Sahil Dhamelia (C017)

Research Paper 1:

On Soft Computing Techniques In Various Areas

Applications of Soft Computing in:

Medical Diagnosis:

Medical diagnosis includes the process of attempting to determine or identify a possible disease and to the opinion reached by this process.It also involves classification tests.

Pattern Recognition:

Pattern recognition generally aims to provide a reasonable answer for all possible inputs and to perform accurate matching of the inputs. Pattern recognition is studied in many fields, including psychology, cognitive science, and defense and computer science.

Image Processing:

In imaging science, image processing is any form of signal processing for which the input is an image, such as a photograph or video frame; the output of image processing may be either an image or a set of characteristics or parameters related to the image. Most image-processing techniques involve treating the image as a two-dimensional signal and applying standard signal processing techniques to it.

Data Mining:

Data mining is a subfield of computer science which is the computational process of discovering patterns in large data sets involving methods at the intersection of artificial intelligence, machine learning, statistics, and database systems. The overall goal of the data mining process is to extract information from a data set and transform it into an understandable structure for further use.

Research Paper 2:

Overview Of Soft Computing

Intelligent systems and hence soft computing techniques are becoming more important as the power of computer processing devices increase and their cost is reduced. Intelligent systems are required to make complex decisions and choose the best outcome from many possibilities, using complex algorithms. This requires fast processing power and large storage space which has recently become available in recent years to many research centers,

universities, and technical colleges at a very low cost.

With the power and the recognition of the Internet of Things (IoT) concept, the need for using soft computing

techniques and building intelligent systems have become more important than ever. Nowadays, most soft computing applications can be handled efficiently by low-cost but super-fast microcontrollers.

Already we see the use of fuzzy logic, artificial neural networks, and expert systems in many everyday domestic appliances, such as washing machines, cookers, and fridges. Many industrial and commercial applications of soft computing are also in everyday use and this is expected to grow within the next decade.

It is the author’s opinion that the soft computing theory and techniques and its applications will grow rapidly together with the use of IoT devices in future domestic, industrial and commercial markets.