



Dr T Ramasami, currently Secretary to the Government of India, Department of Science and Technology, holds a Master's degree in Leather Technology from the University of Madras, India and PhD in Chemistry from the University of Leeds, UK. He has also worked on energy research in Ames Laboratory, Iowa, USA and on electron transport phenomena in the Wayne State University, USA prior

to returning to India for undertaking his scientific career. He joined the Central Leather Research Institute, Chennai as a scientist in 1984 and served as its Director for more than 10 years during the period up to May 2006. He is known among the scientific establishments in the country for his leadership to the Central Leather Research Institute. The institution earned a global leadership status during his tenure as its Director as evidenced by the 30% global share of publications, >7% share of global patents, positions in fashion forecasting and the level of public-private partnership built in leather research.

Dr Ramasami has assumed the role of Secretary, Science & Technology, Government of India since May 2006. He is currently engaged in the development of policies and programmes for attraction of talents for study and careers with science, rejuvenation of research in universities, stepping up of international S&T cooperation, development of public-private partnerships in R&D sector and accountability of public funded research, development and demonstration. The Department of Science and Technology is aggressively engaged in the development of new models and mechanisms for enhancing the role of public funded institutions in innovations and research and development.

Dr Ramasami has a large number of publications in highly peer-valued journals and significant number of patents, which are under commercial exploitation. His research experience spans over several fields and areas in both basic and applied sciences. He has made some important contributions in the fields of inorganic chemistry as well as chemical and leather related technologies. His contributions to the understanding of the chemistry and applications of chromium as well as leather science and environment related technologies have earned him several professional recognitions in both India and abroad. These include Shanti Swarup Bhatnagar Prize for chemical sciences in 1993, election to all major science academies as a fellow as well as the Third World Academy of Sciences, and the National Civilian Award Padma Sri in 2001.



Dr M D Naresh, is the only son of a renowned Music Director, M.D. Parthasarathy of yesteryears at Gemini Studios, Madras. Having lost his father at a tender age of 9, he pursued academics at Loyola and Presidency Colleges, Madras. After completing the Masters in Zoology, he joined the Central Leather Research Institute (CLRI), Chennai in 1978 and got trained in microscopy. He did his doctoral

thesis on the morphology and mechanical properties of fish skins. Most of his publications deal with structure-property relationship of leather and allied materials with emphasis on developing objective methods to assess subjective properties. He is currently working as a scientist in the Biophysics Laboratory of CLRI.

1st R.N. TAGORE MEMORIAL LECTURE and 21st S.N. BOSE MEMORIAL LECTURE

Topic

Science for Musical Excellence

Speakers

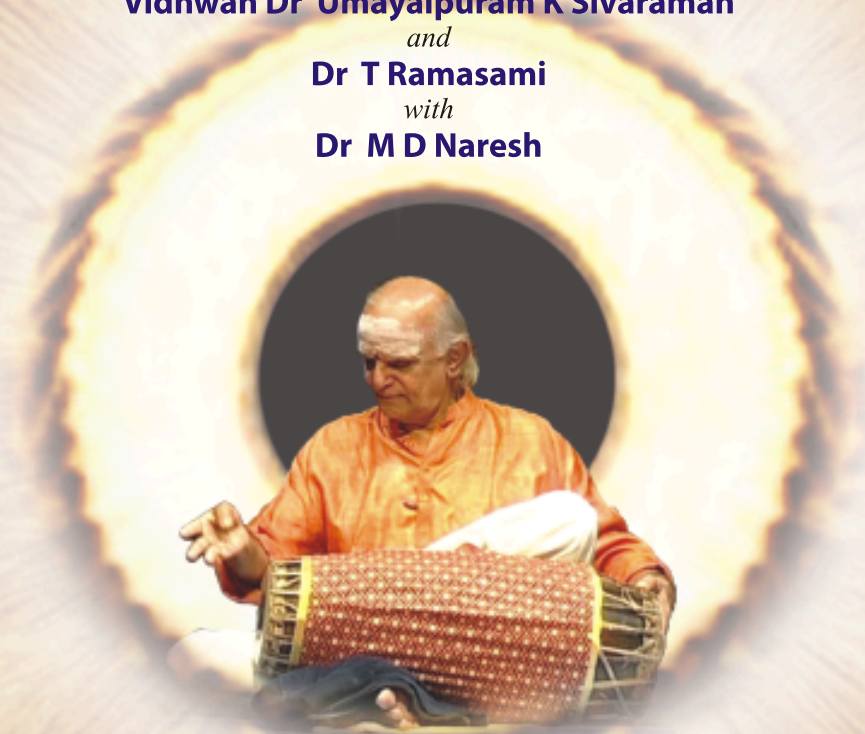
Vidwan Dr Umayalpuram K Sivaraman

and

Dr T Ramasami

with

Dr M D Naresh



Date / Time

10th December 2010, 3.00 pm

Venue

Vivekananda Hall

The Ramakrishna Mission Institute of Culture

Golpark, Kolkata



Indian Association for the
Cultivation of Science

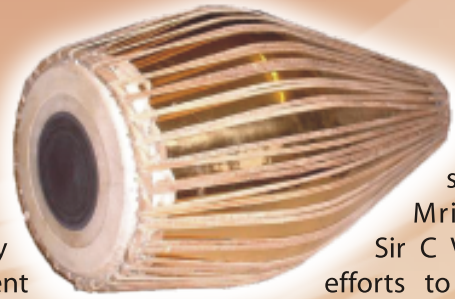


Satyendra Nath Bose National
Centre for Basic Sciences

In collaboration with the Ramakrishna Mission Institute of Culture

A few words on the topic

Mridangam is an ancient musical instrument of India with tradition and history. The aspects of "sound" from were first investigated by Sir C V Raman. There have been subsequent efforts to develop mathematical models for analyzing the harmonic vibrations of Mridangam by several other groups of researchers. However, there has been no reported experimental study for the scientific dimensions of understanding "Naadham" and the melody of Mridangam. Such investigations do really need collaboration between exponents of Mridangam and those who are trained in the discipline of science.



Dr. Umayalpuram K Sivaraman, one of the co-authors of this work, is a renowned artiste. He posed a question as to whether standardization of techniques in the construction of the musical instrument using technological means is feasible. He wondered whether "Naadham" could be better understood using scientific principles even beyond those discovered already by Sir C V Raman. He approached Dr T Ramasami of the Central Leather Research Institute, Chennai for collaboration in science for musical excellence.

The work presented here is an outcome of joint research over a period of six years. Majority of the work has not yet been published and some aspects may have relevance for the creation of intellectual properties. Therefore, the work presented here is mostly to underscore the benefits of an ongoing collaboration between a scientific group and a performing artiste.



On behalf of the

Indian Association for the Cultivation of Science

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Satyendra Nath Bose National Centre for Basic Sciences

we have great pleasure in inviting you to the

1st R. N. Tagore Memorial Lecture

and

21st S. N. Bose Memorial Lecture

at 3.00 pm on Friday,
the 10th December 2010

at the

Vivekananda Hall,
The Ramakrishna Mission Institute of Culture,
Golpark, Kolkata.



Sri Umayalpuram K. Sivaraman, the topmost mridangam vidwan is the son of Dr.P Kasiviswanatha Iyer and Smt Kamalambai. Sri Sivaraman learnt this divine art under four great and illustrious masters: Sri Arupathi Natesa Iyer, Sri Tanjavoor Vaidyanatha Iyer, Sri Palghat Mani Iyer, Sri Kumbakonam Rangu Iyengar. As a boy of ten, Sivaraman had his

'arangetram' (first concert) and the debut was held in the precincts of Kalahasteeswaraswami Temple of Kumbakonam, the temple town. The pursuit of this art under the gurukula system for well over fifteen years did not deter him to qualify for law. He is a double graduate of the University of Madras (B.A.,B.L.)

Besides his professional career, he had undertaken the very laudable task of doing original research in the art of mridangam. He has introduced the fibre glass mridangam to Carnatic music for the first time, improvised a mechanical jig to eliminate human error in the moulding of skins for both sides of the instrument.

His new techniques, innovations and the creative ability in accompaniment, solo renditions, and jugalbandhi programmes with his North Indian counterparts have earned him a special place in the world of art, worthy of emulation by other artistes. Sri Sivaraman is a 'A' Top grade artiste in the All India Radio and the Doordarshan. He was conferred the title of 'Sangeetha Kalanidhi' by the Music Academy, Madras, in 2001. Sri Sivaraman has been appointed as the Director of 'Tanjore Vidyanatha Iyer School of Percussion' started by the Music Academy, Madras. He was awarded with the Padma Vibhushan, India's second highest civilian honour on January 26, 2010 and in the same year received an *honoris causa* doctoral award from the University of Kerala.

Kankan Bhattacharyya
Director
Indian Association for the Cultivation of Science

Arup Kumar Raychaudhuri
Director
S. N. Bose National Centre for Basic Sciences