

School of Engineering

Astronomy Club Activity

Objectives of the club

- Empower new ideas on space science
- Enrich in knowledge
- Develop hobby
- Understanding and analysing space
- Create new boosting ideas which accelerates space research

Astronomy Club incharge- Dr.S.Rani



**Avinashilingam Institute for Home Science and
Higher Education for Women**

Coimbatore – 641 043

[Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956]

Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12 B

Coimbatore - 641 043, Tamil Nadu, India

SCHOOL OF ENGINEERING

(Approved by AICTE)

Student Induction Programme

Astronomy Club

Cordially Invite you for Guest lecture on

‘Observing the Heavens’

by

Prof.K.Sakthivel

Retired Prof. PSG college of Technology

President of Coimbatore Astronomy Club

Date : 22.08.2022

Time : 2.00 pm to 3.30 pm

REPORT ON LECTURE ON “OBSERVING THE HEAVENS”

The astronomy club organized a lecture on “Observing the Heavens” on **22.08.2022** at Avinashilingam Institute for Home Science and Higher Education for Women, School of Engineering, Coimbatore. This lecture was based on a guide of watching the night sky. The speaker for this event is Prof.K.Sakthivel, Retired Professor of PSG College of Technology and President of Coimbatore Astronomy club, since 2009.

First and Foremost the program was started up with a prayer song which was sung by Miss.V.SowmiaNarayani, Miss.S.Swathi, Miss.G.S.Varshini from 1st yrs. The welcome address was given by Miss.Anushri.P.R from third year B.E ,CSE, President of Astronomy club, Avinashilingam University. Dr.S.Rani Assistant Professor (SS), Science and Humanities, introduced the Guest speaker to the forum.





In his lecture he came up with many things that made us admire and listen the concepts like describing the knowledge of various planets, moon, sun, star and the amazing view of double star. He also shown us the image view of asteroids/ Ceres, Vesta, Comets, Nebula and the atmosphere of Betelgeuse and also some of the clusters formed in the Universe called as deep sky objects, through which they captured it in the telescope. We also came to know some of the telescopes used by them like Galileo's telescope, Reflector and Catadioptric telescope. He also shared some interested biography about some of his inspiring students who are at the great position now in the field of Astrophysics and Astronomy. Addition to that he shared the details of the events and programs that he conducted and cherished various students all over the world.

Nearly **170** students participated from Avinashilingam Institute for Home Science and Higher Education for Women, School of Engineering, and Coimbatore to make this lecture as an interactive session and to acquire great knowledge.

His lecture inspired the students and they were very energetic and interactive with the speaker and appreciated the session was very useful. At the end of the session, vote of thanks was proposed by Miss.M.Aswini from second year AI&DS, Secretary of Astronomy club, Avinashilingam University and finally we end up the session with a memento and with the National Anthem.

Number of Beneficiaries -170



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Ayya Avinashilingam Nagar, Chinna Thadagam(Po),Varapalayam,Coimbatore-641 108

Institutions Innovation Cell, School of Engineering

Department of Science and Humanities & Astronomy Club

National Webinar on

"Molecular Astrophysics: Bringing Astronomy to the Laboratory"

Chief Patrons

Dr.T.S.K.Meenakshisundaram
Managing Trustee

Prof.S.P.Thyagarajan
Chancellor

Patrons

Dr.Premavathy Vijayan, Vice Chancellor
Dr.S.Kowsalya, Registrar

Conveners

Prof.K.N.Raja Rao, Director
Dr.S.Maragatham, Dean

Organizing Secretary

Dr. S.Malarvizhi,
Prof.& Head Dept. of S&H

Coordinator

Dr.S.Rani, Asst. Prof (SS), S&H

Committee Members

Dr.A.Ayisha Begam, Asso.Prof, S&H
Dr.A.Banu, Asst.Prof, S&H

Student Coordinators

Ms.Nirenjana.V, II B.E FPPT
Ms.Priyadharshini.R, II B.E BMIE



Dr. Umesh R. Kadhane,

Associate Professor & Head,
Dept. of Physics,
Indian Institute of Space Science and
Technology (IIST),
Thiruvananthapuram

e-certificate will be issued

Free Registration

<https://forms.gle/LFS7TS3qpJfq9DrAA>

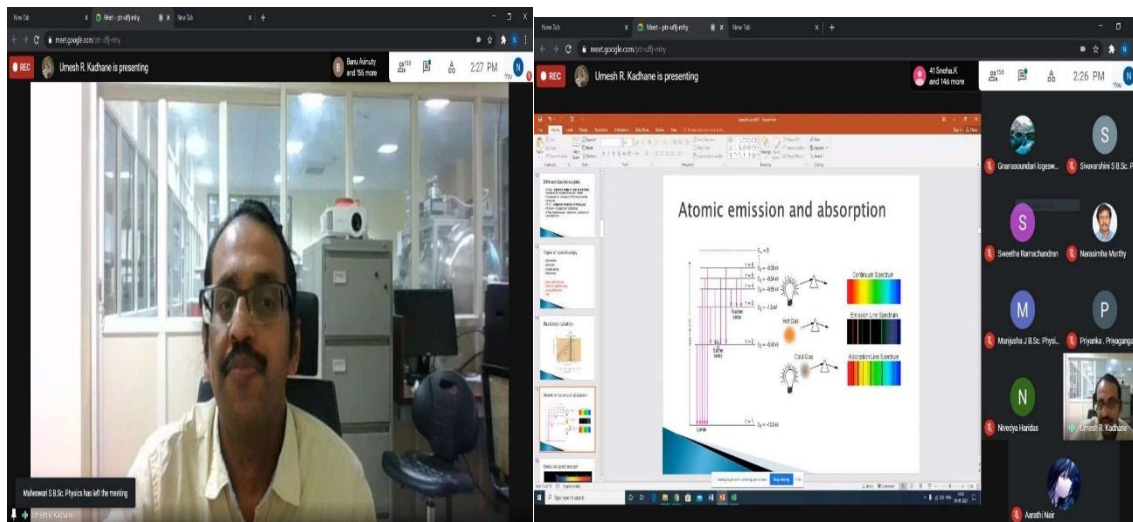
Meeting Link

meet.google.com/ptr-uffj-mhy

Date :06.01.2021 Time:2.00 p.m

REPORT ON NATIONAL WEBINAR ON "MOLECULAR ASTROPHYSICS"

The Astronomy Club is organized a national webinar on "Molecular Astrophysics" on 06.01.2021 at 2.00pm through virtual mode. The motto of this webinar is to "Bring the Astronomy to Laboratory". The speaker for this webinar is Dr. Umesh R. Kadane, Associate Professor & Head for Physics Department in Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram. Welcome address was given by Dr. A. Ayisha Begum, Associate Professor, Science and Humanities, School of Engineering. Dr. S. Rani Assistant Professor (SS), Science and Humanities, introduced the Guest speaker to the forum.



Dr. Umesh R. Kadane informed the students about some basics of Molecular Astrophysics, then he explained about spectroscopy and its techniques and process. He also explained about black body radiation. Then, he took the webinar to the next level by educating the students about the types of emission and absorption, especially atomic emission. He explained about the molecules present in the space and differences between atom & molecule in terms of energy. By his intellectual and interactive speech the students got knowledge about Energetics and astrophysical implications, Applications of Stellar spectrum shift, Emission spectroscopy and the multiple wavelengths of the "Andromeda Galaxy". His speech inspired the Students and they were very interactive with the speaker and appreciated the session was very useful. At the end of the session, vote of thanks was proposed by Dr. A. Banu, Assistant Professor, Science and Humanities.

Nearly 85 students from other colleges such as Government Arts and Science, Coimbatore, Amrita University, Ramakrishna Engineering College, participated in this webinar, along with that Physics Department - Main campus and Kongunadu Arts and Science also took part in this webinar.

Number of Beneficiaries: 186 (Internal Participants-85 & External Participants-101)

[ReportOnMysteriousBlackhole&WhereToFindThem](#)

This webinar was organized by Indo British Scholars' Association (IBSA) & Confederation of Indian Industry (CII) on **July 2, 2021** evening 6.00 pm through online mode. The speaker of this webinar is Mr. Somak Raychaudhury, Director, Inter-University Centre for Astronomy & Astrophysics- Pune, India.

Mr. Somak Raychaudhury begins his speech by sharing his experience that how he started his career towards Astrophysics and how he got inspired by stars. In his speech he mentioned "Stars are the most important tool in Navigation", this shows his fascination and interest towards Astrology & Astrophysics. By this short self-introduction, he started to explain about Black hole and different perspectives of Scientists like Isaac Newton, Albert Einstein (1915), Karl Schwarzschild (1916) and Subrahmanyam Chandrasekhar (1930).

When we talk about black hole it is a most interesting topic, the formation of black hole is still mysterious for everyone. According to NASA, A Black hole is a place in space where gravity pulls so much that even light cannot get out. The gravity is so strong because matter has been squeezed into a tiny space. This can happen when a star is dying. Because no light can get out, people can't see black holes. They are invisible. Scientists think the smallest black holes formed when the universe began. There are four types of black holes stellar, intermediate, supermassive and miniature. Black hole can be clearly explained by curved space-time gravity. The star SO-

2 moves around the black hole for 15 years. When a black hole and a star are close together, high-energy is made. Scientists use satellites and telescopes in space to see the high-energy light

He explained about the black hole by heavy bowling ball and a rubber sheet as an example in a very interesting manner. He also shared about India's new technologies and ideas towards Astrophysics & Astronomy and showed the image of 30m Keck Telescopes in Hawaii, the largest telescope, it consists of 36 segmented mirrors, the most important thing is the configuration of the mirrors can be changed. He also shared an important and informative Journal article written by S.W. Hawking and R. Penrose. The name of the journal is "The Singularities of Gravitational Collapse and Cosmology".

Attended by

Dr.S.RANI

Astronomy club in charge.

