EMEA COLLEGE OF ARTS AND SCIENCE, KONDOTTI

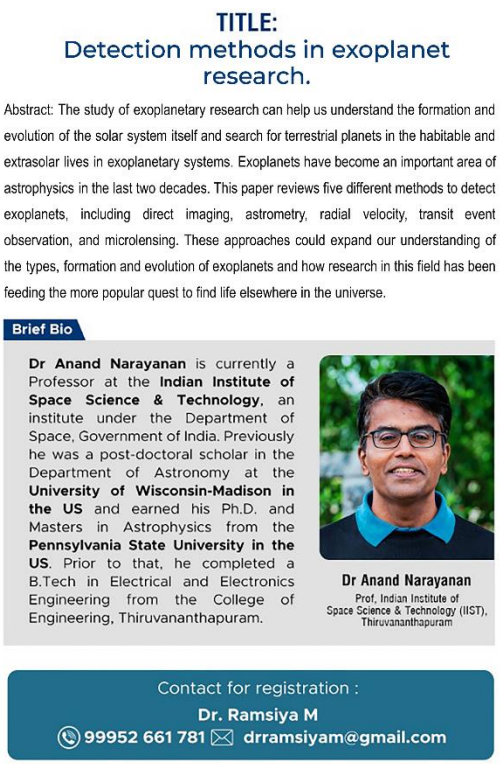
Aided by Govt. of Kerala, Affiliated to University of Calicut
Reaccredited with A Grade by NAAC

Research Methodology series

Talk 1: Detection methods in exoplanet research.

Double Main department of Mathematics and Physics

Date: 5/12/2022



The department of Maths and Physics EMEA college started a new session called Research Methodology seminar series, to familiar the students with the recent research problems. This series was inaugurated by the Principal, Lt Abdul Rasheed P. The welcome speech was delivered by the Head of the department Dr. Ramsiya M. The First edition of Research methodology series was held on 5 th December from 1:15 to 3:45 at seminar hall, EMEA. and Prof. Dr Anand Narayan from IIST, Trivandrum was the chief guest.

Dr Anand Narayan, a well-known astrophysicist at the Indian Institute of Space Science and Technology (an autonomous Institute under the Department of Space, Government of India). he was a post-doctoral scholar in the Department of Astronomy at the University of Wisconsin-Madison in the US and earned his Ph.D and masters in astrophysics from the Pennsylvania State University in the US. Prior to that, he completed a B.tech in Electrical and Electronics Engineering from the college of Engineering, Thiruvananthapuram.

Anand Narayanan is a renowned researcher in the field of exoplanet research. He has made significant contributions to the methodology used in this area of study. His talk focuses on the detection and characterization of exoplanets, which are planets outside our solar system.

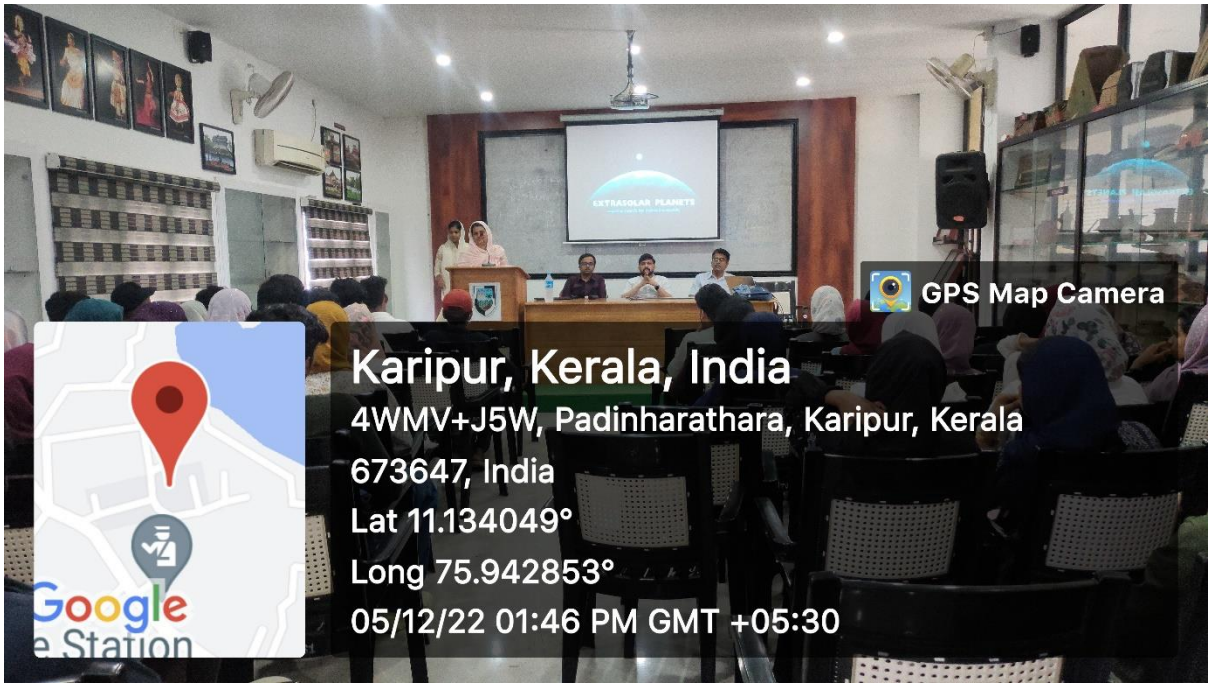
One of the key research methodologies used by Anand Narayanan is the transit method. This method involves observing the slight dimming of a star's brightness when an exoplanet passes in front of it. By carefully analyzing these changes in brightness, scientists can determine the presence and characteristics of exoplanets, such as their size, orbit, and even atmospheric composition.

Another methodology described by Narayanan is the radial velocity method. This technique involves measuring the slight wobble of a star caused by the gravitational pull of an orbiting exoplanet. By analyzing these subtle changes in a star's motion, researchers can infer the presence and properties of exoplanets.

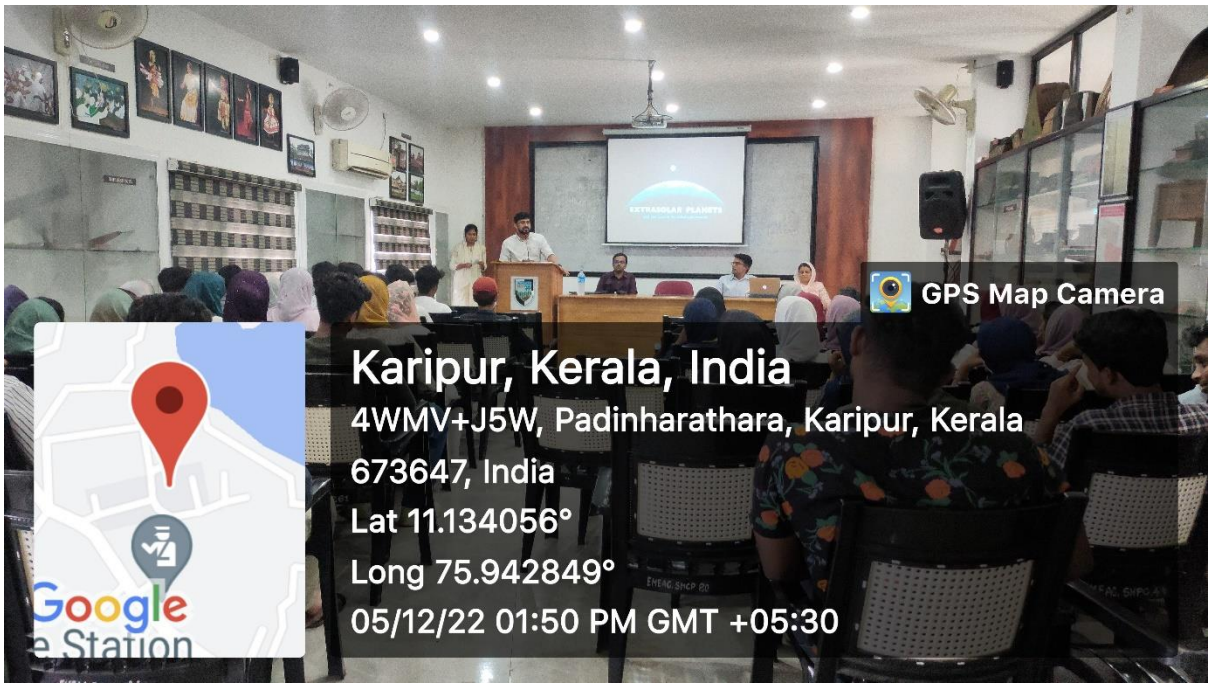
In addition to these primary methods, Narayanan also explains other techniques such as direct imaging, gravitational microlensing, and astrometry to study exoplanets. Each of these methods has its own advantages and limitations, and Narayanan's research involves a comprehensive approach that combines multiple methodologies to gain a more complete understanding of exoplanets.

It's worth noting that Anand Narayanan has also described the development of advanced data analysis techniques and statistical models specifically tailored for exoplanet research. These tools help students/researchers to extract valuable information from the vast amount of data collected during observations.

Overall, Students are familier with the observational techniques and advanced data analysis methods in exoplanet research. His talk has significantly contributed to students undestanding of exoplanets and has paved the way for future discoveries in this exciting field. The program ended with the Vote of thanks by Dr. Abdul Rasheed Paloly.



Welcome speech by Dr. Ramsiya M



Inaugural address by Principal Lt. Abdul Rasheed.

Dr. Anand Narayan handling sessions

Vote of thanks by Dr. Abdul Rasheed Paloly

Research Methadology Seminar Series

Talk 1: Detection methods in Exoplanet research

Resource Person: Dr Anand Narayanan
Professor Indian Institute of Science & Technology, Thiruvanthapuram.

Seminar Hall
1:15 - 3:00 PM.

S. No	Name of Student	Class	Signature
1	Aashaf Roshan E.K	Double main-1	
2	MOHD MUBASHIR - NP	DM - 1	
3	Muhammed Shibil-OK	DM-1	
4	RAYAN SHALIR C.	DM-1	
5	Mohammed Sinan A.C	DM-1	
6	Mohammed Midlaj K K	DM-1	
7.	muhammed midlaj KT	DM-1	
8.	Naseeha Sherin	DM-1	
9.	Anafpk	DM-1	
10.	MUSSAFIRA-M	DM-1	
11	HIFASITH YUSUF	DM-1	
12	farhath sherin	"	
13	MANAL MOHAMMED	"	
14	HUDA SAFNAS	"	
15	SHAMNU JIHAN-P	"	
16	FATHIMA FIDA.V	"	
17	IRFANA-P	"	
18	NADHA JABIN M	"	
19	SAHLA JASMIN-P	"	
20	Fahma Parveen.V	"	
21	Shameera Shemi OP	"	
22	Jumana Shirin T P	"	
23	Ashil Shaheed K.C	DM-1	

24	MUHAMMED SIYAS KC	DM - III	
25	IBRAHIM BADUSHA K	DM III	
26	Munkaz M	DM III	
27	Fabil Faisal PT	DM III	
28	shidan K	MB III	
29	Zainu Zainan	DM 3rd sem	
30	Shahin adil K	DM 3rd sem	
31	Muhammed Rameez KP	DM 3rd Sem	
32	Muhammed Rabeeh - C	DM - III	
33	Shahul hameed - P	DM III	
34	Muhammed Jasir Danish	DM III rd	
35	Shahnas - MK	DM III rd	
36	Shahana Nusriy - KM	DM 3rd	
37	Muflliba P	DM III rd	
38	Saja Sulthana PC	DM III rd	
39	MINHA	DM - 1st	
40	Fathima Yasiya P	DM - 1st	
41	SHIFANA M	DM - 1st	
42	Selva MT	DM - 1st	
43	Fathima Nusuha K	DM - 1st	
44	Fasna KP	DM - 1st	
45	Aman KC	DM - 1st year	
46	Misriya P	DM 3rd year	
47	Rafaida P P	Dm 3rd years	
48	Musshida KC	" "	
49	Hafeefa Rishana M	DM 3rd year	
50	ANANDHU C	DM 2nd jeveal	
51	Shifana Sherin K	"	
52	Najuva M K	"	
53	Ansaba K K	"	
54	De Ramsya M		
55	Dinila V K		
56	Muhammed Jaseel P		