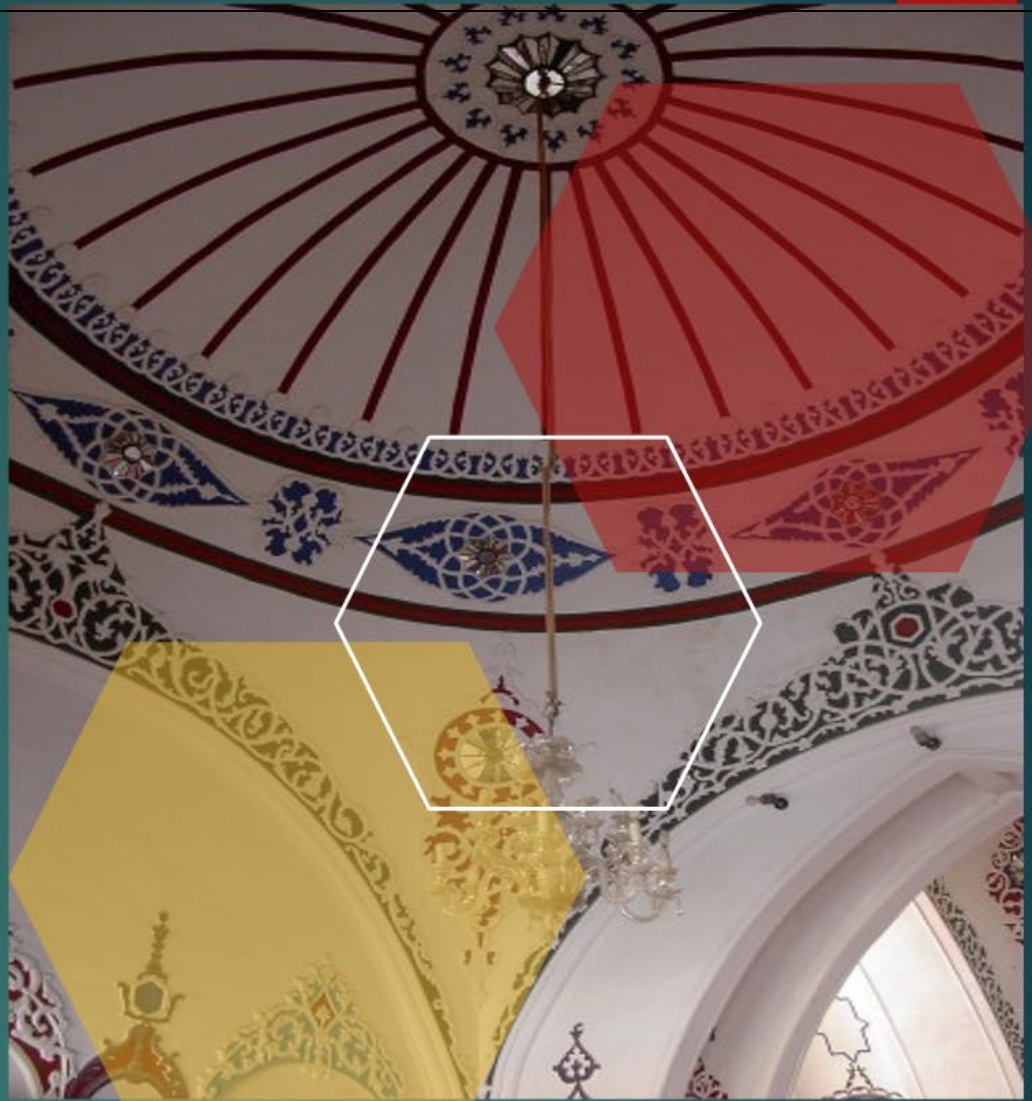


SOCIETY OF AFGHAN ENGINEERS

QUARTERLY
eNEWSLETTER



*CELEBRATING
11 YEARS OF
CONTINUOUS
SUCCESSFUL
PUBLICATION*



SAE eNEWSLETTER

VOLUME 12, ISSUE 2 HAMAL

1401 APRIL 2022

SAE MISSION

TO PRESENT A FORUM FOR
AFGHAN ENGINEERS, ARCHITECTS
AND SCIENTISTS IN THE SHARING
OF EXPERIENCES AND
KNOWLEDGE AND FOSTER THE
PROMOTION OF SCIENTIFIC,
ARCHITECTURAL AND
ENGINEERING ETHICS IN OUR
QUESTS TO ENHANCE AFGHAN
CAPACITIES IN THESE FIELDS FOR
THE SERVICE OF AFGHANISTAN
AND THE WELL BEING OF THE
PEOPLE



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Role of Engineer in Building a Nation



Engineer- *builder of a nation, inventor of technologies, creator of economic prosperity and stability of a society.*

Engineer and Scientist are the two professionals that have strived since the early days of humanity seeking ways for improving living conditions, protecting lives, and taking care of the planet earth. Engineer uses knowledge of science, mathematics, and working experience; it is a demanding and rewarding profession, that brings stability to a nation by improving living condition of people. Engineer works tirelessly for discovering solutions to complex problems, finding ways for creating new products and services, building modern infrastructure and industries of the future. **Engineer** and **Scientist** work together, both are essential partners for building a healthy society.

Building a nation to achieve prosperity, and stability are not easy undertakings; however, they are not possible without engineer. It is true that a nation cannot be built without the collective efforts of young and old, skilled, and unskilled. But **engineer** plays an *indispensable* and *valuable* role in building a stable nation, leading it to *self-sufficiency*, and *political & economic stability*.

Our world is dynamically changing, problems are evolving, at the forefront are engineers who are creating products and services that alleviate problems. **Engineers** create new technologies to provide clean water, adequate sanitation, access to electricity, air pollution control, transporting people from one point to another point of the planet earth safely and affordably. Building housing, and laboratory in space, producing medicine and other products in space free of gravity, design and build weather satellite that provide accurate weather and natural disaster forecasting information. Making travel possible

to other stars looking for life in other planets, and further exploration of space, and deep seas.

In medical discipline, engineers design devices such as pacemakers, brain implants, camera and tools that can reach heart, opens blocked arteries placing a mesh so blood can flow normally. Engineer in period of crisis, design machines that accelerate and accurately produce large doses of vaccine such as that for Covid. Finding ways to create and produce masks and distribute them quickly to the residents.

Afghanistan has been facing *economic challenges* for the past several decades.

Engineers can bring relief to the economic condition of Afghanistan, by unearthing/extracting the *hidden wealth*, the various minerals, that Allah has bestowed on this nation, but lie *underground* and *un-touched*.

The *vast mineral* wealth of **Afghanistan** has been known for centuries, abundance of precious stones, and other minerals exist in various part of the country. Current estimates are that there is substantial deposit of, copper, gold, oil, natural gas, uranium, coal, iron ore, lithium, chromium, talc, gypsum, marble, gold, lapis lazuli, emerald, rubies, and many other precious stones and rare earth minerals.

Over the past 40 years various countries, and organization have estimated the value of **Afghanistan mineral deposits** to be worth between 1 trillion to 4 trillion dollars ($\$4 \times 10^{12}$).

That is where the *role of engineers* becomes vital to bring this hidden wealth to surface and usage.

1. Copper: (*Aynak mine -Logar Province*): copper deposit of Aynak, is estimated over \$1000 billion dollars ($\1.2×10^{12}).

Historically, copper was first used for coins in around 8000 BC. Copper was important to early humans and continues to be a material of choice for a variety of domestic, industrial, and high-technology applications . It has high corrosion resistance; conducts heat and electricity efficiently and it can be drawn into wire. An average car contains 1.5 km of copper wire and the total amount of copper ranges up to 45 kg in a vehicle. Chile and Peru have emerged as the world's productive copper states.

2 Iron Ore (*Hajigag Mine*), it is estimated at ($\$1 \times 10^{12}$). To produce steel, iron ore is needed, 98% of iron ore is used for making steel. Currently Australia and Brazil dominate the world market for iron ore.

3 Lithium (*called the white gold*): Lithium of *Afghanistan* is estimated to be the *world largest reserve deposit*. Lithium is used in making batteries, the deposit could be worth one trillion dollars ($+\$1 \times 10^{12}$). The demand for Lithium, and revenue can be many times more as the world transitions to clean energy.

More than 50% of lithium mined is used in batteries (laptops, digital cameras, and electric vehicles). Countries having Lithium mines are Australia, Argentina, Bolivia, and Chile.



Aynak Copper Mine

Note: data numbers are taken from various sources in wide world web.



Haji Gak mine

The oil boom is transitioning to clean energy, the era of clean energy is here and will dominate the globe soon, with use in automobiles, air transport and heating source at the forefront.

Assuming revenue from all other mineral deposits in *Afghanistan* $\$1 \times 10^{12}$ that need to get unearthed, these untapped minerals are estimated to be worth over four trillion dollars ($\$4 \times 10^{12}$). These 4 trillion dollars can provide income of **30 billion** ($\$30 \times 10^9$) per year to *Afghanistan* for 133 years.

Afghanistan will not be a poor country but **one among the rich nations**. This type of revenue can shift Afghanistan unstable economy to a stable one. But all this depends on dedicated **engineering** manpower and expertise.

Afghanistan could move from failure to a successful self-sufficient and a peaceful nation.

How to bring to surface the hidden wealth, that Allah has given to the Afghan nation? The answer is **dedicated Afghan engineers**. These dedicated **Afghan engineers** should build factories to **process the mineral deposits** in the **country** that will create well-paying jobs to citizens and then sell the processed products to the world market. The country must realize the role of engineering and the importance and value of science and pay attention to **engineers** and **scientists**. **Wish** you and your family a happy, & healthy New Year 1401. **Allah bring peace** and prosperity to *Afghanistan* and the entire world.

With Best Regard
Hafizullah Wardak
Editor- in- Chief SAE eNewslettter and Chairman - SAE eNewsletter Subcommittee
hwardak@comcast.net

SAE Society of Afghan Engineers

Message From the President of SAE NO. 6, April 2022

Members of the Society of Afghan Engineers



“May you have a happy, healthy and prosperous Year 1401 HS.”

The Society of Afghan Engineers (SAE) has been involved in the rebuilding of Afghanistan since its establishment in 1993. Members of the Society have reached out to their colleagues and counterparts in various Afghan agencies in the past 29 years of its service.

Back in 1996, the Society received an invitation from the Government of Afghanistan calling for help. The Society formed a team, including myself, and traveled to Kabul on a three-week fact-finding mission in the month of May, 1996.

During the Taliban rule between the years of 1996 to 2001, the Society made a few attempts to reach out to our colleagues, but no tangible venture of the Society is recorded in those years.

After September 11, 2001, the SAE participated in the rebuilding process. During all these years, the Society maintained its non-political and non-governmental status in accordance with the By-Laws of the Society. The Society is committed to remain non-aligned during any dealings with all government agencies and organizations. We will pursue and respect the “mission” and the “vision” of the Society as they are stated in the Society’s By-Laws. The SAE has a reputation as a professional, non-profit and non-governmental organization.

Current Status:

Beyond the challenges of how to formulate the Society’s policies towards the situation in Afghanistan, the Society may want to articulate and shape its activities and approach appropriate to the situation. Many members have expressed interests in reaching out to our colleagues to minimize humanitarian suffering and continue support for the Afghan professional societies, particularly women and the young educated ones. Currently, the SAE Architecture Subcommittee is organizing and planning an International Low-Cost Housing design competition and is communicating with several Universities in Afghanistan through an SAE

representative in Kabul. A fundraising launched by the SAE and successfully distributed cash funds to qualified displaced families in Kabul and in Kandahar. Similarly, efforts are underway by other SAE Committees and Subcommittees to renew and re-visit agreements and Memoranda of Understandings prepared to be signed with various government agencies in the past and to be completed.

The Way Forward:

With the help and support of the SAE/AGA Liaison Subcommittee and the SAE Representative in Afghanistan, we shall be able to re-establish our contacts with universities and professional communities in Afghanistan. We will reach out to American Universities, Professional Institutes, and other International Professional Communities to collaborate in professional activities of the Society. We will also reach out to donors and international funding agencies such as the USAID, World Bank, and the Asian Development Bank involved in the rebuilding of Afghanistan for financial support.

With today's technology and the use of the Internet, SAE can connect with our colleagues and counterparts in Afghanistan virtually.

With Regards,

Najim M. Azadzoi, AIA

SAE President

Message From the Chairman, SAE Board of Directors

Dear readers of the SAE eNewsletter,

By the time you read this message, it will be spring. After the cold and dark days of winter, the spring season brings new life and fresh hope to the world. Using that motto, we at the SAE look forward to such hopes and the possibilities to be able to help our country and our people. The recent news from the government of the United States is hopefully paving the way for our direct contact and collaboration with the new administration in Kabul. It is time to plan a strategy for establishing contact, and maybe, to send a delegation when the time is right.



As for the Board of Directors, during the past three months, holding monthly meetings have continued. As a result, a goal for the completion of the revisions to the Society's Bylaws and Manual has been established. There have been concerns that this task is taking longer than expected time. To clarify that, it is the thorough review and revisions due the needs of time and new realities that is taking the time. The goal is to produce a complete and comprehensive document. After all, it is the charter of the organization. With this in mind, it has to be revised thoughtfully, and should be given the due time it requires.

The sole mission of the Society is to be able to help our beloved country. No doubt, that it has been going through very hard times, but we should never lose hope for a better future. Let's change criticism to positive feedback and helping hands. Let's be excited and look forward to a better tomorrow. I believe in what a popular motivational speaker once said: "When there is hope in the future, there is power in the present, and since hope is the foundational quality of all change, there is considerable reason to be excited."

Happy New Year!

Stay safe and be well.

Sincerely

Abdul Manan Khalid, P.E., LEED (BD+C)
Chairman, SAE Board of Directors
Sincerely

SAE Executive Report No. 18, March 8, 2022

Nomination for the Position of Chairperson of the Water Resource Subcommittee

Mr. Hadi Rakin, P.E.

Mr. Rakin has been a licensed professional civil engineer since 1989, with active licenses in the Commonwealth of Virginia and the State of Maryland. Mr. Rakin is an active member of the American Society of Civil Engineers for more than 30 years and a member of the American Society of Highway Engineers for more than 25 years. He has over 40 years of experience in the study, planning, analysis, design, management and construction, program management of high profile and mega projects and programs with multi-billion-dollar budgets both in the United States and in Afghanistan.



On behalf of the Society, I thank Mr. Rakin for accepting my nomination for the position of **Water Resource Subcommittee**. The Water Resource Subcommittee of the Society of Afghan Engineers would ensure coordination between various Afghan Government agencies and the Society addressing water law, drainage basin studies, water availability, and conducting feasibility studies for land development, irrigation systems, reservoirs, dams, power plants, and flood control projects. We are looking for Mr. Rankin's valuable contribution to the Society and to the rebuilding of our beloved homeland, Afghanistan.

Nomination of Mr. Rakin as the Chairperson of the Water Resource Subcommittee will be submitted to the Board of Directors for approval.

With Regard, Najim Azadzoi,

SAE President

SAE Executive Report No. 19, March 23, 2022

Nomination for the Position of Chairperson of the SAE Membership Committee

Ms. Donya Amiri, P.E., T.E.

Donya Q. Amiri is the Founder and CEO of AIM Engineering Consultants, Inc. Ms. Amiri holds a Master of Science degree in Transportation Engineering, a Bachelor of Science in Civil Engineering, and a Bachelor of Science in Business Management all from San Jose State University. She is licensed as a Professional Civil Engineer (PE) and as a Professional Traffic Engineer (TE) in the State of California.



Information about AIM can be found on the company's website at www.aimeci.com.

SAE Membership Committee

The Membership Committee is responsible for inviting qualified personnel to join the Society and maintains their updated contact information. The Committee works closely with both the Finance and Communication Committees to request and receive annual membership renewal invoices and membership fees. The Committee prepares the membership Directory, entitled as, "The Directory of the Society of Afghan Engineers", and provides it to the Communication Committee for both web-based and hard copy publications. The Directory will include the profession and contact information of the Society members. It may include architectural, engineering, and other advertisements.

Nomination of Ms. Amiri as the Chairperson of the Membership Committee will be submitted to the Board of Directors for approval.

With Regard, Najim Azadzoi, SAE President

SAE Fundraising Distribution to the Needy Families in Afghanistan

Through the Fundraising efforts that was reported in the January issue of the eNewsletter, SAE collected total of 10,100 dollars. On January 6, 2022, the Task Force along with SAE President and Chairperson of the Board had a zoom meeting and discussed the collected fund's distribution process. As a result, it was concluded that the proceeds of the fund raising should solely be used for the immediate benefit of the displaced and needy families , utilizing the free service available through the following two humanitarian organizations:

1. Afghan Relief, managed by Mr. Reza Afshar (SAE member), to distribute \$6,100.00 worth of staples and supplies to the needy families in Kabul.
2. Selab Charity Foundation, managed by Haji Said Mohamad Selab, to distribute \$4,000.00 worth of staples and supplies to the needy families in Kandahar.

Accordingly, the two organizations distributed the funds, a summary of the distribution in Kabul and Kandahar is provided below:

Afghan Relief, managed by Mr. Reza Afshar (\$6,100.00)

The supply packages were distributed to 135 needy families in Kabul on February 4, 2022. Dr. Sahib Mosawi, Afghan Relief's Kabul Representative along with Mr. Howaida, SAE 's Kabul Representatives were present during the distribution process.

Each package included one sack of flour, one bottle of 5-liter cooking oil and one large warm winter blanket.



Photo 1: This picture shows SAE fund distribution by Afghan Relief in Kabul. Mr. Walid Howaida, SAE representative is standing on the right side of the photo.

Selab Charity Foundation, Managed by Haji Saved Ahmad Selab (\$4,000.00)

The supply packages were distributed to ninety-five (95) needy families living in tents in the city of Kandahar.

Eighty-four (84) families received the donation package, and eleven (11) families got funds to purchase medicine for the needy and sick family members

- Each package in Kandahar City contained 20 kg Rice, 50 kg flour, a 10-liter bottle of cooking oil.
- Each package outside of the Kandahar City, contained 20 kg rice, 50 kg flour, a 10-liter bottle of cooking oil, 4.5 kg tea, 5 kg soap, and 20 kg sugar.
- Twenty-two (24) families living in tents in Kandahar City got large tarp to cover their leaky roofs.



Photo 2: Kandahar distribution

In the above left photo, the boy in the middle, earned 30 Afghanis and bought rice with that. There was no cooking oil in the pan and just water. This was dinner for the entire family

The month of Ramazan, is starting in a few days. It is the month of giving. Most people give their zakat in this month. I highly recommend SAE embark on a second Fund Raising for the needy families. If you watch some of the videos by Mr. Selab, the living conditions of your compatriots will break your heart and make you cry.

Mr. Selab Sahib highly recommended that SAE sponsor a Bakery (Nanwayee) in Kandahar to provide five (5) bread per needy family. The regular price for bread is eighteen (18) Afghanis and the owner is willing

to give it to SAE sponsored family for sixteen (16) Afghanis. Five breads will cost ninety (90) Afghanis per family which is around a dollar per family.

We would like to thank the donors, and also extend our sincere appreciations to Engineer Sahib Reza Afshar, President of Afghan Relief, and Haji Sahib Sayed Ahmad Selab, President of Selab Charity Foundation, Dr. Sahib Mosawi, Afghan Relief Kabul Representative and Engineer Sahib Walid Howaida, SAE Kabul representative for their unconditional support and service in distributing the funds.

Best regards

Amanullah Mommandi, P.E.
SAE Board Member and the Fundraising Distribution Committee Coordinator

News From Afghanistan

A Brief Report from Kabul

Note: The following report is provided by Mr. Walid Howaida, SAE representative in Kabul Afghanistan. On behalf of the Editorial Board of the SAE eNewsletter I would like to thank Mr. Walid Howaida, SAE Representative in Kabul Afghanistan for his reports of technical issues around Afghanistan. His effort and work for providing such technical reports are greatly appreciated. We have received messages from the SAE members that they read his reports with interest.

Hafizullah Wardak Editor-in-Chief of the SAE eNewsletter

By. SAE Representative, Mr. Walid Howaida

Report No. 1

Date: February 2022

Requested by: SAE Architecture Subcommittee

Inquiry/Task: Information about the existing situation and condition of the caves around the Bayman big statue and the government plan for the resettlements of the families who are currently living in the caves, to some residential projects.

Findings:

Based on the plan I had a 4-day journey to Bamyán city from 8-11 February 2022.

I met the Bamyán official as well as visited some families who are living in the cave and the report information submit as follows:

1- Firstly, I met Mr. Sarhadi the Bamyán governor on 9 February and shared SAE's idea for resettlement of the existing families who are living in the caves around the Baymayn big Statue.

The Bamyán governor said, still there is no clear plan from the government side because the senior officials are busy with political and security issues and thanked SAE for their concerns and promised to provide facilities when SAE has any useful plan for resettlement of the mentioned families. He was not allowed to take any picture of him.



Mr. Walid Howaida at the door of a cave room

2- Secondly, I met Mr. Frootan, the Bamiyan province Mayor. He welcomed the SAE idea and repeated the same thing what the governor said, still there is no plan form the governor side for resettlement of the families who are living in the caves.



Mr. Walid Howaida and Bamiyan local officials

3- Thirdly, I met Mr. Saifurahman Mohammadi, director of the Information & Culture directorate of Bamiyan province. He provided us with some information about the plan of the former government. He said that still there is no any special program or plan for resettlement of the mentioned families, but previously an NGO, Islamic Relief, has built about 20 small houses at the Azhdaha valley in the governmental land and since they built those houses, some people occupied the empty caves to benefited from the Islamic Relief project, but it was happened once. During a survey in the last regime around 250 families used to live in the caves and some of them moved to the houses which were built by the Afghan and senior officials that remained in his position from the former regime senior officials!

He also said that there is no special project and plan for resettlement of the families who are living in the caves, but shared some information about two residential projects that were designed, approved by the former government and implemented, partially.



Mr. Walid Howaida inside a typical cave room with occupying family

He added that the two approved residential projects are Gunbadak and Tapa-i-jalal. In Gunbadak project 1000 residential houses were considered and around 500 of them were distributed to the eligible families and around 500 blank land remained. In Tapa-i-Jalal project 700 residential houses were considered and around 500 of them were distributed and around 200 blank land remained.

These projects are standard and all facilities for residential projects like school, clinic, park, drinking water network, sanitation issues, etc. were considered. He said that this is now the responsibility of the Municipality plus Information & Culture directorate of Bamyan province to take the first steps.

Eng. Kazim Razaee shared the available information and documents as a master plan of Bamyan city as well as detailed drawings of the Gunbadak project Relief and some more were given some land from the government side to build houses and still 135 families are living there.

4- Finally, I met Eng. Kazim Razaee, acting director of Urban Development, Housing and land directorate of Bamyan province. He was the only qualified residential project which was shared with Azadzoi sahib.



Mr. Walid Howaida and Bamiyan local official

Report No. 2

Date: 20 January 2022

Requested by: SAE Editor-in-Chief, Ustad Hafizullah Wardak

Inquiry/Task: What is the impact of the latest snow/rain on the living condition of residents in Kabul and across the country

Findings:

The impact of the latest snow/rain on living conditions of residents in Kabul and across the country. Afghans have a very famous proverb that “Kabul can be without Gold, but not without Snow”.

The latest rainfall and snowfall have negatively impacted the living condition of people in Kabul and other cities because most families don't have enough fuel to heat their houses. Also due to cold weather more cold

related diseases are spread, but in the rural area the impact is positive.

The recent snow/rain will help and also it is expected to increase crop production and also it will impact groundwater level but it cannot be significant because the process of recharge is very slow and over usage of groundwater is very high.

The recent snow/rain has increased the discharge of the rivers, but it is not a good sign because less water stores will remain in the higher altitude due to climate change.

The past rain and snow used to create floods in Kabul city created difficulties for residents and still it is a problem but for a short duration.

Big cities, such as Kabul had air pollution problem and this latest snow/rain going to alleviate this problem and help clean the air,



Two young women strolling in a park in recent snow in Kabul



Kabul Municipality employee keeping road clean in the recent snow in Kabul

but again due to heavy smoke due to consumption of wood, coal, and diesel, the air pollution increases immediately after raining.

The last snow/rain is expected to be a normal year with good production, but still it will depend on the condition

of precipitation in February and March.

And finally, traffic congestion due to flooding still exists because of no proper drainage in the city.



Flooded street Kabul City due to recent heavy snow and rain fall



Recent flooding in Kandahar, Helmand and Fara Provinces

SAE-Architecture and Urban Design subcommittee proposed activities in 2022.

Consistent with our mission: to improve, educate, and sustain the practice of the architecture and design in our country, this year we are planning to launch an “International low-income Housing Design Competition,” hosted by SAE, Architecture/ Urban Design sub-committee. Among the participant universities will be various architecture and urban planning programs in Afghanistan, in partnership/collaboration with few invited foreign universities. The education goals is; to encourage collaboration, interchange and learning between the participant Afghan/foreign universities. The assigned team “International Housing Competition,” for this task is diligently working on the followings.

- 1. Scope of the competition** – the document will define the design program components such as: the scope and goals of the competition, detail space and site program, timelines, submission requirements, eligibility, evaluation criteria, student composition, jury, and awards. The housing design team had several meetings on the preparation of the document, and currently the final draft is prepared and is ready to be released.
- 2. Participant universities** – Invitation letter is prepared to be sent to the selected Afghan/foreign universities, architecture and urban design programs to participate in the housing design competition. Possible Afghan universities will be: the Kabul University, Kabul Polytechnic, Herat University, Kandahar University, Shaikh Zayed University in Khost, Paktia and Nangarhar Universities. Among the foreign universities, we are considering to invite MIT, Harvard University, Washington State University, and Hartford University, other interested institutions may be added later to the list.
- 3. Funding and expenses** - Fundraising possibly among SAE members and other donor organizations will be held to help the Afghan students with costs related to the design production, equipment, materials, and other related expenses. Prizes and website development costs will be decided accordingly when funding becomes available. A fundraising flyer/poster is prepared to be circulated among the possible donors for the purpose soon.
- 4. Timelines** - We are targeting to advertise, launch the website, and submit the housing competition program to the selected universities by June 15, 2022 – submission and review of the final projects is expected to be made in December 15, 2022 – selection of the winners and awards announcement is expected to be done on January 15, 2023.
- 5. Website for the competition** - We need to develop a website and data bank to exhibit the competition materials and related information to the competitors for the easy access. Also, the site will help the jurors to view the final submissions for evaluation. Depending on the budget availability we will soon be looking at the options to develop the website.

Keeping in mind that at this point the competition is only an educational design project, however, we are hoping that the outcome of the design competition will become a catalyst for helping the communities in the Afghan cities with their acute housing problems.

Prof. Bashir Kazimee, Chairperson, SAE Architecture and Urban Planning Subcommittee

Kabul City Groundwater Aquifer Storage and Recovery

By

Amanullah Mommandi, M.S., P.E.

(Part One of Four)

Abstract

This article is the continuation of the article published in April 2020 issue of the SAE eNewsletter. Rapid population growth and other factors have led to reduced groundwater supply for Kabul city residential and commercial use. In this article, the author proposes the implementation of Aquifer Storage and Recovery (ASR) programs and the construction of new dams to augment ASR programs to provide adequate water to recharge Kabul city groundwater aquifers.

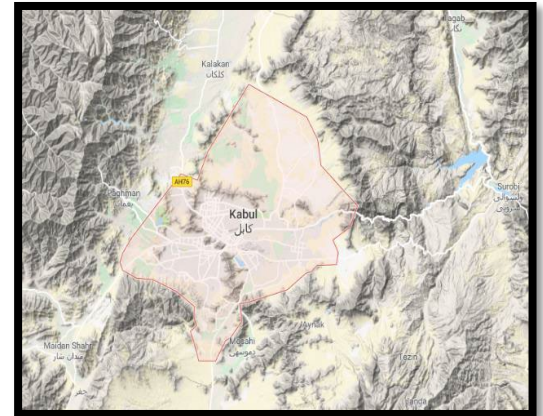


Figure 1. Kabul City and surrounding area Arial view

Introduction

Kabul, the capital of Afghanistan is the fifth fastest-growing city in the world. Its population in 2017 was estimated at five million and is expected to increase to about eight million by 2050.¹ Rapid population growth and expected temperature rises due to climate change mean the area will need six times more water by 2050, according to the US Geological Survey.²

Development of a modern water supply system for Kabul was initiated at the end of 1920s when King Ghazi Amanullah Khan invited a British engineer to bring water from Paghman River to Kabul residences.³ The project consisted of four components. The first component was the construction of a water intake structure on Paghman River in Paghman to withdraw surface water. The second component was the installation of a five-inch conveyance pipeline from Paghman to Deh Afghanan, with a length of twenty-six kilometers. The third component was the construction of a storage facility at Deh Afghanan. The fourth component was the construction of a water distribution network from the storage facility to Kabul.

¹ Draft Kabul City Master Plan. June 2011, RECS International Inc. and Yachiyo Engineering Co., Ltd.

² <https://www.theguardian.com/world/2010/jul/19/kabul-faces-severe-water-crisis>

³ Afghanistan National Plan including Kabul City, 1919 (First National Plan)

Municipal consumers were supplied water through service connections and public standpipes. A historical water supply method of Kabul has been the water vendor, or Saquau, who delivered water in goatskin bags from public standpipes.⁴

After the 1920s, future drinking water projects, which are outlined in Kabul City Master Plans listed below, used deep wells to draw drinking water from Kabul groundwater aquifers.

1. 1974: Second Kabul City Master Plan
2. 1978: Third Kabul City Master Plan
3. 2011: Fourth Kabul City Master Plan (current)

Second major development, in supplying water to Kabul, started with Allaudin well-field that was constructed between 1954 and 1965 under a bilateral agreement between Japan and Afghanistan. The third major project was the Afshar Groundwater utilization funded by Federal German Republic.⁵

There have been two planning studies on Kabul City conducted recently. One is the “Consultancy Services for Preparation of Development Plan for Kabul, Afghanistan,” supported by the World Bank and conducted by Intercontinental Consultants and Technocrats Pvt. Ltd. (Here in after referred to as ICT Study), from 2007 to 2008. Another one is the “Kabul Metropolitan Area Urban Development Master Plan” (hereinafter referred to as KMAUD Master Plan), supported by Japan International Corporation Agency (JICA) and conducted from 2008 to 2009. The ICT Study was aiming to identify development projects for Kabul City, while the KMAUD Master Plan was to formulate a regional development plan focusing on harmonized development of the Deh Sabz New City and the existing Kabul City.

The objective of this masterplan is to establish the city masterplan of the Kabul Municipality Area by conducting supplemental analysis and planning works by fully utilizing the results of the ICT Study and the KMAUD Master Plan. This master plan aims to replace the Third Kabul City Master Plan which is the last master plan of Kabul City approved in 1978⁵

Thirty-two million cubic meters of water is used from Kabul’s underground water reserves every year while the capacity of the city’s water is twenty-nine million cubic meters in a year.

There are currently over 200,000 wells in Kabul, the drop in ground water level is “a crisis” for residents. Meanwhile, in the Asia Foundation’s recent Survey of the Afghan People, it revealed that there are rising concerns over water shortages in Kabul province.

The Asia Foundation meanwhile said recently that more needs to be done, including policy solutions that promote water use efficiency at the consumer level through recycling, wastewater management, water

⁴ Appraisal of the Kabul Water Supply & Sanitation Project Afghanistan, May 22, 1975. International Bank for Reconstruction and Development Report No. 746-A

⁵ Appraisal of the Kabul Water Supply & Sanitation Project Afghanistan, May 22, 1975. International Bank for Reconstruction and Development Report No. 746-AF

treatment, the harvesting of surface water, and the monitoring of groundwater extraction methods at the ministry level.

<https://tolonews.com/business/india-help-build-shahtoot-dam-kabul>

Additional drinking water projects are as follows:

Kabul City Groundwater Aquifers

Today, the main source of municipal water for commercial and residential customers in Kabul are groundwater aquifers, which flow in the direction of surface-water drainage.

Kabul's groundwater aquifers are under increased stress from various sources which is putting a great strain on future water supply for the city. One cause is the surge in population in Kabul city which has led to a higher demand for drinking water.

Another cause of strain on future water supply is the recent droughts that have hindered the ability of Kabul, Paghman and Logar rivers to recharge the aquifers through seepage.

There are two other major factors that affect Kabul groundwater resources. One is an increase in commercial water usage. The second is that the private sector has increasingly been allowed to drill their own wells and access groundwater resources in Kabul and surrounding areas.

Afghanistan Geological Survey (AGS), with technical assistance from the U.S.

Geological Survey, established a water-level monitoring network in the Kabul Basin, and, in 2004 Water levels were monitored in sixty-nine wells in the Kabul Basin, starting in July 2004 and continuing through March 2007.⁶ Static water levels have seasonal fluctuations from 0.5 to 3 meters. As a result of increased demand and reduction in ground recharge, there has been a five to ten-meter drop in groundwater levels since 1980, and according to a 2013 USGS report, the rate of groundwater level is decreasing 1.5 meters per year on average. In one monitoring well a decline of thirty meters has been observed.⁷ As expected, many shallow wells have dried up completely. Groundwater

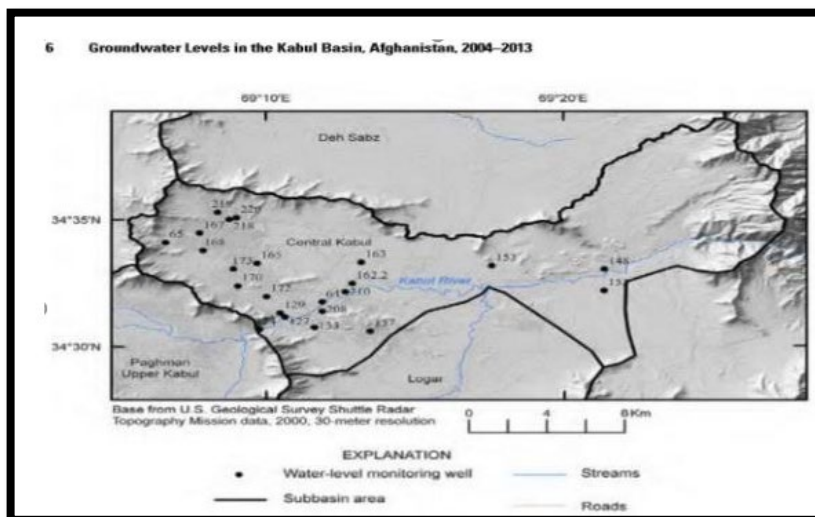


Figure 2. Locations of USGS groundwater monitoring wells

⁶ Ground-Water Levels in the Kabul Basin, Afghanistan. 2004-2007 USGS Open file Report 2007-1294

⁷ Ground-Water Levels in the Kabul Basin, Afghanistan. 2004-2007 USGS Open file Report 2007-1294

Levels in the Kabul Basin, Afghanistan, 2004–2013. Open-File Report 2013–1296 USGS Afghanistan Project Product No. 182

Groundwater levels were monitored in seventy-one wells in the Kabul Basin, Afghanistan, starting as early as July 2004 and continuing to the present (2013). The monitoring network is made up exclusively of existing production wells; Seventy wells are in unconsolidated sediments, and one well is in bedrock. Water levels were measured periodically, monthly, in sixty-four wells. The water level of the well located on the grounds of the Afghanistan Geological Survey building were measured more frequently. This report provides a 10-year compilation of groundwater levels in the Kabul Basin prepared in cooperation with the Afghanistan Geological Survey. Depths to water below land surface range from a minimum of 1.47 meters (m) in the Shamali subbasin to a maximum of 73.34 m in the Central Kabul subbasin.

The Logar subbasin had the smallest range in depth to water below land surface (1.5 to 2.4 m), whereas the Central Kabul subbasin had the largest range (2.64 to 73.34 m)².

USGS. Ground-Water Levels in the Kabul Basin, 2004–07 Open File Report 2007–1294

Water levels were monitored in sixty-nine wells in the Kabul Basin, Afghanistan, starting in July 2004 and continuing through March 2007. Well depths in the study area ranged from 4.9 to 160 meters. Water levels below land surface ranged from less than 1.5 to 68 meters, while static water levels ranged from 1.5 to 40 meters. Seasonal water-level fluctuations from September 2005 through May 2006 ranged from less than 1 to 8 meters. Water level trends during the study period showed both increases and decreases. Drawdowns due to pumping ranged from 5 to 25 meters.

To summarize, today, the water seepage from Paghman, Kabul, and Logar Rivers; and current precipitation are not adequate to recharge the Kabul groundwater aquifers.

Future Aquifer Storage and Recovery Programs

The mechanical recharging of the Kabul City ground water aquifers was recommended 45 years ago in 1975.⁸ In 2017, the author attended the American Water Resource Association Annual Conference in Sacramento California where there were many excellent presentations related to water resources. Two presentations related to Aquifer Storage and Recovery (ASR) programs were of special interest to the

Ground-Water Levels in the Kabul Basin, Afghanistan, 2004–07

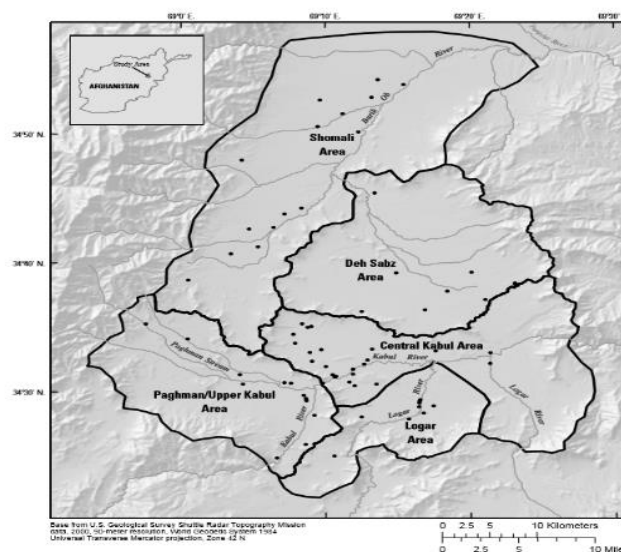


Figure 3. USGS Groundwater monitoring wells in Kabul City and surrounding areas

⁸ Appraisal of the Kabul Water Supply & Sanitation Project Afghanistan, May 22, 1975. International Bank for Reconstruction and Development Report No. 746-AF

author due to their urgent and immediate applicability to Kabul City and other cities in Afghanistan. (See Figure 4 for a general ASR schematic overview.)

One promising example of artificial recharge of aquifers comes from the city of Yakima located in the state of Washington. Yakima uses an ASR program that stores spring runoff from nearby streams in unground storage (see Figure 4). There are over four hundred similarly operating ASR wells across the United States.⁹

The Water and Soil Survey Authority, within Ministry of Irrigation and Agriculture and later within Ministry of Water and Power and currently Ministry of Water and Energy in corporation with USGS have installed stream gauge stations all over the country since sixties including stream gage station on Paghman River, Kabul River and Logar River.

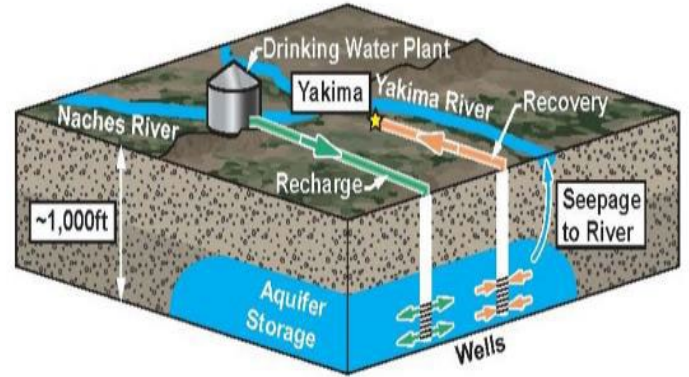


Figure 4. General ASR Schematic¹

The function of stream gage is to monitor the flow depth in the stream 24- hour and year-round. The technical staff, hydrologist in Hydrology Department converted the water into flow rate using rating curves for each site. These water measurement gages had automatic recorder housed inside a structure.

depth

To calibrate the data, the hydrology department's staff would go to the main rivers gage sites during the spring flood season and manually collect the stream flow data using the cableways and current meters. The stream flow data is extremely important for decision makers to build dams across the stream. The flow rate will control the size of the dam.

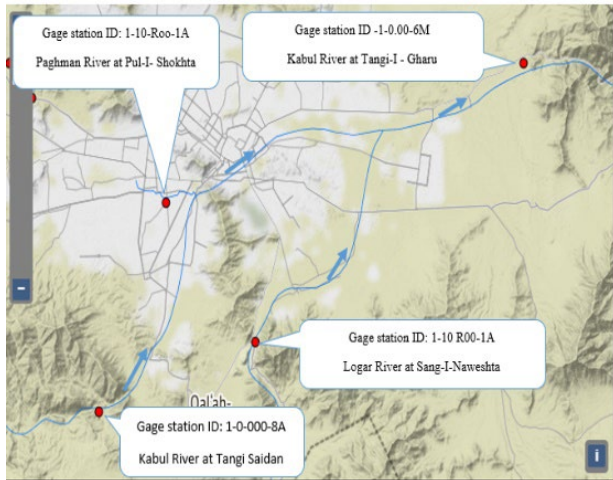


Figure 5. Location of stream gage stations on Paghman River, Kabul River and Logar River (USGS)



Figure 6. Location of stream gages across Afghanistan

⁹ Policy, Permitting & Particulars of Aquifer Storage and Recovery in Washington State, Melissa Downes, November 6, 2017

Due to space limitation, the article has been divided into four parts. In the second part of the article the contribution of Shah -Wa Arus Dame across Shaker Dara River, north of the city and Shatoot Dam on Kabul River, northwest of the city will be discussed. Shatoot and Shah-Wa-Arus dams are currently under construction.

Biography of Engineer Amanullah Mommandi

Mr. Mommandi graduated from the College of Engineering at Kabul University with a bachelor's degree in Civil Engineering in 1968. Subsequently, he joined the Water and Soil Survey Authority in the Ministry of Agriculture and Irrigation where he served as a water resource engineer until 1973.

Mr. Mommandi pursued graduate studies in Water Resource and Hydraulics at Colorado State University located in Fort Collins, Colorado, USA where he obtained his master's degree in 1975.

Mr. Mommandi then returned to Afghanistan and started working for the Ministry of Water and Power (MPW) as General Director of Planning, General Director of Technical Monitoring, and Inspection, and finally as the President of Kunduz Khanabad Water Resource Authority.



After immigrating to the United States, Mr. Mommandi briefly worked in the private sector as a consultant before joining the Colorado Department of Transportation (CDOT). Mr. Mommandi's career at CDOT spanned over 35 years before his retirement in 2019. At CDOT, he served as the Hydraulic Program Manager and later as the Director of the Applied Research and Innovation Branch. Mr. Mommandi co-authored many publications related to water resource and transportation. The research documents can be access at the following link.

<https://www.codot.gov/programs/research>

In 2012 Mr. Mommandi presented on various water resource hydraulics and transportation applications at the Ministry of Public Works and at the College of Engineering at Kabul University. Mr. Mommandi accompanied Minister Aoudjan and others to inspect the highway from Kabul to Khenjan including the Salang Tunnel. He also Joined Mr. Aoudjan and his delegation to Inspect Eisenhower-Johnson Memorial Tunnel along I-70 west of Denver, Colorado, USA. The author facilitated the signing of Technical Memorandum between Afghanistan Minister of Public Works and CDOT.

Mr. Mommandi joined the Society of Afghan Engineers (SAE) in the early nineties, chaired the SAE Colorado Chapter and served two terms as member of SAE Board of Directors and Vice President. He is currently SAE Board member.

Amanullah Mommandi, M.S., P.E.

Email: mommandia@gmail.com

Phone: (303) 217-6803

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NEWS FROM KABUL UNIVERSITY

Zuhal Noori, Urban Planning student at the Faculty of Engineering, Kabul University

“An Email”

March 1st 2022

Kabul University Engineering Faculty.

Greetings and best regards, Azadzo Sahib.

I am Zuhal Noori, a student of the third year, department of urban design and planning, faculty of engineering, Kabul university. I contacted you and sought professional help in my projects. I was introduced to Mr. Hamayon Ibrahim, an architect and active civil engineer practicing in the USA. Mr. Ibrahim sent me some real project plans with some details and photos of the project after the construction.

I sincerely appreciate SAE helping me. Once again, thanks to the SAE, specifically Mr. Ibrahim and for his time and intellectual advice.

Respectfully,

On behalf of the Society of Afghan Engineers, I congratulate Zuhal and wish her for a successful completion of her project.

Najim Azadzo, SAE President.



Membership News

SAE is pleased to announce that many professional engineers and architects in the United States, Canada and Afghanistan have shown their interests becoming SAE team members since January 2021. SAE has received most of new members' membership applications and fees as required by the SAE bylaw. We welcome everybody and looking forward working together in future projects by providing professional services to Afghan Government and agencies. We publish new members' names and their short biography in each SAE quarterly eNewsletter as provided the information.

We welcome our newest high qualify members and look forward to their contribution to the purpose and mission of the Society of Afghan Engineers as set forth in the bylaw of the society.

SAE New Members

SAE New Members March, 2022

DONYA Q. AMIRI, P.E.

www.aimeci.com

Donya Q. Amiri is the Founder and CEO of AIM Engineering Consultants, Inc. Ms. Amiri holds a Master of Science degree in Transportation Engineering, a Bachelor of Science in Civil Engineering, and finally a Bachelor of Science in Business Management all from San Jose State University. She is licensed as a Professional Civil Engineer (PE) and as a Professional Traffic Engineer (TE) in the State of California. With more than 15 years of engineering experience working for local Bay Area governments, Ms. Amiri has led several cities' Civil Engineering, Transportation, Traffic Engineering, and Land Development groups while managing a wide array of high profile and complex policies, programs, and projects. She is recognized for her passion, enthusiasm, and dedication to building safe, innovative and equitable infrastructure while accommodating the evolving needs of the community.



In 2021 Ms. Amiri took a leap of faith and left her public sector career to launch AIM, an engineering consulting business named after her three young children (Arsalan, Imran, and Monisa) in order of birth. AIM was founded on the core principle that we all play a role in the world we create, live in, and leave behind for our future generations. Together with public agencies and private sector clients who share her vision, Ms. Amiri is proud to do her part in creating beautiful communities and modern infrastructure that are reliable, sustainable, and designed to meet the needs of our changing society. More information about AIM can be found on the company's website at www.aimeci.com.

Ms. Amiri's mission to have a positive impact in our communities through engineering services has generated great excitement and a warm welcome from various organizations around the country. The first came from Women's Net, a network of influential women, who selected Donya among thousands of international applicants to be the recipient of a Distinguished Woman-owned Business award and the August 2021 Amber Grant winner. Soon after, Ms. Amiri was invited by the American Society of Civil Engineers

(ASCE) to be a guest speaker for ASCE’s Plot Points podcast, “Engineering a Small Business” which aired in November 2021. Locally, the Pleasanton Chamber of Commerce featured Ms. Amiri in a Business Spotlight article, “Woman Engineer Aims for New Beginning” which was published and printed in the local newspaper. Recently, Silicon Valley Women in Engineering (WiE) has invited Ms. Amiri to be a guest speaker at the Engineering Leaders for Tomorrow annual conference scheduled to be held at San Jose State University on March 19, 2022. Ms. Amiri will be speaking on the Building, Infrastructure, and the Environment career panel to an engineering audience of over 500 attendees.

Born in Kabul, Ms. Amiri is honored to join the Society of Afghan Engineers who share the same love and passion for rebuilding our beautiful, yet war-torn country of Afghanistan. With the desire to bring more women and young engineers to this impactful conversation, Ms. Amiri is excited to share her knowledge and experiences with the Society of Afghan Engineers and to work collectively with other prestigious members to improve the lives of our innocent and challenged Afghans back home.

ZABIHULLAH SARFARAZ

Email Address : eng_zabi@hotmail.com
Cell phone /WhatsApp : +1 925-354-4184

EDUCATION
EXPERIENCE
BACHELOR OF SCIENCE
CIVIL ENGINEERING
Kabul University Afghanistan, 2004

LICENSES / CERTIFICATION
Contractor Quality Management (CQM)
Quality Control System (QCS)
P6 Certification
OSHA Occupational Safety and Health
Administration

16 years of experience in Construction Project Management and Implementation. experience includes public work inspection / Plan review, construction QA/QC, managing construction projects, managing, and directing contractors, and working in hazardous environments. Also have experience of AutoCAD, QCS, Signature Scene 6, Blue Beam and Microsoft Office Suite.

LICENSES | CERTIFICATION
EXPERIENCE

PUBLIC WORKS INSPECTOR / PLAN REVIEWER SAN FRANCISCO, CALIFORNIA
West Coast Code Consultants / 2018 – Present
Perform public works inspections for Private development projects and telecommunications projects within the public right-of-way. Work with municipalities to develop Conditions of



Approval for private development projects; Perform civil plan check review for big developments, multi-use buildings, and single-family housing; Review maps and title documents for compliance with the Subdivision Map Act, Land Development Code and conditions of approval

CONSTRUCTION ENGINEER AFGHANISTAN

Pacific Architects and Engineers (PAE) 2014 – 2017

Provided civil engineering and technical support, Responsible of Engineering Training classes for Government staff, construction QA/QC inspections, review of structural design package and project management from beginning to closeout.

QA/QC ENGINEER AT BAMYAN AIRPORT , AFGHANISTAN

United Nations Office for Project Services (UNOPS) / 2014

Directly inspected the Contractor Quality Control (CQC) System, inspected construction activities, evaluate training and performance of staff, maintained record of all QA reports and documentation, and coordinated all aspects of projects.

CONSTRUCTION PROJECT MANAGER / QC MANAGER, AFGHANISTAN

Mega Tech Inc. / 2013 – 2014

Reviewed all subcontractor's construction QA/QC work to ensure compliance with contract requirements. Investigated any discrepancies between contract drawings and specifications. Other responsibilities included monitoring the progress of projects in accordance with contractual obligations and schedules.

CONSTRUCTION DEPUTY DIRECTOR / PROJECT MANAGER , AFGHANISTAN

Technologists Inc. / 2006 – 2013

Worked on several projects including design build, renovation projects, Pre-Engineering Buildings, RCC Buildings, Roads and parking, helipad, water supply systems, sewer systems, electrical systems, mechanical systems and fire protection systems. Responsible for overseeing job progress from start to closeout, including coordination of staff and the selection of subcontractors. Reviewed project invoices and facilitated professional trainings for all project staff.

DISTRICT ENGINEER , AFGHANISTAN

United Nations -HABITAT. /2005-2006

Prepared primary and technical survey, assessment reports to reflect community needs. Design, cost estimation and documentation of National Solidarity Program (NSP) projects and submit prepared proposals to government for approval. Prepared community project request forms, describing the exact expenses according to NSP regulations and submit it to relevant references, Supervision and quality control of NSP projects. Prepared progress reports, final reports, project completion and turnover documents.

Society of Afghan Engineers (SAE) Membership Fees-2022 USD

Active Members

No	Last Name	First Name	2022			2023		
			Membership	Donation	Total	Membership	Donation	Total
1	Rossi	Steve	60	440	500	60	200	260
2	Roshan	Tooba	60	440	500			0
3	Yamayee	Zia	60	200	260			0
4	Azadzoi	Najim	60	140	200			0
5	Mujtaba	Ghulam	60	140	200			0
6	Masumi	Jalal	60	130	190	60	0	60
7	Baha	Zarjan	60	60	120			0
8	Kazimee	Bashir	60	40	100			0
9	Mommandi	Amanullah	60	40	100			0
10	Samizay	Mahmoud	60	40	100			0
11	Atayee	Tamim	60	40	100			0
12	Corcoran	Edward	60	32.75	92.75			0
13	Baluch	Hashem	60	0	60	60	0	60
14	Hassani	Abdul Waheed	60	0	60			0
15	Khalid	Manan	60	0	60			0
16	Mahmood	Amin	60	0	60			0
17	Panjshiri	Atiq	60	0	60			0
18	Rakin	Hadi	60	0	60			0
19	Sidiqi	Nadir	60	0	60			0
20	Wardak	Hafizullah	60	0	60	60	0	60
21	Wardak Hassan	Wazma	60	0	60			0
22	Abdulrahimzai	Mushtaq	60	0	60			0
23	Keshawarz	Saleh	60		60			0
24	Sabet	Mehdi	0	0	0			0
25	Afshar	Reza M.			0			0
26	Babacarkhial	Abdul Nazeer			0			0
27	Ebadi	Yar M.			0			0
28	Ghani	Aziz			0			0
29	Hossainy	Said Sharif			0			0
30	Ibrahim	M. Hamayon			0			0
31	Ludin	Rafat			0			0
32	Mujtaba	Bahaudin			0			0
33	Noorzad	Abdullah			0			0
34	Paya	Najib M.			0			0
35	Rayek	Hashim			0			0

No	Last Name	First Name	2022			2023		
			Membership	Donation	Total	Membership	Donation	Total
36	Saleh	Gul Afghan			0			0
37	Sattari	Masood			0			0
38	Shekib	Sohaila			0			0
39	Shirzay	Ahmad Wali			0			0
40	Zaca	Zabiullah			0			0
41	Abdullah	Ehsan			0			0
42	Afghan	Fazel Ahmad			0			0
43	Baidariwal	Fazal			0			0
44	Goethert	Reinhard			0			0
45	Levrat	Fred			0			0
46	Mehrzai	Jan			0			0
47	Miller	Hamida			0			0
48	Naimi	Qaseem			0			0
49	Omarzad	Mustafa			0			0
50	Qadir	Abdullah			0			0
51	Taraky	Yar Mohammad			0			0
52	Abdul Qayum	Abdul Rauf			0			0
53	Zahori	Sayed			0			0
54	Farooqi	Najib M.			0			0
55	Durnai	Ahmad Shah			0			0
56	Baha	Abraham			0			0
57	Hassan	Islamudin						
58	Amiri	Donya						
					\$3,123			\$440

SAE New Members

No	2021 New Members		Membership	Donation	Total
1	Abdullah	Ehsan	60		60
2	Afghan	Fazel Ahmad	60		60
3	Atayee	Tamim	60		60
4	Baidariwal	Fazal	0		0
5	Goethert	Reinhard	0		0
6	Levrat	Fred	0		0

No	2021 New Members		Membership	Donation	Total
7	Mehrzai	Jan	60		60
8	Miller	Hamida	60		60
9	Naimi	Qaseem	60	40	100
10	Omarzad	Mustafa	60		60
11	Qadir	Abdullah	0		0
12	Roshan	Tooba	60		60
13	Taraky	Yar Mohammad	60	40	100
14	Abdul Qayum	Abdul Rauf	60	0	60
15	Zahori	Sayed			0
16	Farooqi	Najib M.	60	140	200
17	Durnai	Ahmad Shah			0
18	Wardak Hassan	Wazma	120 (2021 and 2022)		120
19	Baha	Abraham	60	60	120
20	Corcoran	Edward	60	0	60
21	Sabet	Mehdi	60	0	60
			660	220	1120
Grand Total			\$2,520.0	\$1,770	\$4,530

SAE New Members (Residing in Afghanistan and Turkey)

No	2021 New Members		Residence	Donation	Total
1	Zhakfar	Zabihullah	Afghanistan		
2	Kamran	Matiullah	Afghanistan		
3	Momand	Mohammad Ishaq	Afghanistan		
4	Momand	Mohammad Fazil	Afghanistan		
5	Zahid	Hasibullah	Afghanistan		
6	Saberi	Safi	Afghanistan		
7	Asim	Arif	Afghanistan		
8	Naimi	Kazim	Afghanistan		
9	Hmadard	Sahar	Afghanistan		
10	Howaida	Ahmad Walid	Afghanistan		
11	Maihan	Regina	Afghanistan		

No	2021 New Members		Residence	Donation	Total
12	Alizoi	Mohammad Azim	Afghanistan		
13	Hussaini	Muzhda Sahadat	Turkey		
14	Sattari	Mashhood	Turkey		
15	Qadery	Qadria Shewa	Afghanistan		
16	Nazarian	Tayebeh	Afghanistan		

[Members Can Send Their Fees And Donations To The Following Account](#)

SAE Bank Account Information:

Account Name: **Society of Afghan Engineers**

Bank Name: **BB&T**

Routing # **051404260**

Account # **0005139262982**

Bank Address:

7915 HENESKA LOOP

ALEXANDRIA, VA 22315-0000

SAE New Mailing Address

The SAE president, Najim Azadzoi, and the Afghan Academy President Mr. Hassan Shirdle, met in Virginia on January 7, 2021, to discuss the possibility of future activities between the two non-profit organizations. As part of mutual relationships, the Afghan Academy provides an office for SAE and sharing the mail address.

As of June 1, 2021, the Society of Afghan Engineers will have a new physical address. The new SAE address is:

**The Society of Afghan Engineers
6265 Franconia Road
Alexandria, VA 22310**

Note: The SAE Post Office Box address is not use anymore.

Please make changes to the address of the SAE in all correspondences including by not limited to the SAE Application Forms, Bylaws, and Stationeries.

Achievements and Awards

Semira Mursal Azadzoi, Mechanical Engineer

ACHIEVEMENTS AND AWARDS

“Inventor.”

Semira Mursal Azadzoi is a Mechanical Engineer graduated from the University of Massachusetts, Lowell, Massachusetts. She invented the “**ADDITIVE MANUFACTURING TECHNOLOGY (AMT) LOW SIGNAL DIVIDER**” and was granted a patent by the Commissioner of Patents and Trademarks of the United States of America on August 10, 2021. She has also received a Certificate of Achievement in recognition of her achievement in completing the requirement of “**SIX SIGMA SPECIALIST QUALIFICATION**” on June 16, 2017.



On behalf of the Society of Afghan Engineers, we congratulate Semira’s success and professional achievement in the area of Electro-Mechanical Engineering.

SAE Editorial Board



Comments and Suggestions

The Editorial Board of the SAE eNewsletter welcomes comments and suggestions from the respected Society members and readers of the Newsletter. Your comments and responses will be included for information of all readers of the SAE eNewsletter.

I would like to extend my sincere thanks to Mr. Mohammed Saber Sarwary (P.E.), for his Technical Paper (Municipal Government and Engineering) published in the January 2022 issue of the SAE eNewsletter. I received several phone calls from the readers stating they liked and appreciated the technical paper. The Editorial Board of SAE eNewsletter, appreciate your effort for sharing your technical experience and expertise with the readers of the SAE eNewsletter. Thank you again.

Hafizullah Wardak
Editor-in-Chief of SAE eNewsletter

01-01-2022

Comments on January 2022 Newsletter

From: Baha, Zarjon <bahaz@purdue.edu>

Sent: Saturday, January 1, 2022 1:02 PM

To: Hafiz Wardak <hafizwardak@gmail.com>; Hafizullah Wardak <hwardak@comcast.net>

Subject: RE: SAE eNewsletter January 1, 2022 Issue

Dear Wardak sahib: Assalamu-alaikum

Thank you for sending us the new edition of the SAE Newsletter which includes a comprehensive coverage of SAE activities and other interesting materials for us all.

I will consider this as a great New Year gift for us.

Thank you and the rest of the SAE leadership for your hard work and accomplishments.

Have a great day

Zarjon

Editor Response :

hwardak@comcast.net

to Zarjon, Najim, Manan, Abdul, me

Mohtarem Doctor Sahib Baha Walaikum Salaam

Thank you for your comment on the first issue of year 2022 SAE eNewsletter.

The editorial Board value comments from our member readers.

Regards
Hafizullah Wardak
Editor-in-Chief of SAE eNewsletter

Mirwais Sediqmal

Dec 31,
2021, 10:25

Thanks dears. We wish the same to you .
regards

Mirwais Sediqmal, M.Sc.
Vice Chancellor & Assistant Professor
Laghman University
Engineering faculty
Civil engineering department
 0093784780184
0093778674794
0093744007770

Editor-in-Chief Response

Hafiz Wardak <hafizwardak@gmail.com>

3:32 PM (9
minutes ago)

to Mirwais, Najim, Manan, Abdul

Sediqmal Sahib,
Thank you for letting us know that you received the first issue of the year 2022 of the SAE eNewsletter.
Hafizullah Wardak
Editor-in-Chief SAE eNewsletter

Habib Rahmat

Dec 31, 2021, 11:05
PM (16 hours ago)

to Hafizullah,

Dear Wardak saheb and and colleagues around the world.

First of all I heartily congratulate the new year 2022 for all of you in the hope of , having peaceful and stable Afghanistan.

Afghan People are suffering form economic problems in addition to CVID-19 and its newly emerged forms , powery and health harsh conditions as well as high prices of food and non-food items.

SAE had play very positive role up to date for supporting Afghans Engineers , but still 99% of them are jobless and still waiting for green light from the international community especially SAE. but no tangible results are seen . I hope in this new years SAE could assist the huge number of the Afghan Engineers inside Afghanistan through supporting the Energy and other developing projects that are planned during the past government, We need your brave and humanitarian action as soon as possible. Afghanistan's Engineers are being punished for nothing . They are the most innocent people of the world. Please assist them by all humanitarian possible means.

Regards

Eng

Eng

**Electro-
National**

Water

Affairs

Habib
**Mechanical
Regulation**

Authority(

Rahmat
**Engineer(EME)
NWARA)
700222113**

Mobile: +93

+93 777222113

habib.rahmat@gmail.com

habibrahmat2020@gmail.com

Editor-in-Chief Response

Hafiz Wardak

3:49 PM (2
minutes ago)

to Habib, Najim, Manan, Abdul

Dear Habib Rahmat Sahib Salam ,

Thank you for your comments on the first issue of the year 2022 SAE eNewsletter and the role of SAE in the developments in Afghanistan.

The editorial Board value your comments. Please share your input with us always, your detailed comments are appreciated.

Regards

Hafizullah Wardak

Editor-in-Chief of SAE eNewslette

12:16 PM (3
hours ago)

Sharif Hossainy

to me

Dear Ustad Mohtaram Eng., Hafizullah Wardak Editor-In-Chief SAE eNewsletter and Chairman of the Editorial subcommittee. Asallam-o-Alaikom,

I acknowledge receiving your email, regarding the first quarterly issue of the 2022 SAE eNewsletter. Thank you for your kind efforts and volunteering.

Happy New Year 2021, I wish you good health, prosperity and happiness.

May God protect you and all your family members and entire people of the world from this pandemic Omicron. May God Almighty respond to Your prayers.

Best Regards

Dr. Said Sharif HOSSAINY

E-mail: sharifhossainy@hotmail.com

Tel: + 604 477 1232

iPhone + (778) 840 8280 (WhatsApp)

Editor-in-Chief Response.

Hafiz Wardak

3:51 PM (1
minute ago)

to Sharif, Najim, Abdul, Manan

Dear Doctor Sahib Hossainy Salaam,

Thank you for your comment on the first issue of the year 2022 SAE eNewsletter.
The editorial Board value comments from our member readers.

Regards

Hafizullah Wardak

Editor-in-Chief of SAE eNewsletter

Bahawodin Baha

Muhtram Ustad salaam,

Happy New Year to you and your family, I hope you will have a wonderful year ahead. I am grateful for sharing the SAE eNewsletter which I have found very interesting, specially after reading your article about Education. By your permission, I immediately copied that article and share it with my friends via the Facebook. I have received extremely positive feedback from professionals around the World. Off course, I have included your name and other details after the title of that article. I also integrated the same article in the blogs part of my website which I specifically developed in support of higher education in Afghanistan. The URL of my website is: <https://www.Afghan-higher-education.co.U.K>.

I will be pleased to have your feedback about this website. Please pass on my regards to all members of your family.

With best wishes,

Bahawodin

Hafiz Wardak <hafizwardak@gmail.com>

9:45 AM (12
minutes ago)

to Bahawodin, Najim, Manan, Abdul

Mohtarem Doctor Sahib B. Baha Walaikum Salam

Thank you for your kind response, that you received the SAE newsletter 2022 first issue. On behalf of the Editorial Board thank you for your comments. I am especially glad that you enjoyed reading it, and your comments about the Editor Note (education) are greatly appreciated.

I am also glad that you shared that with those interested via your website, please share that with your colleague and those who are interested.

A few weeks ago I visited your website and it is great, a good way to make people aware of online education. Your service and contribution in the area of education to Afghanistan are well recognized and may Allah reward you for doing that. We are proud of you that Afghanistan has scholars such as you. I had planned to let you know of that, but just got busy, I am glad you reminded me. I will revisit that and let you know if any comments.

Please be safe and enjoy the winter.

with regards

Hafizullah Wardak

Editor-in-Chief SAE eNewsletter and Chairman of the Editorial Committee

Bahaudin Mujtaba

6:45 AM (3
hours ago)

to me

Salam Kaka jaan Dr. Wardak Sahib,

Happy New Year to you and family. I wish you all good health and happiness.

Great articles from so many experts, especially your focus on the importance of education for everyone in Afghanistan. I like your ESL class story.

Thanks for making these articles and content available...it takes a lot of work to be an editor...thanks for sharing your time and expertise with us all.

Khuda hofiz and have a great year ahead.

Bahaudin

1/25/22

Dr. Bahaudin G. Mujtaba, MBA, DBA, SHRM-CP, SHRM-SCP

Professor of Human Resources / International Management

Huizenga College of Business and Entrepreneurship

Nova Southeastern University

3301 College Avenue

Fort Lauderdale, Florida. 33314-7796. USA.

Phone: (954) 262-5045 Or (800) 672-7223, ext. 25045.

ORCID: <https://orcid.org/0000-0003-1615-3100>

Email: mujtaba@nova.edu

NSU: www.nova.edu

Hafiz Wardak <hafizwardak@gmail.com>

9:54 AM (3
minutes ago)

to Bahaudin, Najim, Manan, Abdul

Mohtarem Doctor Sahib Mujtaba Walaikum Salaam

On behalf of the SAE eNewsletter Editorial Board, I thank you for your comments on the first issue of the year 2022. We hope you and your family are well and safe. Please give our warm Salam to Ustad Mujtaba, he is in our heart and dua always. We are following his footprints.

We are glad that the readers of the eNewsletter are sending us their comments, they are appreciated. Please continue that, and let us know how we can improve the newsletter.

With regards

Hafizullah Wardak

Editor-in-Chief SAE eNewsletter, and Chairman of the Editorial Committee

From: Najim Azadzoi <azadarch@aol.com>

Sent: Monday, January 3, 2022 7:54 AM

To: hwardak@comcast.net

Cc: manank10@gmail.com; awhassani@gmail.com
Subject: Re: SAE eNewsletter January 1, 2022 Issue

Sun, Jan 2, 4:00
PM (16 hours ago)

nadir sidiqi

Muhtaram Eng. Sahib Wardak: Assalam Alyaikum

I hope you and your respected family are in the best health InShaAllah.

Alhammdullulha, my respected mother, and I returned back home to Los Angeles on December 28 from Umrah trip. May Almighty Allah accept our Duaa to each other and bless us all with safety and health.

Thank you very much for your Duaa, kind message including sending me the beautiful and very informative first edition SAEe-Newsletter 2022. I really appreciate your hard work as well as our other respected SAE colleagues.

Muhtaram Eng Sahib Wardak: in your previous email you mentioned your Umrah plan, are you have that plan to go still? I apologize for the delayed response, once again Many thanks and Blessings.

Nadir Sidiqi

Hafiz Wardak

9:02 AM (0
minutes ago)

to nadir, Najim, Abdul, Manan

Mohtarem Doctor Sahib Sidiqi Walaikum Salam

Thank you for your kind email. Congratulation on completing Umrah, may Allah accept Umrah, all your prayers and dua. We are glad that you are back safe home from the Umrah trip.

We had planned to visit Saudi Arabia, but the Omicron virus is delaying our visit. We have a family visit visa and we almost go there every year, except for last year.

Your comments on the SAE eNewsletter are greatly appreciated and we are glad that you like reading it. On behalf of the Editorial Board, I thank you for your input. For the coming next issue, please have just one paragraph, about natural food or natural healing, maybe with a picture like the salad bowl or apples that you had in the latest issue of the SAE eNewsletter. We appreciate your contribution to the eNewsletter.

With regards

Hafizullah Wardak

Ustad Wardak Sahib Salaam:

Happy New Year 2022.

Congratulations to you and to Ustad Hassani Sahib and Ustad Khalid Sahib for a wonderful first issue of the SAE eNewsletter 2022. I received it yesterday, Sunday and reviewed it thoroughly. It is well prepared, well organized and there are variety of subjects, news, and technical commentaries.

It is not an easy job and I know you all have worked so hard in the past month to put together such a successful publication.

We are so proud of the SAE Editorial Board.

Best Regards,

Society of Afghan Engineers

Najim Azadzoï, AIA, President

6265 Franconia Road

Alexandria, VA 22310, USA

www.afghanengineers.org

Tel: 617-558-4144, 617-697-7500

Sent: Monday, January 3, 2022 8:35 AM

To: 'Najim Azadzoï' <azadarch@aol.com>

Cc: 'manank10@gmail.com' <manank10@gmail.com>; 'awhassani@gmail.com' <awhassani@gmail.com>

Subject: RE: SAE eNewsletter January 1, 2022 Issue

Azadzoï Sahib Walaikum Salaam

Thank you for your kind email. The Editorial Board always welcome comments from the readers, we are especially honored receiving praising comments from you-the President of the Society of Afghan Engineers (SAE).

The January issue of the SAE eNewsletter was a special one, and I also thank members of the Editorial Board that worked hard in the preparation and distribution of this issue.

The Society of Afghan Engineers is reinvigorated under your leadership and has moved to an active and productive level. We thank you and Mohtarem Manan Khalid Sahib for the hard work and leadership, and

moving the Society of Afghan Engineers forward in such a critical and historical period of our beloved Afghanistan.

Thank you again for your comments and leadership.

With Regards

Hafizullah Wardak

Editor-in-Chief of the SAE eNewsletter

Thank you for your feedback on the October issue of SAE eNewsletter. Please continue your feedback and provide us with advice for improving the newsletter.

I have copied members of the Editorial Board with this email.

Thank you again and please be safe and good health

Hafizullah Wardak

Editor-in-Chief SAE newsletter

The 2021 SAE Membership Renewal

Dear Members of the Society:

The Management of the Society of Afghan Engineers (SAE) would like to remind all members that 2021 membership renewal and Annual fee of \$60 are due. Your membership fee collectively would enable us to pay for some basic needed services of the Society such as Website security monitoring, updating, and maintenance. Also, your membership fee would provide SAE's management, the financial means to organize and host events and seminars on relevant technical topics. The membership renewal application is attached to the Newsletter and also can be downloaded from our website at www.afghanengineers.org

Please visit the SAE Face book when you get the opportunity. We appreciate your kind attention to the membership due request.

Sincerely,

Najim M. Azadzoi, AIA, President

The Society of Afghan Engineers

SAE eNewsletter Regional Representatives

The positions of the SAE eNewsletter Regional Representatives are open. Please let us know if you are interested to volunteer for one of these positions or if you want to nominate other qualified members to serve in these positions. The representatives will inform the newsletter Editorial Board of any technical news in their regions and contact authors for their contributions in the activities of newsletter. For additional information please send an email to SAE eNewsletter Editorial Board: Ghulam Mujtaba, E-Mail: mujtabaghulam@bellsouth.net; A. Wahed Hassani, Email: awhassani@gmail.com; A. Manan Khalid, E-Mail: manank10@gmail.com; and Hafizullah Wardak, Email: hwardak@comcast.net

The attached form includes application for the new members and membership renewal. The application forms may be viewed at SAE website. The members are requested to take a few minutes of their time to inform the Society by sending their updated contact information.

The completed application/renewal forms may be mailed to:

THE SOCIETY OF AFGHAN ENGINEERS
6265 Franconia Road Alexandria, VA 22310

Thanks to members who have updated their membership renewal and have paid their annual membership fees.

Thanks for their generosity.

Engineering Job opportunities With Planate

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[Planner & Estimator \(San Francisco, CA\)](#)
[Engineers \(Washington DC\)](#)
[Space Planner \(Washington DC\)](#)
[Specification Writer \(Washington DC\)](#)
[Field Engineer \(Silverdale, WA\)](#)
[Contract Administrator \(Silverdale, WA\)](#)
[Construction Manager \(Albuquerque, NM\)](#)
[Quality Assurance Representative \(Albuquerque, NM\)](#)
[Construction Manager \(Pittsburgh, PA\)](#)

For more information and if interested in the above positions please contact Planate Management Group at the address below:

Mapet D. Santos

Recruitment Manager

Planate Management Group

1800 Diagonal Road, Suite 600

Alexandria, VA 22314

daisy.villena@planate.com


(Telephone Number) +1-703-8791-740

(US Toll Free) +1-800-543-1989 ext 1

www.planate.com



A Service-Disabled Veteran-Owned Small Business (SDVOSB)

 **Covid19 Protocol:** Due to the nature of work, the successful candidate will be required to comply with all Federal guidelines regarding vaccination for all employees and contractors. Please refer to Executive Order 14042, Ensuring Adequate COVID Safety Protocols for Federal Contractors for more information.

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THE SOCIETY OF AFGHAN ENGINEERS ORGANIZATION

SAE E-Executive Committee Members: **President:** Najim Azadzo **Vice President:** Hamayon Ibrahim,
Treasurer: Mahmoud Samizay, **Secretary:** TBA **Manager:** TBA **Note:** TBA is acronym for (to be announced)

SAE Board of Directors-Officers: **Chairman:** A. Manan Khalid, M.S., P.E., LEED AP , **Vice-Chairman:** Jalal Masumi; **Executive Director:** Gul Afghan Saleh

Members SAE Board of Directors: Wahed Hassani, Sharif Hossainy, Manan Khalid, Jalal Masumi, Amanullah Mommandi, Hadi Rakin, Gul Afghan Saleh, Masood Sattari, and Zabi Zaca

SAE Past Presidents: Atiq Panjshiri, Ghulam Mujtaba, Abdul Hadi Rakin, M. Quasem Kadir, Abdul Hadi Rakin, Mohammed Hashim Rayek, Ahmad Wali Shairzay, Sohaila Sanie Shekib, and Malik Mortaza

SAE Chairpersons of Committees/Subcommittees:

- Hafizullah Wardak, Chairman -SAE eNewsletter Subcommittee,
- Wali Shairzay for Chairperson of the Capacity Building and Academic Development Subcommittee.
- Bashir Kazimee for the Chairperson of the Architecture and City Planning Subcommittees.
- Rafaat Ludin for the Chairperson of the SAE/AGA Liaison Subcommittee.
- Amin Mahmood, P.E., Chairperson of the SAE Student Subcommittee.
- Mohammad Jan Mehrzai, Chairperson of SAE Corporation Committee.

SAE Local Chapter Coordinators: A. Hamid Layan – Kabul, Afghanistan; M. Qaseem Naimi – Toronto, Canada; Najim Azadzo – Massachusetts, Mohammad Najib Poya - Northern California; TBA - Southern California; A. Manan Khalid – New York and New Jersey, Amanullah Mommandi – Colorado; Atiq Panjshiri – Virginia and Washington DC

SAE eNewsletter Subcommittee: Subcommittee Chairman: Hafizullah Wardak
Members: A. Wahed Hassani, Ph.D.,P.E. ; A. Manan Khalid, M.S., P.E., LEED AP; Abdul Hamid Layan.

SAE eNewsletter Editorial Board: Editor –In –Chief: *Hafizullah Wardak*

Editorial Board Members: A. Wahed Hassani, Ph.D.,P.E. ; A. Manan Khalid, M.S., P.E., LEED AP; and Hafizullah Wardak.

SAE eNewsletter Regional Representatives: Abdul Hamid Layan -Kabul:

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THE SOCIETY OF AFGHAN ENGINEERS MEMBERSHIP APPLICATION

Full Name: _____

Address: _____

Phone: Home: _____ Office: _____

Email: _____

Degree Level: _____ Field of Expertise: _____ Years of Experience: _____

The active members of the Society of Afghan Engineers (SAE): Please mark (X) the appropriate box related to your address and other contact information.

- Yes, the above is a change in address or contact information.
- No, the above address is the same as recorded on the SAE's current membership list

Please mark (X) the appropriate box if you are submitting this application to join as a new member.

- A Regular member: I have at least four (4) years of architectural or engineering education.
- Associate member: I have at least two (2) years of architectural or engineering education

The SAE is a 501(c) (3) non-profit organization.

Amount of Annual 2021 Membership: \$60.00

Donation: _____

Total: _____

Suggestion and comments: _____

Please send your check or money order payable to the Society of Afghan Engineers.

THE SOCIETY OF AFGHAN ENGINEERS
6265 Franconia Road
Alexandria, VA 22310

SAE Bank Account Information:
Account Name: **Society of Afghan Engineers**
Bank Name: **BB&T**
Routing # **051404260**
Account # **0005139262982**
Bank Address:
7915 HENESKA LOOP
ALEXANDRIA, VA 22315-0000

MEMBERSHIP APPLICATION

(SAE Members Living in Afghanistan)

Full Name: _____

Address: _____

Occupation: _____

Place of Work: _____

Phone: Work: _____ WhatsApp: _____

Email: _____

Degree Level: _____ Field of Expertise: _____ Years of Experience: _____

The active members of the Society of Afghan Engineers (SAE): Please mark (X) the appropriate box related to your address and other contact information.

Yes, the above is a change in address or contact information.

No, the above address is the same as recorded on the SAE's current membership list

Please mark (X) the appropriate box if you are submitting this application to join as a new member.

A Regular member: I have at least four (4) years of architectural or engineering education.

Associate member: I have at least two (2) years of architectural or engineering education

The SAE is a 501(c) (3) non-profit organization.

Annual Membership: SAE Members Living inside Afghanistan are exempt of annual membership (**FREE Membership**).

Suggestion and comments:

THE SOCIETY OF AFGHAN ENGINEERS

6265 Franconia Road

Alexandria, VA 22310

USA

Website: www.afghanengineers.org