

***Lecture at***  
***Persian Organization of Iranian Americans***

**March 5, 2021**  
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**History of Persian Scientists and Poets:**  
**28 Centuries of Contributions**

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(active - can download slides)



**This Presentation and the  
forthcoming book is humbly  
dedicated to Iranians all over  
the globe**

**All materials in this lecture and the  
forthcoming book are  
based on one or several  
references in Social media  
or published books**



**M. Mo Jamshidi, Ph.D., DEgr. (h.c.)** is an Endowed Chaired Professor at the University of Texas, San Antonio, Texas, USA. He is a Persian native, born in Shiraz, Iran in 1944. He was an advisor to NASA for 10 years (including with first MARS Mission and 7 years with NASA Headquarters (Washington, DC), among other organizations. He has over 800 technical publications including 74 books in English and 5 foreign languages. For the past 15 years, he has been collecting data on Persian Scientists and Poets from 1000 BC to 2021 AD.

Persia (Greek word for Pars) and modern day Iran has at least 3000 years of civilization. Iran has been the new name since 1935. Throughout these years, thousands of scientists and poets have nourished in this land. Science and poetry has always been the lifeblood of Iranians. The object of this book is to give a brief history of scientists and poets of Persia who have paved the way to the modern age. With such a long history, it is impossible to have a complete coverage of all of them.

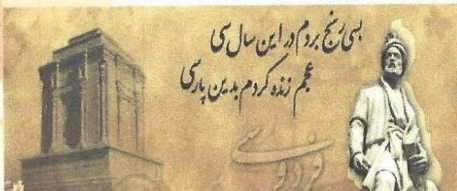


Figure 1. Ferdowsi's poem: "I have struggled much these thirty years .....in order to revise Persian and Parsi language."



Figure 2. Astrolabe is an elaborate inclinometer capable of working out several kinds of problems in astronomy, first described by Khwarizmi.



Figure 3. The four volumes of Avicenna's Canon of Medicine, used in Medieval Europe for 6 centuries.

JAMSHIDI  
History of Persian Scientists and Poets

# History of Persian Scientists and Poets:

28 CENTURIES OF CONTRIBUTIONS



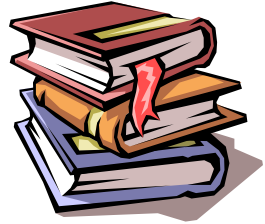
Mo Jamshidi



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# **OUTLINE**

- 1. Book's Aim**
- 2. Scientists of Persia .**
- 3. Poets of Iran**
- 4. Recent Scientists, Engineers**
- 5. Notable Artists and Painters**
- 6. Final Remarks: Project Plan**
- 7. Conclusions**







## **Book Project Goal**

**AIM** is to create a historical and **factual** account of who Persian Scientists and poets were or are and what the Persian / **Iranian citizens** (Azaris, Baluchis, Elamites, Gilanese, Kurdish, Meads, Persian, Turks, Partians, et. al.) and what they have achieved for the past centuries and how their work have impacted the world civilization at large.

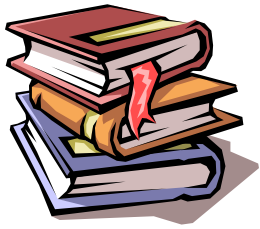


## Book Project Plan

This project is unavoidably tied with the History of Persia and now Iran and throughout the years, in spite of political problems and invasions, Iran, like only a few nations in the world, have **rejected outsiders** and have always kept their identities, cultures, and they do not celebrate an

***“independence day”***.

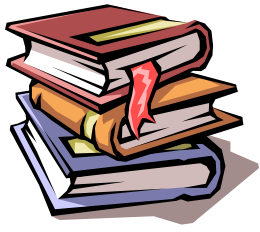




## List of Individuals

- 1. Zardousht 1 Chapter**
- 2. Cyrus the Great 1Chapter**
- 3. Scientists: 21 Chapters + 40 Perspectives** : Borzuya, Khwarizmi, Raazi, Biruni , Bou Ali Sina, Khayyam, Tusi, ..., Hashtroodi, Hesabi, Javan, Reza, Zadeh, Mirzakhani, Birkar, Jadbabei, et. al.
- 4. Poets: 16 Chapters + 20 Perspectives**: Rudaki, Daqiqi, Ferdowsi, Khayyam, Moulana Rumi, Saadi, Hafez, Khaghani, Nezami Ganjavi, Sanai, Ghazali, Ubaid Zakani, Jaami, .... , Farukhi Sistani, Iraj Mirza, Dekhoda, M S Bahar, Etesami, Nima Yooshij, Behbehani, Tavallali, Shamlou, et al. (Two painters: Kamal din Behzad and Hossein Behzad)





## List of Individuals

### **5. History of Education of Medicine and Engineering 2** **Chapters**

**6. Academies** members and fellows of NAE, NAS and TWAS

**7. Special Group: 4 Patriot Ministers 4 Perspectives**

**Bozorgmehr** (To King Kavad I of Sassanid Dynasty), **Nezam Ol Molk** (20 years Minister during the Seljuk dynasty), **Amir Kabir** (2 years minister of Naser-din Shah of Ghajar Dynasty), and **Mosaddegh** (2 years minister of Pahlavi Dynasty)

**8. Other Perspectives**

Over 50 more individuals from 11<sup>th</sup> to 21<sup>st</sup> Centuries

# Zoraster (Prophet)

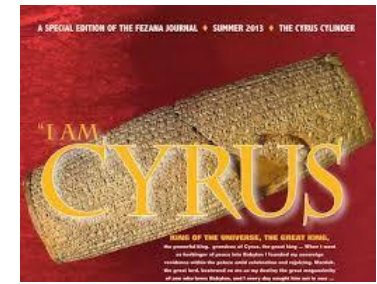


Zoroaster, was an ancient Iranian spiritual leader who founded what is now known as Zoroastrianism [1]. He preached three commandments for his followers to do:

1. Pledge yourself to the *well-thought thinking*
2. Pledge yourself to the *well-spoken word*, and
3. Pledge yourself to the *well-done action*. [2]



# Cyrus the Great (Founder of World's 1<sup>st</sup> Dynasty)



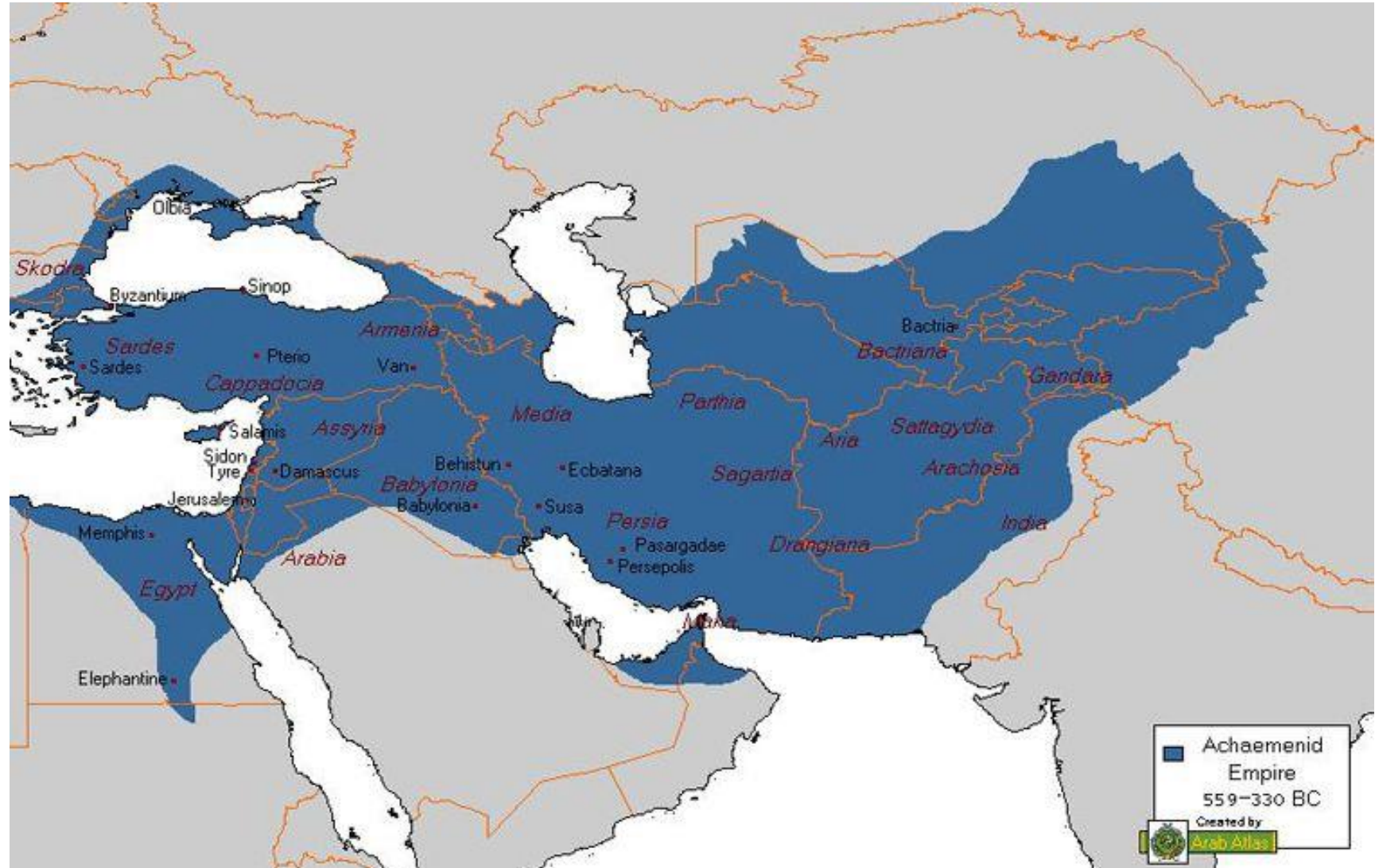
Cyrus	AKA Kourush
<b>Born</b>	590–580 BC
<b>Place of Birth</b>	Anshan, Persia, Media or <b>Elam Province</b> (Southwest of current Iran)
<b>Nationality</b>	Persian, Iranian
<b>Founded:</b>	Achaemeidian Empire
<b>Death</b>	4 December 530 BC (age 68-70) Along the <a href="#">Syr Darya</a>
<b>Place of Death</b>	Buried in Pasargadae, Iran
<b>Father</b>	<a href="#">Cambyses I</a> or Cambojeh
<b>Mother</b>	<a href="#">Mandane of Media</a>
<b>Grandfather</b>	Astyages, last king of Median Empire
<b>Children:</b>	Cambyses II, Bardiya, Atossa

# Map of Early Archimedean Empire of Persia



# Map of the Persian Empire as late as 330 BC

(210 years later)



## Innovations of Ancient Persian

Persians from several centuries BC have discovered many technologies, services and practices some of them are still being used in Iran and other nations. Here are some of innovative practices started by Archimedean, led by the Cyrus the Great and his successors.

**Animation:** As far back as 5 centuries BC Persians used a sequence of cartoon like photos of a goat jumping from tree to tree,





**Battery:** Again around the same time in the Persian Empire, the Persians used a clay pot and some **metal and, vinegar and some electrolytes** to device a battery of about 1/2 to 2 volts. This battery device was invented centuries before Alexander Volta (18 February 1745 – 5 March 1827) discovered battery as an electricity device [2]



**First Human Rights Declaration:** Around 534 BC, Cyrus the Great declared the first **human rights** of the world. This declaration was made in the ancient Pahlavi language on a clay cylinder which was found among the ruins of the Babylon of then Persia (current north of Baghdad, Iraq). This Cyrus Cylinder is now being housed in the **British Museum** in London [1, 2].



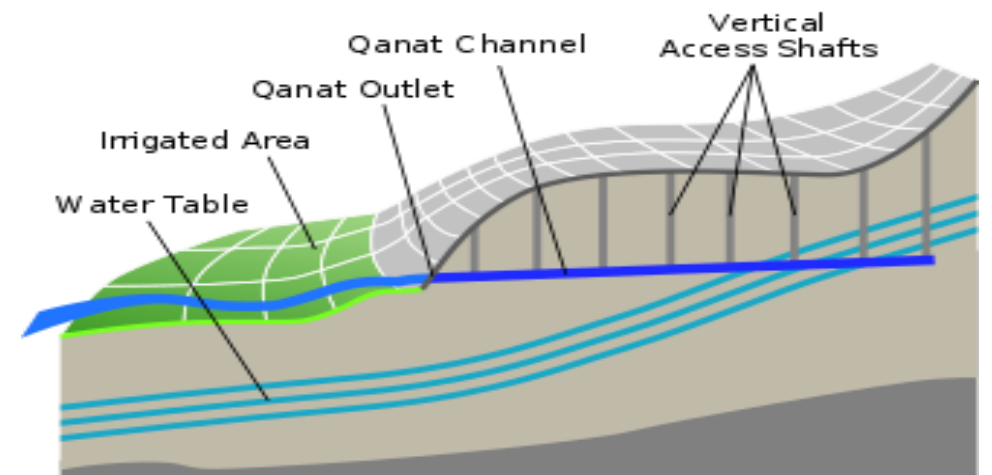
**Postal Services:** Archimedean at the time of Cyrus the Great had a vast empire. From one end to another highways with a **2500 miles** length had to devise a mean of communicating among various districts or provinces or states. To achieve that they erected **stations** in specific distances housing many **fresh horses** ready to take the messenger(s) to the next station [2].



**Yachchal (Refrigerator):** About 400 BC, Persians had created **dome structures** which would allow **hot air** to ascend and leave to the atmosphere and allowing water at the base of the dome turned into **ice**. Size (volume) of these domes were as high as 5000 m<sup>3</sup>. In this segment's title, "**Yach**" mean **ice** and "**chal**" means **pit or "ice pit"**. These domes are still in us in parts of Iran and some neighboring nations.



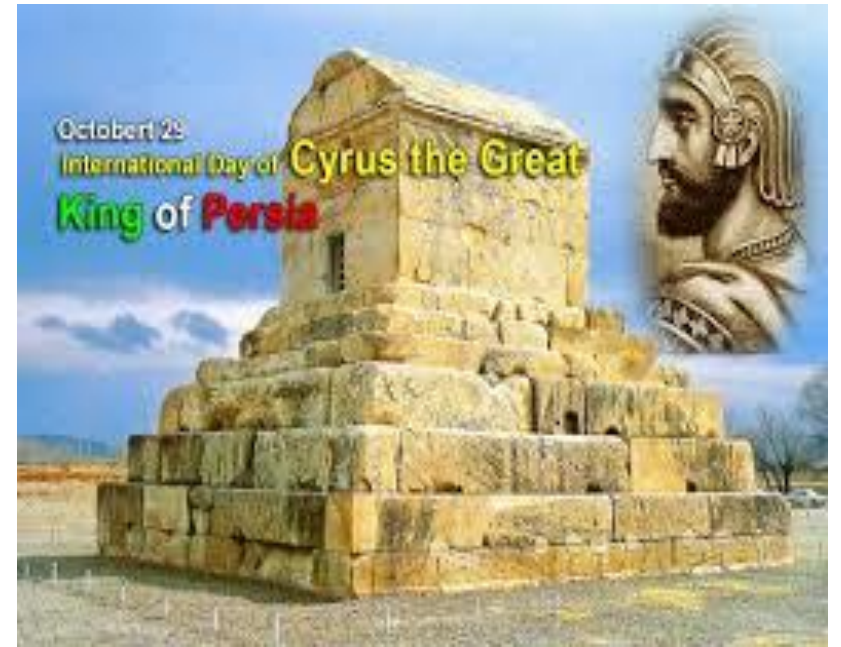
**Water Supply System:** As early as 1000 BC, the Persians constructed **underground supply houses of water** that could remain cool and clean for months. They were called “**Qanat**” or “**Kariz**”. The way they worked “is a gently sloping underground **channel** to transport water from an **aquifer** or **water well** to surface for **irrigation** and drinking, acting as an **underground aqueduct**. This is an old system of **water supply** from a deep well with a series of vertical access shafts. The qanats still create a reliable supply of water for human settlements and irrigation in hot, **arid and semi-arid** climates, but the value of this system is directly related to the quality, volume, and regularity of the water flow. According to most sources, the qanat technology was developed in ancient Iran by the Persian people sometime in the early 1st millennium BC, and spread from there slowly westward and eastward.” [3].





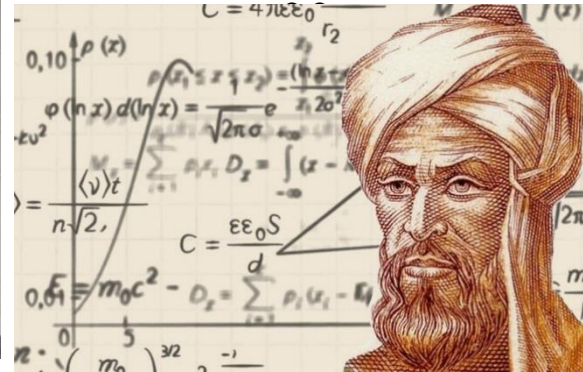
Cyrus earned his greatness as he respected each and every region that he conquered and **left their religious believes** and **respected their cultures and style of living**. In 539 BC, Cyrus entered the city of Babylon, the capital of the Babylonian empire. Mesopotamia, Elam, Syria, Judaea seem to all have submitted to Cyrus as well. By 535 BC at the latest, he controlled all the lands up to the borders of Egypt. **He freed all the Jews in Babylon.**

In 530 BC Cyrus went on a campaign against the Massagetae tribe, in central Asia, who were raiding the northwest frontier of his empire, and was **killed in battle**. His body was brought back to the new capital he had founded, **Pasargadae**, for burial.



**13 centuries later**  
**Parthian Empire**  
**(247 BC - 224 AD)**  
**Sassanid Empire**  
**(224–651 AD)**

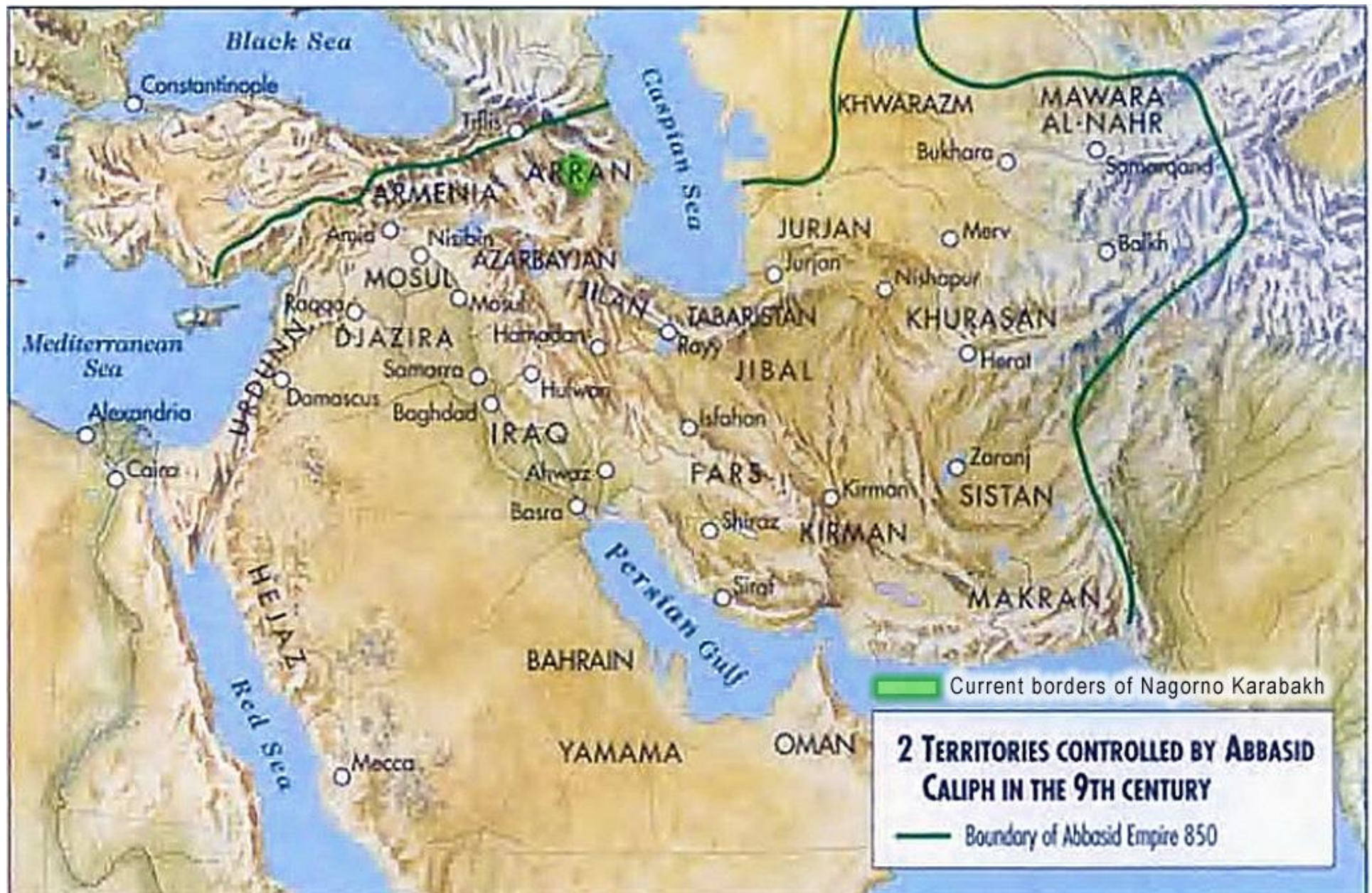
# Khwarizmi : **Renowned Scientists** of Persia



**Khwarizmi** was a legendary Persian scientist of 8<sup>th</sup> and 9<sup>th</sup> Centuries who created the field of **algebra** in mathematics and created the notion of recursive computing – **Algorithm**.

Khwarezmi	Mohammad Khwarizmi
Born	780 AD
Place of Birth	<b>Khwarazm</b> (now Khiva), in <b>greater Khorasan province</b> of Persia (now in Uzbekistan).
Nationality	Persian (Iranian)
Death	850 AD (70 years)
Place of Death	<b>Baghdad</b> , Abbasid Dynasty Capital
Parents	Unknown
Married	Unknown







# Khwarizmi **Renowned Scientists** of Ancient Persia



## Contributions and Achievements

**Algebra** - *al-Kitāb al-mukhtaṣar fī hisāb al-jabr wal-muqābala*  
translated as *Compendious Book on Calculation by Completion and Balancing*.

The 0-9 decimal system devised by Khwarizmi after he learned the concept of “**zero**” from Hindu mathematicians.

Pre-zero time, he used Geometry to solve algebraic Equation  **$ax^2 + bx + c = 0$**

one angle 1	two angles 2	three angles 3
four angles 4	five angles 5	six angles 6
seven angles 7	eight angles 8	nine angles 9
	no angle 0 (sifr, which gave the French word "chiffre")	



# Khwarizmi: **Renowned Scientists** of Ancient Persia



**Summary** – Khwarizmi is one of the most consequential scientist, mathematician, and astronomer in our 21<sup>st</sup> Century civilization. He is credited with the following lasting contributions:

**Algebra:** He was the first who created branches in mathematics. He is the “Father of Algebra”.

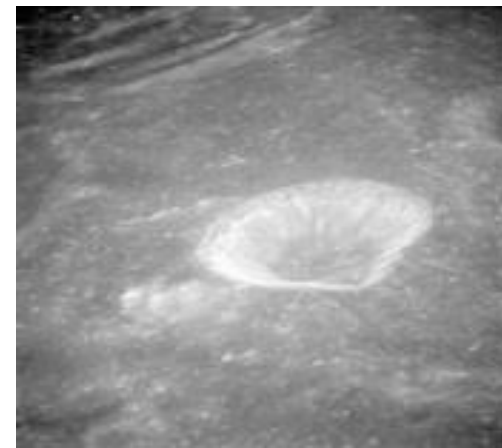
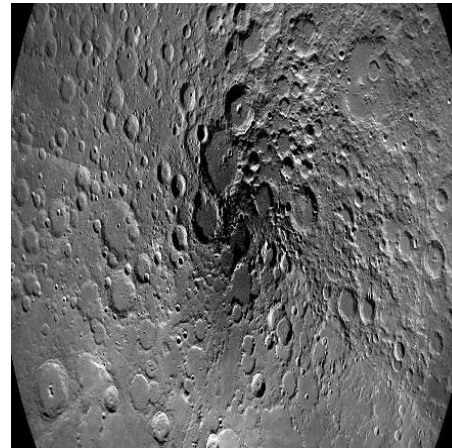
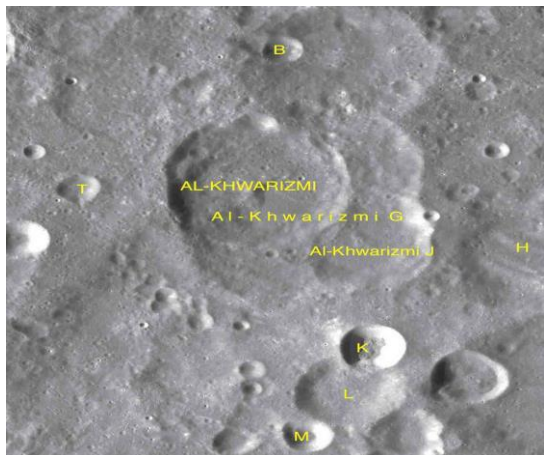
**Algorithm:** He invented the notion of algorithm in computing. Some consider him as the “Forefather of computer science”.

**Astrolabe:** He is said to be the first scientist who introduced Astrolabe in his computing efforts

**Digit Zero “0”** : He used the Hindu’s work on a dot later he called zero number and developed the (0-9) decimal counting system impacting arithmetic all the way to our current 21<sup>st</sup> Century.

**World Map and Calendar:** He made lasting impacts to trigonometry, astronomy, geography, calendars, etc.

**Final Points:** NASA – Space agency of United States has dedicated a **North Moon Crater** in honor of Khwarizmi  
[https://en.wikipedia.org/wiki/Al-Khwarizmi\\_\(crater\)](https://en.wikipedia.org/wiki/Al-Khwarizmi_(crater))



# Renowned Physicians of Ancient Iran **Razi - Rhazes**



Rhazes	AKA Zakaria Razi
Born	854 AD
Place of Birth	Rayy, Persia (Today's suburb of Tehran, Iran)
Nationality	Persian (Iranian)
Death	October 15, 925 (71 years)
Place of Death	Rayy, Persia (Today's suburb of Tehran, Iran)
Parents	Zakariya ibn Yahya
Works	1 <sup>st</sup> Pediatrician, Discovered alcohol, Sulfuric Acid

**Razi** is known as the worlds  
“**First Pediatrician**”

**Discoverer of Alcohol, Sulfuric Acid,  
perhaps also the first pharmacist**

A 1952 quote from a French historian Gouchine, “...when one mentions of philosophy, you think of Greece, and when one mentions medicine, you think of Persia...”



# Ferdowsi Iran's Epic Poet – Savior of the Persian Language



**Ferdowsi** is perhaps the greatest of all Persian epic poets as he was responsible in revival of the Persian language in spite of the foreign languages and cultures of invaders of the Persian lands of those days and eras. His epic book *Shahnameh*, called "*Book of the King*", was written during the 10<sup>th</sup> Century. It took him 30 years to finish the book.

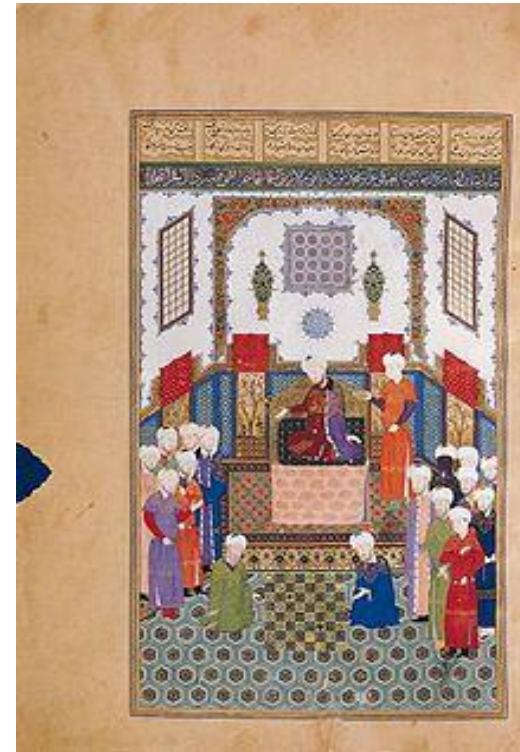
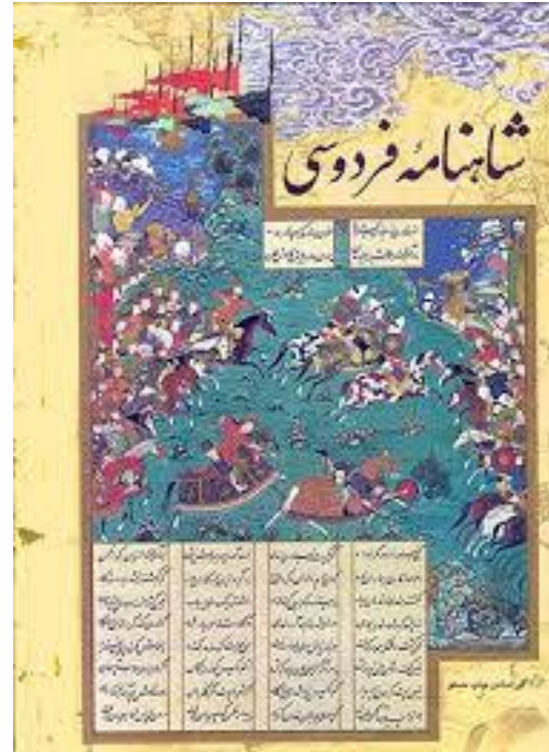
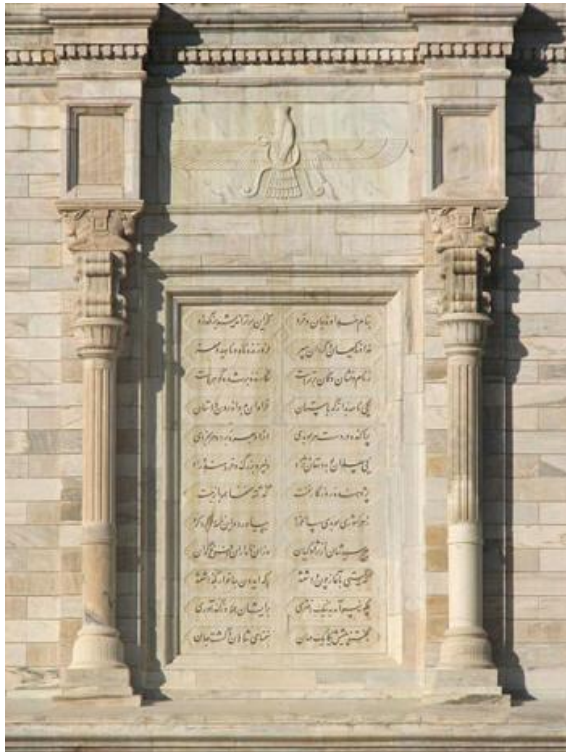
Born	940 AD
Place of Birth	Tus, Khorasan, Persia (In today's Iran)
Nationality	Persian (Iranian)
Death	1020 AD (80 years)
Place of Death	Tus, Persia (In today's Iran)

**"I have struggled much of these thirty years in order to revive Persia 'ajam' and Parsi language**

بسی رنج بردم در این سال سی  
عجم زنده کردم بدین پارسی

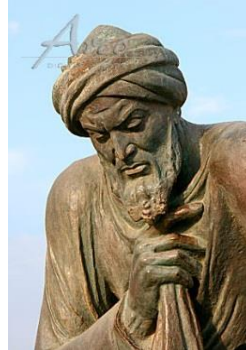
# Ferdowsi Iran's Epic Poet – Savior of the Persian Language

The *Shahnameh*, also transliterated as *Shahnama* is a long epic poem is the national epic of Greater Iran. Consisting of some 50,000 “distichs” or couplets (two-line verses), the *Shahnameh is the world's longest epic poem written by a single poet*. It tells mainly the mythical and to some extent the historical past of the Persian Empire from the creation of the world until the Islamic conquest of Persia in the 7th century. Modern Iran, Tajikistan, Azerbaijan, Afghanistan, and the greater region influenced by the Persian culture (such as Georgia, Armenia, Turkey and Dagestan) celebrate this national epic





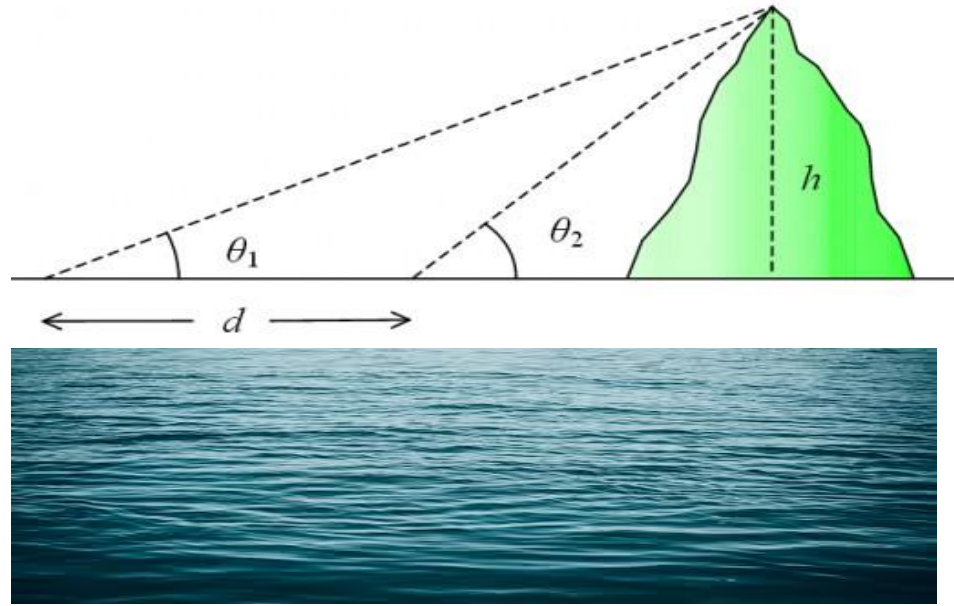
# Abu-Reyhan Biruni **Renowned Scientists** of Ancient Persia



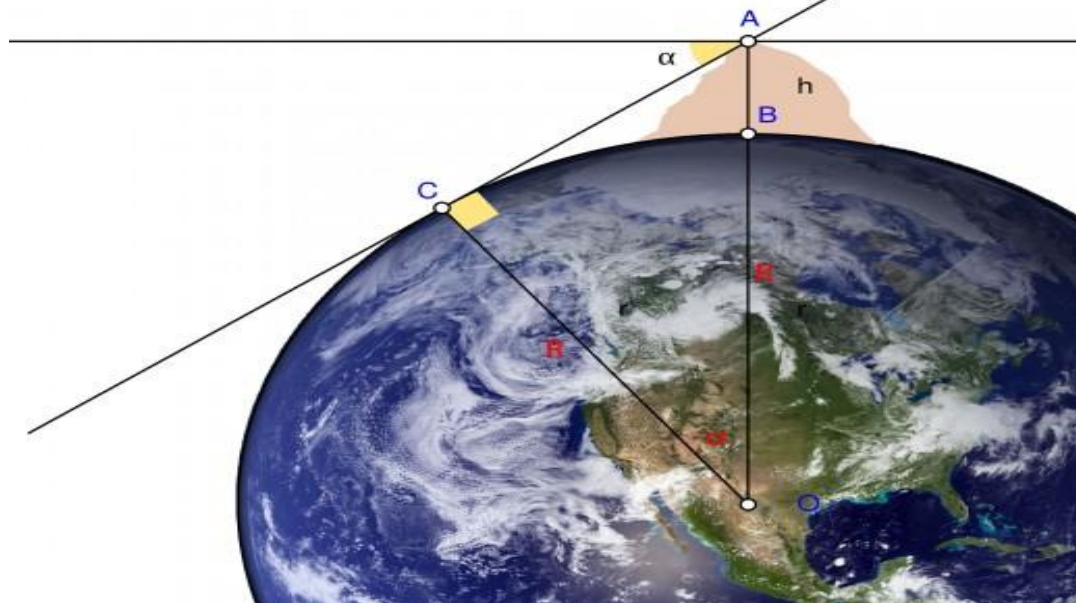
**Biruni** was a versatile **genius scholar** and scientist who had equal facility in physics, metaphysics, mathematics, geography and history.

Beiruni	Abu-Reyhan Biruni
Born	15 September 973
Place of Birth	Kath (now called Biruni), <b>Khwarazm or Greater Khorasan</b> , Persia (now Kara-Kalpakskaya, <b>Uzbekistan</b> )
Nationality	Persian (Iranian)
Death	13 December 1048 (75)
Place of Death	Ghazna, Khorasan Province, Persia (now Ghazni, Afghanistan)
Parents	Unknown
Married	Married

# Biruni's Estimation of Earth's Radius



**Biruni** 1000 years ago used an Astrolabe to measure angles of a mountain summit and sun's horizon, leading to a 1% accurate estimation of Earth's radius.



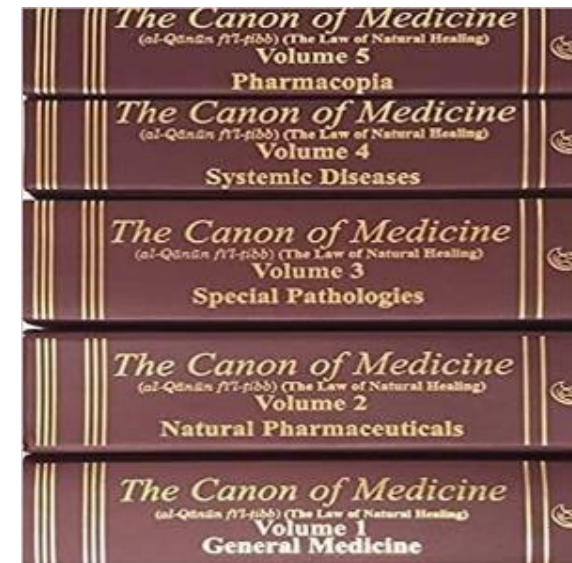
# Pour Sina Avicenna **Renowned Physicians** of Ancient Iran



980 - 1037



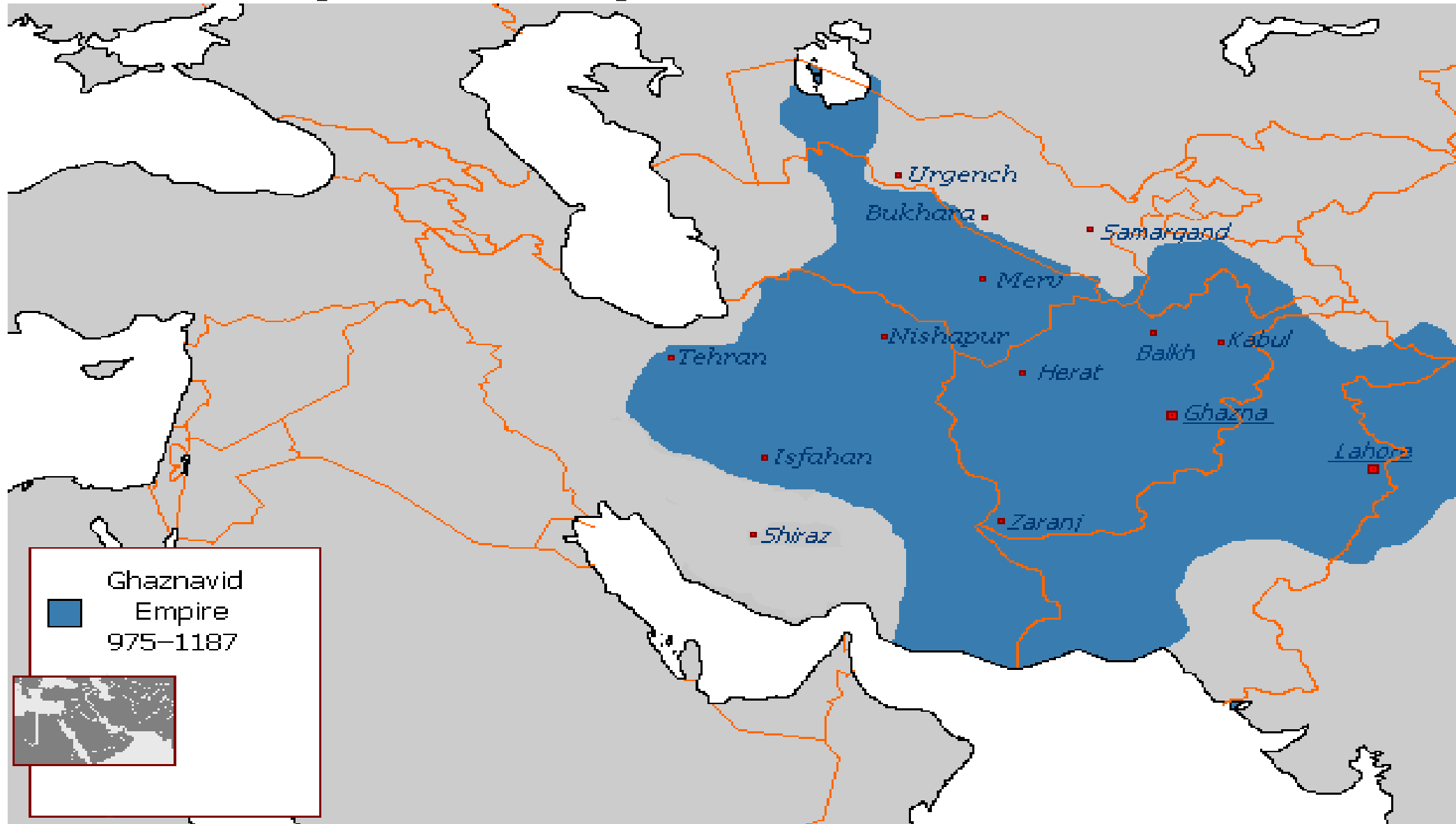
Avicenna	AKA Bou Ali Sina, Sheikh-Al-Rayese
Born	August, 980 AD
Place of Birth	Village of <b>Afshana, near Bukhara</b> , Greater Khorasan, Persia (Today's Uzbekistan)
Nationality	Persian (Iranian)
Death	June 1037 (57 years)
Place of Death	<b>Hamadan, Persia (Today Iran)</b>
Parents	Father: Abdullah, Mother: Setareh
Married	Never married



**Pour Sina** Begun medical practice at the **age of 18** in Bukhara. When he saved life of a **Noah-ibn Mansour** (Samanid king), he asked the king to reward him full access to the **Royal Library**. In a few short years he self-taught himself all he needed to know in medicine.



## Map : Ghaznavid Empire o Persia





# Renowned Physicians of Ancient Iran



من آنقدر بزرگ شدم که هیچ شهری نتوانست نگاه دارد مرا  
ولی قیمتم آنقدر بالا رفت که هر خریدار مرا فروخت

***Famous quote: “I grew so big that no city could hold me,  
But my price went so high that every buyer sold me.”***

## ***Content of Cannon of Medicine***

Part1: Nature of the human body, anatomy, physiology and definition of various diseases.

Part 2: This part deals with simple treatments of many illnesses.

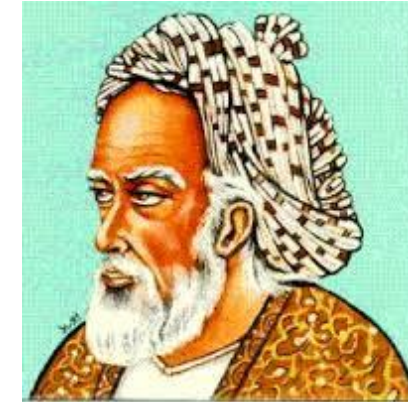
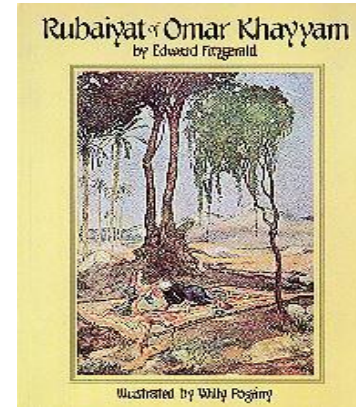
Part 3: The pathology of 21 human organs constituted the third part.

Part 4: Symptoms and diagnostics of various diseases are presented in the fourth part of *The Cannon*.

The fifth and final part is dedicated to drugs and medicines and pharmacopeia - a manual to help prepare compound medicines.

Known as **“A man of every 1000 years”**

# Khayyam : Renowned Scientists of Persia



**Omar Khayyam** is a genius Persian scientist who was a mathematician, an astronomer, an astrologer, a physician, and yes a poet of 11<sup>th</sup> and 12<sup>th</sup> Century. The west knows him mostly as a poet due to the 19<sup>th</sup> Century translation of Englishman **Edward Fitzgerald** (31 March 1809 – 14 June 1883) poetry works, known as **the Rubaiyat of Omar Khayyam**. His Scientific contributions have not been appreciated in the West.

هر گز دل من ز علم محروم نشد  
کم ماند ز اسرار که معلوم نشد  
هفتاد سال فکر کردم شب و روز  
معلوم شد که هیچ معلوم نشد

I was never deprived from knowledge  
Little left from secrets the was unknown  
Thought for 70 years day and night  
Became known that nothing became known



Khayyam	Omar Khayyam, Keivan Neishbouri
Born	May 18, 1048 AD
Place of Birth	Nishabour, Persia (now in Khorasan province of Iran)
Nationality	Persian (Iranian)
Death	December 4, 1131 AD (83 years)
Place of Death	Nishabour, Persia (now in Khorasan province of Iran)
Parents	Father: Ibrahim
Married	Never Married

# Moulana Rumi **Renowned Sufi Poets** of Persia

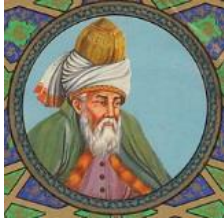


\* **Moulana Jalal-edin Balkhi (Molana Rumi)** of 13<sup>th</sup> Century AD is the greatest Sufi poet of all time.

\* He is one of the most famous poets of the Persian literature. At the **age of 12**, his father (**Bahar-ed-Din Weled**) and rest of the family left Balkh to avoid the curse of the Mongol invasion who were coming fast from the East Asia. After several years on the road (Mecca, Medina, and Damascus), the family resided in Konya close to the Anatolian peninsula (now in Turkey). "Anatolian peninsula, at the time, belonged to **Byzantine, or Eastern Roman Empire**, with **Constantinople** (Today's Istanbul) as its capital.

He published two seminal books of poetry called *Matnavi or Matnawīye* and *Diwan aod Shams*. His poems, often full of advice for the global community. He has millions of followers across the globe due to his spiritual vision to humanity and eternity.





# Moulana Rumi - The masterpiece Mathnawi

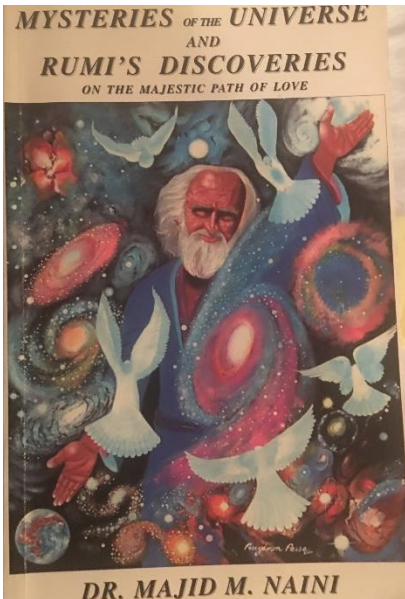


- Mathnawi's gazals were recited by Rumi and Chelebi wrote each segment and Rumi got to proof the writings later on. The masterpiece begins with this verse:

- بشنو از نی چون حکایت میکند
- از جدایی ها شکایت میکند

- ***Listen to the reed and the tale it tells, how it sings of separation***

- In Mathnawi, over 800 years ago Rumi addressed discoveries such as gravity, quantum physics, nuclear physics, dielectrics, philosophy, astronomy and many other scientific facts
- Re **Sunlight, Spinning Galaxies and Forces of Gravity:**



آسمان گوید زمین را مرحبا  
باتوام چون آهن و آهن ربا

“The sky hails the Earth \*\*\* I am with you as the **iron is with the magnet**”

این چراغ شمس کو روشن بود  
نه از فتیل و پنبه و روغن بود  
سقف گردون کو چنین دایم بود  
نه از طناب و استنی قایم بود

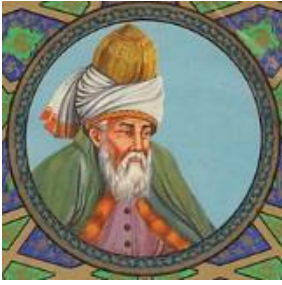
“The burning light of the sun Is not from burning oil and the wick  
Our spinning galaxy, which is so continuous Is not constructed on columns and fastened by wires.”

In 1687 Isaac Newton discovered the gravitational forces by observing an apple falling from a tree. Over 450 years earlier, Rumi recited the above verses.

**Naini, 2001**







## Moulana Rumi - Samaa

- Rumi in his celebrated masterpiece *Mathnavi* book (starting with verse 4580) predicted **nuclear explosion and atomic particles:**

- آفتابی در یکی ذره نهران
- ناگهان آن ذره بگشاید دهان
  - ذره ذره گردد افلاک و زمین
  - پیش آن خورشید چو جست از کمین

*“Inside of each particle is a hidden sun                      Suddenly that **particle** opens its mouth*

*The galaxies and the Earth become shattered      In front of that sun when it comes out of hiding”*

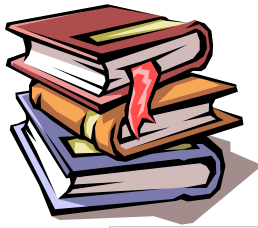
Or in **verse 2502**

اینست خورشیدی نهران در ذره

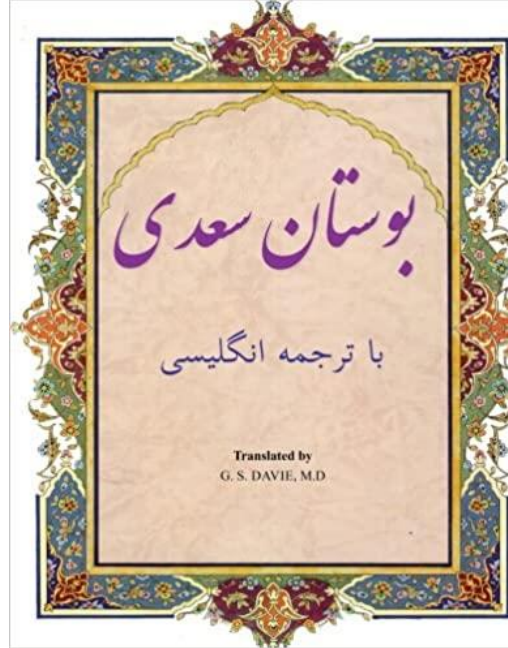
شیر نر در پوستین بره



*”There is a sun hidden in a **particle**    The male lion in lamb’s clothing”    Naini, 2002*



# Saadi Shirazi



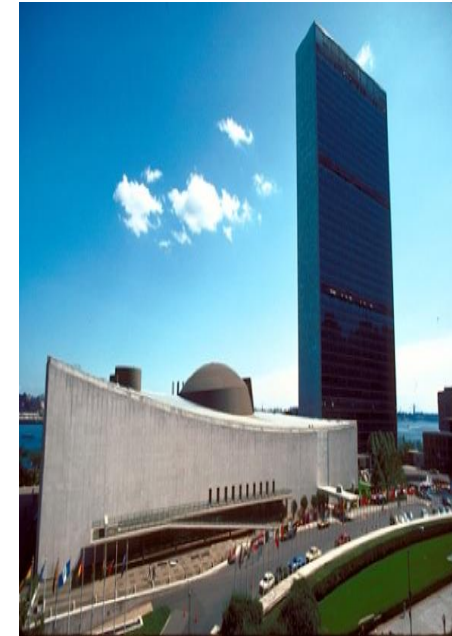
In Persian:

بنی آدم اعضای یک پیکرند  
که در آفرینش ز یک گوهرند  
چو عضوی به درد آورد روزگار  
دگر عضوها را نماند قرار  
تو کز محنت دیگران بی غمی  
نشاید که نامت نهند آدم

**A simpler translation:**

“The sons of Adam are limbs of each other,  
Having been created of one essence.  
When the calamity of time affects one limb  
The other limbs cannot remain at rest.  
If you have no sympathy for the troubles of others,  
You are unworthy to be called by the name of a human.”

**Some call Saadi as the  
Shakespeare of East**



# Khajoo Kermani (Mathematician, Physician, Poet)

AKA	Khwaju Kermani
Born	December 24, 1280
Place of Birth	Kerman, Iran
Nationality	Iranian
Death	1349
Place of Death	Shiraz, Iran



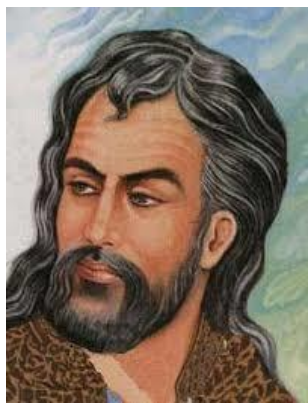
## List of Poems

- *Divan* - a collection of his poems in the form of Ghazals, qasidas, strophic poems, qeṭ'as (occasional verse), and quatrains
- *Homāy o Homāyun* - The poem relates the adventures of the Persian prince Homāy, who falls in love with the Chinese princess, Homāyun.
- *Gol o Nowruz* - The poem tells another love story, this time vaguely situated in the time shortly before the advent of Islam.
- *Rowzat-al-anwār* - In twenty poetic discourses, the poet deals with requirements for the mystical path and the ethics of kingship.



**He lived most of his life in Shiraz between Saadi and Hafez times.**





## Renowned Poets of Persia **Hafez Shiraz**

اگر آن ترك شیرازی به دست آرد دل مارا

به خال هندویش بخشم سمرقند و بخارا را

If that beautiful Shirazi Turk, took control and my heart stole,  
I'll give Samarkand & Bukhara, for her Hindu beauty mole

**Hafez was quite familiar of hypocrisies of religious leaders of his time. It is clear from his poems.**



**Tomb of Hafez– Shiraz Hafez 1315 – 1390 and Gothe's Dedication in Weimer, Germany**



## 5 Centuries later

Safavid dynasty (1501–1736 AD)

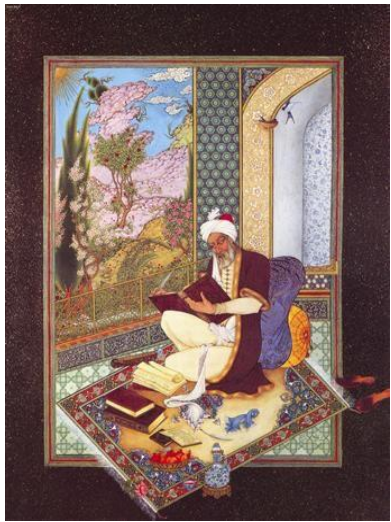
**Afsharid dynasty (1736–1796 AD)**

Zand Dynasty (1751–1794 AD)

**Qajar dynasty (1785–1925)**

Pahlavi Dynasty (1925–1979)

# Hossein Behzad (Painter)

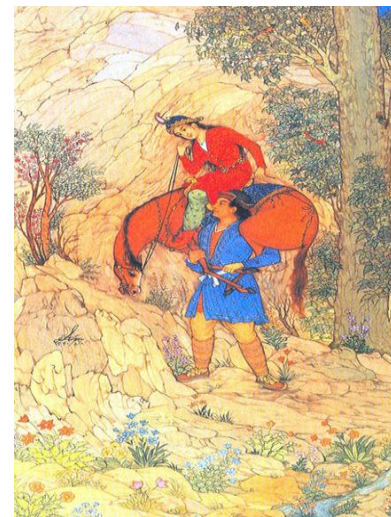
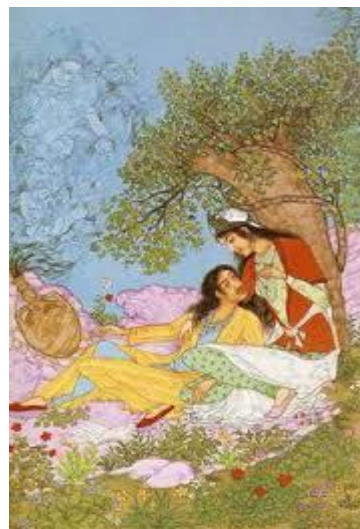


AKA	Hossein Behzad
Born	1894
Place of Birth	Iran
Nationality	Iranian
Death	October 13, 1968
Place of Death	Iran



“Hossein Behzad was a prominent Iranian painter. His early work was in the styles of the old masters of Persian painting of the sixteenth and seventeenth centuries, hoping to save Persian miniature paintings from oblivion. In 1934 he left Tehran for Paris and stayed for thirteen months. During this

time he studied various Eastern and Western painting styles at the Louvre, Guimet museum and Palace of Versailles. It was during this trip that he developed a completely new style of miniature painting, combining aspects of traditional Persian painting with contemporary painting from the West.



# Mossadegh (Lawyer, Prime Minister, Patriot, National Hero)

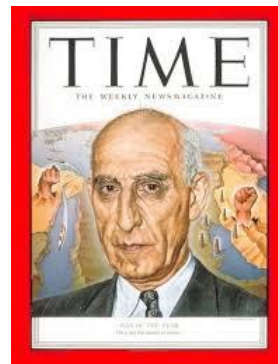
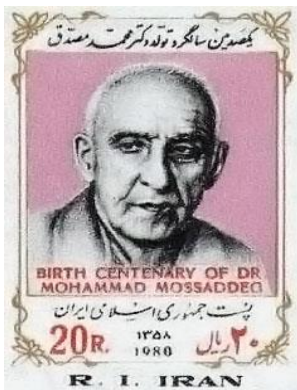
Handwritten signature or mark.

AKA	Mohammad Mossadegh
Born	June 16, 1882
Place of Birth	Tehran, Iran
Nationality	Iranian
Death	March 5, 1967
Place of Death	Tehran, Iran
Special Creed	Iranian and Global Patriot



Mosaddegh's most important political achievement was **nationalization of Iran's oil industry**, which was dominated that industry since 1913 which later lead to British Petroleum – BP.

In 1901, Mossadegh married **Zahra Khatoon** (1879–1965), who was the granddaughter of Nasser al-Din Shah through his mother.



Time Magazine selected Mossadegh as the **man of the year** on December 8, 1961

From **age 12 he served his country** in various capacities: Budget regulator, Governor, under secretary, member of parliament, minister, and prime minister

# Amirkabir (Minister with vision, Patriot)

AKA	Mirza Taghi Khan Farahani
Born	1807
Place of Birth	<a href="#">Hazaveh Village, Arak, Persia</a>
Nationality	Persian, Iranian
Death	<b>10 January 1852 (45 years old) , By <a href="#">Assassination</a></b>
Place of Death	<b>Kashan, Iran, Buried in Karbala, Iraq</b>



Amir Kabir in his short three years of ministerial position appointed honest leader in the armed forces, **vaccinated Iranian youth** against polio, and most important he created a series of schools, called **Dar-ol-fonoon** which educated masses in Iran. These schools were the seed to establish universities in Iran, like the University of Tehran and others.





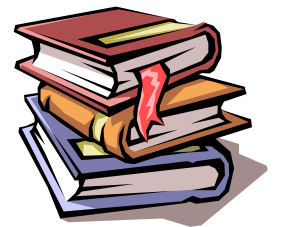
## REZA (Engineer, Mathematician, Literary Person, Diplomat)



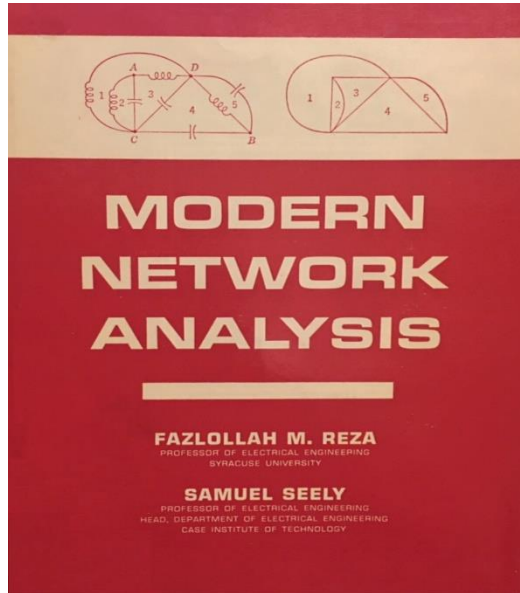
- **Fazlollah Reza** was a pioneer in **information theory, electric circuits theory,** and an **authority on Persian Poetry,** specially with respect to the life and works of Persian Epic Poet **Ferdowsi.**
- **Fazlollah Reza** was born on January 1, 1915 in Rasht, Iran (Passed away Nov 19, 2019 -**104 years**). He received his Bachelor's degree in Electrical Engineering from the University of Tehran in 1938. He was the **1<sup>st</sup> electrical engineering graduate** at the Univ. of Tehran and all of Iran.

He received his MS degree in electrical engineering from Columbia University in 1946 and Doctor of Electrical Engineering from Polytechnic University of New York in 1950.

Taught at **MIT, Columbia, Syracuse (US), Tehran, Sorbonne (Paris), Concordia and McGill (Canada)**



## His last message to Iranians before his death!

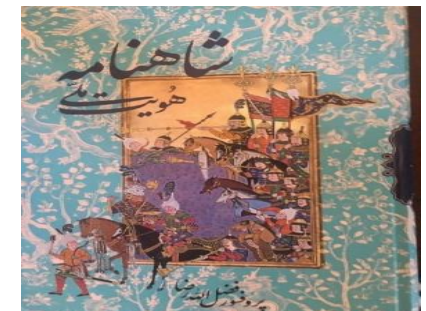
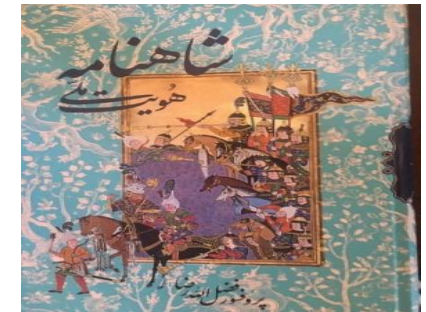
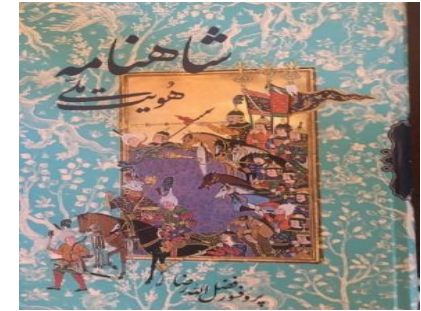


کوشش ما ایرانیان باید بر آن باشد که ایران با نام بلندتر بر جای ماند و دستخوش از هم کینجتمگی فرهنگی و اقتصادی و سیاسی دوران پرشتاب انفورماتیک نشود.

استوارترین پیوند ایرانیان پرکنده در جهان زبان و ادب پارسی و فرهنگ والای ماست، هرچه بر هم زبانی و یگانگی ما افزوده شود ایران ماندگارتر و سرافرازتر خواهد بود.

تاج شاهی طلبی، کوهر ذاتی بنمای ورنه خود از کوهر جمشید و فریدون باشی  
نقطه عشق نمودم به تو همان سهو مکن ورنه چون یگسری از دایره بیرون باشی

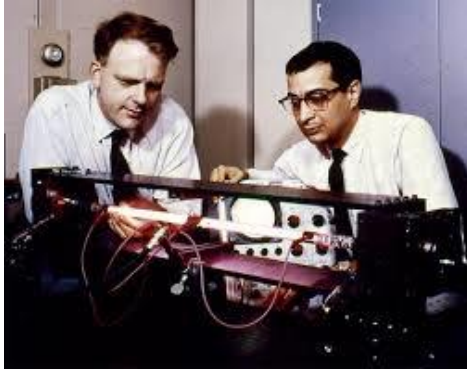
پروفور فضل الله رضا



یادگار دوست درمخند دانشمند دکتر محمد جمشیدی  
رستا ۱۳۳۳ اسفند ۱۳۵۸  
Dedicated to my dear and  
learned friend Dr. M. Jamshidi  
F. Reza Ottawa March 3, 1990



# Javan (Iranian Physicist who co-invented He-Ne Gas Laser)



Javan	Ali Javan, Inventor of "He-Ne laser"
Born	December 26, 1926 AD
Place of Birth	Tehran, Iran
Nationality	Azari, Persian, American
Death	September 12, 2016 AD
Place of Death	Los Angeles, CA, USA
Family	Wife Marjorie, and two daughters, Lila and Maia.
Interest	Art, Music (especially Mozart), Museum, the outdoors, fine food, and more.
Genius	He was number 12 on <u>the Daily Telegraphs</u> Newspaper, 100 living Geniuses of 20 <sup>th</sup> Century

**Ali Javan** was an Iranian-American **physicist and inventor**. He was the first to propose the concept of the gas laser in **1959 at the Bell Telephone Laboratories**. A successful prototype, constructed by him in collaboration with W. R. Bennett, Jr., and D. R. Herriott was demonstrated in 1960. His other contributions to science have been in the fields of quantum physics and spectroscopy.

Javan, a genius Persian physicist of 20<sup>th</sup> and 21<sup>st</sup> Centuries co-inventor of HeNe Gas Laser in 1960. His main contributions to science have been in the fields of [quantum physics](#) and [spectroscopy](#). In 2007, Javan ranked **number 12 on The Dailey Telegraph's list of the "Top 100 Living Geniuses"**. He was number 12 on the list, in the company of such notables like Nelson Mandela, Steven Hawkins, Steven Spielberg, Bill Gates, Richard Bronson, Steve Wozniak, George Lucas, etc. .



## RECENT Notable Scientists



“Father of Fuzzy Logic”

•  
**Lotfi Asker Zadeh** (born [February 4, 1921](#) in Baku, Azerbaijan (USSR).

He passed away on September 6, 2017 in Berkeley, CA, USA, age 96

years old) was an electrical engineer, a mathematician and computer scientist, and a professor of [computer science](#) at the [University of California at Berkeley](#).

He was born in as **Lotfi Aliaskerzadeh** (or **Askar Zadeh**), to a

Russian **mother, a pediatric physician** from Moscow and Azeri **father of Iranian origin (Ardebil)**, grew up in Iran, studied at **Jordan HS**, later called **Alborz High School** and Tehran University, and moved to the US in 1944. He taught and worked at UC Berkeley from 1959 to 2014. He published his seminal work on fuzzy sets in 1965 in which he detailed the mathematics of fuzzy set theory and approximate reasoning.

- In 1973 he proposed his theory of fuzzy logic. His citations is out to the 7<sup>th</sup> heaven by himself: **267271 Scholar Google Citations** (1965 paper is at 114989).



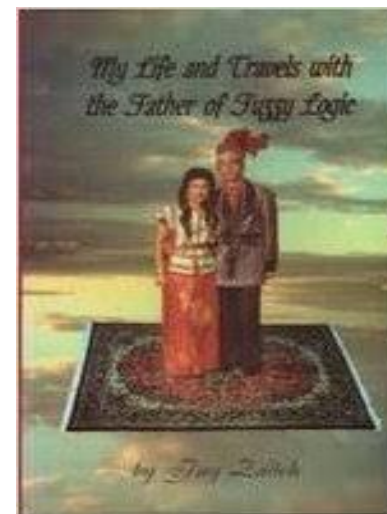


# Lotfi Zadeh

• **Lotfi's credentials is immense -- ~ 30 honorary doctoral degrees, Fellow and member of numerous academies and societies, Russian Academy of Natural Sciences, Member National Academy of Engineering, Medal of Honor of the IEEE (highest IEEE medal ), over 30,000 patents have been issues in US alone, etc.**



His charming, sacrificing and patient wife Fay was one of keys to his success. In 1998 she wrote a book, entitled, ***“My Life and Travels with the Father of Fuzzy Logic,”*** TSI Press, Translated into Russian and Azari in Baku. In that Book she expressed all the wonderful and some not so wonderful events during her time with Lotfi. They Were married for 72 years. **Book was conceived in spring 1996 at Lake Tahoe.**



# Mojtahedi (Engineer, Educator, Pioneer, Patriot)



AKA	Mohammad Ali Mojtahedi Gilani
Born	September 23, 1908
Place of Birth	Lahijan, Gilan, Iran
Nationality	Iranian
Death	July 1, 1997 (89years)
Place of Death	Nice, France
Known for	Founding Sharif University of Technology and 8 <sup>th</sup> Principal of Alborz High School for 35 years, mathematician, mechanical engineer



Mohammad Ali Modjtahedi Gilani was an Iranian University Professor and **lifetime principal of the highly prestigious Alborz High School in Tehran, Iran**. Founder of **Sharif University of Technology** (Formerly Aryamehr Technical University) and president of **Tehran Polytechnic** (currently Amirkabir University of Technology), and **Shiraz** University (Formerly Pahlavi University). He has educated over 30,000 hS students at Alborz and thousands more at SUT, AMKUT, UT, and SU.





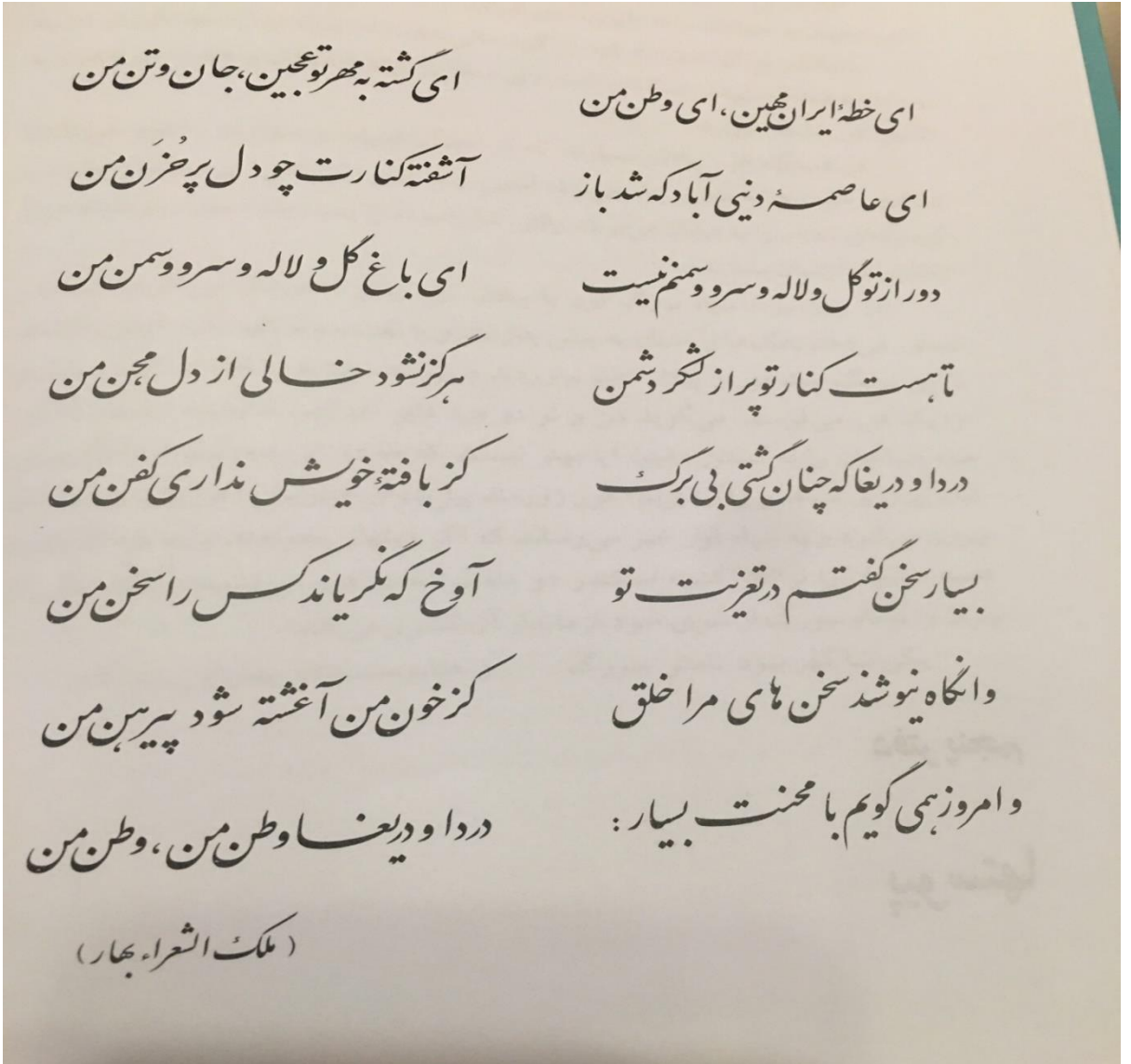
# Perspective on Bahar (Poet, Journalist, politician, Patriot)



AKA	Malek-o-Shoarah Bahar, Mohammad-Taquí Bahār , the king of poets
Born	December 10, 1886
Place of Birth	Mashhad, Iran
Nationality	Iranian
Death	April 22, 1951
Place of Death	Tehran, Iran



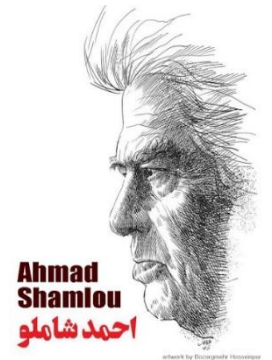
Bahar was not only a superb poet and writer and journalist. He also was a **patriot of the mother land - Iran**. Here is a poem justifying his feelings about Persia . **He was house arrested by Reza Shah during at times during 1920-1940.**



# Shamlou (Poet, Writer, Journalist, **Candidate for Nobel Prize in Literature**)



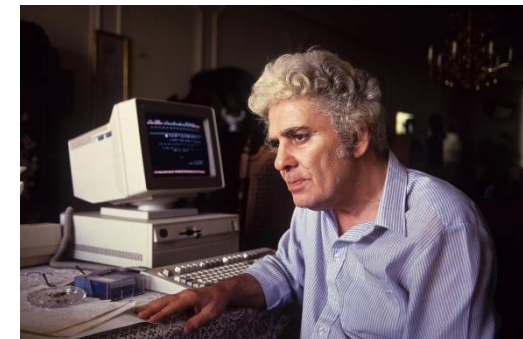
Shamlou	Ahmad Shamlou
Born	December 12, 1925
Place of Birth	Tehran, Iran
Nationality	Iranian
Death	July 23, 2000 (75 years)
Place of Death	<a href="#">Dehkadeh-ye Taleqani, Iran</a>
Buried	<a href="#">Emamzadeh Taher, Karaj, Iran</a>



**A remarkable poet for over 35 years (1950's-1990's) Shamlou's poetry is complex, yet his imagery, which contributes significantly to the intensity of his poems. He published numerous books of literary and poetry, as well as leadership positions as editor-in-chief of many weekly magazines.**



**Shamlou was imprisoned by the second Pahlavi king in the notorious Alamut Castle, turned into a prison.**



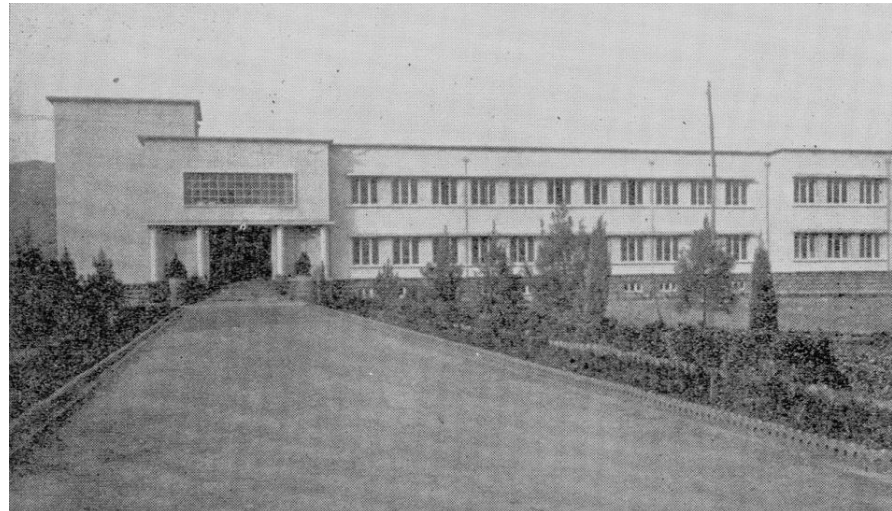


# Ghorban (Physician, Leader, Pioneer)

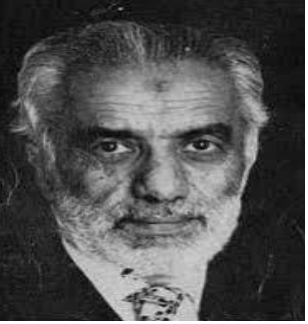


AKA	Zabih Ghorban
Born	1903
Place of Birth	Shiraz
Nationality	Iranian
Death	2006 (103 years)
Place of Death	Shiraz
Alumni	American University of Beirut,
Known	Legendry Dean of Medical College of Shiraz University, Iran

When he returned to Shiraz after receiving his medical degree and began establishing an **Auxiliary Training School** there in 1945. Although a few students were being trained, there was no formal medical school in Shiraz until 1952. However, if one considers the Auxiliary Training School as the forerunner of the Shiraz University Medical School (SUMS), it goes back to 1946. **Founder of Shiraz University Medical School in 1946.**



# Gharib (Physician, Pioneer, “Father of Pediatrics in Iran”)



AKA	Mohammad Gharib, Father of Iran's Pediatrics'
Born	1910
Place of Birth	Tehran, Iran
Nationality	Iranian
Death	1975 (65 years)
Place of Death	Tehran
Alumni	Paris Medical School



After his medical education in France, he returned to Iran in 1939 and was initially employed at the Department of Pediatrics of Razi Hospital. Later, Gharib became Chair of the Departments of Pediatrics at Razi and Hezar Takhte-Khabi Hospitals. Gharib and Ahari were among the pioneers who established the **Children's Medical Center**.





# Massoumi (Popular Cardiologist)



AKA	Massoumi Massoumi
Born	January 15, 1945
Place of Birth	<b>Naein, Iran</b>
Nationality	Iranian, American
Death	March 2015 (70 years)
Place of Death	Houston, TX, USA
Alumni	<b>University of Tehran</b>
Expertise	A pioneer in electrophysiology

Massoumi was born on January 15, 1945 in the city of Naein, Iran. He graduated from School of Medicine, University of Tehran in 1969. In 1973, he came to **Buffalo, New York** to spend his residency in Cardiology in Milard Filmore Hospital there and later he moved to **Houston in 1977** working at **St. Lukes Hospital (Texas Heart Institute)** until 2015.

Massoumi was recognized as a ground breaking electrophysiologist, always at the forefront of his field; and was consistently named one of the **best electrophysiologists** in the United States, **most recently in 2014 by USA Today** National Daily Newspaper. Massoumi was the personal physician of celebrities, prominent physicians, kings and royal families. The **Sultanate of Oman** endowed the ***Massoumi Chair in Cardiology and Cardiac Electrophysiology*** at St. Luke's Hospital in his honor. Massoumi left an indelible legacy as a mentor.





# Rahbar (Physician, Discoverer of HbA1C Blood Test)

AKA	Samuel Rahbar
Born	May 12, 1929
Place of Birth	Hamadan, Iran
Nationality	Iranian, American
Death	November 10, 2012 (83 year)
Place of Death	Los Angeles County, USA



**American Diabetes  
Association Samuel  
Rahbar Outstanding  
Discovery Award**



“Samuel Rahbar was an Iranian scientist and physician who discovered the linkage between diabetes and **HbA1C**, a form of **hemoglobin** used primarily to identify plasma glucose concentration over time. He was born in the Iranian city of Hamadan in 1929. He obtained his MD degree from the University of Tehran in 1953 and a PhD degree in immunology from the same university in 1963.

From 1952 to 1965 he practiced medicine in Abadan and Tehran as well as on the faculty of his Alma Matter, the **University of Tehran Medical School**. He spent 1968–1969 as a visiting scientist at the Department of Medicine of the **Albert Einstein College of Medicine in New York**. After his return to Tehran, Rahbar was promoted to full professor in 1970 and to director of the Department of Applied Biology in the University of Tehran Medical School in Tehran. In 1979, he left Iran and moved to United States. Shortly after arrival, he became a researcher and **professor of diabetes in the Department of Diabetes**, Endocrinology, and Metabolism at the City of Hope in Duarte, California (in Los Angeles County).

# Nasr (Gastroenterologist, Dedicated Leader, Pioneer)



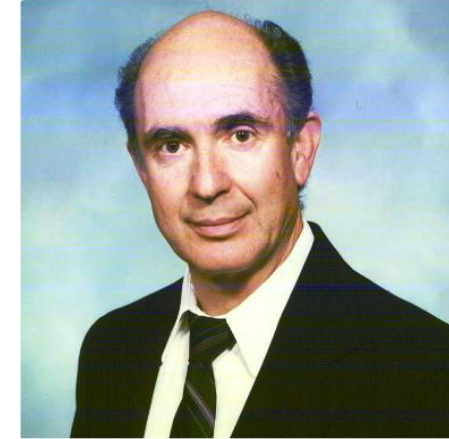
AKA	Khosrow Nasr, Dean Emeritus of Shiraz University School of Medicine, Director Emeritus of Nemazee Hospital, Shiraz, Iran.
Born	1937
Place of Birth	Tehran
Nationality	Iranian, American
Death	January 21, 2020 (83)
Place of Death	Roseville, CA, USA
Alumni	Yale University, Columbia University, University of Chicago

**Nasr**, an accomplished visionary that published a historical account of the “**Shiraz Model**” of **Medicine** in 2009. He gave six key reasons for the success of Shiraz University School of Medicine, which ranked as one of the highest schools of medicine in all of the Middle East. The Shiraz medical school during 1969-1979 is known as, “**The Shiraz Model**”. The six key attribute, which Nasr called them “**pillars**”: *English instruction language, Nemazee Hospital, Creation of a regional University, Full-time medical faculty, Hospitable City of Shiraz, and smart and capable incoming students.*



# Arman (Physicist, Innovator)

AKA	Moosa Arman, Moe Arman, Joseph Arman
Born	1942
Place of Birth	Yazd, Iran
Nationality	Iranian, American
Death	2012 (70 years)
Place of Death	LOS Angeles, CA
Key accomplishments	Particle Physics and Experimental Nuclear Physics, High Power Microwave Directed Energy
Alumni	Shiraz University, UCLA



**Particle Physics and Experimental Nuclear Physics, High Power Microwave Directed Energy**

After receiving his undergraduate degree in Physics from Shiraz University in 1967, Arman joined the UCLA Particle Physics Group in Los Angeles as a University of California Regents Fellow. The young scientist was awarded his doctorate in Physics in 1972 under the guidance of Professor Emeritus Bernard F. Nefkens of UCLA.

In 1991, Arman joined the **Air Force Research Laboratory** (AFRL) to lead the High Power Microwave Directed Energy Directorate in Albuquerque, New Mexico. In collaboration with Los Alamos National Laboratory, his leadership laid the **foundation for Computation-Based Plasma Studies**. He discovered methods of **High Power Microwave** sourcing that remain unparalleled in power, efficiency, repetition rate, and portability. Before leaving AFRL, Arman led the division that developed *non-lethal Active Denial Technology (ADT)*, currently used extensively by all three U.S. defense services.



# Peyman (ophthalmologist, inventor, pioneer)

Peyman	AKA: Gholam A. Peyman
Born	1937
Place of Birth	<b>Shiraz, Iran</b>
Nationality	Iranian, American
Known For	Inventor of <b>LASIK</b> Eye Surgery, LASIK stands for "Laser-Assisted In-Situ Keratomileusis."
Alumni	<b>University of Freiburg, Germany</b>
Patents	<b>Over 200 US patents since 1989 [1]</b>
Institutions	University of Essen (Germany), UCLA, University of Illinois at Chicago, Tulane University, Louisiana State University, University of Arizona



In late **1982**, he read an article from **IBM Laboratories**, published in *Laser Focus*, describing the photo-ablative properties of an Excimer laser on organic material.

This was very exciting information. Peyman performed a number of experimental studies evaluating the effect of various excimer lasers in collaboration with Physics Department of the University of Helsinki, Finland. A **US patent** was accepted after two revisions and issued in **June 1989**



# Ismail Beigi (scientist, doctor, endocrinologist)



AKA	Faramarz Ismail-Beigi
Born	December 28, 1941
Place of Birth	Tehran, Iran
Nationality	Iranian, American
Expertise	Internal Medicine, Diabetes, Endocrinology
Alumni	Hadaf High School, Tehran, Iran, Berea College, Berea, KY, John Hopkins University (MD), Baltimore, MD, and UC Berkeley (PhD – Biophysics), Berkeley, CA, USA

Shortly after entering Pahlavi University / Shiraz. Ismail Beigi was Elected head of the Department of Internal Medicine. The main focus He was a leading medical development. His leadership was wonderful.

By hiring Dr. **Asghar Rastegar** in 1973 as head of the residency program, they proposed a competitive program (with the great support of Dr. Khosrow Nasr) that The best graduates of our university as well as other medical schools in Iran To join the residency program in Shiraz with the promise that the ministry will send them for Post-residency training with the aim of returning and serving in Iran

**Another major member ...  
The "Shiraz Model" was  
Ismail Beigi**

**To fight the brain drain In  
Shiraz Medical School  
He helped a special  
international residency to keep  
young physicians in Iran.**

# Ghajar (Neurosurgeon, Innovator)

AKA	Jamshid Ghajar
Born	Unknown
Place of Birth	Berkeley, CA, USA
Nationality	Iranian, American
Expertise	<b>Brain surgery, neuro-chemistry and metabolism during coma, Eye tracking cognitive performance monitoring</b>

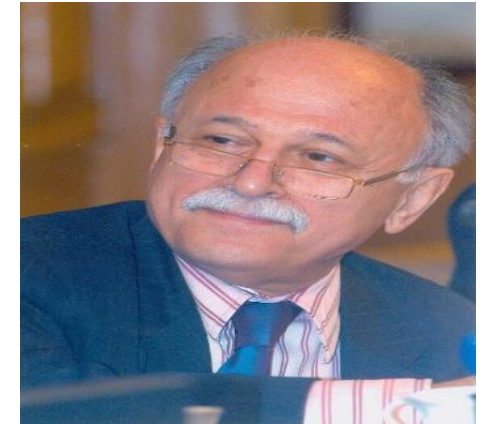


Jamshid Ghajar was born in Berkeley, California and grew up in **California, Iran and England**. As a freshman at UCLA, he started his investigations in the brain sciences at the Brain Research Institute, which continued into graduate work in developmental neurobiology. At Cornell University Medical College, he completed the MD/PhD program in neuroscience specializing in brain metabolism and blood flow during coma. While he was a resident in the neurosurgery program at New York Hospital, he invented several neurosurgical devices, which are now used worldwide. After residency he joined the faculty and staff at the New York Hospital Cornell Medical Center and founded the **Brain Trauma Research Laboratory** and the Brian Trauma Foundation (formerly, "Aitken Neuroscience Center"). Currently, he is a **Clinical Professor of neurosurgery at Stanford University**. He has numerous publications and 4 patents thus far.



# Broumand (Nephrologist, Innovator, Patriot, “Father of Nephrology in Iran”)

AKA	Behrooz Broumand, “Iran’s Father of Nephrology”
Born	April 5, 1940
Place of Birth	Shahi, Iran
Nationality	Persian (Iranian)
Special expertise	Nephrology, 1965 medical degree from the University of Tehran
Special creed	A patriot of Iran



Broumand was born in Shahi, Iran. He received his medical doctorate from the University of Tehran Medical School 1965. After two years of practice, he moved to US and followed his medical education at Georgetown Medicine. Then as a Nephrology Fellow at Veterans Administration Hospital, Georgetown and George Washington Universities. He passed and achieved **three prestigious Specialty and subspecialty board**: Diplomate American Board of Internal Medicine, Diplomate American Board of Nephrology and Diplomate in Advanced Achievement in Internal Medicine.

He returned to Iran in 1975 and he has tirelessly trained hundreds of residents in nephrology. Broumand was recognized as the Pioneer of Nephrology in Middle East and obtained the 2015 Pioneer Award Middle East region by the of International Society of Nephrology. **He has trained 200+ nephrologist inIran.**

# Malek Hosseini (Physician, Liver and Kidney Transplant Surgeon)

AKA	Ali Malek Hosseini, "Iran Father of Kidney and Liver Transplant Surgery"
Born	1949
Place of Birth	Boyer-Ahmad, Iran
Nationality	Iranian
Known for	Pioneer in transplantation of kidney and liver

**Malek-Hosseini has performed over 5000 liver and 5000 kidney transplant surgeries in Shiraz so far.**

After graduation from the **University of Tehran Medical School**, he spent 7 years General Medicine education and internship summa cum laude (top grade) in 1981. He then entered general surgery residency at **Shiraz School of Medicine**. After that, he went back to Tehran to fulfill his fellowship program in kidney transplantation at Shahid Beheshti (formerly **National University Medical Faculty**) School of Medicine, and during the same period, he became an assistant professor of general surgery at Shiraz Medical School. He accepted a **medical fellowship at Pittsburgh University** (PA, USA) in 1990 to perform research on liver transplantation. Upon his return to Iran in 1992, he formed a liver transplantation team at Nemazi Hospital in Shiraz and performed the first liver transplant in Iran and the Middle East to earn the title **'Father of Iran's liver transplantation'**.



# Jadbabaei (Engineer, Educator, Pioneer)

AKA	Mohammad Jadbabaei
Born	1935
Place of Birth	Behbahan, Province of Khuzestan, Iran
Nationality	Iranian
Expertise	Chemical Engineering
Known for	Higher education leader and pioneer



Amirkabir University of Technology  
(Tehran Polytechnic)

*\* Founding President of University of Sistan and Baluchistan*

*\* President of Amir Kabir Technical University*

*\* Co-founder of Shiraz University School of Engineering*



# Sorooshian (Engineer, Earth System Scientist)

AKA	Soroosh Sorooshian
Born	1948
Place of Birth	Kerman, Iran
Nationality	Iranian, American
Alumni	<a href="#">Cal Poly San Luis Obispo</a> , <a href="#">UCLA</a>
Expertise	Hydrometeorology and Remote Sensing



## Sorooshian Recognized with Hydrologic Sciences Medal

“Sorooshian was born in a Zoroastrian family in **Kerman, Iran**. He received his primary education in Kerman before moving to USA in 1966. He earned his Bachelor of Science in mechanical engineering from [Cal Poly San Luis Obispo](#) and his MSc, operations research, Engineer Degree, systems engineering, and Ph.D., engineering from UCLA. Sorooshian is a member of such prestigious organizations as the **National Academy of Engineering** (NAE), **the World Academy of Sciences** (TWAS); and the International Academy of Astronautics (IAA). [1] He is also a fellow of the American Association for the Advancement of Science, American Geophysical Union, American Meteorological Society, among many others.



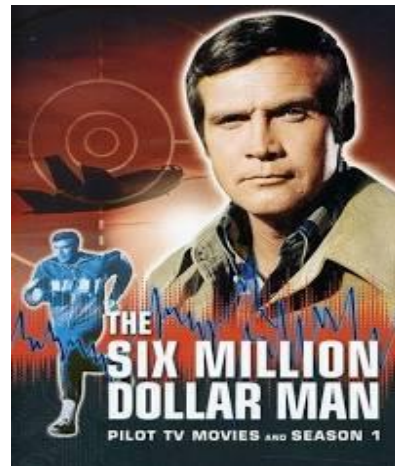
# Badiei (Film Director - Hollywood and American Television)



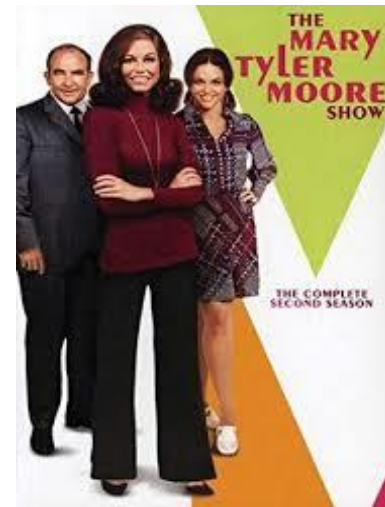
AKA	Reza Badiyi,
Born	April 17, 1930
Place of Birth	Arak, Iran
Nationality	Iranian American
Death	August 20, 2011
Place of Death	Los Angeles, CA, USA
Work	Director of several very popular TV shows in Hollywood, USA.



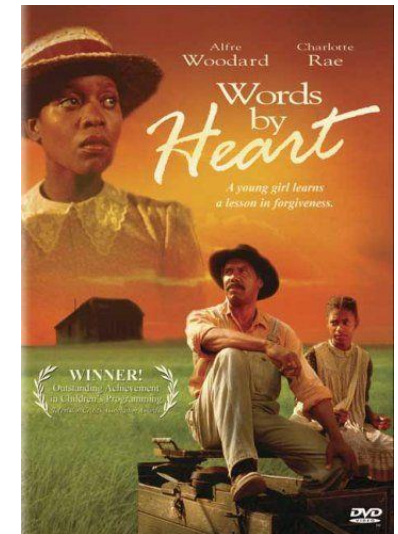
Mission Impossible



Six Million Dollar Man



Mary Tyler Show



# Majidi (Film director, **First Iranian director to be nominated for an Oscar**)

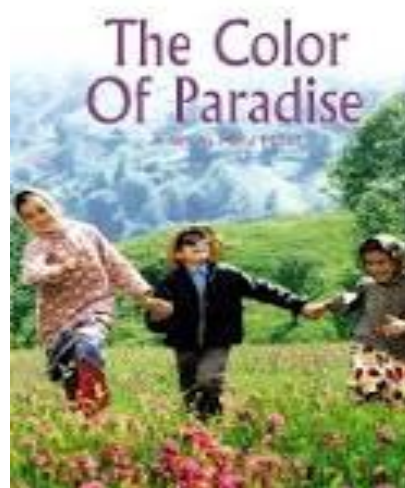
AKA	Majid Majidi
Born	April 17, 1959
Place of Birth	Talesh, Iran
Nationality	Iranian
Known for	Film Children of Heaven, First Iranian film nominated for an Academy Award at US Oscars in Los Angeles.
Films	Children of Heaven: <a href="#">The Color of Paradise</a> in 2000, <a href="#">Baran</a> in 2001, and <a href="#">The Willow Tree</a> in 200



## *Children of Heaven*



## *Color of Paradise*



## *Baran*





# HESABI – Nuclear Physicist, Diplomat

Hesabi	AKA Mahmoud Hesabi, Mahmoud khan Mirza Hesabi , Minister and Senator
Born	February 23, 1903
Place of Birth	Tehran, Iran
Nationality	Iranian
Death	September 3, 1992
Place of Death	Geneva, Switzerland, buried in Taftresh, Iran
Alumni	<a href="#">American University of Beirut</a> , <a href="#">Sorbonne</a> , <a href="#">École Supérieure d'Electricité</a>
Founder	Physics University of Iran



- Launched the first transmitting antenna in Iran
- **Launched the first Seismology Centre in Iran**
- Launched first Atomic Reactor of Atomic Energy Organization of Iran
- Launched the first radiology device in Iran
- Calculated and determined the official time of Iran
- Established Atomic Research Center of Tehran University
- **Established the Atomic Energy Organization of Iran**
- Established the modern center of chase satellites in Shiraz



**Award ceremony of French Medal Legion for Dr. Hesabi in Paris**

# Farhadi (Film director, **Winner of 2 Academy Awards - Oscars**)

AKA	Asghar Farhadi,
Born	May 7, 1972
Place of Birth	<a href="#">Homayoon Shahr</a> , <a href="#">Isfahan Province</a> , <a href="#">Imperial State of Iran</a>
Nationality	Iranian
Known for	<a href="#">Film director</a> and <a href="#">screenwriter</a>
Notable work	<a href="#">About Elly</a> (2009), <a href="#">A Separation</a> (2011), <a href="#">The Past</a> (2013) <a href="#">The Salesman</a> (2016), and <a href="#">Everybody Knows</a> (2018)



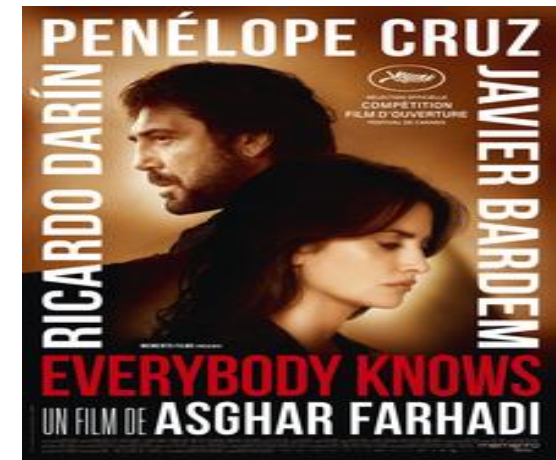
***A Separation (2011) Nader from Simin***



***The Salesman (2016)***



**Everybody knows (2018) – Filmed in Spain**



# Asrar (Engineer, Scientist, Leader, NASA Associate Administrator)

AKA	Ghassem Asrar
Born	October 1951
Place of Birth	Shiraz, Iran
Nationality	Iranian American
Work	Earth sciences, environmental measurements, World climate, Science of Earth, Oceans and other natural resources.



Asrar was born in Shiraz, Iran in October 1951. He received his elementary, high school and undergraduate education all in Shiraz before moving to USA to obtain his graduate degrees in environmental physics and civil engineering from Michigan State University. He was appointed as **chief scientist for the NASA Earth Observing System (EOS)**, a major component of NASA Mission to Planet Earth program. In 1988, He was appointed as the Associate Administrator for the newly established Office of NASA Earth Science and guided the development of EOS and other Earth observing satellites, including the U.S. weather monitoring ones. Currently, he serves as **Universities Space Research Association (USRA's ) Senior Vice President**, Science, providing leadership and direction for the programs in the science portfolio at USRA. At NASA he his efforts at paved the way for over **20 earth science missions**, which led to new measurements from Earth Science satellites and insights into the connections between Earth's land, oceans, atmosphere, ice, and life.



# Moghbeli (Engineer, Test Pilot, **Astronaut**)

AKA	Jasmin Moghbeli, Astronaut, Pilot
Born	June 24, 1983
Place of Birth	<a href="#">Bad Nauheim</a> , <a href="#">West Germany</a>
Nationality	Iranian, American
Alumni	MIT, Naval Postgraduate School
Rank	Major US Marine Corp
Occupation	<b>Test Pilot</b>



“In June 2017, Moghbeli was selected as a member of NASA Astronaut Group 22. **One of the 22 out of an estimated 3000 applicants.**

With Artemis missions **NASA will send the first woman and the next man to the Moon in 2024** and about once per year thereafter. *SciTechDaily* January 2021`

# Birkar (mathematician, Field Prize winner, **Nobel Prize in Mathematics**)

Birkar	AKA Caucher Birkar
Name at Birth	Fereydoun Derakhshani
Born	1978 in Kurdistan Province of Iran
Place of Birth	<a href="#">Ney</a> , <a href="#">Marivan County</a> , <a href="#">Iran</a>
Nationality	Kurdish, Persian (Iran), British
Fields of Expertise	<a href="#">Algebraic geometry</a> , <a href="#">Birational geometry</a>



“*Caucher Birkar has made fundamental contributions to birational geometry in two particular areas: the minimal model program (MMP) and the boundedness of Fano varieties.*”



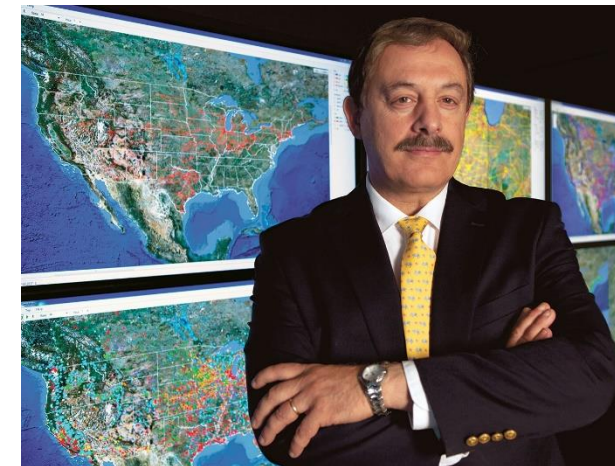
# Shahidehpour (Engineer, Global Innovator)

AKA	Mohammad Shahidehpour
Born	July 27, 1955
Place of Birth	Tehran, Iran
Nationality	Iranian, American
Alumni	Sharif University, Tehran, Iran, University of Missouri, Columbia, MO, USA
Expertise	Smart Grid, Power and energy systems.



## Mohammad Shahidehpour Named as Highly Cited Researcher in Engineering

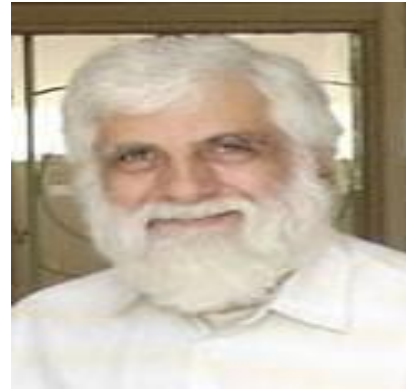
Shahidehpour is a University Distinguished Professor, Bodine Chair Professor, and Director of the Robert W. Galvin Center for Electricity Innovation at **Illinois at Institute of Technology (IIT)**. He is a Fellow of IEEE, Fellow of the American Association for the Advancement of Science (AAAS), Fellow of the National Academy of Inventors (NAI), Laureate of KIA (Khwarizmi International Award), and an elected member of the **US National Academy of Engineering**. He served in 1999-2000 as the National President of HKN (Electrical Engineering Honor Society) and was a member of the HKN Board of Directors for 8 years. **With over \$60 ML funding, he has turned IIT Campus into a Smart Grid and much more.**





# Lucas (Engineer, Educator, Humanitarian)

Lucas	AKA Caro Lucas, Caro Lucas Ghukasian
Born	September 4, 1949
Place of Birth	Isfahan, Iran
Nationality	Iranian, Armenian
Death	July 8, 2010
Place of Death	Tehran, Iran



Lucas (top student at UT School of Engineering) authored/co-authored about **1200** published work : **826 conference papers**, **332 journal papers** and **39 chapters** in books, edited **8 book volumes**, served as program committee (PC) member for 96 conferences, and presented invited talks (or keynote speeches) in 190 national and international events. He advised over **90+ MS students** and at least **20 Ph.D.** students at Tehran University and elsewhere.



## Maryam Mirzakhani

**First woman in the world to receive Field's Medal, aka "Mathematics Noble Prize"**

Mirzakhani was born on 3 May 1977 in [Tehran](#), Iran. Her father Ahmad is an electrical engineer. She attended [Tehran Farzanegan School](#) there, part of the [National Organization for Development of Exceptional Talents](#) (NODET). In 1994, Mirzakhani achieved the [gold medal level](#) in the [International Mathematical Olympiad](#), the first female Iranian student to do so. In the 1995 International Mathematical Olympiad, she became the first Iranian student to achieve a perfect score and to win two gold medals. **She solved several 19<sup>th</sup> Century open problems for the Riemann geometry.**

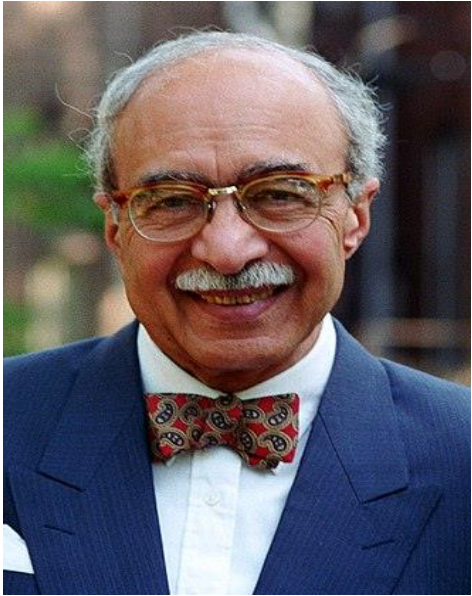
She obtained her [BSc](#) in mathematics in 1999 from the [Sharif University of Technology](#). She then went to the United States for graduate work, earning her [Ph.D.](#) in 2004 from [Harvard University](#), where she worked under the supervision of the Fields Medalist [Curtis T. McMullen](#). At Harvard she is said to have been "distinguished by determination and relentless questioning", despite not being a native English-speaker. She used to take her class notes in [Persian](#).

## Recent Outstanding Scientists

Mirzakhani	
Born	May 3, 1977
Place of Birth	Tehran, Iran
Nationality	Persian (Iranian)
Death	July 14, 2017 (40 years)
Place of Death	Stanford, CA, USA
Married	Married to Jan Vondrák
Daughter	Anahita



# Mehr (**Mentor**, leader, patriot)



Mehr was born on December 11, 1923, to a Zoroastrian family in Tehran, Iran. His father, Mehraban Mehr, was from Kerman province and immigrated to Tehran at the age of 14 for more economic and social opportunities. He went on to become a senior accountant in the National Parliament, the predecessor of the Islamic Consultative Assembly (Iran). His mother, Paridokht (son), was the grandson of Khajeh Barkhordar, a Yazidi Zoroastrian immigrant to Tehran who served as one of the managers of Nasreddin Shah Qajar's farm. **Farhang was raised as a devout Zoroastrian and a patriotic Iranian**

Mehr held many public and private jobs. Until 1971, he held several other public and private positions. In 1971, he became the **president of Pahlavi University** (now Shiraz University) as a leading institution in the Middle East. During his presidency, the university became internationally known for its scientific excellence and innovative policies adopted by other developing countries. In 1973, the World Health Organization (**WHO**) selected Pahlavi University as the center for providing vocational training courses to medical schools in the southern Mediterranean. **Mehr was recognized as the first and only non-Muslim Iranian to be awarded the Homayoun Medal and the Taj Medal.**



# Plan: Future Roadmap

- Anticipated Date: December 20, 2020 two e-versions: English and Parsi
- Publisher: TSI Press, [tsiepress@gmail.com](mailto:tsiepress@gmail.com) and a US and an Iran-based publisher
- **ISBN: 978-1-8893-35-53-3** e-copies are **free** for the public.
- Book will be published in four languages: English, Parsi, Arabic and Russian. English and Parsi editions will also be printed.
- Print copies: English editions will be printed in the US and Parsi version will be printed in Tehran. A new website is under construction. For now you can go to this site:  
<http://www.wacong.org/persiansciencehistory>
- Author: Mo Jamshidi, the University of Texas, San Antonio, USA, [mojamshidi4@gmail.com](mailto:mojamshidi4@gmail.com)
- Book covers over 150 distinguished Iranian individuals in science, poetry, writers, directors, screenwriter, painters, patriot, etc. since 1000 BC to 2021.

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## ACADEMY MEMBERS

US NAE and US NAS Members

TWAS Fellow

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Bozorgmehr (Nobel Minister)

Farrukhi Sistani (Poet)

Nezam-Ol-Molk (Educator and Minister)

Behzad, Kamal-Ol-Molk (Painter)

Sabzevari (Scientist)

Amir Kabir (Visionary Minister, Patriot)

Iraj Mirza (Poet)

Dekhoda (Linguist, Patriot)

Mossadegh (Minister, Patriot)

Malek-O-Shoarah Bahar (Poet)

Behzad, Hossein (Painter)

Nima Yooshij (Poet)

Hedayat (Writer)

Hatef Esfehani (Poet)

Shahriar (Poet)

Etesami (Poet)

Rahi-Moayeri (Poet)

Mosaheb (Mathematician)

Tavallali (Poet)

Yarshatar (Historian and Linguist)

Moeini Kermanshahi (Poet)

Moshiri (Poet)

Naraghi (Poet)

Behbehani (Poet)

Sepehri (Poet)

Naderpour (Poet)

Farokhzad (Poet)

Khodadoost ([Ophthalmologist](#), Surgeon)

Jadbabaei (Engineer, Educator, Pioneer)

Beyzai (Playwright, Film Editor)

Brumand (Nephrologist, Innovator, Patriot)

Rustami (Filmmaker, Producer, Painter, Poet)

Samandar (Contemporary Poet, Lyricist and Musician)

Lucas (Engineer, Educator)

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# Conclusion

- Please send me any suggested name I have missed to my email. [mojamshidi4@gmail.com](mailto:mojamshidi4@gmail.com)
- Thank you

