
NAKSHATRA,
The Astronomy Society
of IIT Bhubaneswar



ASTRONIGHT CAMP

2021

In celebration of
INTERNATIONAL ASTRONOMY DAY

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INTRODUCTION

The mysteries of outer space and astronomy have fascinated the world for as long as we have recorded history. It is almost impossible to look up at the night sky on a clear evening and not be caught up in the sense of wonder and amazement at how big the universe truly is compared to us. Astronomy is a natural science that has been ever-present in human history. Our ancestors looked at the night sky, filled with curiosity about what was beyond our planet with the same fervour as we do.

International Astronomy Day is a way for astronomy enthusiasts and professionals to share their knowledge and love of outer space with the general public. It is also a way for everyone interested in space to explore their passion and increase their knowledge. It was started in 1973 by Doug Berger, who at the time was the president of the Astronomical Association of Northern California. He intended to get people in urban areas interested in astronomy. To do this, he set up telescopes that people could use to enjoy gazing at space. Since then, the event has gained popularity and the support of organizations such as educational institutions, space agencies and other institutions related to astronomy.

Originally, Astronomy Day occurred on a Saturday between mid-April and mid-May, and was scheduled so as to occur at or close to the first quarter Moon. In 2007, an autumn rendition of Astronomy Day was added. It was scheduled to occur on a Saturday between mid-September and mid-October so as to be on or close to the first quarter Moon.

This year, **International Astronomy Day** will be celebrated on **15th May**.

COSMIC CLAUSE

ENGLISH ESSAY WRITING COMPETITION

THEME:

For the international astronomy day event,

1. Compose a substitute closure for any cosmic film of your advantage.
2. Express your considerations about the paradox of 9th planet in our solar System

DATE: 21st May to 31st May, 2021.

RULES:

1. Choose anyone of the two themes given above and write an article / essay on it.
2. Submit your entries as .pdf or word document (typed only)
3. The subject of your email should be of the format: [Your name] [Your college name]
[The topic of your article/essay]
Your email should contain your details (Your name, contact number (preferably Whatsapp), your Institution name, and your Instagram ID (if any)).
4. Send your entries to: secylitsoc.sg@iitbbs.ac.in

DEADLINE: 31st May, 2021.

In case of any issue, please contact on the email ID given above.

Or contact Ayush Kashyap, 7488089039

Further details will be updated on the website.



ASTROCLIX

ASTROPHOTOGRAPHY

THEME: “Elements of the night sky”

RULES:

1. Photographs can be captured using a digital camera or smartphone.
2. Multiple exposures are allowed.
3. Shutter speed, aperture, ISO and focal length need to be provided during submission. EXIF data embedded in the submitted file is also acceptable.
4. Post processing including stacking and blending of images is allowed.
5. Star trail photography is allowed.
6. Resolution of the photograph submitted should not be less than 2 megapixels and not more than 30 megapixels.
7. File format for submission is JPEG.
8. Only 1 entry per person is allowed. No multiple entries.

JUDGING CRITERIA:

1. Every entry will be marked out of 10 marks in the following fashion:
 - 5 marks for the composition
 - 5 marks for the image quality
2. It is to be noted that any number of marks out of 10 (including fractional values) can be awarded to a participant.



3. The photographs submitted by the participants need to be taken by them. In case it is found that the photograph submitted by the participant has been taken by someone else, the concerned participant will be disqualified.

DEADLINE: 31st May, 2021

SUBMIT YOUR ENTRIES THROUGH THE BELOW GOOGLE FORM:

https://docs.google.com/forms/d/e/1FAIpQLSe3RNd4qtIr5m87lkzL1H7vehD5Y_T97N7RW8A-cSPGUsRHyA/viewform

In case of any issues, please contact:

Vardhan Mittal - 8052009988

Aniket Singh - 6299829508

Or email us at: secyastronomy.sg@iitbbs.ac.in

Further details will be updated on the website.



SKYROCKET YOUR CANVAS

GRAPHIC DESIGN COMPETITION

THEME: 1) COLLISION OF TWO BLACK HOLES
2) TOTAL SOLAR ECLIPSE

RULES:

1. Participants have to submit a design on any of the above topics or both. It should be either in Illustrator or Photoshop.
2. Participation should be on an individual basis.
3. Only landscape images are allowed.
4. The designed poster should be in JPEG format. The .ai/.psd files also have to be submitted along with the poster.
5. All entries have to be submitted via google form. The file names should be in the format: <participant's full name_college name>

DEADLINE: 31st May, 2021

For any queries, contact Krishna – 9666798789, Shashwat Singh: 7985417601

Further details will be updated on the website.





PAINTING COMPETITION

THEME: 1) Milky Way
2) Aurora art

RULES:

1. The Painting should be based on any one or both of the themes provided above.

DEADLINE: 31st May, 2021

Submit your painting to the mail ID: ak83@iitbbs.ac.in

*For any queries, contact Abantika Karmakar – 90317987748 or email at:
ak83@iitbbs.ac.in*





HINDI ESSAY WRITING COMPETITION

THEME: 1. अंतरिक्ष अन्वेषण के आगामी मिशनों में से किसी 1 के बारे में एक लेख लिखिए जो आपको सबसे अधिक रोमांचित करता है।

2. अंतरिक्ष मलवा व उस से जुड़ी समस्या एवं उनसे निपटने के लिए समाधान

नियम:

1. इनमें से किसी एक विषय पर लिखें।
2. कृपया 31 मई से पहले अपनी प्रविष्टियां जमा करें।
3. कृपया अपना लेख 5०० से कम शब्दों में लिखें।

DEADLINE: 31st May, 2021

Submission is via google form. For further details, visit our website.

In case of any issue, please contact at: secylitsoc.sg@iitbbs.ac.in





SPACE QUIZ

THEME: One day Quiz based on Astronomy related facts

TIME: 6:00 PM to 7:00 PM

DATE: 30th May, 2021

PLATFORM: Official Instagram pages of Quiz Club, IIT Bhubaneswar and
Nakshatra IIT Bhubaneswar

FOLLOW THE INSTAGRAM HANDLES TO STAY UPDATED:

[quizclub.iitbbs](https://www.instagram.com/quizclub.iitbbs)

[nakshatra iitbbs](https://www.instagram.com/nakshatra_iitbbs)





DIGITAL ART CONTEST

THEME: Digital Illustration of a Solar System

RULES:

- 1) It must be an original artwork.
- 2) The artwork must be in JPEG format
- 3) Submission is via Google form

DEADLINE: 31st May, 2021

*For any queries, contact Abantika Karmakar – 90317987748 or email at:
ak83@iitbbs.ac.in*

Further details will be updated on the website





CASE STUDY

DATE: 21st May to 31st May, 2021.

Below mentioned are details of 'Mission' and 'Rover'. However, the mission can contain an orbiter, lander and a rover.

Mission:

First, make a strong foundation. Mention the inspiration, aim, goal and purpose of the mission. Keep these in mind when planning the mission ahead. Do not miss any step in planning the mission, as any negligence may lead to a catastrophic failure.

You can consider the following points while explaining mission overview:

- 1) Introduction
- 2) Inspiration, Aim, Goal and Purpose of the mission
- 3) Importance of the mission and usage of the obtained data for further research.
- 4) Data to be collected from Mars for research
- 5) Explain the design of the spacecraft, its formfactor, its components in brief (No need to mention the rocket carrying your designed spacecraft).
- 6) A tentative date of launch
- 7) A tentative date of reaching the Martian orbit
- 8) Safety measures adopted during the manufacturing and transport of the spacecraft.

Rover:

The rover will carry out necessary surface and underground tasks and conduct research. It will transmit necessary data back to the orbiter, which in turn transmits the data back to Earth.

You can consider the following points while explaining your rover design:

- 1) Regions to cover throughout the entire mission.
- 2) The mechanism for its movement and design of the wheels or tracks.
- 3) Features, tools and instruments, etc present on it.
- 4) Camera module and other required sensors.
- 5) Power Source and energy storage device.
- 6) Mechanism of specimen collection, experimentation and analyzation.





7) Specify the construction of the rover and mechanism of each of its components. You can get innovative in this and you can include ideas which are difficult to carry out, but which are still feasible.

You can also include certain aspects of your mission which plans on setting up the infrastructure for future missions. We suggest you search online about all previous rover missions to Mars and take inspiration, but you must innovate your project with amazing ideas and try to give a method for its execution.

At places where you feel like explaining the design, you may include CAD models or illustrations.

DEADLINE: 31st May, 2021.

RULES:

- 1) The participants will need to make a slideshow for the case study.
- 2) The judgement will be done on the basis of content, composure, and design.
- 3) The Problem statement for the Case Study is given above and needs to be followed.
- 4) Submission is via google form.

For more details, please contact:

Omkar Sawant: 20ce02027@iitbbs.ac.in

CODING CONTEST

The rules and other details will be updated on our website.



Webinar – 1

Date: 21.05.2021

Time: 6:00 PM to 7:30 PM

Speaker: Mr. Manojendu Choudhury

Topic: Blackhole and its mysteries

Brief Introduction of the Speaker:

Prof Manojendu Choudhary is a member of IUCCA (Inter-University Centre for Astronomy and Astrophysics, Pune). He has deep knowledge in Astronomy and Astrophysics, and he has been the team leader of the Indian team to the International Olympiad on Astronomy and Astrophysics as well as the International Astronomy Olympiad multiple times. He has the experience of teaching students from high school to the PhD graduate course in subjects ranging from physics & applied mathematics to computation and management.

He will be taking a lecture on Black Holes, their formation, and characteristics. We will be introduced to the math behind their existence, hypothetical theories, and further research scope. He will be revealing some facts and busting some myths regarding this mysterious phenomenon!

Platform: Will be informed later.

Registration Link: <https://forms.gle/1Lk8f94nwccLWaFYA>

For more information and updates, follow our Instagram handle: [nakshatra_iitbbs](#)



Webinar - 2

Date: 28. 05.2021

Time: 6:00 PM to 7:30 PM

Speaker: Mr. Tejas Shah

Topic: Observational Astronomy and its techniques

Brief Introduction of the speaker:

Mr. Tejas is an Electronics Engineer from Mumbai University. He started his career at Microsoft but left the corporate world to join a school where he pursues his passion for teaching STEM courses and mentoring students.

Tejas is an amateur astronomer and regularly conducts night sky observation sessions for children. He is also associated with the Homi Bhabha Centre for Science Education as a resource person with the astronomy Olympiad cell and has accompanied the Indian team to the International Astronomy Olympiad and the International Olympiad in Astronomy and Astrophysics.

Platform: Will be informed later.

Registration Link: Will be updated in Website soon.

For more information and updates, follow our Instagram handle: [nakshatra_iitbbs](https://www.instagram.com/nakshatra_iitbbs)



Webinar – 3

Date: 30. 05. 2021

Time: 11: 00 AM to 12:30 PM

Speaker (Organisation): Rocketeers

Topic: Introduction to Rocket Science

Brief description of the organisation:

Rockets are our vehicles of exploration of outer space. They are the carrying vehicles that carry satellites, rovers and many other things outside Earth. Interesting, right? Yes, indeed it is. But there are many things that constitute a rocket – complex mechanisms, various stages, different types of engines, and many other things.

Rocketeers, India's first solid fuel powered model rocket kit manufacturer, has been kind enough to organize a webinar on 'Introduction to Rockets' for AstroChamp. Rocketeers, as they say – 'nuts for rockets', are keen for rockets and related technologies. They manufacture model kits for school and college students to increase students' interest in rockets. Do join this interesting webinar and increase your knowledge on rockets!

Platform: Will be informed later.

Registration Link: Will be updated in Website soon.

For more information and updates, follow our Instagram handle, [nakshatra_iitbbs](https://www.instagram.com/nakshatra_iitbbs)





For more information and updates, please visit our website:

[AstroChamp \(event-astrochamp.herokuapp.com\)](https://event-astrochamp.herokuapp.com)

Follow our official social media handles:

Facebook: [Nakshatra, Astronomy Society of IIT Bhubaneswar](#)

Instagram: [nakshatra_iitbbs](#)

Youtube: [Nakshatra, The Astronomy Society, IIT Bhubaneswar](#)

We heartly welcome all of you to enthusiastically participate
in the events conducted in Astrochamp 2021!

THANK YOU



TEAM ASTROCHAMP 2021

Overall Coordinators



Prabhas Naidu



Soumyajit Manna



Aniket Singh

Sponsorship & Operation Team



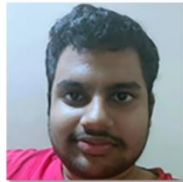
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