3. Process of Creation

These include energy, process of creation, self-propelled self-regulated functioning of the universe, phenomena of life and death, human mind, human memory, etc. All these phenomena can be understood and explained in the light of the Quranic revelations. Scientists have been trying to understand these phenomena over the past several decades but to no avail. The reason for their failure is that these phenomena cannot be understood by testing hypotheses through experiments. These can be understood only in conjunction with relevant Quranic revelations. Application of the Quran is necessary to understand these phenomena.

Energy

The universe may be described as a system in which energy in diverse matter and non-matter forms is distributed in space. No one knows the nature of this fundamental entity called 'energy'. Matter is basically anything that has mass. Non-matter energy exists in various forms namely, heat (thermal), light (radiant), mechanical, electrical, chemical, and nuclear. Energy is also categorized as stored (potential) energy and working (kinetic) energy. For example, the energy from the food we eat is stored in our body as chemical energy until we use it. Much of the energy we use for various purposes comes from non-renewable sources such as fossil fuels (coal, oil and gas). Renewable energy sources include solar power, wind power and hydroelectric power. From a holistic point of view, the universal system can be looked at as manifestations of energy in diverse forms. But the fundamental nature of energy remains unknown in science.

According to Richard Feynman (italics added), "It is important to realize that in physics today, we have *no knowledge of what energy is*. We do not have a picture that energy comes in little blobs of a definite amount." [1]. David Rose states: "(It) is an abstract concept invented by physical scientists in the nineteenth century to describe quantitatively a wide variety of natural phenomena." [2]. For practical purposes we define energy in terms of its manifested characteristics. A well-known definition of energy is that given by Dave Watson: "Energy is a property or characteristic (or trait or aspect?) of matter that makes things happen, or, in the case of stored or potential energy, has the "potential" to make things happen." [1]. Obviously, it is not through science Allah reveals to us what energy is but through the Quran. The Quranic verses relating to the process of creation provide this information.

Allah – the Creator, the Programmer

Allah created everything in the universe from just one entity – energy. The process of creation has been long since perceived as "creation from nothing" (*creatio ex nihilo*). The "nothing" must be something that is intangible to us. At several places in the Quran Allah informs us that for creating a thing, Allah only has to say "Be to it" (Q. 2:117). It is this revelation that holds the key to understanding the process of creation.

2:117 To Him is due the primal origin of the skies and the earth. When He decides a matter, He says to it, "Be"; then it comes into being.

It is pertinent to note here that Allah says "Be" to the thing He is going to create. This means that the thing Allah is going to create is already there with Him in a form intangible (*ghayb*) to man. This intangible (or invisible) entity may be considered as "energy". The Quran also tells us what the energy is and how it originates.

3:45 Behold! The angels said: "O Mary! Allah gives you glad news of a Word (*kalimat*) from Him. His name will be Jesus Christ son of Mary, held in honour in this world and in the Hereafter and one of those nearest to Allah.

16:40 It is only Our Word (*qawlu*) for anything. When We intend anything, We only say to it "Be" and then it comes into being.

11:40 Thus when Our command came and the fountains of the earth gushed forth, We said (to Prophet Noah): "Embark therein, of each kind two, male and female, and your family except those (among your family) against whom the Word has already gone forth, and the believers. And there were only a few believers with him.

11:44 Then the Word went forth: "O earth! Swallow up your water, and O sky! Withhold (your rain). And the water receded and the matter ended. The Ark (Prophet Noah's Ark) rested on Mount Judi, and the Word went forth: "Curse to the wrongdoers!"

These verses reveal that it is Allah's Word that creates everything (both living and nonliving) and every phenomenon. Allah's Word can be therefore considered as the intangible or the *ghayb* form of energy that carries His instructions. In computer parlance instructions in the right sequence describe a program or software. Therefore Allah's Word signifies intangible (*ghayb*) program. This is evident from verse 3:45, which tells us that Jesus Christ was created from Allah's Word. That means Allah's Word formed the biosoftware of Jesus Christ.

The Quranic revelation that for creating a thing Allah only has to say "Be to it" (Q. 2:117; 16:40) therefore implies that divine programs (Allah's Words) for creating anything are kept with Him. A couple of verses also indicate that.

قُل لَّوْ كَانَ الْبَحْرُ مِدَادًا لِّكَلِمَاتِ رَبِّي لَنَفِدَ الْبَحْرُ قَبْلَ أَن تَنفَدَ كَلِمَاتُ رَبِّي وَلَوْ جِنْنَا بِمِثْلِهِ مَدَدًا 18:109 Say: If the ocean were (used as) ink (to write) the Words of my Lord, the ocean would have been exhausted before the Words of my Lord are completed, even if We bring another ocean like it as support.

وَلَوْ أَنَّمَا فِي الْأَرْضِ مِن شَجَرَةٍ أَقْلَامٌ وَالْبَحْرُ يَمُدُّهُ مِن بَعْدِهِ سَبْعَةُ أَبْحُرٍ مَّا نَفِدَتْ كَلِمَاتُ اللَّهِ ۗ إِنَّ اللَّهَ عَزِيزٌ حَكِيمٌ 31:27 And if all the trees on earth were pens and the ocean (were ink), with seven (more) oceans behind it to add (to its supply), yet the Words of Allah will not be exhausted (in writing). Verily Allah is Mighty, Wise.

These verses reveal the existence of an infinitely large collection of Allah's Words or what can be considered as divine software base. If these verses are examined in

conjunction with verse 2:117 or 16:40, it will be evident that Allah only has to give a command "Be" to the program concerned in the software base and it comes into being.

Energy may be therefore defined as Allah's Word – the entity that carries Allah's instructions. In scientific terms, energy is divine information or divine software, which has the ability to self-operate as per the divine instructions carried in it.

Energy = Allah's Word = Allah's instructions = intangible software

Divine process of creation

In the light of the above, the process of creation can be explained in terms of *ghayb-shahadat* paradigm.

The Quran reveals existence of things in two forms from the point of view of human sensory perception. These are the intangible (*ghayb*) form that cannot be perceived by man and the manifest (*shahadat*) form that is perceptible to man. Allah alone knows both.

59:22 He is Allah. There is no God but He, knower of the invisible (*ghayb*) and the manifest (*shahadat* or visible). He is the Beneficent, the Merciful.

6:73 It is He who created the skies and the earth in truth. On the day He says "Be", it comes into being. His Word is the truth. His will be the dominion on the Day the trumpet will be blown. He is the knower of the invisible and the visible. And He is the Wise, well acquainted (with all things).

13:9 He knows the invisible and the visible. He is the Great, the Most High.

27:65 Say: None in the skies or in the earth knows the unseen except Allah nor do they know when they shall be raised up (for Judgment).

All things, whether created or not, exist with Allah in the form of intangible energy or programs (i.e., energy in *ghayb* form), which are nothing but His Words, in the divine software base. When Allah wants to create a thing, He gives the command "Be" to the software concerned and it transforms itself into *shahadat* form, which is tangible to human being. It is this transformation of the intangible (*ghayb*) form of energy into tangible (*shahadat*) form that can be construed as the process of creation. Thus the "it" in the statement "When He decides a matter, He says to *it*, "Be"; then *it* comes into being" given in several verses quoted above indicates the intangible software of the thing Allah wants to create. Allah only has to say "Be" to "it"; i.e., to the intangible software (which is nothing but Allah's Word, the *ghayb* form of energy). Then that intangible energy (software) will transform itself into the form tangible (*shahadat*) to human beings.

The *ghayb-shahadat* dichotomy is relevant only in human context. God knows everything (*ghayb* and *shahadat* forms). A form of energy can be considered tangible only if human mind can process it in accordance with the biosoftware. Thus the

tangibility of energy is human biosoftware-dependent. Allah created human biosoftware in such a way that man perceives the world the way Allah wants him to perceive.

The Quranic statement "Be and it is" is roughly the human version of "getting things done at the press of a key on the computer keyboard or by the click of a mouse". When we click the mouse or press a key on the keyboard we are in effect activating a program for execution. For example, in the computer the print program is available. By clicking 'print' we are actuating the program to print a document. The computer produces the printout (hardcopy) of the document. The document was there in the computer memory in the form of intangible energy (ghayb or invisible form) but it was transformed into tangible form (i.e., hardcopy of the document) by the computer. This means that the hardcopy produced is in a form that is visible to man. This is an illustration of how intangible information is transformed into tangible material. This analogy can be further examined in the light of a possible future computer version. Human-computer interaction is a fast developing field wherein several kinds of interface between man and the machine are studied. It also includes development of human voice recognition software that will enable us to orally give instructions to a computer (or a robot) for performing a desired task. In the foreseeable future (Allah willing) we will be giving commands to our machines orally rather than through keyboard or mouse. Thus, when we orally give command to a voice-recognizing computer to print a message, the machine will perform the task using appropriate program and produce its hardcopy (shahadat form). That technology will be more or less the artificial counterpart of divine creation process conveyed through the Quran. The difference between Allah's creation process and the artificial creation illustrated in this example is that the latter requires a computer to do the transformation from the intangible to tangible. In the case of divine creation, Allah's Word has the innate ability to transform itself into the tangible form when Allah gives the command "Be" to it.

References

- 1. http://www.ftexploring.com/energy/definition.html Accessed on February 2, 2007.
- 2. Quoted in the book *Energies*, by Vaclav Smil, attributed to David Rose, http://www.ftexploring.com/energy/definition.html Accessed on February 2, 2007.