

5th A.P. Mitra memorial lecture at National Physical Laboratory on 11th November 2019

The NPL Former Scientists Forum (NPL-FSF) had instituted an annual lecture series in the memory of one of its very distinguished former Patrons, the late Dr. A P Mitra (FRS), Ex Director, NPL and Ex DG CSIR. This lecture series aims at paying tributes to late Dr. Mitra and honouring his lifetime contributions to Radio and Atmospheric Sciences in India and on an international level.

The 5th A P Mitra Memorial Lecture, held at the CSIR - National Physical Laboratory, New Delhi, was organized jointly by NPL-Former Scientists Forum (NPL-FSF) and National Physical Laboratory. NPL-FSF has its own Organization Committee under the Chairmanship of Dr. Amitava Sen Gupta and assisted by Dr. R.G. Sharma, the President of the Forum, Shri R B Saxena, the Secretary of the forum, Dr. K K Mahajan, Shri N.K. Wadhwa, Shri V.D. Arora, Shri N. Balani and Dr. (Ms.) Mila Mitra, daughter of Dr. A P Mitra for its smooth functioning. Dr. R.P. Pant, Chief Scientist NPL was the coordinator of the NPL organizing committee which consisted of Dr. Chhemendra Sharma, Shri Ved and Ms. Geetanjali as the members.

The Memorial Lecture function started by lighting of lamps in Indian tradition, garlanding of Dr. Mitra's portrait and floral tributes to his memory. The programme was initiated by Dr. C. Sharma, head Environment Division giving the background of how this series of AP Mitra memorial lectures started. It was followed by welcome address by Dr. D.K. Aswal, Director CSIR-NPL. He emphasized the strong need of Metrology, the accurate measurements for the Space Science Research. After this Dr. R G Sharma, president, NPL -FSF explained the aims and objectives of the forum and how this 16 years old organization has been serving its members, their families for their better health care, taking up CGHS related issues with authorities and pension related problems. He specifically mentioned Forum's star publication "News Letter" which gives complete information of all the members from the date of joining NPL till their retirements-a great binder between the Forum members. Dr. A Sengupta, chairman, Dr. A P Mitra memorial lecture, introduced the speaker Dr. Archana Bhattacharyya, former director IIG, Mumbai. Dr. Bhattacharyya delivered an informative and enlightening lecture on "**Challenges of predicting low latitude ionospheric scintillations**". In her talk Prof. Bhattacharyya presented a review of the present status of the efforts at prediction of low latitude scintillations on the basis of a multitude of observations and numerical simulation of the development of the R-T instability in the equatorial ionosphere. Main focus of the talk was on how observations of ionospheric scintillations may be used to obtain information about the non-linear evolution of the R-T instability under different ambient conditions, which is yet to be explored through numerical simulation of the phenomenon.

The lecture was attended by more than 150 persons, which included FSF members, NPL's working scientists and research students. Dr. Aswal, DNPL felicitated Dr. Bhattacharyya by presenting her a shawl. The program was concluded with a vote of thanks by Mr. R B Saxena, secretary, NPL-FSF, followed by Tea.