

CONSIDERATIONS ON FUTURE CIVILIZATIONS

M. PAVELESCU¹, A. O. PAVELESCU²

Abstract. *This communication aims to be an insight into how mankind has developed over time until this day, pointing out that over 300 years ago the industrial revolution first occurred, followed by the energy revolution, which led to a considerable increase of production and consumption of energy, responsible for the prosperity and well-being of all mankind. Starting from here considerations are made about future energy civilizations as they are foreseen by the scientific community today, showing the current position of humanity. It is shown that the first future civilization of Type I, the Planetary Civilization could be achieved by 2100, given an average growth rate of the world economy of 1%, while the other two, the Stellar and Galactic Civilizations would be achieved in two stages separated by two and a half millennia. Considerations are made about the significance in terms of energy consumption for each civilization, as it appears in the literature and the new criteria for classification, information and entropy, are discussed. It is shown that the course for achieving Planetary Civilization is very critical due to the risks borne, and the fact that it is a unique moment, a so called singularity. Attention is drawn to the role of the young generation in achieving this objective and a picture regarding the benefits of this first civilization is taken. Finally, attention is drawn to science and technology viewed as the driving force for the humankind development.*

Keywords: future civilizations, energy classification criteria, informational classification criteria, entropy classification criteria, science and technology development engine

1. Introduction

Today we are witnessing of a sustained development of science and technology in some parts of the world such as the EU and the USA, that have determined in the last few hundred years a considerable mutation in general wealth on the planet.

Thus, around 1500 CE the main superpowers that dominated the world were the Imperial China and the Ottoman Empire. It seemed that they will have been established themselves definitively among the most developed nations. But it was not to be so! Imperial China, for instance, even before 1500 was regarded as the greatest power of the time holding secrets such as: compass, paper, printing press, gunpowder, etc. Chinese scientists were the most reputed, the state was unified and strengthened and peace reigned in the country. In full swing of development, in 1405, Chinese Emperor Yongle ordered the construction of a huge naval armada consisting of seven ships, each being able to accommodate all the three ships of Columbus, designed to explore the world. They start exploring west coast

¹AOSR, mpavelescu2002@yahoo.com.

²IFIN-HH, alexandru.pavelescu@gmail.com.
