promote collaboration.

H.E. Abdullah bin Saud al-Anzi, Ambassador of Saudi Arabia

H.E. Rudra Gaurav Shresth, Ambassador of India

H.E. Francis Moloi, Ambassador of South Africa

H.E. Khari Omar, Ambassador of Malaysia

Mr. Marc Nicolai Distelbarth, Cultural and Commercial Attache of the Embassy of Germany

Report on YSF's International Activities

The international committee has been actively engaging with science organizations including ECO Science Foundation, BRISEC, ICESCO, IORA, COMSTECH, and LAZSTA. It is also in correlation with some other target entities (UNDP, TUBITAK, ICYF, OPEC Fund, FAO, and some other UN and non-UN associations can be named in this category).

The general collaboration domains of the committee consist of organizing applied basic science-based events which can lead to a better convey of knowledge-based experiences among the YSF participants, Iranian researchers, and experts from other nations.

Each of the items that YSF has been going through to maintain collaboration with the above-named associations are as follows:

•**ECOSF:** YSF and ECOSF hosted a webinar on AI in August 2024. Also as both organizations are BRISEC members in China, an in-person event on energy-efficiency consumption will be held in Iran to send the report to BRISEC as a bilateral negotiation between the two organizations.

•**ICESCO:** The YSF started collaborating with ICESCO in 2023 and Prof. Dr. Raheel Qamar – Head of the Science and Technology Sector at ICESCO was invited to the 7th closing ceremony of YSF as speaker. Also, as the festival tends to make awareness on trend topics of the day in science, a webinar will be planned on Quantum Computing in collaboration with ICESCO and related organizations in China.

•**BRISEC:** The Belt and Road International Science Education Consortium (BRISEC) annually manages a meeting virtually or in-person to discuss about the recent scientific activities of its member organizations and also introduces its new members which gives a chance for networking between member associations for further collaborations.

•**IORA:** The Center for Science and Technology Transfer (IORA RCSTT) has been collaborating with YSF and one topic which discussed to be as the first step towards was establishment of green mining network in IORA members states.

Collaborating with Embassies in Tehran & International Universities

The international committee has also been engaging with ambassadors, and science and cultural attaches of embassies including India, Germany, South Africa, Saudi Arabia, Norway, Malaysia, Switzerland, and Nicaragua and also tends to meet with other embassies in Tehran. The meetings with the mentioned embassies have resulted to an invitation made by the festival to the ambassadors to participate in person in the closing ceremony for a talk and also organizing some science tours for the festival participants to go and visit the recent technologies of the countries.

This also gives a chance to YSF to be aware of any foreign travelers coming to Iran and manage a meeting in order to become familiar and connect with the related festivals or foundations of their countries, make an interview on the importance of pure science in technology development to display in the closing ceremony of the festival, or invite them to join the international committee as distance advisors.

Even more, the committee tends to connect with international universities to collaborate with researchers in the mentoring and judging section of the festival, and also providing inspirational video talks for the closing ceremony. Till now the committee has been keeping a close relation with Tsinghua University in China, Birkbeck College from the University of London, and the University of Surrey in the UK.

Proposed international activities of committee for further collaboration

- Seeking for international collaboration opportunities for miming section
- Finding international research opportunities for YSF laureates to participate
- Doing joint projects with IORA (science-based or mining related section)
- Participation of YSF in international scientific exhibitions
- seeking funding for research or training courses

Dr. Mohammadreza Sanjabi| Director , IORA Regional Centre for Science and Technology Transfer (RCSTT) |

Message from IORA Regional Centre for Science and Technology Transfer (RCSTT)

In today's fast-paced world, innovation in science and technology serves as a key driving factor that expands the boundaries of knowledge and opens new opportunities for human life. In this process, you, the passionate and thoughtful young people, are the beating heart of this movement and have the main role. In the cycle of innovation and commercialization, the most important factors include human resources and motivation, investors and sponsors, international connections, market knowledge, and appropriate commercial strength, which contribute to significant and ongoing prosperity.

The IORA Regional Centre for Science and Technology Transfer (IORA RCSTT) as a regional specialized agency of the Indian Ocean Rim Association is dedicated to enhancing the technological capabilities of the IORA Member States and this is done through the transfer and acquisition of technologies needed by the member states and assisting regional and international growth and productivity and this is why RCSTT supports and encourages the Young Scientists Festival. You have participated in a fair and healthy competition, established your business with the support of this festival, or made your idea a reality, which may initiate a great change in the flourishing of your scientific life.

Remember that the path to progress always passes through rocky and challenging roads, and reaching the shore of tranquillity is impossible without braving the storms.

Prof. Seyed Komail Tayebi| President of ECO Science Foundation (ECOSF)|

Why Science Matters- Empowering Youth

Science matters because it helps us understand the world around us and improve our lives. Science gives us tools to explore and answer questions about the universe, like how things work and why things happen. Science is also important because it helps solve problems and create new things possible. From finding treatments for diseases to creating new technologies like smartphones and electric cars, science allows us to invent and protect the world we live in. Science has been a cornerstone in shaping our world, with innovations and inventions driving substantial technological progress, continually enhancing our quality of life. Science has been positively impacting including food security, agriculture, disease prevention, water security, climate change, economy and energy.

Hence, science teaches us to think critically, ask questions, and make decisions based on evidence, which are skills we can use in everyday life. By learning and participating in science, young students can play a role in shaping the future, discovering solutions, and making the world a better place for

everyone.There are some key reasons why science is essential in empowering youth:

1. Inspiring Curiosity: Exploring scientific phenomena fosters curiosity that can lead to lifelong learning and discovery.
2. Developing Critical Thinking: Scientific inquiry encourages critical thinking by promoting analysis, questioning, and problem-solving.
3. Building Adaptability and Resilience: Science teaches adaptability by helping young people understand how to navigate uncertainty, learn from experimentation, and adjust based on outcomes.
4. Encouraging Innovation and Creativity: Young scholars can develop technologies, procedures, and solutions that tackle pressing problems in the real world by applying their scientific knowledge.
5. Preparing for Future Challenges: Many global challenges—like climate change, public health crises, and resource scarcity—require scientific literacy and innovative thinking.
6. Enhancing Communication and Collaboration: Learning science encourages young people to collaborate, share ideas, and communicate findings, fostering global cooperation and mutual understanding.

Thus, these key reasons advise us to invest in our young scientists to find efficient, cheaper and smarter ways of manufacturing goods, feed our growing populations, protect our children and environment. In fact, today's children are tomorrow's scientists, engineers, entrepreneurs, and policymakers. We must provide children and students with the opportunity to explore, fostering a spirit of inquiry and curiosity. In navigating this ever-changing world, science-literate individuals will play a central role in addressing our needs. However, our collective progress relies heavily on the support of policymakers and officials.

Young Scientists Festival

Supportive Grants of the 8th Young Scientists Festival

Start-up Section

First Team	Second Team	Third Team	Fourth Team
5.000.000.000 IRR	3.500.000.000 IRR	3.000.000.000 IRR	2.500.000.000 IRR

"Young Basic Science Faculty Member" Section

2 Research Grants
2.500.000.000 IRR

"Idea" Section

12 Project Grants
1.500.000.000 IRR

Teams with International Members Received 20% Higher Amount as Development Grants

8th Young Scientists Festival
DEC 2024

هشتمین جشنواره اندیشمندان و دانشمندان جوان
آذرماه ۱۴۰۳