

Department of Physics (Aided)
Dwaraka Doss Goverdhan Doss Vaishnav College

Triple Helix- Report

(Affiliated to Vgyan Prasar NETwork of Science Clubs)

(Upgraded as Bronze Club)

Club ID: VP-TN0081

Club Name: TRIPLE HELIX

Name of the Coordinator: Dr.D.Uthra

Report Type: - Monthly ---- Quarterly --- Half Yearly -- ! Annual

Period of Report: June 2021- April 2022

Activities Performed:

ACTIVITY 1

1. Name of the event ASTEROID DAY-ONLINE PICTURE QUIZ 2. Date
29/06/2021 TO 04/07/2021
3. Venue DEPARTMENT OF PHYSICS
4. Mode ONLINE
5. Organizers DEPT. OF PHYSICS in Collaboration with Asteroid Foundation,
Luxembourg
6. Faculty coordinator Dr.V.SANGEETHA
7. No. of student participants 480 school & college students
8. Detailed Report of the Programme

International asteroid day is observed on June 30th every year and is a United Nations recognized campaign to raise awareness of asteroids, their potential threat to our planet and the scientific secrets that can be discovered by studying them. This day is observed to inspire, engage and educate the people about asteroid opportunities and risks. This year's International Asteroid Day marks the 113th anniversary of the largest recorded asteroid impact that took place near the Tunguska River in Russia's Siberia.

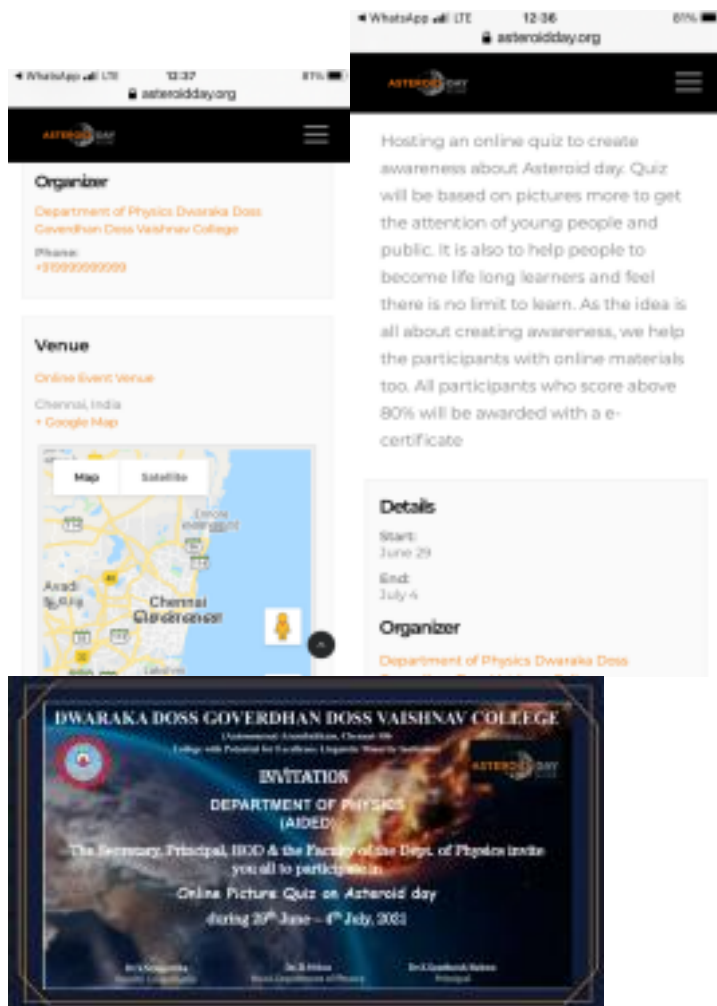
As a part of this awareness program, TRIPLE HELIX SCIENCE CLUB of Department of Physics (Aided), Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai has organized an online picture quiz in collaboration with Asteroid Foundation, Luxembourg to spread awareness about the asteroids and their impact on earth.

As many as 480 participants from various schools, colleges and also the general public actively participated in this online quiz program.

9. Outcome of the programme/event

This is an initiative of our Department to help school and college students and the general public to have basic knowledge about asteroids and their impact. Through this initiative we believe we can promote lifelong learning opportunities for all under SDG goals.

10. Photos



ACTIVITY 2

1. Name of the event Building ICT Skill Series – Virtual Geological Dating
2. Date 23/09/2021
3. Venue DEPARTMENT OF PHYSICS
4. Mode ONLINE
5. Organizers DEPARTMENT OF PHYSICS
6. Faculty coordinator Dr. D. SRIDEVI & Ms. POURKODEE D 7. No. of student participants 41 Students
8. Detailed Report of the Programme

Triple Helix Science Club - Department of Physics (Aided) has organized Building ICT Skill Series, Virtual Dating - The Virtual Courseware Project from **California State University**. This Virtual Courseware produces interactive, online simulations for the life science laboratory or for earth science field studies. The activities are designed to enhance an existing curriculum and include online assessments. **Virtual Dating** is an interactive Web based activity designed to introduce the user to the concepts of how geologists and archeologists determine the ages of rocks and ancient artifacts.

41 students of III B.Sc. Physics took part in this web based activity on 23.09.21. Each of them took part in this activity to apply their knowledge – to collect data, estimate, analyze,

improvise, calculate, compare and find the result. Upon completion of this activity successfully our students were given the opportunity to receive a personalized **Certificate as "Isochron option of the Virtual Dating"** from the **California State University**. In order to get this certificate, each of them had to make careful measurements throughout the activity, which is personalized. It was indeed a very proud moment for the students and our department in using ICT tools and learn from international projects and explore beyond our boundaries!

9. Outcome of the programme/event

This is an initiative of our Department to help our students to learn the basic knowledge about the ages of rocks and ancient artifacts. Through this initiative we believe that our students can improvise the knowledge on earth science and geophysics.

10. Photos



ACTIVITY 3

1. Name of the event Building ICT Skill Series – Virtual Seismologist

2. Date 23/09/2021
3. Venue DEPARTMENT OF PHYSICS
4. Mode ONLINE
5. Organizers DEPARTMENT OF PHYSICS
6. Faculty coordinator Dr. V.RENGANAYAKI
7. No. of student participants 15 Students
8. Detailed Report of the Programme

Triple Helix Science Club - Department of Physics (Aided) has organized Building ICT Skill Series, Virtual Seismologist - The Virtual Courseware Project from **California State University**. This Virtual Courseware produces interactive, online simulations for the life science laboratory or for earth science field studies. The activities are designed to enhance an existing curriculum and include online assessments. *Virtual Earthquake* is an interactive Web-based activity designed to introduce the user to the concepts of how an earthquake EPICENTER is located and how the RICHTER MAGNITUDE of an earthquake is determined.

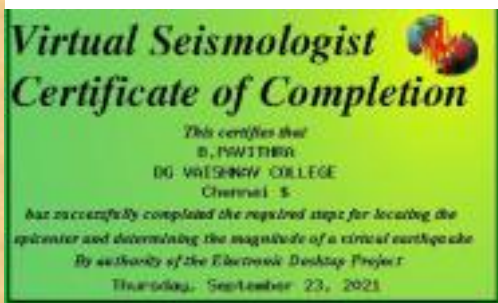
15 students of II B.Sc. Physics took part in this online learning on 23.09.2021. Each of them took part in this activity to apply their knowledge – to collect data, estimate, analyse, improvise, calculate, compare and find the result. Upon completion of this activity successfully our students were given the opportunity to receive a personalized **Certificate as a "Virtual Seismologist"** from the **California State University**. In order to get this certificate, each of them had to make careful measurements throughout the activity, which is personalized. It was indeed a very proud moment for everyone of them and our Department in using ICT tools and learn from international projects and explore beyond our boundaries!

9. Outcome of the programme/event

This is an initiative of our Department to help our students to learn the basic knowledge about the location and the significance of the epicentre during the earthquake. Through this initiative we believe that our students can improvise the knowledge on earth science and Seismology.

10. Photos





ACTIVITY 4

1. Name of the event National Level Webinar Series -

Empowering Youth Towards Nation Building
Motivating Oneself

2. Date 29/09/2021

3. Venue DEPARTMENT OF PHYSICS 4. Mode ONLINE

5. Organizers DEPARTMENT OF PHYSICS 6. Faculty coordinator Ms.

POURKODEE D

7. No. of student participants 64 Students, 8 Research Scholars and 8 teachers from various colleges from all over the country
8. Detailed Report of the Programme

The Department of Physics (Aided) organized national level webinar series - Empowering Youth Towards Nation Building on the topic Motivating Oneself under the banner of Triple Helix Science Club. Our Science Club is registered under Vigyan Prasar, DST, Govt. of India. The resource person of the program **Ms. Alagu Lakshmanan**, Neuro Linguistic Programming - Life Coach, AlisWell, Bangalore, interacted with the students very effectively. She introduced strategies & techniques to the students and made them to interact and gave them insight on how to manage Stress, Time Management and to improve self-awareness in themselves.

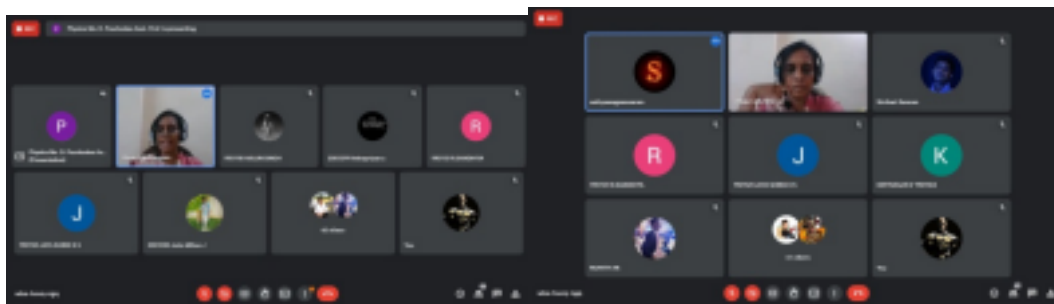
Through this talk the students are highly motivated and they were able to understand about their strengths and weakness in their personality, which was reflected well in their interaction with the resource person in their strive to understand themselves. 54 Students (**35 students of III B.Sc. Physics, 19 students of II B.Sc. Physics**) of Physics Department of our College, Research Scholars and students from other colleges participated in the webinar enthusiastically. The

session was highly interactive.

9. Outcome of the programme/event

This is an initiative of our Department to help students, research scholars and staffs to achieve self-motivation, improve time and stress management. Through this initiative we believe that our students can achieve time management and motivate themselves to achieve a great future.

10. Photos



ACTIVITY 5

1. Name of the event Building ICT Skill Series – Celebrate Navarathri! Celebrate Women in Science! - Online Quiz
2. Date 7-16, October 2021
3. Venue DEPARTMENT OF PHYSICS
4. Mode ONLINE
5. Organizers DEPARTMENT OF PHYSICS
6. Faculty coordinator Dr. D.SRIDEVI
7. No. of student participants 270 participants from schools and colleges across India

8. Detailed Report of the Programme

As a part of Navarathri celebration, TRIPLE HELIX SCIENCE CLUB of the Department of Physics (Aided), Dwaraka Doss Goverdhan Doss Vaishnav College, Arumbakkam, Chennai has organized an online quiz based on India Science. India Science is an Internet-based science Over The-Top (OTT) TV channel. It is an initiative of the Department of Science and Technology (DST), Govt of India, implemented and managed by Vigyan Prasar (VP), an autonomous organization of the Department of Science and Technology. This Quiz Contest is available from 7- 16, October 2021. More than 250 participants from schools and colleges across the country participated in the quiz.

9. Outcome of the programme/event

This quiz is an initiative of our Department to help young people know about lives of Indian

women scientists. Through this initiative, we believe we can bring in Gender equity in STEM and achieve SDG goals.

10. Photos

ACTIVITY 6

1. Name of the event: VIGYAN SARVATRA PUJYATE-Popular
Science Lecture
CoVid -19 -Challenges and its lessons

2. Date: 25/02/2022

3. Venue: Shri Jagadguru Vallabacharya Auditorium 4. Mode : Offline

5. Organizers: Department of Physics(Shift I) in association with Ariviyal Palagai, TNSTC,
Vigyan Prasar, DST, Govt. of India

6. Faculty coordinator: Dr.D.Uthra

7. Resource Person : Dr.Jayashree Sharma, Gynecologist, Infertility Specialist, Chennai 8. No.
of Staff Participants: 11

9. No. of student participants: 118

10. Detailed Report of the Programme

Government of India is celebrating a year-long programme *Azadi ka Amrut Mahotsav* to pay homage and showcase India's achievements in 75 years of Independence. The Government of India's science and technology organisations in close partnership with state agencies are leveraging this 'Mahotsav' as an opportunity, to celebrate S&T achievements over the 75 years through programmes that inspire our youth and help them navigate into building a progressive nation.

Vigyan Sravatra Pujyate (FEB 22-28,2022) is a week dedicated to Science and Technology. This is jointly organised by DST, DBT, CSIR, MoES, DAE, DOS, ICMR, AICTE, and DRDO under the leadership of the office of the Principal Scientific Officer to the Government of India and the Ministry of Culture. Vigyan Prasar has been given the responsibility for coordinating the event. Website: <https://vigyanpujyate.in/>

Ariviyal Palagai (An initiative of Vigyan Prasar) work towards bringing out all relevant contents in Tamil Language for this program. In Tamil Nadu, TNSTC (Tamil Nadu Science and Technology Centre) plays a pivotal role in conducting this event during this period. Department of Physics, Dwaraka Doss Goverdhan Doss Vaishanv College, Arumbakkam, Chennai hosted popular Science lectures in association with *Ariviyal Palagai* and TNSTC.

Dr. Jayasree Sharma, Gynecologist, infertility Specialist & General Physician, Chennai gave a public lecture 'Covid-19 challenges and its Lessons' on 25 February 2022. It was a very interactive session. Different vaccines that were produced by Serum Institute of India, vaccination drive that helped billions of lives, our people's cooperation to get vaccine administered have definitely made the globe turn around us. Despite such a great population, our country, we have faced the third wave bravely with less mortality, thanks to vaccines.

Dr. Santhosh Baboo, Principal inaugurated this programme and felicitated the guest speaker. Also the Principal felicitated Dr.Renganayaki and Dr Selvakothai Nachiyar of the Physics Department, for their contribution taking Science to people in English and Tamil. Dr. Uthra Dorairajan, Head, Department of Physics coordinated the entire event.

11. Outcome of the programme/event

The programme helped the students to understand our country's S&T initiatives and innovation that helped to tackle COVID. The speaker urged the students to take up research and march forward in life. Students were very motivated by her interactive session. The students of department who created Corona awareness posters, animations, songs during the first wave lockdown were awarded

with certificate of appreciation.

12. Photos(Geo tagged) / YouTube link

https://youtu.be/4oXf3wqK9_4

ACTIVITY 7

1. Name of the event: VIGYAN SARVATRA PUJYATE-Popular
Science Lecture-2

Science Research in India-Next 15 years

2. Date: 28/02/2022

3. Venue: Shri Jagadguru Vallabacharya Auditorium 4. Mode : Offline

5. Organizers: Department of Physics(Shift I) in association with Ariviyal
Palagai, TNSCTC, Vigyan Prasar, DST, Govt. of India

6. Faculty coordinator:Dr.D.Uthra

7. Resource Person :Dr.Narendran Gopalan,Senior Deputy Director,
ICMR-National Institute for Research in Tuberculosis -NIRT

8. No. of Staff Participants: 10

9. No. of student participants:134

10. Detailed Report of the Programme

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Dr. Narendran Gopalan, Scientist - E, Senior Deputy Director, ICMR, National Institute for Research in Tuberculosis – NIRT gave a talk 'Science and spirituality to lead research for a better world in 15 years' on 28 February 2022. Through his interesting and interactive session, he highlighted the research initiatives by the government, especially in the medical field.

Dr. Santhosh Baboo, Principal inaugurated this programme. Shri. Ashok Kumar Mundra, Secretary of the college presided and felicitated the speakers. Dr.Uthra Dorairajan, Head, Department of Physics coordinated the entire event. Many students from different departments,

students from nearby colleges and public attended the lecture. The students of the department who participated and contributed in Arvind Gupta toys and films dubbing, artworks, scribe, article writing, magazine making, You Tube video making, Vigyan Sarvatra Pujyate volunteer team were awarded with certificate of appreciation.

11. Outcome of the programme/event

The speaker urged the students to take up research as their career. The programme helped the students to understand our country's S&T initiatives and innovation. Students were motivated by the interactive session.

12. Photos(Geo tagged) / YouTube link

<https://youtu.be/EHNqyMQ-8Q8>

SWADHYAYA VARGA

இன்றைய
சூழலில்
பெரியோரின்
பங்கு

Mr. Sudhakar Kasthuri

ZOOM: <https://tinyurl.com/SwadhyayaFri>

YOUTUBE: <https://youtu.be/p-LUjjscupc>

MEETING ID: 824 8105 3826

PASSWORD: 1234

DATE: 27/08/2021

TIME: 7PM- 8PM



Student-Centric methods

'Learning is the product of the activity of learners'. To help students with opportunities and reflect on what they have learned, the Department of English (Shift II), conducts various language activities for the benefit of the learners and enables them to put into practice the knowledge and skills they have been developing through the traditional teaching methods.

Experiential learning involves students actively participate in the learning process and helps them think independently. Participative teaching methods like debate and role play focuses on encouraging students to gain professional values, knowledge and skills. In debates, students are divided as teams and made to come up with advantages that include practice in using the language effectively and crafting evidence-based reasoning in their arguments. Engaging in a debate aids them to collaborate with other classmates in finding and endorsing solutions to social issues that affect the community they belong to. Language activities like poster-making, group discussion, powerpoint presentation and quiz provide students an opportunity to examine their actions and thought-processes. Speaking activities like role play encourages students to think more critically about complex and controversial subjects and to see situations from a different perspective.

Mock interviews conducted in the classroom enables students to get guidance on resume writing, practise interview questions, demonstrate a positive body language and overcome interview anxiety. Group discussion helps students develop their critical thinking skills, problem-solving abilities, and communication skills. These student-centric methods provide new possibilities to students to see things around them in a different perspective and express their thoughts and opinions efficiently. The Department ensures experiential and participative learning is incorporated in all the language activities so that students receive holistic learning.

DWARAKA DOSS GOVERDHAN DOSS VAISHNAV COLLEGE

Autonomous, College with Potential for Excellence,
Linguistic Minority Institution, Arumbakkam, Chennai



DEPARTMENT OF PHYSICS
(AIDED)



PADMA AWARDS FOR INCLUSIVITY

*LET'S KNOW ABOUT THE GREAT KARMAYOGIS WHO WORK
FOR THE UPLIFMENT OF OUR PEOPLE.*

Abinaya R | Rohith AK | Pavithra B

BATCH :2020-23

Santhosh Babu S | BATCH :2019-22



Let's be inclusive !

As we say every single drop of water counts, social responsibility of every single citizen counts towards the welfare of the entire society. Padma awards are one of the highest civilian honours of our country. It recognises achievement in all fields of activities or disciplines, where the element of public service is involved.

This compilation is about a few Padma awardees who have been recognised for their exquisite gesture towards the empowerment and welfare of our society. There are ofcourse many more such *karmaveerargal* of our soil. It is really inspirational to look at their contribution through welfare activities for the society and struggles overcome by them for the upliftment of underprivilege. Looking at their illustrious journey, many life lessons can be learnt.

Let us walk along with them in their path and know more about them through

<https://www.padmaawards.gov.in>



INCLUSIVITY

PADMA AWARDEES 2022

SHAKUNTALA CHOUDHARY

Padma Shri 2022



102 yrs old Gandhian Social Worker from Kamrup - popularly known as 'Shakuntala Baidya'

Social Work | Assam

BASANTI DEVI

Padma Shri 2022



Inspirational women environmentalist from Pilibanganh - known for her contribution towards revitalising the Kosi river

Social Work | Uttarakhand

ACHARYA CHANDANAJI

Padma Shri 2022



Jain Spiritual Leader and Social worker from Rajgir - dedicated her life to the upliftment of the poor for over 5 decades

Social Work | Bihar

KHANDU WANGCHUK BHUTIA

Padma Shri 2022



Eminent Thangka Painter from Sikkim - specialising in traditional Buddhist paintings on cotton and silk

Art | Sikkim

SAVAJI BHAI DHOLAKIA

Padma Shri 2022



Businessman turned Social Worker - working for water conservation in drought-prone Sivasadas

Social Work | Gujarat

SIVANANDA

Padma Shri 2022



125 year old living embodiment of Yoga, Dhyana and Seva from Kashi - continues to serve all around him, despite his kamble background

Others | Uttar Pradesh

INCLUSIVITY

PADMA AWARDEES 2022

ARJUN SINGH DHURVE

Padma Shri 2022



Tribal Dancer & Singer from Dandori - performing the dying art form for over 4 decades

Art | Madhya Pradesh

DARSHANAM MOGILAI AH

Padma Shri 2022



Tribal Kinera player and folk singer from Nagarkurnool - last one to have mastered the 12 steps on the instrument

Art | Telangana

DEVENDRA JHAJHARIA

Padma Bhushan 2022



Paralympic Javelin athlete from Chenu - achieved the unparalleled feat of winning medals across 3 Paralympic games

Sports | Rajasthan

AMAI MAHALINGA NAIK

Padma Shri 2022



Tribal Organic Farmer from Mangaluru - from being a labourer, single handedly transforming a barren land into an organic tree farm

Others | Karnataka

RAMCHANDRAIAH

Padma Shri 2022



Koya Tribal Singer from Bidadrahi - amongst the last preserving the ancient practice of reciting oral histories of the Koya tribe

Art | Telangana

INCLUSIVITY

PADMA AWARDEES 2021

Transgender Folk Dancer of Jogamma heritage - 1st transwoman President of Karnataka Sahitya Akademi



Art - Karnataka

MANJAMMA JOGATI  **PADMA SHRI**
2021


Social activist working for the **empowerment of women** for 3 decades - history overcome **Pallo** to become a Doctor




Social Work - Delhi

NIRU KUMAR  **PADMA SHRI**
2021


Visually Impaired Author from Malappuram - known for having written **250** books on **Indian culture, tradition and legends**




Literature and Education - Kerala

BALAN PUTHERI  **PADMA SHRI**
2021

India's leading **Dwarf Para Athlete** - won record number of medals in **World Dwarf Games**



Sports - Karnataka

K V VENKATESH  **PADMA SHRI**
2021

Unimpaired artist turned **BH Pakseer** from **Bhubaneswar** - first to transfer mental well painting to huge canvases



Art - Madhya Pradesh

BHURI BAI  **PADMA SHRI**
2021

'Mother of Orphans' - social activist from Maharashtra known for her five decades long work in service of **Orphans**



Social Work - Maharashtra

SINDHUTAI S APKAL  **PADMA SHRI**
2021

Basketball Player and Coach player from **Odissha** - was the **youngest Indian Captain** at 19 yrs age



Sports - Tamil Nadu

P ANITHA  **PADMA SHRI**
2021

88 yr old Village School Teacher from Jajpur popular as **'Nanda Sir'** - providing **free education** to generations of children since independence

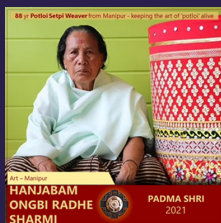
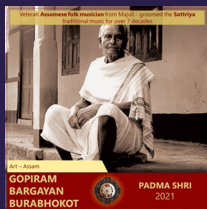


Literature and Education - Odisha

NANDA PRUSTY  **PADMA SHRI**
2021

INCLUSIVITY

PADMA AWARDEES 2021



INCLUSIVITY

PADMA AWARDEES 2020

V K Munusamy Krishnapakthar



Terracotta Artist
21st governor
of the state -
keeping alive the
cultural legacy



Art | Puducherry
Padma Shri 2020

Moozhikkal Pankajakshi

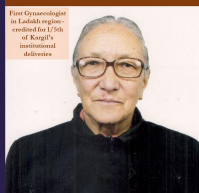


Only practitioner
in perfect
Pudukkottai
Pavakkal -
preserving the
heritage
style of the
film drama form



Art | Kerala
Padma Shri 2020

Tsering Landol



First Gynaecologist
in Ladakh region -
credited for 1/3rd
of Kangri's
institutional
deliveries



Medicine | Ladakh
Padma Bhushan 2020

Javed Ahmad Tak



Social Worker working for
the specially-abled
children of Kashmir for 2
decades - established the
Jama'at House & built an
infirmary.



Social Work | Jammu and Kashmir
Padma Shri 2020

Sundaram Verma



Farmer who grew
50,000 trees in the arid
Bikaner region of
Rajasthan - using a water-
saving technique 'Vedant
agriculture' that
requires only 1 litre of
water per tree



Social Work | Rajasthan
Padma Shri 2020

Trinity Saioo



Tribal women farmer
from the Jaintia PHE,
who pushed the
growth and economic
livelihood movement in
Meghalaya, enabling
the women farmers to
improve their incomes



Others | Meghalaya
Padma Shri 2020

Utsav Charan Das



Odissi Chhatis Ghanta
dancer - pioneering
the dying art form for
the last 6 decades



Art | Odisha
Padma Shri 2020

Rahibai Soma Popere



Seed Mother - 114 years
of seed saving from
Ahirwadga, Gaurva -
500000 lbs for the state in
agro bio-diversity
conservation

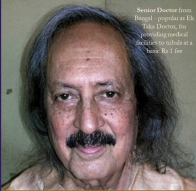


Others | Maharashtra
Padma Shri 2020

INCLUSIVITY

PADMA AWARDEES 2020

Sushovan Banerjee



Senior Doctor from Bengal, popular as Ek-Taluk Doctor, for providing medical facilities to tribals at a base 100 km.

Medicine | West Bengal

Padma Shri 2020

Krishnammal Jagannathan



Grassroots, Dalit Women who has worked alongside Mahatma Gandhi's Satyagrah for the cause of social equality and empowerment.

Social Work | Tamil Nadu

Padma Bhushan 2020

M C Mary Kom



International Boxing Legend - Magnificent Mary is the world's only woman to be crowned World Champion 6 times.

Sports | Manipur

Padma Vibhushan 2020

Jagdish Lal Ahuja

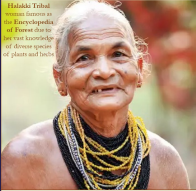


Langar Bhaa volunteer, serving poor patients in remote PGIMER base found for the past 2 decades. Was a self-made entrepreneur, who had come to India empty handed for better education.

Social Work | Punjab

Padma Shri 2020

Tulasi Gowda



Hulada Tribal woman known as the Encyclopedia of Forest due to her vast knowledge of diverse species of plants and birds.

Social Work | Karnataka

Padma Shri 2020

Abdul Jabbar



Current and Former Govt. Social Media Using Strategist, an advocacy group for veterans, ex-cadre and their families. Fought for 18 days straight to get his death, for his first national war rehabilitation.

Social Work | Madhya Pradesh

Padma Shri 2020

Harekala Hajabba



Uneducated fruit vendor who has become his life and livelihood through educating other poor children of his Narsipatana village in Dharwad Karnataka.

Social Work | Karnataka

Padma Shri 2020

Benichandra Jamatia



Kashmiri long-time veteran poet, Lyricist and Song Writer from Tripura. His poetic language flows from like the Mahabharata and Ramayana.

Literature and Education | Tripura

Padma Shri 2020

INCLUSIVITY

PADMA AWARDEES 2019



Woman Farmer who pioneered micro-finance in TamilNadu through her Kalanjiam movement

Social Work - Tamil Nadu

**MADURAI
CHINNA PILLAI**



Padma Shri
2019



Founder of CU Shah Pragna Chokshu Mahila Sevakanj working on the welfare and empowerment of Divyang Women in Saurashtra

Social Work - Gujarat

**MUKTABEN
PANKAJ
KUMAR DAGLI**



Padma Shri
2019



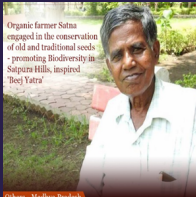
106 year old woman who single-handedly planted thousands of trees over 65 years, taking care of them as her children (Vruksha Mathe)

Social Work - Karnataka

**SAALUMARADA
THIMMAKKA**



Padma Shri
2019



Organic farmer Satna engaged in the conservation of old and traditional seeds - promoting Biodiversity in Satpura Hills, inspired 'Beej Yatra'

Others - Madhya Pradesh

**BABULAL
DAHIYA**



Padma Shri
2019



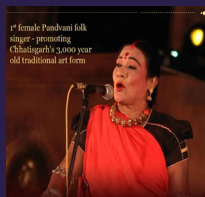
First transgender Bharatanatyam dancer of international repute, performing on ancient Niyaki bhava tradition and Tamil Sangam literature - role model for having overcome social resistance and exclusion

Arts - Tamil Nadu

**NARTHAKI
NATARAJ**



Padma Shri
2019



1st female Pundvani folk singer - promoting Chhattisgarh's 3,000 year old traditional art form

Arts - Chhattisgarh

TEEJAN BAI



Padma Vibhushan
2019



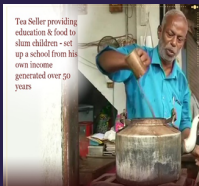
Crusader for Social Justice - worked her way up from being an ill-treated sweeper in the BDO's office to a 4-time MLA serving her community

Public Affairs - Bihar

**BHAGIRATHI
DEVI**



Padma Shri
2019



Tu Seller providing education & food to slum children - set up a school from his own income generated over 50 years

Social Work - Odisha

**DEVARAPALLI
PRAKASH RAO**



Padma Shri
2019

INCLUSIVITY

PADMA AWARDEES 2019



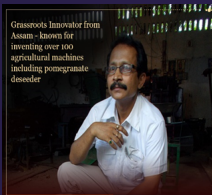
Organic farmer from Junagarh known for developing Moolivan Gujar - high yielding variety of carrots cultivated in Gujarat, Maharashtra and Rajasthan

Others - Gujarat

**VALLABHBHAI
VASRAMBHAI
MARVANIYA**



Padma Shri
2019



Grassroots Innovator from Assam - known for inventing over 100 agricultural machines including pomegranate deseeder

Science and Engineering - Assam

**UDDHAB
KUMAR
BHARALI**



Padma Shri
2019



Organic farmer from Sikar - who developed pest and climate resistant Cauliflower variety in arid Rajasthan

Others - Rajasthan

**JAGDISH
PRASAD PARIKH**



Padma Shri
2019



Tribal Environmentalist fighting the timber mafia and nexals - mobilized women to protect trees and animals

Social Work - Jharkhand

JAMUNA TUDU



Padma Shri
2019



Tribal Farmer who single-handedly carved out a 3 km long canal with a hoe and crowbar to bring water from a mountain stream for drinking and

Social Work - Odisha

DAITARI NAIK



Padma Shri
2019



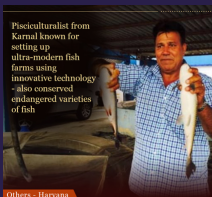
Widow Madhubani Painter - contributed to establishing Madhubani Museum in Japan

Arts - Bihar

**GODAWARI
DUTTA**



Padma Shri
2019



Pisciculturalist from Karnal known for setting up ultra-modern fish farms using innovative technology - also conserved endangered varieties of fish

Others - Haryana

SULTAN SINGH



Padma Shri
2019

2.3.1 Student-centric methods such as experiential learning, participative learning and problem-solving methodologies are used for enhancing learning experiences:

Class: III B.Sc. Biotechnology

Activity: Group Discussion

Course name: Medical Biotechnology

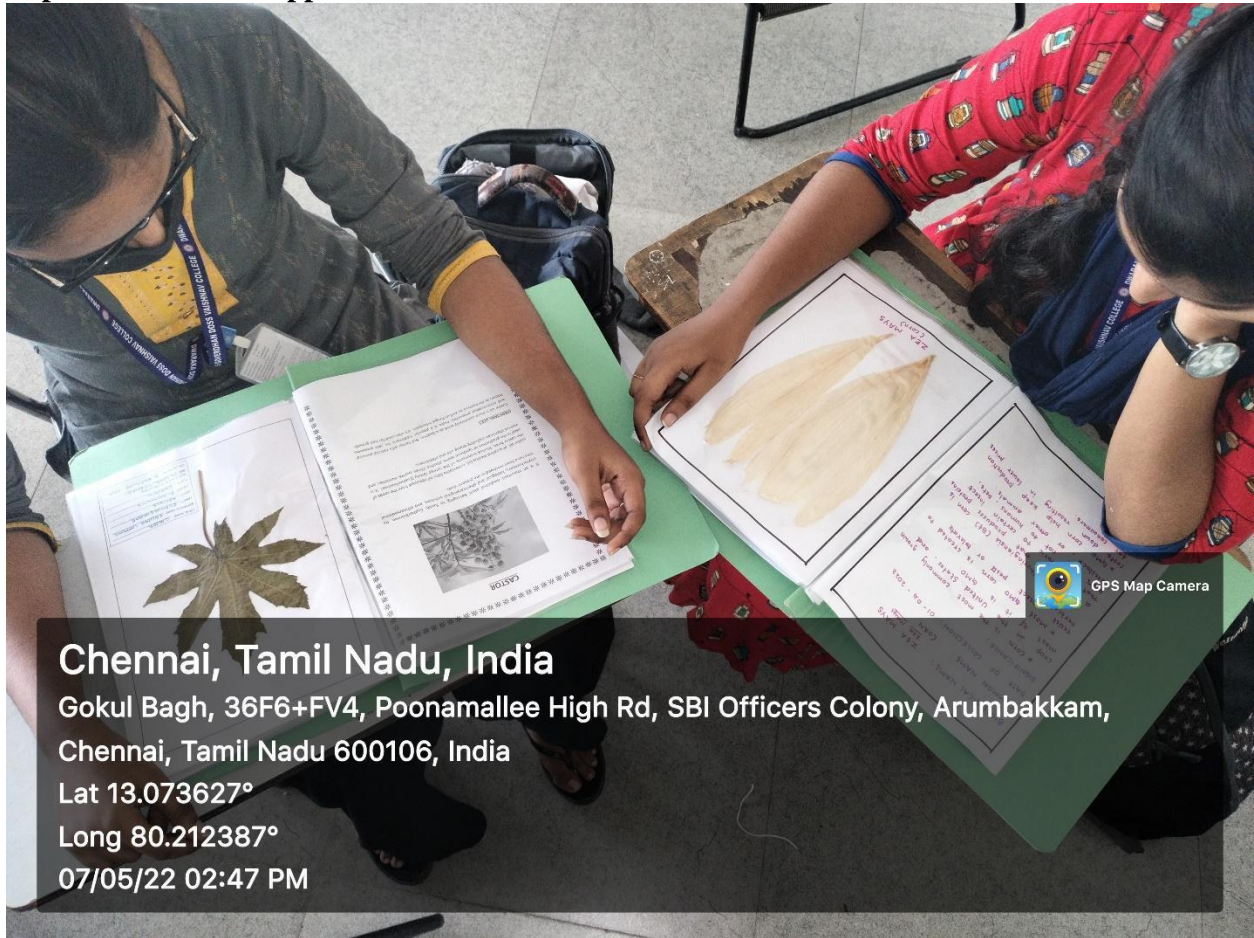
Topic: Recombinant DNA Technology in medicine



Class: I B.Sc. Biotechnology
Activity: Lecture session
Course name: Molecular Biology
Topic: Prokaryotic Replication



Class: III B.Sc. Biotechnology
Activity: Herbarium preparation
Course name: Plant Biotechnology
Topic: Plant and its applications



Chennai, Tamil Nadu, India

Gokul Bagh, 36F6+FV4, Poonamallee High Rd, SBI Officers Colony, Arumbakkam,
Chennai, Tamil Nadu 600106, India

Lat 13.073627°

Long 80.212387°

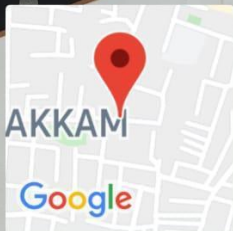
07/05/22 02:47 PM



Class: I M.Sc. Biotechnology
Activity: Zebra fish breeding
Course name: Marine Biotechnology
Topic: Rearing and Breeding of Zebrafish



Class: II M.Sc. Biotechnology
Activity: Skill enhancement activity
Course name: Genetic Engineering Practical
Topic: DNA Isolation

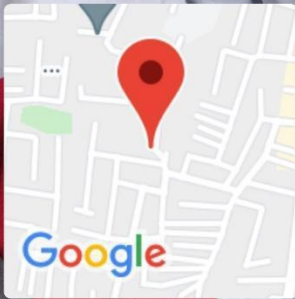


Chennai, Tamil Nadu, India

No1 Chithra enclave 2nd floor, SBI OFFICERS COLONY, Poonamallee
High Rd, SBI Officers Colony, Arumbakkam, Chennai, Tamil Nadu
600106, India
Lat 13.072858°
Long 80.212541°
30/10/21 12:23 PM



Class: II B.Sc. Biotechnology
Activity: Skill enhancement activity
Course name: Bioinstrumentation Practical
Topic: SDS Gel Electrophoresis



Chennai, Tamil Nadu, India

2/2, near Ration shop, SBI Staff Colony, Arumbakkam,
Chennai, Tamil Nadu 600106, India

Lat 13.07205°

Long 80.21311°

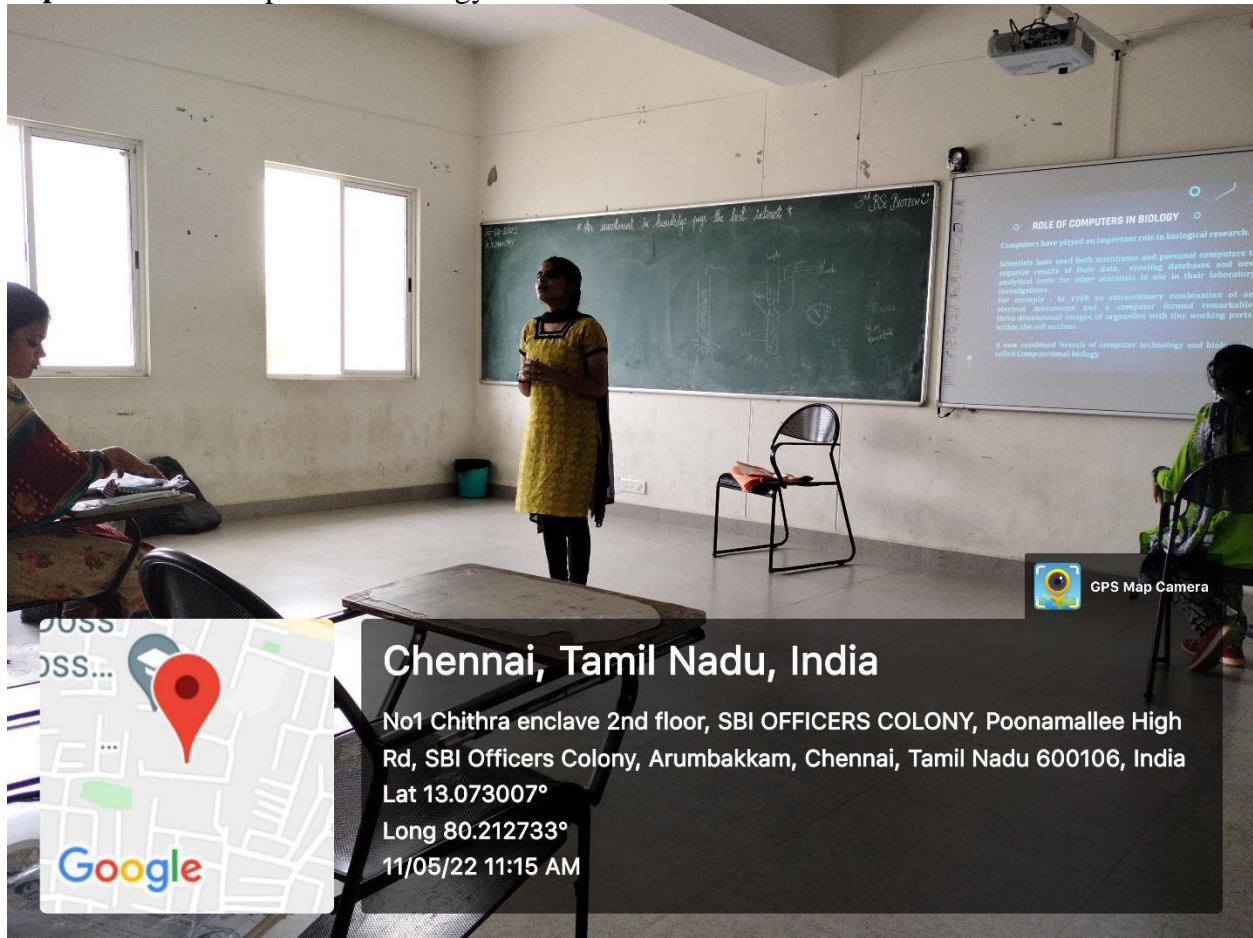
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Class: II B.Sc. Biotechnology

Activity: Student Seminar

Course name: Fundamentals of Computers and Biostatistics

Topic: Role of Computers in Biology

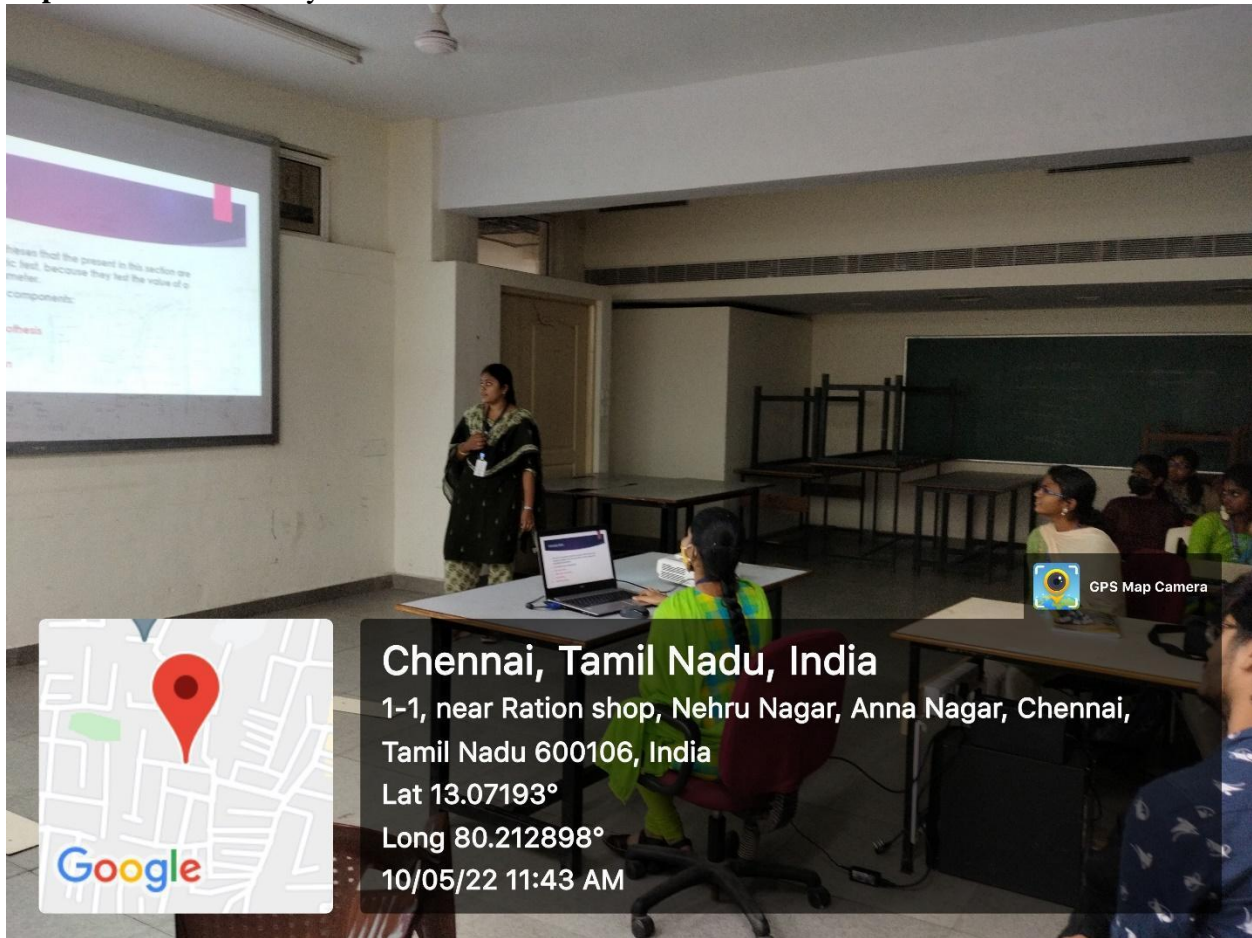


Class: II B.Sc. Biotechnology

Activity: Student Seminar

Course name: Fundamentals of Computers and Biostatistics

Topic: Correlation analysis



Class: I M.Sc. Biotechnology
Activity: Student Seminar
Course name: DNA Bar coding Technology
Topic: Biomarker gene for Plant genome



Class: II B.Sc. Biotechnology
Activity: Skill Enhancement
Course name: Bioinstrumentation Practical
Topic: Demonstration of Experiment by faculty



VALUE EDUCATION

ASSIGNMENT 1: (any one topic)

This is a small hint to choose your topic(s) of interest to submit your assignment/presentation for value education. You are free to come out with your own ideas/topics related to the value education syllabus prescribed below

Read ALL the Assesment Criteria, submission Protocol and submission deadline given below

Topics

1. Bahurupi Gandhi (not **My Experiments With Truth**)
2. Wangari Mathai
3. APJ Abdul Kalam , Vision 2020
4. Tirumoolar , Tamil works and way of life
5. VinobhaBhave and Bhoodaan
6. M.S.Udayamoorthy -any work
7. Zig Ziglar
8. Swami Vivekananda -any work
9. B.S.Iyengar and Yoga, Krishnamacharya Yoga Mandiram
10. Appreciating music of aboriginals, tropical rainforests, Sufi, Rabindra-Sangeeth, Abhangs, Bhakti movement of India, gharanas, and northeast music.
11. Art conservation by Dhakshinachitra
12. Heritage walks/ Food walks in Chennai
13. Compilation of details on
 - i) NHRC
 - ii) RTI
 - iii) RTE

- iv) Judgements on human rights violation and protection, in India.
- v) NGOs working in human rights protection.
- vi) Rights of working women during pregnancy.
- vii) Child care units in workplaces and offices is mandatory.
- viii) Genders, Intersex people and their issues.
- ix) World war wife scenario.
- x) Women players in various international games must prove their gender every time. Is it correct or a human rights violation?

15. Suicide prevention.

16. Movie clips on gender violation/human rights, violation/discrimination by race, colour, gender, region, dialect - Our insensitivity as a society or individual.

17. Totochan , Learning difficulties

18. Madras Dyslexia Association.

19. Guide lines to adopt a child by our government.

20. Pro-active measure we can adopt to cull the ignorance of men/ inhibition in women in our society on menstruation and physical ailments of women that leads to implicit domestic violence.

21. Life of women workers, daily wage labourers, street vendors and hawkers.

22. Alcoholic men and domestic violence.

23. Professional ethics.

24. Media clippings (T.V, news, movies) on making us passive.

25. Chennai counsellors.

26. Justify your arguments on the importance of having full -time counsellors in colleges, school.

27. Right time to develop these qualities - Justify using real life examples.

- Decision making
- Listening to opponent's opinion
- Tolerance
- Faith
- Being objective
- Critical thinking
- Anger management
- Speaking out one's feeling
- Learning to appreciate others/ other culture/ food/ habits/ values.

28. Respecting food habits of other parts of our country.

29. Folklore.

30. INTACH (Indian National Trust for Art and Cultural Heritage)

31. ASI (Archaeological Survey of India)

32. Goa Inquisition and Vascodegama

33. Nalvazhi, Moodhurai

34. Inna naarpadhu, iniyavai Naarpadhu

35. Alcoholism and rehabilitation.

36. Smoking is injurious to health.

37. Weeds and drugs.
 38. Women in science.
 39. A Beautiful Tree by Dharampal.
 40. Maria Montessori.
 41. Waldrof.
 42. J. Krishnamurthy foundation.
 43. Leelavati's daughters.
 44. Social media- how to use it for our good.
 45. Social media addiction and narcissism.
 46. Shri. Vallabhacharya
 47. Incidents in the life of Ramanuja, Vaishnava Acharya
 48. Mathematical works of Vedanta Desigar
 49. AIM for SEva movement
 50. Arsha Vidya Gurukulam of Swami Dayananda
 51. Swami Vivekananda and Tesla
 52. Swami Vivekananda , Tata and IISc
 53. Hindu Chemistry of PC Ray
 54. Sushruta and Charaka Samhita and Surgery, surgical tools
 55. Travel of Cholas and spread of Indian heritage and culture
-

Submission Protocol

Naming convention and file size:

All submissions should have the following on the top right hand corner of the first page of your document.

Your name:

Registration Number :

Course Name: Value Education

Name of your Topic chosen: (E.g.: Bahuroopi Gandhi)

Name of Submission: (E.g.: Submission 1: Ideation and building connections)

Name of your file:

Your name, Registration number and submission number (E.g.:

Krithik_Regisnum_Submission1)

Assessment Criteria

- **Understanding** (10% weightage)

Identify and make connections between various elements in the chosen topic during search, ideation and final demonstrable outcome

- **Ideating** (30% weightage)

Converting your thinking into an outcome.

It should reflect the relevance: how well it directly relates to your topic and your Understanding of the topic.

Use any appropriate digital tool or digitise your work. It can be a video, animation. It should reflect your various skill sets and definitely your digital skill

- **Applying** (50% weightage)

Coherence, connections, presentation, articulation and finesse of submission.

Check and ensure the following-

1. Organisation of material into a coherent structure: introduction, argument and evidence, conclusion
2. Clear style, including accurate spelling, clear sentence construction and punctuation

3. References, Bibliography
4. Credits to music, artworks, photos- Try to use everything that you have created or from Creative Commons. Must not violate privacy or copyrights
5. Use of own words, except where directly quoting from another source
6. Appropriate Language: avoidance of inappropriate slang, racist or sexist language or demean physical or mental illness/challenges

- **Reflection** (10% weightage)

Articulation or write up of your progress and inputs from peers/ teachers / family / others in making this presentation . You need to share your presentation with your friends /teachers while it is in progress and get feedback often.

- Choice of Topic- Cannot be changed later – 28, Sep, 2021, 5.00 p.m
- Submission 1- 18, Sep, 2021
- Submission 2 - Revised submission -25, Sep, 2021
- Submission 3 – Final Submission – 23, Oct, 2021

MADRAS UNIVERSITY

PART- IV VALUE EDUCATION SYLLABUS

Common for all U.G. & Five Year Integrated Courses

III YEAR - FIFTH SEMESTER

CREDITS 2

OBJECTIVE

Values are socially accepted norms to evaluate objects, persons, and situations that form part and parcel of sociality. A value system is a set of consistent values

and measures. Knowledge of the values is inculcated through education. It contributes in forming true human being, who is able to face life and make it meaningful. There are different kinds of values like, ethical or moral values, doctrinal or ideological values, social values and aesthetic values. Values can be defined as broad preferences concerning appropriate courses of action or outcomes. As such, values reflect a person's sense of right and wrong or what "ought" to be. There are representative values like, "Equal rights for all", "Excellence deserves admiration". "People should be treated with respect and dignity". Values tend to influence attitudes and behavior and help to solve common human problems. Values are related to the norms of a culture.

Unit I:

Value education-its purpose and significance in the present world – Value system – The role of culture and civilization-Holistic living – Balancing the outer and inner –Body, Mind and Intellectual level- Duties and responsibilities.

Unit II :

Salient values for life- Truth, commitment, honesty and integrity, forgiveness and love, empathy and ability to sacrifice, care, unity , and inclusiveness, Self esteem and self-confidence, punctuality – Time, task and resource management – Problem solving and decision making skills- Interpersonal and Intra personal relationship – Team work – Positive and creative thinking

Unit III :

Human Rights – Universal Declaration of Human Rights – Human Rights violations – National Integration – Peace and non-violence – Dr. A P J Kalam's ten points for enlightened citizenship – Social Values and Welfare of the citizen – The role of media in value building.

Unit IV:

Environment and Ecological balance –interdependence of all beings – living and non-living. The binding of man and nature – Environment conservation and enrichment.

Unit V :

Social Evils – Corruption, Cyber crime, Terrorism –Alcoholism, Drug addiction – Dowry – Domestic violence –untouchability – female infanticide – atrocities against women-How to tackle them



பறவைகள்
உடன் நட்பு

சென்னை

October 2021



ARIVUKKAN

December 2021

EXOPLANET

An exoplanet (planets around other stars) is any planet outside our solar system. Most orbit other stars, but free-floating exoplanets, called rogue planets, orbit the galactic center and are unattached to any star. In Milky Way galaxy, there are about one billion stars like our sun. Also, there are about one billion galaxies in our universe.

Types

There are different types of exoplanet present in the universe namely: Earth like planets, Super earth planets, Mini Neptune planets, large Neptune planets and gas giants. The Earth-like planets are similar to that of our Earth and super Earth planets are potentially a rocky world larger than Earth.

Whereas the Neptune like planets are gaseous worlds around the size of less or greater than Neptune. And gas giants are giant planets composed mainly of gas. But the most common exoplanets are super Earths and mini Neptunes.

The very first exoplanet was discovered in the 1990s and since then we know 4569 confirmed planets. Exoplanets can be detected by direct and indirect methods which consist of the transit method, radial velocity method and many more. Where in a direct imaging method, the central star is blocked, thereby the image of the planet is captured. The transit method only works for star-planet systems that have orbits aligned in such a way that, as seen from the Earth, the planet travels between us and the star and temporarily blocks some of the light from the star once during every orbit. A planet does not usually block much light from a star, (only 1% or less) but this can be

detected. By this method, exoplanet can be detected with it's size. In radial velocity method where the planet and the star, orbit their common center of mass. Because the star is so much more massive than the planets, the center of mass is within the star and the star appears to wobble slightly as the planet travels around it. Astronomers can measure this wobble by using spectroscopy and estimates the ratio of the masses of the stars, and some orbital elements.

But when multiple methods are used together, we can learn the vital statistics of the whole planetary systems. The TRAPPIST-1 star system is home to the largest batch of roughly Earth size planets ever found outside our solar system. The star system consists of 7 planets and it was discovered by Spitzer telescope.

ISRO

The Indian Space Research Organisation (ISRO) is embarking upon Exoworlds, an ambitious exoplanet mission. The launch is set for 2025. The mission 'Exoworlds' would find answers to the queries on the possibility of evolution of life in exoplanet system.

This article is based on the talk 'exoplanets organized by Indian institute of astrophysics, Bangalore by Prof. T. Sivarani, Indian institute of Astrophysics. <https://www.youtube.com/watch?v=gV71wZVd4kfeature=youtu.be>

JAYA SHREEKIS
B.Sc. PHYSICS
D.G.V. Arts College
Chennai-100

IS NON-STICK PAN SAFE?

QUESTION

Non-stick pans are used in many households. Are they safe to use? What are the health risks associated with them?

ANSWER

Non-stick pans are made of a material called Teflon. Teflon is a synthetic material that is used to coat the surface of the pan. It is known for its non-stick properties. However, there are concerns about the safety of Teflon. Some studies have shown that Teflon can break down into small particles when heated. These particles can be inhaled or ingested, which can be harmful to health. It is recommended to use non-stick pans at low to medium temperatures and to avoid using metal utensils on them.

ARIVUKKAN

October 2021

அறிவோம் அறிவியல்

சிறப்பு செய்தி

இந்திய விண்வெளி ஆய்வு நிறுவனம் (ISRO) இலிருந்து வெளியான செய்தி, 2025-ல் 'Exoworlds' என்ற பெயரில் ஒரு விண்வெளி திட்டத்தை தொடங்கும். இது, புவியை விட வெளியே உள்ள பிற விண்மீன்களில் உயிர் இருப்பதைக் கண்டறியும் நோக்கத்தைக் கொண்டது. இது, புவியை விட வெளியே உள்ள பிற விண்மீன்களில் உயிர் இருப்பதைக் கண்டறியும் நோக்கத்தைக் கொண்டது.

ARIVUKKAN

December 2021