INTRODUCTION

The fullness of the reality of spiritual energy/soul is infinite and inclusive. The all-pervading spiritual energy is consciously and simultaneously present everywhere. The soul of mankind is likened in the Aad Guru Granth Sahib (AGGS) to be a bride, whose Paramour resides in the body and mind but Bridegroom resides on the top of the Universe but also diffused in every thing.

Our egocentric view of self in relationship to life is inadequate to enable us to be entirely self-sufficient. We, mind and body creatures, are insignificant in comparison to cosmos with the omnipresence, omniscience, and omnipotence of the spiritual energy. The universe as the spiritual energy's manifesting consciousness is self-complete. This energy and principle does not increase or decrease but it does under go transformational changes. Being complete in itself, it can only refer to itself. This unseen, infinite, inaccessible, inapprehensible energy is not subject to destruction. The object of the practice of spiritual science and scientists is to detach the bride from the snares of low lands and reunite her with the lawful husband, The Divine.

Soul is spirit/ether/astral energy like God, which also is a spirit. It is that energy which rules over time, space, life, and death. This Metaphysical energy is a part of every organism. This energy is in the Nirgun state (without attributes) before coming in touch with matter and becomes Sargun (with attributes), creating life in the body, and getting involved in the three Gunas of Maya (ignorance, passion and goodness/poise). This energy consists of conscious, while the matter is unconscious. Thus the element of the knowledge of spirit is known as spirituality. Our scientific power has out run our spiritual power; we have guided missiles and misguided humans. One has to at least have a look at the scientific technology, which becomes out dated every next day. As the science reveals the secrets of Mother Nature, which our ancestors could not explain and thus called them Gods, as sun, moon, and fire and started worshiping them. Science has progressed so much that different kind of energies e.g. space travel, space communication, fighting a war in Afghanistan while sitting in Florida by pressing some buttons, is realistic. How can I describe the splendor of moon, sun, fire, stars and the Divine Higher Power? I cannot even understand the computer. I used to say that I can cut the human body and put it together with my eyes closed (being a surgeon) but science of today is beyond any one's understanding.

This universal higher power, which is the actual cause of the life of an entity, being immaterial part and acts differently in different situations/entities or objects. Each cell/entity/object needs some kind of energy to keep it alive. Nerve cells need oxygen and die with in 4 minutes without it. Other tissues can survive longer and can be kept alive with other artificial energies temporarily for some time, e.g. transplanting organs. Plants need light as energy for photosynthesis. Life of a cell in itself is independent energy and dies by cellular death after the death of the organism. The life of the organism is dependent on complex, co-coordinated function of multiple organs or tissues. The point is that individual cells are still alive after the death of the organism and die by cellular death. This fact is important in transplanting organs with tissue matching requirements in cadaver donor.

Transformation of this energy and individual cell's growth into different and upgraded forms can be called evolution. Stem cells during further growth can be made to change themselves into different kind of cells, there by giving some hope for the cure of certain diseases, only if religion and politics is kept out of the equation.

The following Sabd describes the process of evolution, as I understand it.

\[ \text{Soul is a metaphysical, indefinable, infinite, inaccessible, inapprehensible, vital principle part of a Higher Power or energy, not subject to destruction, having a conscious, and is unappreciated by the normal five senses of, vision, hearing, smell, touch, and taste. I would like to analyze it in a surgical scientific way with references from the Aad Guru Granth Sahib.} \]
In so many Generations, you were a worm and an insect;
In so many Generations, you were an elephant, a fish and a deer.
In so many Generations, you were a bird and a snake.
In so many Generations, you were yoked as an ox and a horse.

Meet the Lord of the Universe - now is the time to meet Him.

After so very long, this human body was fashioned for you.

In so many Generations, you were rocks and mountains;
In so many Generations, you were aborted in the womb;
In so many Generations, you developed branches and leaves;
You wandered through 8.4 million incarnations.

Through the Saadh Sangat, the Company of the Holy, you obtained this human life.
Do seva - selfless service; follow the Guru’s Teachings, and vibrate the Lord’s Name, Har, Har.
Abandon pride, falsehood and arrogance.
Remain dead while yet alive, and you shall be welcomed in the Court of the Lord.
Whatever has been, and whatever shall be, comes from You, Lord.
No one else can do anything at all.

This Sabd, according to my understanding is explanation of evolution of the universe and life from a mineral, to living cells like coral, growth in the presence of water, trees, mountains, animals, and it progressed to humans over billion of years. The God in man is the first being in evolution. The kingdom of human is the only breeding ground in which the un-germinated seed of munificent Divine can be incubated, hatched, and grown to maturity of self-conscious ruler-ship in the cosmic field.

This higher power, which I call Soul, acting as a catalytic agent, makes the system of complex cells and organs to function inter-dependently, individually and thus giving life to the entity/object. Gold cannot be melted without "Suhaga" (Borax), which acts like a catalytic agent, so humans need soul as a catalytic agent for life. Gurbani directs us towards the Truth and also creates a kind of fear of God and advising in subjugating the lower or animal instincts (Auseri Gunas) of lust, anger, greed and ego (One is born with these, located in the mind) and development of Godly instincts (Dyavi Gunas/Virtues) of contentment, truth, contemplation, faith in divine existence, charity, benevolence, tolerance and humility, to prevent transmigration of this energy in to animal or inferior animal bodies. This form of progress in humans leads to the formation of character as explained by Guru Nanak in Jap in 5 stages. Character is destiny-lack of it is doom. The basic instincts comprising of self, social security, sex instincts are needed for the human race to survive.

One should make a raft of meditation and self-discipline, which is clearing the Auseri Gunas to carry you across the oceans and mountains of life (Bhawjal Tarna). The following is the physical show of religion:

There are 4 kinds of reproduction described in the AGGS page 596-15 and in Chaupee of tenth Guru Ji, (Andej, jeraj, setaj, utbhuj): The beings born of eggs, born of the womb, born of the earth and born of sweat, all are created by You. Question arises that how does a soul can be transferred by sweat/heat? It must be by DNA etc. (This is the domain of Dr. Chahal.) (Editorial Note: This was also quoted by Dr Chandan in his paper. The life only originates from another pre-existing life. No life is created from sweat. The theory of spontaneous generation has long been disapproved.)

It reminds me of 1950, dissecting an earthworm, and knowing it is hermaphrodite. If you divide it in to two, both will live. ? Can a soul be divided in to two? Identical twins are there two souls or both have one soul. Reproduction by binary fission again falls in the
domain of a biologist. These questions keep one pondering about this metaphysical conscious energy. (*Editorial Note: Although the earthworms are hermaphrodite (having both sexes on the same body but they cannot fertilize their own eggs. So the copulation of two individual earthworms is necessary to fertilize the eggs of each other.)*)

Stories about near death experience (NDE) and out of body experience (OBE), especially people, who died clinically but temporarily less than 4 minutes, so that the nerve cells are still alive, have told various unbelievable stories, but the true facts need further exploration or scientific explanation.

Science is progressing on daily basis; there will be some answers to these questions in the future, while we may not be present in this world. New technology of "Scramjet" X-43 a, design, reaching a speed of 7,000 miles per hour, 10 times the speed of sound and using compressed air with hydrogen fuel has just been tested. This can be used by USA to power missiles and strike within two hours any where in the world.

Sikh religion is meant to deliver one from nescience of material entanglement by purifying their souls. If Sikh religion is to be animated, actualized, and inspired by its most forceful significance of practicing with a view of awakening the soul to their lost memories. In domains of theologies and ecclesiastical theories, the proof of demonstration is significantly lacking. Their desire to organize the spiritual state is entered through the synthesis of the beard, head, and senses around the SHABAD GURU and listening the Holy Naam. In the bark of one's soul reclines the commanding principle--Wake Him. Self-control is strength and right thought is mastery.

CONCLUSIONS
1. Soul cannot be described in words.
2. It is beyond human understanding.
3. NDE (near death experience) and OBE (out of body experience) terms and their existence cannot be explained, if the statements and stories are true, but possible, as the modern technology is also beyond common layman.
4. Finally in my opinion it is a metaphysical energy, following the eternal, universal laws of nature.

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including a human being through a greatly thoughtful and organized manner. And that's why Albert Einstein said: "God does not play dice with the world."

We have tried to provide alternate views using science and logic to questions that were perceived to be confusing and contradictory varying from faith to faith. We hope these will be more acceptable to our next generation of science and technology. Have we settled the discussion on soul? Not likely, even though we have learned a lot about soul in this discussion.

REFERENCES
1. AGGS = Aad Guru Granth Sahib. 1983 (reprint). Publishers: Shromani Gurdwara Parbandhi Committee, Amritsar. (M = Malaha, i.e., succession number of Sikh Gurus to the House of Guru Nanak, P = page number of the AGGS. M is replaced with the name of Bhagat or Bhatt).

*From Commencing Verse (Manglacharan or Moolmantra): AGGS, Manglacharan, p 1.

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AGGS, Jap, p 8.

"The air is as the Guru, water as the father, the great earth as the mother. Days and nights are as the nurses in whose laps the whole humanity lives (play). Our good and bad deeds are evaluated according to the Laws of the Nature. It is only your deeds on which bases you will be judged to be near to or far from the Almighty. Those, who comprehend / contemplate on the Almighty get rid of their difficulties." [9]