



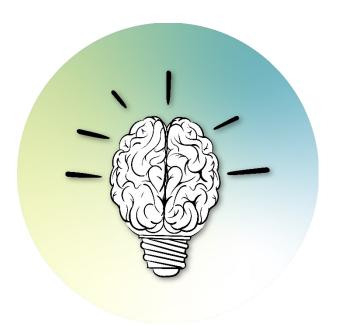
17 March 2023 - 26 March 2023

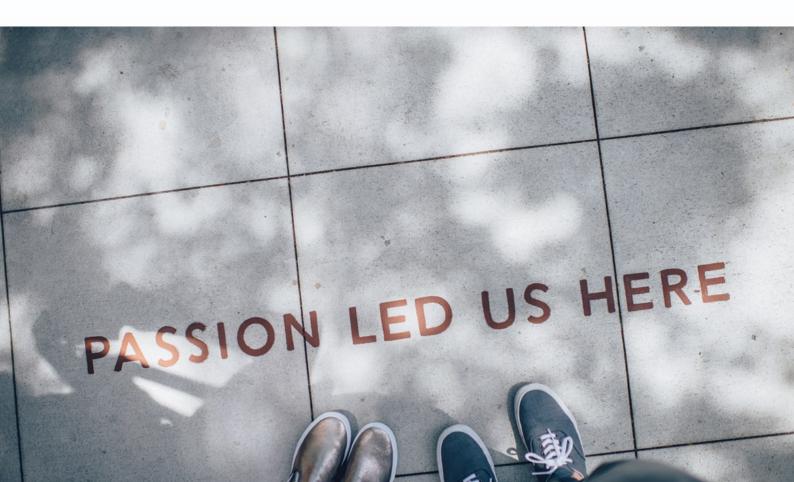


About Jigyansa

Science not just helps us to discover the unknown, but also serves as the basis of our societal needs and bridge to overcome global challenges. Hence, the knowledge of science should be accessible to everyone. In a country like India where we have seen a number of great ancient scientists and philosophers, but scientific temperament is still missing in many parts of our country. Most people, instead of being attracted towards science and research, focus more on rote learning and getting a degree to obtain jobs.

Jigyansa is such a platform, where we the students of IISER Berhampur try to promote science through various scientific articles in almost all disciplines of general science. The best approach to educate anyone is through their mother language. Thus, Jigyansa publishes all its work not just in English but also in Odia.







COGNITIVE LEARNING

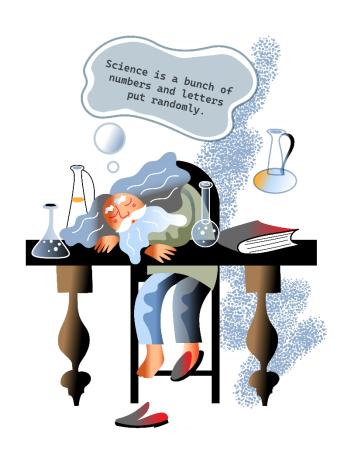
Why is Science taught like this, anyway? - A Guide to Learning it Better

Speaker:

Vanshaj Vidyan, National Institute of Science Education and Research (NISER), Bhubaneswar

Abstract:

Indian education systems usually focus on the 'what' in science, and not enough on the 'why' and the 'how'. As a result, students often wonder why they waste their time learning 'wrong' theories, like Rutherford's atomic model, when they could be learning the 'right' ones. In this talk, students will learn to think like a scientist. They'll explore scientific discoveries from the perspective of the discoverers and understand 'why' these great minds thought the way they did. By the end, they will develop a new appreciation for how science is taught, and start to learn it in a better way.



Registration Details

✓ Eligibility: Class 9 to Class 12

✓ Mode: Online

✓ Duration: 2 sessions (Each session 1.5 hour)

✓ Date and Time: 18.03.23-19.03.23, 5 pm to 6.30 pm

✓ Course fee: ₹149/-

Science is difficult, but it's like a puzzle, it's frustrating until you finally figure it out and then it's like 'oh. that's all it was?'

BIOLOGICAL SCIENCES

Introduction to Genetic Engineering and Gene Manipulation

Speakers:

- i. Pratyush Mishra, Department of Biological Sciences, IISER Berhampur
- ii. Satyajeet Khatua, Department of Biological Sciences, IISER Berhampur

Abstract:

Genetic engineering, also called genetic modification, is the direct manipulation of an organism's genome using biotechnology. It is a set of technologies used to change the genetic makeup of cells, including the transfer of genes within and across species boundaries to produce improved or novel organisms. In this module we will be exploring the introductory concepts of genes and genetic engineering, Methodologies to engineer and manipulate genes and Applications of genetic engineering and gene editing. With amazing quizzes and open discussions, this course will make you wonder about the wonders of modern biotechnology



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- ✓ Duration: 2 sessions (Each session 1.5 hour)
- ✓ Date and Time: 18.03.23-19.03.23, 7:00 pm to 8:30 pm
- ✓ Course fee: ₹149/-

EVOLUTIONARY SCIENCES

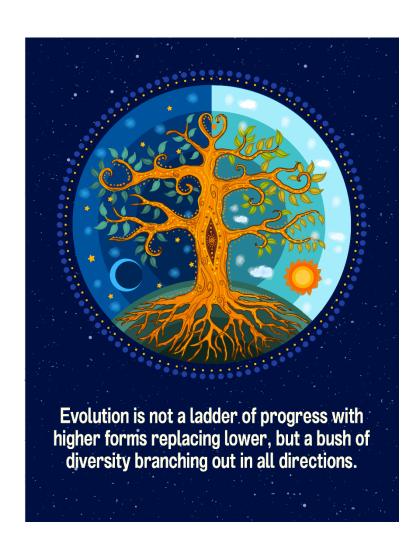
Glimpses into 'Tree of Life'

Speakers:

- i. Anish Dash, National Institute of Science Education and Research (NISER), Bhubaneswar
- ii. Shourya, National Institute of Science Education and Research (NISER), Bhubaneswar

Abstract:

The diversity of living forms and the unity of evolutionary processes are themes that have stirred up the minds of many biologists over centuries. The tree of life maps out the evolutionary relationships between all organisms and presents the spectrum of biodiversity. In these modules, we will explore certain events that shaped the tree of life and some principles that govern it. We will look at a few different organisms and some biological processes associated with the same. We will also discuss about the amazing experiments done to study different life forms and some major concerns that the scientific community faces today in this regard.



- ✓ Eligibility: Class 9 to Class 12
- ✓ Mode: Online
- ✓ Duration: 2 sessions (Each session 1.5 hour)
- ✓ Date and Time: 25.03.23-26.03.23, 5 pm to 6:30 pm
- ✓ Course fee: ₹149/-

ASTRONOMY

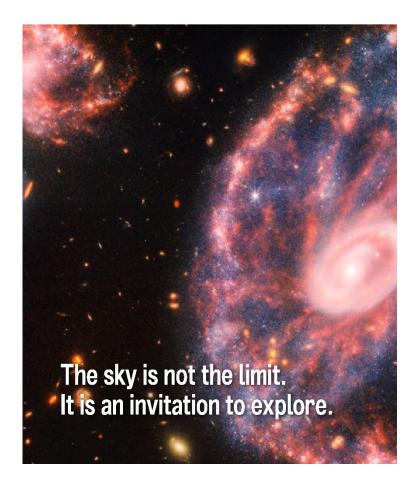
Visualizing the Universe through Astronomical Image Processing

Speakers:

- i. Baibhay Srivastava, Masters Student, Indian Institute of Science (IISc), Bangalore
- ii. Adarsh Kumar Dash, Project Student, Indian Institute of Astrophysics (IIA), Bangalore

Abstract:

The night sky and its contents have always fascinated our minds since time immemorial, isn't it? Being able to map the universe using various astronomical images is probably the greatest stride in Astronomy. Image Processing in Astronomy is a major field that involves techniques pertaining to improving analyzing the properties of the celestial objects or obtaining preliminary inference from the image data. Through this module, we will learn how statistics. which are initially barely information, help us to see images of the space. This course will cover the application of statistics in image processing, basic imaging using ds9, advanced imaging using python. So why wait? Hurry up and register.



Registration Details

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- ✓ Duration: 2 sessions (Each session 1.5 hour)
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- ✓ Course fee: ₹149/-

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BONUS SERIES

Introduction to Science Communication

Speaker:

Gyanaranjan Parida, Masters' Student, Tata Institute of Fundamental Research (TIFR), Mumbai

Abstract:

This talk will provide an introduction to the field of science communication, including its history, key concepts, and current challenges. Attendees will learn about the various ways in which scientific information is shared with the public, as well as the importance of effective communication in fostering trust and understanding between scientists and non-scientists. The talk will also explore the role of new technologies in science communication, and discuss strategies for communicating complex scientific ideas to a lay audience.



Knowledge is power, but sharing it is True Strength

- ✓ Eligibility: Anyone enrolled for any of the above paid courses can attend the talk
- ✓ Mode: Online
- ✓ Duration: 2 hr
- ✓ Date and Time: 17.03.23, 8:00 pm-10.00 pm
- ✓ Course fee: Free of Cost

BONUS SERIES

Careers in Science

Speaker:

Soumyajit Samal, Department of Physical Sciences, IISER Berhampur

Abstract:

With a lot of career options to the students they are often confused which path to take. It often turns out that the topic we like the most are the ones most difficult to deal with in the later part. The main purpose of the talk is to help students make informed decisions about their future careers in science and to inspire them to pursue their interests in this field.

This will be more of a panel discussion where an overview of the different career options available to students who have completed high school and are interested in pursuing a career in science wil be discussed. It will cover topics such as the various fields of science, the qualifications required, and the opportunities and challenges that students may face. Additionally, the talk will also provide information on the various institutions and organizations in India that offer training and resources for students interested in science careers.



Science is not only a disciple of reason but, also, one of romance and passion.

- ✓ Eligibility: Anyone enrolled for any of the above paid courses can attend the talk
- ✓ Mode: Online
- ✓ Duration: 2 hr
- ✓ Date and Time: 24.03.23, 8:00 pm-10.00 pm
- ✓ Course fee: Free of Cost

BENEFITS

Why Should You Join?

Acquirement of Knowledge

We provide a chance to interact with experts from the field that fascinates you. Discussing the relevant topics, you tend to learn more about the newest information and up-to-date skills. It provides an open world for you to explore and research about the scientific discoveries with the help of experienced guidance and land into their conclusion after a careful investigation, experiment, and result.

Growth in Networking

The students from different educational schools and institutions join to take part. Meeting new people can not only encourage new ways of thinking and learning but might open up new opportunities as well. You can interrogate and discuss your curious queries with each other, and find out the truly existing solutions. It is fun as well! Even after the completion of workshop programs, these chains of networking will help you in the escalation of your future life.

Environment outside than Classroom

Welcome to a learning environment, un-like and unique from your classrooms! You get to learn more effectively and efficiently. Far from the textbooks and academic syllabuses, students analyze and delve into concepts on their own which boost their confidence, performance, and productivity. Definitely, one step closer to fulfilling your goals.

Shape the world with science

If you want to carve a better world around you, help make scientific advances that benefit mankind, and prepare for a successful career, the Basic Science knowledge will be highly valuable. Observe your study passion, and find out which path is the right choice for you.

Note:

- i. Certificates will be provided to participants at the end of the workshop.
- ii. Best Performers will be rewarded with exciting prizes.

