

Part I: Indian Music – its Origin and Growth.
Part II: Spectral Analysis of Svaras or Musical Notes.

By
J Chandrasekaran

ABSTRACT

Part I: Indian Music – its Origin and Growth.

Music is the art of combining sounds for expressing emotions. The origin of music in India is shrouded in mystery. It is believed that music arose out of Sama Veda. Indian music makes use of different Ragas and Raginis to invoke emotions. In this report an attempt has been made to describe the emotion of Indian music from ancient times up to the modern age.

The report analyses the nature of sound according to Indian traditions. Just as everything else in India, music also has its philosophical aspects. These have been touched upon briefly.

Sama Veda is considered to be the origin of Indian classical music. There are several schools associated with the rendering of hymns of Sama Veda. It is accepted that Sama Veda gave rise to six different schools of music itself.

The report traces the gradual modifications which took place in music over a long period of time.

Indian music makes use of Raga to invoke emotion. Music forms an integral part of the human culture. In India, music is considered to have originated from the Sāma Veda with its seven notes. Even though musicologists have given lot of importance to the recitation of the svaras, their arrangements in the form of rāgas etc., no attempt seems to have been made to study the spectral characteristics of the seven svaras.

Attempts have been made in the West to conduct such studies on the English alphabet. This has been done from the point of view of speech recognition and

speech synthesis. The result can be seen in human voice reproduction by computer. Similar study on musical notes has not been done so far.

In this report we present some preliminary results of the spectral analysis of the seven notes of Indian classical music.

CONCLUDING REMARKS

This is a pilot study; the main purpose of the study was to start an activity, which has not been attempted before. As a consequence of this study it can be seen that it is possible to define the spectral characteristics of the seven swaras for both male and female voices. We see an internal consistency in the data presented, indicating that they are reliable and lead to dependable results. Such a study will help in voice synthesis and voice reproduction.