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# Editorial

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## Mathematics as a Central Science

Mathematics while being central to other scientific disciplines can also be considered to be one of the most ancient of abstract sciences comprising numbers and quantities, which contributed to the cultural traits of evolving civilizations.

The significance of mathematics is seen in the number of anthropocentric investigations by pre-medieval, medieval and contemporary scholars. These philosophers and writers were no doubt in search of the origins of the constituent branches and sub-disciplines that now constitute the central discipline called mathematics.

It is known that throughout the first millennium and in a greater part of the second millennium, Greeks, Persians, Arabs, Indians and Chinese played a decisive role in the cross-transmission of elements of thought, philosophy, culture, theosophy and learning, among which were notations, symbols and concepts of arithmetic.

Susantha Goonetilleke in his scholarly analysis of what has been described as ‘Civilizational Knowledge’ published under the title *‘Towards a Global Science’* (1998), comments that Arabs in ancient times referred to mathematics as *Hindsat*, implying it to be the “Indian Art”, illustrating their own perceptions of the prescriptive thoughts on mathematics. The

mathematical knowledge borrowed from Indian sources included the Indian method of mathematical notations, concepts of zero, the decimal system, algebra and trigonometry.

Subsequently the acquisition of this knowledge by Europeans, believed to be through Greek sources about the beginning of the Renaissance (ca. 14th Century), led to the development of the new arts of navigation, astronomy and weaponry of warfare. According to Goonetilleke, this new knowledge included significant borrowings from the East, especially of mathematics. Consequently the South Asian systems of arithmetic, algebra and trigonometry were developed rapidly and utilized by the Europeans in their so-called voyages of discovery.

Significantly, it is said that Europe had taken a long time to accept the idea of a zero, this being considered a non-existent intangible entity or number.

The current edition of *Vidurava* which is devoted to mathematics, has articles that illustrate the versatility of the subject through popular applications of this discipline in the day to day life of people. Its usefulness in facilitating formulation of the most logical and prudent answers and decisions in relation to common concerns that affect livelihoods of the common man has been the focused intention of these authors.