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Guest Lecture on “Study on the Sun”

Organized by Astronomy Club, MVJCE.

Guest Lecture on ‘Study on the Sun’

The Astronomy Club and the Department of Aeronautical Engineering, MVJCE, organized a **Guest Lecture** on ‘**Study on the Sun**’ from 11.00 am to 12.30 pm, on 25th October, 2019.

Participants

300 participants from the Astronomy Club, MVJCE, attended this Guest Lecture, enthusiastically. Mr. Antony Samuel Prabu G (AP - AE, Astronomy Club Faculty Coordinator) organized the event, along with the Student Coordinator Mr. Shashi R Mistry (1MJ17AE054).

About the Guest Speaker

Prof. Dr. Dipankar Banerjee is an astrophysicist, working in the Indian Institute of Astrophysics. He has a Bachelor’s degree in Physics and Master’s degree in Theoretical Physics, from the University of Kolkata. He has obtained his PhD from the Indian Institute of Astrophysics and completed two postdoctoral tenures at reputed institutions in Europe. Dr. Banerjee’s area of interest is the Sun and the solar atmosphere. His work involves theoretical and numerical modelling, using data from ground and space-based instruments. His work has enriched our understanding of the Sun and its impact on Space Weather.

He is the head of the Science working group and Co-PI of the Coronagraph payload to be launched on Indian Satellite *Aditya* by ISRO. *Aditya* is the first dedicated Indian mission to study the Sun, and it is expected to be launched around 2019-’20. He is also the Project Coordinator for the National Large-Scale Telescope Project (NLST). NLST is a proposed 2-meter ground-based telescope, planned to be installed at a Himalayan site.

Dr. Banerjee has 100 peer-reviewed publications, with around 1800 Citations in international journals. He is currently guiding 6 PhD students, while 10 of his students have completed their PhDs. He is a member of various international scientific organizations like Royal Astronomical Society of UK, International Astronomical Union etc. He was the Secretary at the Astronomical Society of India. He is in the panel of referees for all main international astronomy-astrophysical journals.

Apart from his illustrious scientific career, Dr. Banerjee has interest in various other activities. He is an avid follower of all sorts of sports and was part of the IISc. Football team for 5 years. Dr. Banerjee is trained in Hindustani vocal and participates in various music programs. He is the President of a Bangalore based Bengali theatre group, and regularly performs in plays, in and outside Bangalore. The next show is in Ranga Shankara on 14th and 15th November 2019. He is interested in photography and travelling. He has been lucky to have travelled from Easter Island near Chile to mountains in China, chasing the Solar Eclipse. He also had the privilege of observing and photographing the Solar Eclipse from an open hatched military aircraft. Dr. Banerjee's love for science and zest for life are indeed infectious.

Lecture on the Study on the Sun

Prof. Dipankar Banerjee started his lecture by speaking about sun spots and solar flares. He spoke on a myriad of topics like the sun's magnetic field, the effects of sun's magnetic field on earth, earth's magnetic field at different positions, the concept of aura, north and south poles of the earth, analysis of surface temperature of the sun, analysis of different layers of the sun, application of heat and mass transfer for the analysis of effect of solar flares, analysis of corona, comparison of different stars, types of stars and lifecycle of stars.

He also explained about the different IIA sites in India, and followed it up with site description and a brief description on Ladakh IIA site. He shared his working experience in Ladakh. He added a short note on Mission Aditya and his contribution towards it. He spoke about solar magneto hydrodynamics (MHD): a theoretical study of MHD wave propagation in striated atmospheres. He presented his observations of chromospheres and coronal oscillations, density and temperature diagnostics in the solar atmosphere.

Providing observational constraints for solar wind and space weather, magneto-seismology, space weather forecasting, studies of small and large scale transients, multi-wavelength study using ground and space-based instruments, imaging and spectroscopic instrumentation, study of long-term variation of the sun using Kodaikanal and other digitized archives, space climate – these were some other topics that students were enlightened on, by the learned Professor.



Guest Lecture on "The Study On The Sun", Organized by Astronomy Club in Association with Dept of Aeronautical Engineering, MVJCE, on 25th October 2019. Prof S C Gupta(Right) Head of Aeronautical Dept, Welcoming the Guest Speaker Prof. Dipankar Banerjee(Left) IIAP,with a Bouquet.



Guest Lecture on "The Study On The Sun", Organized by Astronomy Club in Association with Dept of Aeronautical Engineering, MVJCE, on 25th October 2019. Guest Speaker Prof. Dipankar Banerjee(IIAP) addressing the gathering.



Guest Lecture on "The Study On The Sun", Organized by Astronomy Club in Association with Dept of Aeronautical Engineering, MVJCE, on 25th October 2019. Prof S C Gupta(Right) Head of Aeronautical Dept, Handing over the momento to the Guest Speaker Prof. Dipankar Banerjee(Left) IIAP.

Outcome of the Guest Lecture

Immense knowledge was imparted to the students by Prof. Dipankar Banerjee. The students got inspired in the field of Astronomy, especially with respect to the Sun. Students learnt new topics like Analysis of Corona, Analysis of different layers of the sun, the temperature, magnetic field etc. of the sun. All this enthusiastic learning will surely lead the students to research on the sun.