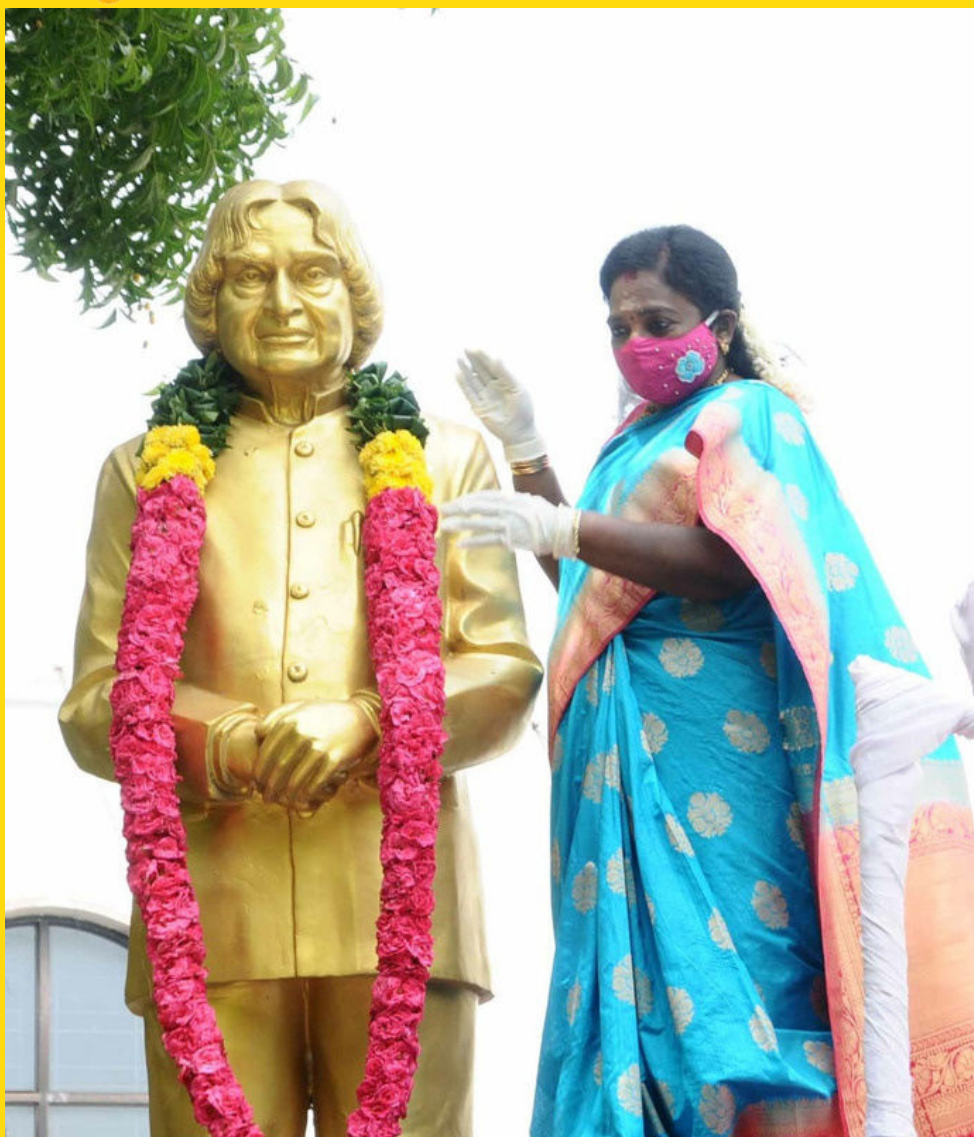




**GOVERNMENT OF PUDUCHERRY  
DEPARTMENT OF SCIENCE, TECHNOLOGY AND ENVIRONMENT  
PUDUCHERRY COUNCIL FOR SCIENCE AND TECHNOLOGY  
DR. ABDUL KALAM SCIENCE CENTRE AND PLANETARIUM**

# **ACTIVITY REPORT OF PCS&T**

**01.04.2020 - 15.11.2021**





## PUDUCHERRY COUNCIL FOR SCIENCE & TECHNOLOGY

**Date of Establishment.** 23.06.1998

**Member Secretary**

Tmt. SMITHA.R, I.A.S.,  
Director (Dept. of Science, Technology  
and Environment)/  
Puducherry Council for Science and Technology  
PHB Building, 3<sup>rd</sup> Floor,  
Anna Nagar, Puducherry – 605 005.  
Phone: 0413 2201256 Fax: (0413) 2203494  
Email: [dste.pon@nic.in](mailto:dste.pon@nic.in)

**Chairperson (EC, PCS&T)**

Tmt. SMITHA.R, I.A.S.,  
Secretary (Science, Technology  
and Environment)  
Chief Secretariat,  
Goubert Avenue,  
Puducherry – 605 001.  
Phone: 0413 2233345  
Email: [secy-dste.py@gov.in](mailto:secy-dste.py@gov.in)

**Strength of approval manpower (Central (DST) and State supported)**

Sl:No	Name	Designation	Pay Scale	Approximate Monthly emoluments
<b>DST – GoI supported</b>				
1	E.Sivakumar	Technical Assistant	Rs.9300+ 4200	Rs. 42,000/-
2	P.Sathish Kumar	Technical Assistant	Rs.9300+ 4200	Rs. 42,000/-
3	C.Maguesvary	Assistant	Rs.9300+ 4200	Rs. 42,000/-
4	G.Sivasubramanian	Data Entry Operator	Rs.5200+ 2800	Rs. 36,000/-
5	S.Karthigaa	Scientific Officer	Contract Basis	Rs. 13,000/-
<b>State supported</b>				
1	K.Malathy	Helper	Rs.5200+ 1900	Rs. 33,000/-
2	S.Prabaharan	Helper	Rs.5200+ 1900	Rs. 33,000/-
3	J.Anandhan	Daily Rated Driver	Rs. 584/day	Rs.18,000/-

## **PUDUCHERRY COUNCIL FOR SCIENCE & TECHNOLOGY**

### **About the Council & its programme:**

The PCS&T an apex autonomous body to promote the Science & Technology awareness / applications / innovations in the U.T. of Puducherry is functioning in the Department of Science, Technology & Environment since 23<sup>rd</sup> June 1998. PCS&T was started with the recommendations of the Planning Commission, GOI vide G.O. Ms.No.9/Envvt/98 dated 23.6.1998. The PCS&T was registered on 6<sup>th</sup> November 1998 under the Societies Registration Act, 1860.

Since from its constitution, the Council is functioning in the Administrative control of Department of Science, Technology & Environment. Hon'ble Minister for S&T is the Chairman and Chief Secretary is the Vice Chairman of the Council. Besides, the other members include Secretaries to Govt. and Heads of the academic / research institutes, each one nominee of Planning Commission and Department of Science & Technology (DST), GOI and Pondicherry University.

Further the Executive Committee of the Council is headed by the Secretary (Sci., Tech. & Envvt.) and Director (DSTE) is Member Secretary for both the Council and Executive Committee. The Council functions with the financial support of DSTE, Puducherry & DST, GOI by way of Grants-in-aid performs on the following mandated objectives:

- To identify areas for the application of S&T to the developmental needs of this Territory.
- To advise the Government on the formulation of the policies and measures this will promote applications of Science & Technology to the identified needs, objectives and goals.
- Financial assistance for pursuing research in the area of Science, Technology and Environment.
- Popularization of science among students and the public.

### **Functions of PCS&T:**

- ❖ Operation and Maintenance of Dr. Abdul Kalam Science Centre and Planetarium
- ❖ S&T conference funding
- ❖ Travel grants
- ❖ Sky Watching Programs
- ❖ Science Tours
- ❖ Celebration of National Science Day
- ❖ Summer & Winter Vacation Science Camp
- ❖ Monthly Seminars
- ❖ Mobile Science Exhibition Bus
- ❖ Financial assistance for Science Exhibition in schools
- ❖ Science Magazines distribution to schools
- ❖ Financial assistance to School / Colleges for lab strengthening.
- ❖ Implementation of National Green Corps program in the U.T of Puducherry as state Nodal Agency of MoEF&CC.

- ❖ Implementation of SAP in the U.T of Puducherry as State Nodal Agency of MoEF&CC.

- ✦ Implementation of Mass Cleanliness Drive on Coastal Beaches

### **ONGOING PROJECTS**

- I. Setting up of Innovation Hub in Dr. Abdul Kalam Science Centre and Planetarium
- II. Setting up of Space Exposition Centre, Innovation Hub and Digital Planetarium at Thirunallar, Karaikal.

### **PROPOSED PROJECTS**

- I. Establishment of Patent Information Centre at Puducherry.
- II. Construction of Office Building.
- III. Establishment of Science Centre and Planetarium in Mahe and Yanam regions.
- IV. Acquiring Mobile Science Exhibition Bus at Mahe and Yanam regions.
- V. Setting up of SC/ST/Women Cell in the Council.

### **COMPOSITION OF THE COUNCIL**

<b>Sl. No.</b>	<b>Designation</b>	<b>Position</b>
1	Hon'ble Chief Minister / Minister for Science, Technology & Environment	Chairman
2	Chief Secretary	Vice-Chairman
3	Director (JIPMER)	Member
4	Nominee of Pondicherry University	Member
5	Director (VCRC)	Member
6	Development Commissioner	Member
7	Secretary (Finance)	Member
8	Secretary (Sci., Tech & Env't)	Member
9	Secretary (Education)	Member
10	Secretary (Health)	Member
11	Secretary (Industries)	Member
12	Secretary (Agriculture)	Member
13	Non-official members nominated by the GOP.	Three Members (vacant)
13	Nominee of Planning Commission, GOI	Member
14	Nominee of DST, GOI	Member
15	Dean (RAGACOVAS)	Member
16	Director (DSTE)	Member Secretary

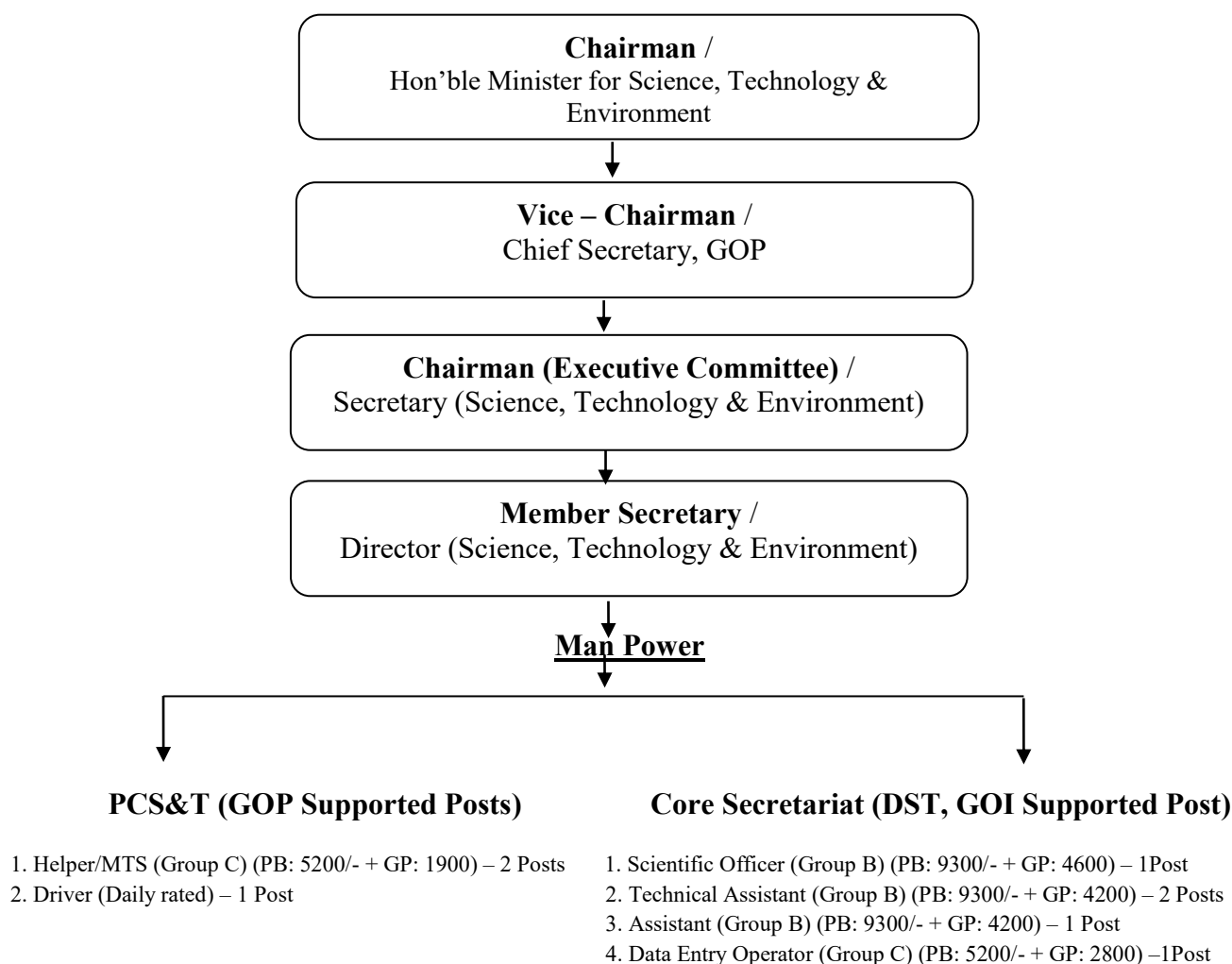


### **COMPOSITION OF THE EXECUTIVE COMMITTEE:**

Sl. No.	Designation	Position
1	Secretary (Sci., Tech & Env't.)	Chairman
2	Secretary (Finance)	Member
3	Secretary (Education)	Member
4	Non official member nominated by GOP.	Member (Vacant)
5	Director (DSTE)	Member Secretary

### **Organisation Structure**

#### **PUDUCHERRY COUNCIL FOR SCIENCE AND TECHNOLOGY**



## **Department of Science and Technology, Government of India**

The initiative to establish State Councils for Science & Technology was first taken in 1971 when the then Minister for S&T and Chairman, National Committee for Science & Technology (NCST), Shri C Subramanian wrote to Chief Ministers of all the States stressing that irrespective of large investments of the Central Government in S&T in various sectors and institutional infrastructure, the Central S&T Agencies must take the States along if the development goals are to be attained. By the end of Fifth Five Year Plan, Karnataka, Kerala, Uttar Pradesh and West Bengal were the four States, who had established their State S&T Councils. While these few States responded to the idea of State S&T planning & promotion, it became clear that a sustained effort was needed to establish and develop the State Councils for Science & Technology. As a result, the process of impetus for State level planning and Promotion of Science & Technology began in the Sixth Five Year Plan (1980-85) and continued through the subsequent Five Year Plans, primarily through this plan programme, formerly known as, "Assistance for development of State Councils for Science and Technology". State Science & Technology Councils have been set-up in all the States and Union Territories.

### **Core Secretariat of PCS&T:**

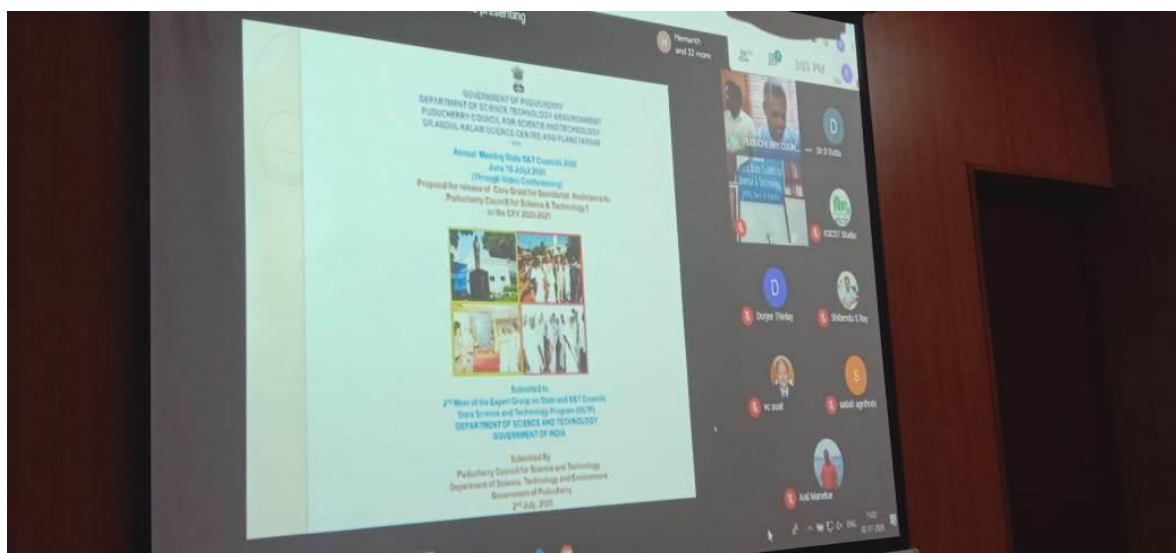
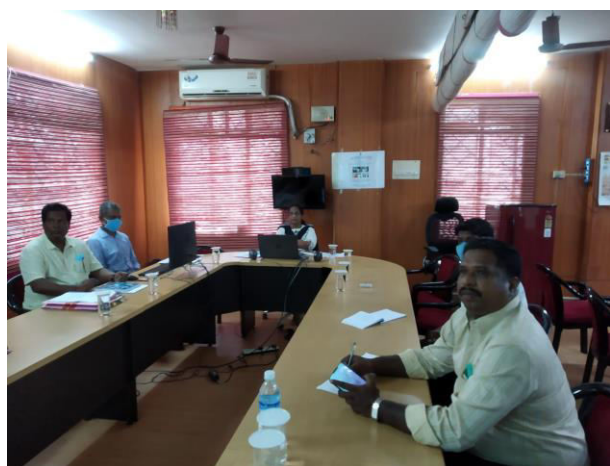
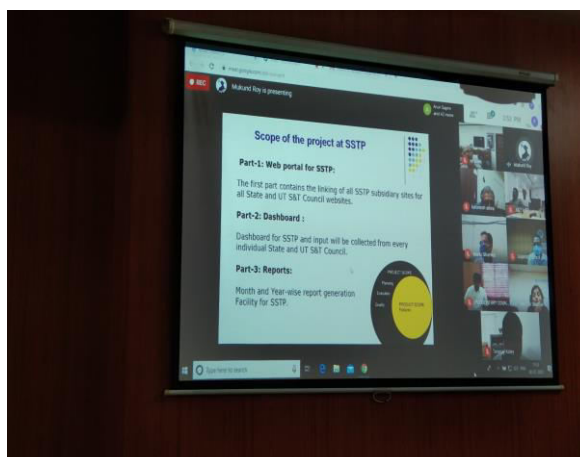
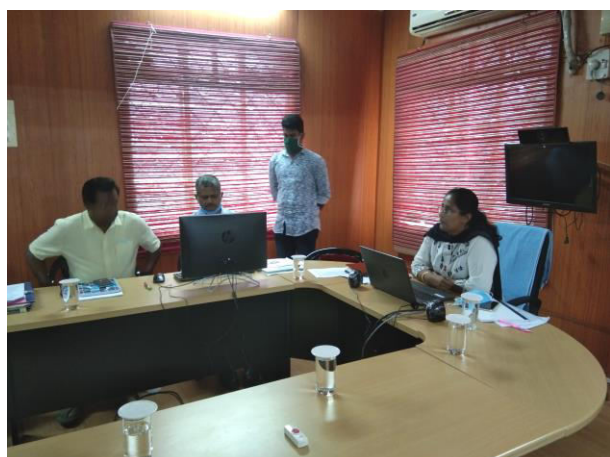
The Government of India, Department of Science & Technology, New Delhi on the request of Puducherry Council for Science and Technology, Department of Science, Technology and Environment, GOP has issued financial grants for establishment of Core Secretariat assistance for Science and Technology to meet the expenses of man power, Project Related Grant, office expenses etc., Accordingly, release of grant towards the expenditure of S&T Secretariat Assistance of PCS&T was received from the year 2010-2011 onwards.

### **Budget allocation:**

<b>Sl:No</b>	<b>Year</b>	<b>State Government GIA (Rupees in Lakhs)</b>	<b>Central Government – Core Secretariat (Rupees in Lakhs)</b>
1	2015-16	100.00	19.98
2	2016-17	50.00	C/F
3	2017-18	50.00	11.50
4	2018-19	Nil	12.65
5	2019-20	50.00	35.92
6	2020-21	90.47	23.92
7	2021 -22	90.47 (Budget provision)	44.92 (Proposal submitted to DST, GoI)



## Annual Meeting of State S&T Councils 2020 meet on 02.07.2020 through Video Conferencing.



## **Ministry of Environment, Forests and Climate Change (MoEF&CC)**

The Ministry of Environment, Forest and Climate Change (MoEFCC) is the nodal agency in the administrative structure of the Central Government for the planning, promotion, co-ordination and overseeing the implementation of India's environmental and forestry policies and programmes.

The primary concerns of the Ministry are implementation of policies and programmes relating to conservation of the country's natural resources including its lakes and rivers, its biodiversity, forests and wildlife, ensuring the welfare of animals, and the prevention and abatement of pollution. While implementing these policies and programmes, the Ministry is guided by the principle of sustainable development and enhancement of human well-being.

The Ministry also serves as the nodal agency in the country for the United Nations Environment Programme (UNEP), South Asia Co-operative Environment Programme (SACEP), International Centre for Integrated Mountain Development (ICIMOD) and for the follow-up of the United Nations Conference on Environment and Development (UNCED). The Ministry is also entrusted with issues relating to multilateral bodies such as the Commission on Sustainable Development (CSD), Global Environment Facility (GEF) and of regional bodies like Economic and Social Council for Asia and Pacific (ESCAP) and South Asian Association for Regional Co-operation (SAARC) on matters pertaining to the environment.

The broad objectives of the Ministry are:

- Conservation and survey of flora, fauna, forests and wildlife
- Prevention and control of pollution
- Afforestation and regeneration of degraded areas
- Protection of the environment and
- Ensuring the welfare of animals

These objectives are well supported by a set of legislative and regulatory measures, aimed at the preservation, conservation and protection of the environment.

### **Swachhta Action Plan (SAP)**

PCS&T is the State Nodal Agency (SNA) for implementing various activities under SAP of Ministry of Environment, Forest and Climate Change. The scheme aims to promote environmental awareness and cleaning the Environment amongst school and college level students. An amount of Rs.6,00,000/- was released to PCS&T for the year 2019-2020. For the year 2021- 2022, a proposal seeking GIA for an amount of Rs. 20.00 lakhs was submitted to MoEF& CC, GoI on 30.06.2021.



### **Purchase of Cloth bags:**

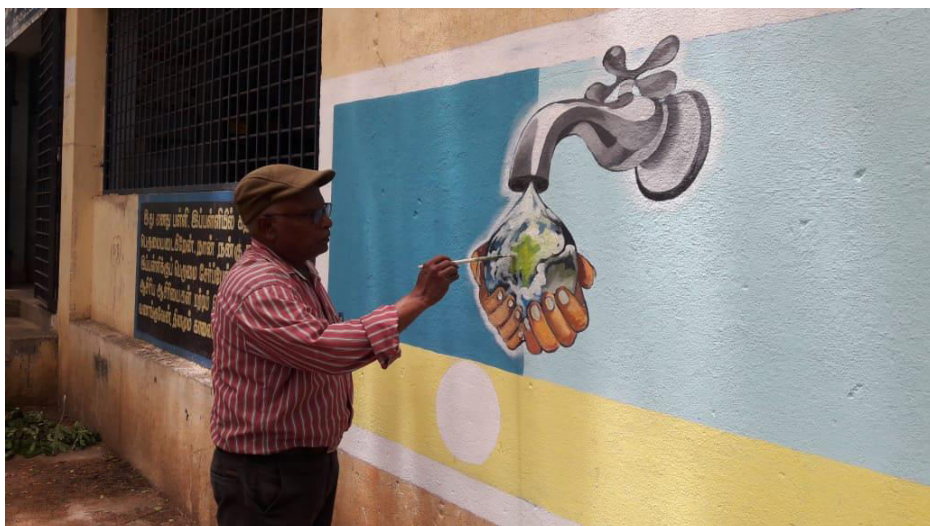
Purchase of **7200 Nos.** of Gada Cloth bag with semi handle for an amount of **Rs.1,60,000/-** was purchased from the funds of SAP(MoEF&CC, GoI) for public distribution to avoid single use plastic bags.



### **Environment Awareness Picture Painting in Government School walls**

Painting of Environment Awareness Pictures in 15 Government School Walls of Puducherry region for an amount of **Rs.60,000/-** was carried out from the funds of SAP.







## **Distribution of Hands Free Sanitizer dispensers to 20 primary Health centres in the U.T of Puducherry.**

Automatic Hands Free Sanitizer (HFS) 20 nos. was purchased at a cost of Rs.64,600/- from the funds of Swachhta Action Plan (SAP), Ministry of Environment Forests and Climate Change, GoI for Implementation of SAP scheme in the U.T.of Puducherry. These sanitizers were disbursed for public use at the 20 Public Health Centres in the Puducherry and Karaikal regions through Department of Health and Family Welfare, Puducherry.



### **SAP 2021 -22:**

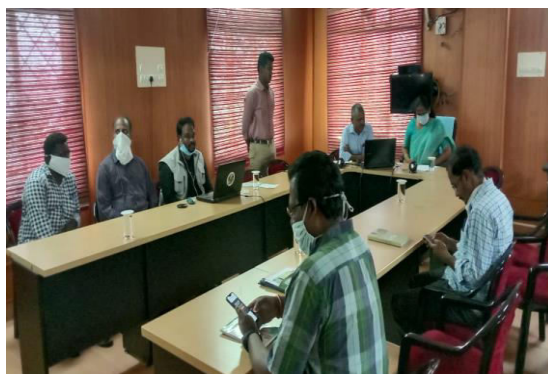
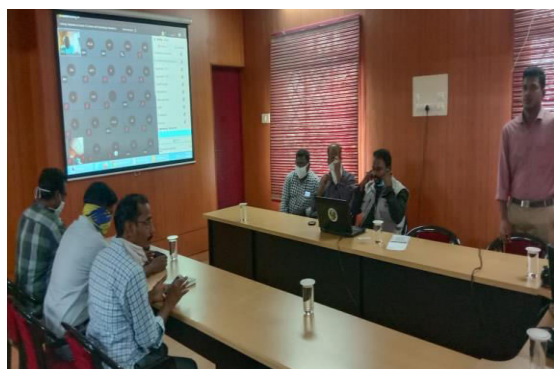
MoEF&CC, GOI has sanctioned Rs. 20.00 lakhs for implementation of Swachhta Action Plan (SAP), Ministry of Environment Forests and Climate Change, GoI for Implementation of SAP scheme in the U.T. of Puducherry.

## **State Nodal Agency (EEAT, *Blue Flag Beach Awareness Programme*)**

### ***Webinar on Puducherry Eden Beach***

#### **FIRST WEBINAR - 5<sup>TH</sup> JUNE 2020**

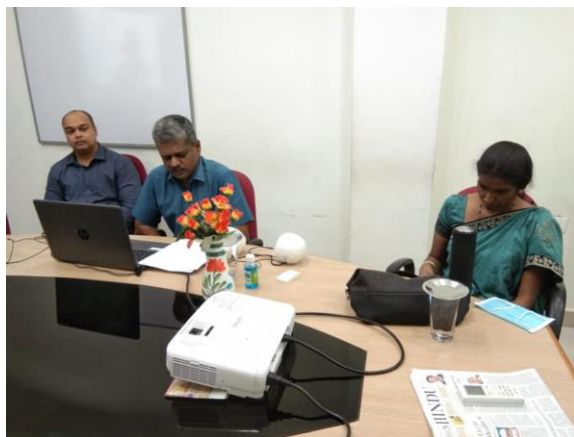
Webinar on “Puducherry Coastal Biodiversity” was conducted on the occasion of World Environment Day on 5<sup>th</sup> June 2020 (10:30 A.M – 11:30 A.M) at Dr. Abdul Kalam Science Centre and Planetarium, Puducherry. Resource persons Dr. Bubesh Gupta, Founder Director, Universal Eco Foundation has delivered lecture through webinar on Puducherry Coastal Biodiversity funded by Ministry of Environment Forests & Climate Change, SICOM, Government of India under EEAT programme for the proposed Blue Flag Eden Beach, Puducherry.



The webinar was chaired by Smt. Smitha. R, I.A.S. Secretary cum Chairman (EC, PCS&T) 95 persons participated in webinar and benefitted about Puducherry Coastal Biodiversity Ecosystems.

#### **SECOND WEBINAR- 29<sup>th</sup> AUGUST 2020**

Protection of Marine Endangered Species – Puducherry Shark and Sea turtle webinar and Eco-Tourism and Sustainability Paradigm in Eden Beach, Puducherry was conducted on 29<sup>th</sup> August 2020 (10:30 am – 12:00 pm) at Dr. Abdul Kalam Science Centre and Planetarium, Puducherry. Two resource persons Dr. M. Nandhi Varman, Co-ordinator, Office of Green Campus, Pondicherry Campus has delivered lecture through webinar on Protection of Marine Endangered Species – Puducherry Shark and Sea turtle and Dr. A. Golda. A. Edwin, Executive Director, APSCC, Puducherry has delivered lecture through webinar on Eco-Tourism and Sustainability Paradigm in Eden Beach, Puducherry.



40 persons participated in webinar and benefitted by the conduct of the webinar.

### **THIRD WEBINAR- 9<sup>TH</sup> SEPTEMBER 2020**

Webinar on Importance of Sand dunes and Marine debris Management and Marine Birds was conducted on 9<sup>th</sup> September 2020 (10:30 am – 12:00 pm) at Dr. Abdul Kalam Science Centre and Planetarium, Puducherry. Two resource persons Dr. Rajamanickam, Program Co-ordinator, Centre for Environment and Humanity, Kodaikanal has delivered lecture through webinar on Importance of Sand Dunes and Dr. Lekshmi, Program incharge Centre for Environment and Humanity, Kodaikanal has delivered lecture through webinar with various slides on Marine Debris.



57 persons participated in webinar and benefitted about sand dunes importance and marine debris management and Marine birds the conduct of the webinar was a grand success.



## **State Nodal Agency (NGC – EEAT scheme, MoEF&CC, GoI)**

### **TREE PLANTATION**

Students of Saradha Gangadharan College (NGC) planted more than fifty saplings in college campus



### **CAMPUS CLEANING**

Students of Saradha Gangadharan college removing the unwanted waste plants in their campus.





## **ENVIRONMENTAL AWARENESS RALLY**

Saradha Gangadharan college NGC students Conducted Awareness Rally on Environmental issues of plastic awareness to the people of Velrampet. Pamphlet was also issued about waste water management and Rain water harvesting.



## **HUMAN CHAIN**

Students gathered together and involved in human chain on Environmental Awareness in Public places.



## **FIELD VISIT [ARANYA FOREST]**

Students of Our College (SGC) visited Aranya forest.





## LAKE CLEANING

College (NGC) cleaned the velrampet lake, Puducherry removing the Noxious weeds and Eichhorniacrassipes.





*Wealth from waste*

-

*Craft exhibition  
FOR  
NGC students*

**SCULPTURES FROM WASTE PAPER**

Sculpture works are relevant to the present day scenario to save the Environment by collecting the waste paper and recycle into art form so eco friendly



Paper sculpture workshop at Indira Gandhi Govt. Hr. Sec. School, Puducherry

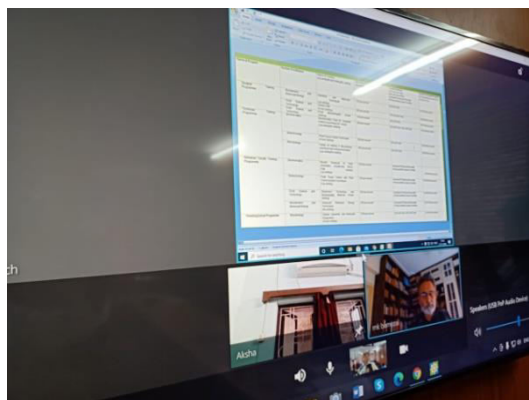


Puducherry Council For Science & Technology being a State Nodal Agency for implementation of National Green Corps (Eco-Clubs) in the U.T. of Puducherry has submitted a proposal seeking GIA for an amount of Rs. 67.04 lakhs on 21.07.2020 from MoEF&CC, Govt. of India for implementation of NGC for the year 2020-2021

#### **State Nodal Agency - Skill Vigyan Programme:**

For implementation of Skill Vigyan State Partnership Programme in Life Science and Biotechnology in the U.T. of Puducherry, Two proposals for an amount of **Rs. 2,88,05,000/-** was forwarded on 30.09.2020 to Department of Bio-Technology, Ministry of Science and Technology, GoI by the State Nodal Agency, Puducherry Council for Science and Technology for seeking GIA during the current financial year 2020-2021.

Sl. No.	Name of the Programme Co-ordinator and Institute	Skill Vigyan Programme to be implemented.	Total GIA requested (in Rupees)
1	Dr. Joseph Selvin, Prof. & Head, Dept. of Microbiology, Pondicherry University, Puducherry.	Students Training Programme. Technician Training Programme. Refresher/ Faculty Training Programme. Finishing School Programme.	2,61,55,000/- (GIA requested for 3 years)
2	Dr. J. Thanislass, Prof. & Head, Dept. of Veterinary Bio-Chemistry, Rajiv Gandhi Institute of Veterinary Education and Research.Puducherry.	Technician Training Programme.	26,50,000/- (GIA requested for 1 year)
<b>Total Amount</b>			<b>2,88,05,000/-</b>



Participation in the Evaluation Meeting for scrutiny of the proposals by the Expert Committee of DBT, GoI on 27.11.2020

## ACTIVITIES OF PCS&T

### Meetings Attended:

1. PCS&T being the SNA for EEAT, MoEF&CC, GoI, and PCS&T officials attended the Web based Review Meeting on Beach Environment and Aesthetic Management Services (BEAMS) progress regarding Environment Education Programs for the nominated Eden Beach for Blue Flag Beach Certification in Puducherry on 07.05.2020 organized by SICOM, MoEF&CC.
2. Virtual Annual Meeting Inaugural Session of all State S&T Councils organized by DST, MST, GoI on 18.06.2020 was attended by Secretary / Chairman (EC, PCS&T) –cum – Director / MS (PCS&T) and officials of DST&E and PCS&T Core-Secretariat.
3. Webinar Information Session for the process of formulation India's Science, Technology and Innovation Policy (STIP), 2020 organized by DST, GoI in co-ordination with the Office of the Principal Scientific Adviser, GoI on 25.06.2020 was attended by officials of DST&E and PCS&T Core-Secretariat.
4. The Secretary (DSTE)-cum-person (EC-PCS&T) along with DST&E and PCS&T officials attended the Core Secretariat 2<sup>nd</sup> Annual Meet of all State S&T Councils organised by DST, GoI on 02.07.2020. A proposal seeking GIA was furnished for an amount of Rs. 41.31 lakhs to DST, GoI for consideration.
5. PCS&T staff participated in the review meeting organised on 15.07.2020 by MoEF&CC, GoI through video conference for implementation of Swachhta Action Plan for the year 2020-2021.
6. PCS&T staff participated in the review meeting organised by SICOM, MoEF&CC, GoI through video conference on 21.07.2020 for implementation of EEAT for the proposed Blue Flag Eden Beach Programme Puducherry.
7. PCS&T official participated in the social forestry afforestation programme by Miyawaki method organised by NGO on 11.09.2020, under the Chairmanship of the Hon'ble Government Whip, Puducherry and District Collector, Puducherry.
8. Hon'ble Minister for Science, Technology & Environment, Puducherry and Director (DSTE)-cum-Member Secretary (PCS&T) along with the Officers participated in the Consultation meeting with S&T Ministers of States / U.T's for formulation of National Science, Technology and Innovation Policy (STIP – 2020) organised by DST, GoI on 22<sup>nd</sup> October 2020 through virtual platform, chaired by Hon'ble Union Minister for Science & Technology, GoI.
9. PCS&T Officials participated in the Webinar organised by MoEF&CC, GoI on UNEP's Tide Turners Plastic Challenge on 20.11.2020 and 15.12.2020.



10. DST&E and PCS&T officials attended the virtual Review Meeting on State Science and Technology Programme (SSTP) on Mapping of S&T needs for the State / UT's Council organised by DST, GoI on 23.11.2020.

11. PCS&T officials participated in the Webinar on 'Monitoring and Implementation of District Innovation Fund' organised by Centre for Innovations in Public systems, Hyderabad on 4<sup>th</sup> December 2020.

12. Hon'ble Minister for Science, Technology & Environment, Puducherry and the Director-cum-Member Secretary (PCS&T) along with the officers of DSTE/ PCS&T participated in the State/ U.T's S&T Minister's Conclave for the 6<sup>th</sup> Edition of India International Science Festival (IISF) -2020 organised by DST, GoI on 23.12.2020 through virtual platform chaired by Hon'ble Union Minister for Science & Technology, GoI.

13. DSTE and PCS&T officials attended the SAP Review Meeting on road mapping of activities for 2021 – 2022 for the state / UT's Nodal Agencies organised by MoEF&CC, SSB Cell, GoI on 18.01.2021.

14. PCS&T official (Technical Assistant - I) participated in the e-Tender committee meeting organised by Renewable Energy Agency Puducherry (REAP), Puducherry for supply, installation, maintenance of energy efficient Ceiling fans in Government buildings and Temples in the U.T. of Puducherry.

15. PCS&T official attended the virtual e-waste collection Meeting organised by MoEF&CC, on sustainable waste management programme on 22.03.2021

### **Capacity Building Programme:**

1. PCS&T official (Technical Assistant - I) participated in the webinar on 'Rural Technology for Socio-Economic development for grass root level Women' held on 19.08.2020 organised by Vigyan Prasar, Department of Science and Technology, Government of India.

2. PCS&T official (Technical Assistant - I) participated in 5 days virtual '9<sup>th</sup> Training Programme on Financial Management in Scientific Organisations' organised by Indian Institute of Public Administration (IIPA), New Delhi from 23<sup>rd</sup> to 27<sup>th</sup> November, 2020.

3. PCS&T official (Technical Assistant – I) participated in two days simulation Training programme on "Energy Conservation Building Code" organised by Renewable Energy Agency Puducherry (REAP) on 17<sup>th</sup> & 18<sup>th</sup>, December 2020.

## WEBINARS CONDUCTED BY PCS&T AT Dr. AKSC&P

A Webinar program was organised by Puducherry Council for Science and Technology in connection with occurrence of Annular Solar Eclipse on 21<sup>st</sup> June, 2020 from 10:30 AM to 12:00 Noon at Dr. Abdul Kalam Science Centre and Planetarium. “Science behind the Solar Eclipse” is the title proposed for the program. In this webinar, 2 technical session followed by demonstration and interactive sessions were handled by the experts. The First technical session by Selvi. A. Hemavathy – “A general science on Solar Eclipse” and the second technical session by Dr. R. Mathivanane – “Science Behind 21<sup>st</sup> June 2020 Solar Eclipse” followed by demonstration of prototype Solar Eclipse model using Scale and Ball arrangement kit were taught. Each session was conducted for ½ hour (½ hr. Ist Technical session + ½ hr. IInd Technical Session + ½ hr. Interactive session). The platform for the webinar was “Go To Meeting”. Many participants attended the webinar and gained knowledge about the Annular Solar Eclipse.



## **WEBINAR PROGRAM DURING THE OCCURRENCE OF NEOWISE COMET HELD ON 26.07.2020 AT Dr.AKSC&P**

A Webinar program in connection with the occurrence of Neowise Comet (C/2020F3) was conducted on 26<sup>th</sup> July, 2020 from 6 P.M to 7 P.M in the Conference Hall of Dr. Abdul Kalam Science Centre and Planetarium, Lawspet, Puducherry. Keep an eye out of neowise Comet is the title proposed in the webinar program.

The inaugural address was delivered by Technical Assistant from PCS&T. The first technical lecture was delivered by Selvi. A. Hemavathy, Vice-President from Pondicherry Science Forum. During the technical session, identifying comet in the past by the ancient people was discussed.

The Second technical presentation was delivered by Dr. Mathivanane. He had delivered the basics of Comet emerged from the Oort cloud which contains billions of comets so small and distant as to be never observed. The History of Comet in general, appearance of NEOWISE Comet which was identified in the month of March 2020 by the astronomers during the NEOWISE mission of the wide field infrared survey explorer space telescope was explained to the visitors. Every day near the Ursa Major constellation at an altitude of 40 degrees the comet is visible. Further, the position of the Comet while observing at the earth on every month was screened to the visitors. After July it will fade away very fast and will not be visible to the unaided eye explained the resource person.

After 1 hour of presentation doubts from the audience during the interactive session was clarified. Questions such as “Is it safe to our planet for occurrence of such comet on this time”, “reasons for non visibility of the comet in the month of July 2020” etc., were the question arised.

The webinar ended at 7:30 P.M with vote of thanks by the Technical Assistant from PCS&T. Scientific Officer from DSTE monitored the entire event. Nearly 78 visitors registered for the webinar program. Also it was noted that participants from other states and even 1 participant from abroad attended the webinar program. A good feedback from some of the participants was also received.

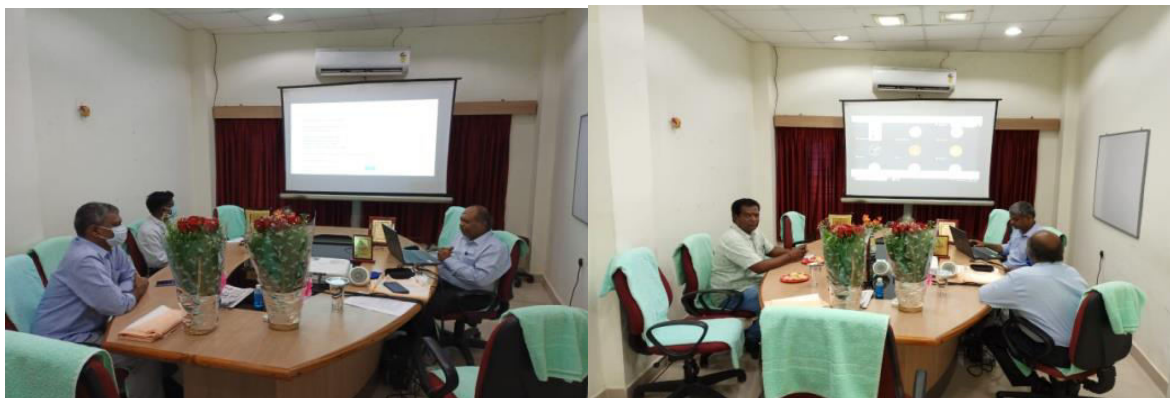


## Photo Gallery



## WEBINAR ON THE OCCASION OF 89<sup>TH</sup> BIRTH ANNIVERSARY OF Dr. A.P.J. ABDUL KALAM

S&T awareness Webinar was organised on the occasion of 89<sup>th</sup> Birth Anniversary of Former Hon'ble President Dr. A.P.J. Abdul Kalam on 15<sup>th</sup> October 2020 (10:00 A.M – 01:00 P.M) at Dr. Abdul Kalam Science Centre and Planetarium, Puducherry on “Problems Faced Post COVID-19 and their solutions from the life of Dr. Abdul Kalam” lectured by Resource persons Dr. V. Gopal, Professor-cum-Principal & HOD, College of Pharmacy, Mother Theresa Institute of Health Sciences and Research Institute, Puducherry through webinar.



75 persons participated in webinar and learned protective measures about Problems Faced Post COVID-19 and their solutions from the life of Dr. Abdul kalam.

## **IST WEBINAR SERIES ORGANISED BY PCS&T AT Dr. AKSC&P ON 17.10.2020.**

The first Webinar Series on “Self employment – a botanist perspective” was conducted on 17.10.2020 at 10:30 A.M in Dr. AKSC&P, Lawspet, Puducherry. Dr. Kumaresan Vadivelu, Assistant Professor from Department of Botany, KMGIPSR, Puducherry was the Resource Person for the program. Senior Scientific Officer from DSTE had delivered the introduction speech. It was then followed by the technical lecture by the Resource Person. Entrepreneurship, Mushroom cultivation, Vermicomposting, Vegetative Propagation, Tissue Culture, Hand pound rice, Medicinal Plant Gardening, Terrace Gardening, Funding agencies are the topics covered in the webinar.

**Mushroom Cultivation:** The definition of Mushroom, types of mushroom, edible and non-edible varieties, handling of Training to the students about Mushroom Cultivation by Thiru Sundaramoorthy – the validity of certificate for availing loan to start up self – employment, success stories of students benefitted under Mushroom cultivation were discussed.

**Vermicomposting:** It is a managed process of worms digesting organic matter to transform the material into a beneficial soil amendment. Under this how to setup a compost pit, the types of earthworm species used in vermiculture, success stories, trading of vermicompost at of cost of Rs.15/kg developed at KMGIPSR site were disclosed.

**Vegetative Propagation:** It is the art of growing plants by cutting the branches and developing in a small waste container. Rose cutting, coleus aromaticus plant development, layering of plants were explained.

**Tissue Culture:** Students of Perunthalaivar Kamarajar Krishi Vigyan Kendra who are excellent in Tissue Culture was admired at the beginning. The documents related to cultivation of Tissue culture available in the website of Dept. of Agriculture and Farmers Welfare, GOP was communicated.

**Hand Pound Rice:** The art of pounding the rice which was traditionally followed by our ancestors in the earlier era was explained. Dr. M. Kochadai, Co-ordinator, Incubation Centre at KMGIPSR is the resource person enlightened this culture to the students and public. Trading of multi nutrient rice at their institution is an added feature about this topic.

**Medicinal Plant Gardening:** The schemes under National Medicinal Plant Board under the Ministry of Ayush, GOI were conveyed. The medicinal beneficiaries of *Andrographis paniculata* Burm (Niavembu) one of the major ingredients added for curing COVID-19 virus, coleus aromaticus plant, stevia, insulin plants was explained.

**Terrace Gardening:** Growing plants at the terrace of the houses which is mostly utilized for edible purposes and contacts of person who are arranging the terrace gardening at residences were conveyed.

Nearly 70 participants attended the program. Queries related with conducting training program to learn more about the schemes was raised and clarified by the Resource Person. The webinar ends at 11:45 A.M. Technical Assistant from PCS&T conveyed the vote of thanks.



## **2ND WEBINAR SERIES ORGANISED BY PCS&T AT Dr. AKSC&P ON 24.10.2020.**

The Second Webinar Series on “Renewable Energy – Be Earth Friendly” was conducted on 24.10.2020 at 10:30 A.M in Dr. AKSC&P, Lawspet, Puducherry. Dr. I. Neethi Manickam, Professor from Department of Mechanical Engineering, Francis Xavier Engineering College, Tirunelveli was the Resource Person for the program. Technical Assistant from PCS&T had delivered the introduction speech.

It was then followed by the technical lecture by the Resource Person. One of the major constituents of polluting the environment – the Air Pollution was discussed in detail. Energy demand, Energy distribution in India, Renewable Energy production, Off Grid SPV plant, Solar Street lights, Solar Water heater, Wind Mill, Bio-Gas plant, Waste Management, Energy Conservation are the topics covered during the webinar.

**Air Pollution:** Any contamination of the atmosphere that disturbs the natural composition and chemistry of the air is the definition delivered by the Resource person. Common Air pollutants, types of Air pollution, sources of Air pollution, Effects of Air pollution on humans, animals, birds, plants, historical structures, Air quality Index, Ways to control air pollution were delivered.

**Energy Demand:** Energy Demand in India on various periods, Per capita consumption and Energy distribution through various sources was explained.

**Off Grid SPV Plant:** The schematic diagram of energy obtained from SPV plant, storage and distribution to house was narrated. Further generation of energy in a day, space requirement, cost for setting up of 5KW, 3KW, 2KW & 1 KW and its features were narrated.

**Solar Street lights:** Solar Street light series setup at street light, its lumens, pole height, distance between poles were conveyed.

**Solar Water Heater:** The components of Solar Water Heater, the benefits of 100litres SWH was explained.

**Wind Mill:** The types of wind mill, rated power in graphical representation was conveyed.

**Bio Gas Plant:** The features and applications of Bio Gas Plant, Bio-mass pyrolysis, energy efficient chullah, Bio gas engine, Bio gas for cooking etc. were conveyed.

**Waste Management:** Organic Waste composting, Energy from Municipal Solid Waste, Incineration of waste, Waste water to Energy system, energy conservation in lights, fans, refrigerator etc. was delivered.

Nearly 30 participants attended the program. The webinar ends at 11:45 A.M. Technical Assistant from PCS&T conveyed the vote of thanks.

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**3<sup>rd</sup> WEBINAR ON S&T SPECIFIC SIGNIFICANT EVENTS ON THE OBSERVANCE OF BIRTH ANNIVERSARY OF INDIAN RENOWNED SCIENTISTS HOMI.J. BHABHA AT DR. ABDUL KALAM SCIENCE CENTRE & PLANETARIUM, PUDUCHERRY ON 31.10.2020.**

Homi J. Baba pioneered the establishment of nuclear physics centres in India and he is the man behind the atomic research stations. Homi Jehangir Bhabha is renowned world over for his 'cascade' theory on cosmic rays which produce electron showers after colliding with atoms in the air. He encouraged research works Astronomy and Microbiology. Tata Institute of Fundamental Research (TIFR) was set up under his leadership.

To honour his birth anniversary (30.10.2020) Dr. A. Pradeep, Asst. Professor, PG & Research Department of Physics, Arignar Anna Govt. Arts College delivered his lecture on "Nano -robotics – the Future of medicine" on 31.10.2020.



  
**Government of Puducherry**  
**Department of Science, Technology and Environment**  
**Puducherry Council for Science and Technology**

**Webinar Series - 3**  
**Nano Robotics - The Future of Medicine**  
By  
**Dr. A. Pradeep**  
Asst. Professor,  
PG & Research Department of Physics  
Arignar Anna Govt. Arts College, Villupuram

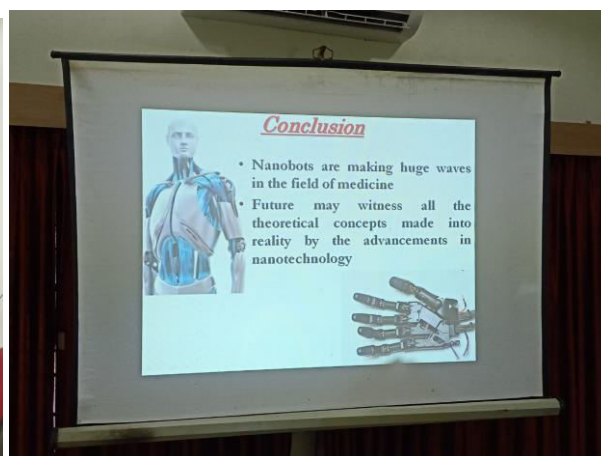
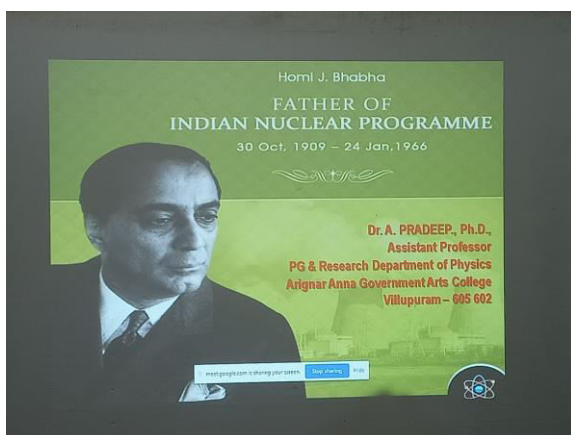
**Date : 31.10.2020**      **Time : 10.30 am - 11.30 am**  
**Join at: Google Meet**      **Meeting ID : qfi-wihn-tid**

**Meeting Link : [meet.google.com/qfi-wihn-tid](https://meet.google.com/qfi-wihn-tid)**

**Kindly Register Your name and other details in google form**  
<https://docs.google.com/forms/d/15vxS8UMT-q4-l8mHqDhsMWXzagVRCapQjP3eoHW6lsc/edit>

**e-certificates will be issued to the participants**

**Contact No: 9442284087, 9791375018**  
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Totally 103 participants were benefitted by this lecture on Nano- Robotics.

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**WEBINAR SERIES - 4 ON S&T SPECIFIC SIGNIFICANT EVENTS ON THE OBSERVANCE OF BIRTH ANNIVERSARY OF INDIAN RENOWNED SCIENTISTS SIR. C. V. RAMAN – FIRST INDIAN LAUREATE IN PHYSICS ON 07.11.2020.**

The Great Indian physicist Chandrasekhar Venkata Raman, popularly known as C.V Raman, was born on 7<sup>th</sup> November, 1888 at Trichirapalli in Tamil Nadu. His father was a Physics teacher and so it was natural that Raman developed love for this subject. He was a brilliant student from the very beginning. He studied at Hindu College, Visakhapatnam and Presidency College, Madras. He obtained his post-graduation degree in physics in 1907 with the top position. During his student period he conducted many researches and published his papers in many reputed magazines.

To honour his birth anniversary (07.11.2020) Dr. G. Chandrasekaran, Professor, Department of Physics, Pondicherry University – cum – Principal (I/C), Community College, Pondicherry University, Pondicherry delivered his lecture on “Sir. C. V. Raman – First Indian Nobel Laureate in Physics” on 07.11.2020.



**Government of Puducherry**  
Department of Science, Technology and Environment  
Puducherry Council for Science and Technology

**Webinar Series - 4**  
**SIR. C. V. Raman - First Indian Nobel Laureate in Physics**  
By  
**Prof. Dr. G. Chandrasekaran**  
Dept. of Physics,  
Pondicherry University  
- cum -  
Principal (I/C),  
Community College,  
Pondicherry University, Puducherry.

Date : 07. 11. 2020      Time : 10.30 am - 11.30 am  
Join at : Google Meet      Meeting ID : tbz-aexb-dvx  
Meeting Link : [meet.google.com/tbz-aexb-dvx](https://meet.google.com/tbz-aexb-dvx)

Kindly Register Your name and other details in google form  
[https://docs.google.com/forms/d/12amgzfK8hJ3dUC4C\\_EZ7HGESVIMdZkxntBQjCtzipPsk/edit](https://docs.google.com/forms/d/12amgzfK8hJ3dUC4C_EZ7HGESVIMdZkxntBQjCtzipPsk/edit)  
E-Certificates will be issued to the participants

**Contact No. 0413 - 2256111, 9442284087, 9791375018**





## **WEBINAR SERIES -5 ON THE INFORMATION EDUCATION AND COMMUNICATION PROGRAMME ON AIR AND NOISE POLLUTION, PUDUCHERRY ON 12.11.2020.**

Information Education and Communication Programmes (IEC) is being organised by PCS&T the State Nodal Agency (SNA) for National Green Corps (NGC) organised IEC activities – Environment awareness Program in School students through the Eco Clubs in U.T. of Puducherry on “Health impacts of the Air Pollution, Noise Pollution due to noise prone activities, bursting of crackers on the occasion of Diwali and other religious activities”

During Diwali and other festive seasons, firing of crackers peaks up the pollution level resulting in illness of the society. Hence, the society needs to be educated about the hazardous effects on the Environment caused due to bursting of crackers”. We may prefer to go for green eco-friendly Diwali. By not bursting crackers, we reduce of pollution foot prints. We may use traditional lighting of earthen lamps. There by we save money on fire crackers to distribute sweets and clothes to lesser privileged. It is our duty to follow all rules and regulation to save our environment. It is mandatory to go for Eco-Friendly Green Diwali – Green Diwali, to save our country India as well as the world.





PCS&T has conducted the webinar as per the Directions of Hon'ble Supreme Court. on 12.11.2020. Resource persons, Dr. V. Gopal, Principal, College of Pharmacy, MTPG & RIHS, Puducherry has delivered lecture on "Health Impacts of Air and Noise Pollution due to bursting of crackers" and Dr. N. Ramesh, Senior Environmental Engineer, Department of Science, Technology & Environment, Puducherry had delivered lecture on "Enforcement of Noise Pollution (Regulation and Control) Rules, 2010 in the U.T of Puducherry".

70 persons participated in webinar and were educated about the hazardous nature and enforcement laws on air and noise pollution. Auto Generated E-certificate has been issued for all participants through e-mail.


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**WEBINAR SERIES - 6 ON S&T SPECIFIC SIGNIFICANT EVENTS ON THE OBSERVANCE OF BIRTH ANNIVERSARY OF INDIAN PALEOBOTANIST “BIRBAL SAHNI – SCIENCE FOR PEACE AND DEVELOPMENT” AT DR. ABDUL KALAM SCIENCE CENTRE & PLANETARIUM, PUDUCHERRY ON 17.11.2020.**

The Great Indian Paleo-Botanist Dr. Birbal Sahni was born on 14<sup>th</sup> November, 1891. He was the founder of Birbal Sahni, Institute of Palaeo-Botany, Lucknow. In 1911 he went to England, studied at the Emmanuel College at Cambridge. In 1913 Sahni obtained a first class in Part-I of the Natural Sciences Tripos and he completed the Part-II of the Tripos in 1915. After that he studied under Professor A.C. Seward, and got his D.Sc. Degree from Landon University in 1919. After completion of his education Birbal Sahni came back to India and worked as Professor of Botany at Banaras Hindu University, Varanasi and Punjab University for about a year.

To commemorate his birth anniversary (14.11.2020) a webinar is conducted on “**Birbal Sahni – Science for Peace and Development**” by Prof. Dr. M. P. Ramanujam, M.Sc, PhD, Retired Professor in Botany (KMGCPGS) -cum- Member, State Council for Higher Education, Government of Puducherry on 17.11.2020.



  
**Government of Puducherry**  
**Department of Science, Technology and Environment**  
**Puducherry Council for Science and Technology**  
**Webinar Series - 6**



**"Birbal Sahni - Science for Peace and Development"**  
By  
**Dr. M. P. Ramanujam**  
(Retd.Prof. in Botany, KMGIPGS&R)  
&  
Member,  
Puducherry State Council for  
Higher Education,  
Government of Puducherry

**Date : 17. 11. 2020**                      **Time : 10.30 am - 11.30 am**  
**Join at : Google Meet**                      **Meeting ID : sii-cvz-kam**  
**Meeting Link : [meet.google.com/sii-cvz-kam](https://meet.google.com/sii-cvz-kam)**  
Kindly Register Your name and other details in google form  
<https://docs.google.com/forms/d/1Q3MQAJ8fUosTnkcht0G5HkUcc22XHPL6wpbK5GlgUc/edit>  
E-Certificates will be issued to the participants

**Contact No. 0413 - 2256111, 9442284087, 9791375018**

Totally 75 participants were benefitted by this lecture on this webinar and the E-Certificates has been issued for all the participants.



The Director/M.S (PCS&T), Resource Person, Senior Scientific Officer, Scientific Officer garlanded and paid Flower Tribute to the Statue of “Dr. Birbal Sahni – a Paleo-Botanist”.



The Director / M.S(PCS&T) honouring the resource persons Prof. Dr. M. P. Ramanujam, with Bouquet and Shawl.



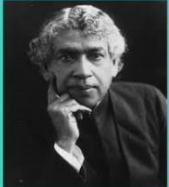
**WEBINAR SERIES - 7 ON S&T SPECIFIC SIGNIFICANT EVENTS ON THE OBSERVANCE OF BIRTH ANNIVERSARY OF “SIR JAGADISH CHANDRA BOSE – INDIA’S FIRST INDIAN MODERN SCIENTIST” AT DR. ABDUL KALAM SCIENCE CENTRE & PLANETARIUM, PUDUCHERRY ON 28.11.2020.**

India’s First Modern Scientist-Sir Jagadish Chandra Bose was born on 30<sup>th</sup> November, 1858. He was the founder of modern science in the Indian subcontinent. Jagadish Chandra Bose was an Indian physicist who pioneered the investigation of radio and microwave optics. Bose was born on November 30, 1858 in Munshiganj District in Bengal (Now situated in Bangladesh). He joined the St. Xavier’s School and college at Kolkatta. He passed the Entrance examination of Calcutta University in 1879. In January 1882, Bose left London for Cambridge where he took admission in Christ’s College to study natural sciences. After completing his education he come back to Kolkatta and was as appointed Professor of Physical science of Presidency College, Calcutta and holds this post till 1915. In 1917, he founded Bose research Institute and became director of same institute of Calcutta and remained in the post until his death on November 23, 1937.

To commemorate his birth anniversary (30.11.1858)a webinar is conducted on **“Sir Jagadish Chandra Bose – India’s First Modern Scientist”** by Dr. M. Bharathi Mohan, Assistant Professor, Department of Physics, Pondicherry University, Puducherry on 28.11.2020.



  
**Government of Puducherry**  
**Department of Science, Technology and Environment**  
**Puducherry Council for Science and Technology**  
**Webinar Series - 7**



**Sir. Jagadish Chandra Bose**  
**"India's First Modern Scientist"**  
By  
**Dr. D. Bharathi Mohan**  
Asst. Professor, Dept. of Physics  
Pondicherry University  
Puducherry

**Date : 28. 11. 2020**      **Time : 10.30 am - 11.30 am**  
**Join at : Google Meet**      **Meeting ID : mfu-emji-raz**  
**Meeting Link : [meet.google.com/mfu-emji-raz](https://meet.google.com/mfu-emji-raz)**  
Kindly Register Your name and other details in google form  
[https://docs.google.com/forms/d/1juWfVfY5mbpl4eS8zRptfntM1aSH9kao\\_qSPy9-c0w/edit](https://docs.google.com/forms/d/1juWfVfY5mbpl4eS8zRptfntM1aSH9kao_qSPy9-c0w/edit)  
E-Certificates will be issued to the participants

**Contact No. 0413 - 2256111, 9442284087, 9791375018**



The Director/M.S (PCS&T), Resource Person, Senior Scientific Officer, Scientific Officer garlanded and paid Flower Tribute to the Statue of “Sir Jagadish Chandra Bose – India’s First Modern Scientist”. The Director/M.S.(PCS&T) welcomed resource person and all participants for the webinar programme. The Director M.S(PCS&T) honoured the resource persons Dr. M. Bharathi Mohan with Bouquet and Shawl.

Totally 55 participants were benefitted by this lecture on this webinar and the E-Certificates has been issued for all the participants.

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A Webinar program was organised by Puducherry Council for Science and Technology during the Great conjunction of the Planets Saturn and Jupiter on 21<sup>nd</sup> December, 2020 from 10:30 A.M to 12:00 P.M at Dr. Abdul Kalam Science Centre and Planetarium. Two resource persons viz. Dr. Mathivanane, Professor in Physics, Bharathidasan Govt. College for Women, Puducherry and Selvi. A. Hemavathy, Vice- President, Pondicherry Science Forum, Puducherry had delivered technical lecture about the conjunction and clarified doubts raised by the public at the end of the event. More than 100 participants attended the webinar and gained knowledge about the great conjunction. The planets Jupiter and Saturn closest approach after 20 years happened in this month of December 2020. This rare event is called Great Conjunction. In this event the distance between the two planets is only 0.1 degree. In the south-southwest direction this event happened 30 minutes after sunset and prolonged for 2 hours.







## வானத்தில் தோன்றும் மிக அபூர்வக் காட்சி

**கிரகங்களும் வாய்க்க கோள்கள்... ஒரு புள்ளியிலேயே மிக நெருக்கமாய் அமைபும் கிழிதெ...  
"கிரேட் கன்ஜன்க்டன்" எனப்படும் கோள்களின் போரிமணவு (Great Conjunction)**



**397** ஆண்டுகளுக்குப் பிறகு டிசம்பர் 21 ஆம் தேதி நிலமும் ஆகாசமும் அடுத்தது 2080 ஆம் ஆண்டு தான்!

20 ஆண்டுகளுக்குப் பிறகு விபரம்தான், சனி கிரகங்கள் மிக நெருக்கமாகத் தோன்றும் நிகழ்வு தற்போது நடக்கவுள்ளது. 2020 டிசம்பர் 21 அன்று இரண்டு கிரகங்களும் ஒரே நேரத்தில் போர் தோன்றக் கூடும் என்று அறிவியல் அறிஞர்கள் தெரிவிக்கின்றனர்.

சூரிய மண்டலத்தின் மிகப்பெரிய கிரகங்களான வியாழன் மற்றும் சனி ஆகியவை ஒவ்வொரு நூள் இரவும் ஒரு ஒளி நிகழ்ச்சியை நடத்துகின்றன.

அவற்றை இந்த நவம்பர், டிசம்பர் மாதங்களில் அனைவருமே வெறும் கண்களால் காணலாம். வியாழன், சூரியனில் இருந்து வரிசையில் ஐந்தாவது மற்றும் சூரிய மண்டலத்தின் மிகப் பெரிய கிரகம் வியாழனுக்கு ஒரு நீண்ட வளைவு உண்டு. கலிவிடோ கலிவி பூங்கு அப்பால் முதல் நிலைகளை வியாழனில் கண்டுபிடித்தார்.

விரிபுசெத்தைப் பாரக்கும் விதத்தில் பூர்வீகம் ஏற்படுத்திய மிகப் பெரிய கண்டுபிடிப்புகளில் இதுவும் ஒன்றாகும். சனி, சூரியனில் இருந்து ஆறாவது கிரகம் மற்றும் சூரிய மண்டலத்தின் இரண்டாவது பெரியகிரகம். தற்போது வியாழனின் இடதுபுறத்தில் சனி தோன்றும். சனி இருமடங்கு தொலைவில் இருப்பதால் வியாழனை விட பாதி பிரகாசமாக இருக்கிறது.

வரலிருக்கும் நாட்களில், ஒவ்வொரு இரவிலும், இரண்டு மாதங்களும் கிரகங்களும் ஒன்றோடு ஒன்று நெருக்கத் தோன்றும். இந்த மகத்தான இளைவு 19.6 ஆண்டுகளுக்கு ஒரு முறை நடக்கிறது. டிசம்பர் 20, 21 மற்றும் 22 ஆகிய இரவுகளில், இந்த இரண்டு கிரகங்களும் மிக நெருக்கமாகத் தோன்றும். இந்த அரிதான தன்மை, "கிரேட் கன் ஜங்ஷன்" என்று குறிப்பிடப்படுகிறது. ஏனென்றால் கிரகங்களை போலில்லாமல் இவை இரண்டும் அழகாக நெருங்குவதற்காக, "கிரேட் கன் ஜங்ஷன்" நிகழ்வில் வியாழன் மற்றும் சனி 0.1 டிகிரி இடைவெளியில் மட்டுமே இருக்கும்.

"கிரேட் கன் ஜங்ஷன்" பாரக்க சிறப்பு உபரணங்கள் தேவையில்லை. தெற்கு-தென்பேற்கில் பிறைநிலை வானம் இருட்டியவுடன் தெரியும். வியாழன் பெரும்பாலும் சூரிய அஸ்தமனத்திற்குப் பிறகு தோன்றும். அதன் பிறகு சனி தோன்றும். இந்த கிரகங்களைக் கவனிக்க, உன்சூர் சூரிய அஸ்தமனத்திற்குப் பிறகு கமர் 30 நிமிடங்கள் முதல் இரண்டு மணி நேரம் வரை பாரக்க முடியும். ஒவ்வொரு 20 வதுட்களுக்கு, வியாழன் மற்றும் சனி ஒரு சந்திப்பைக் கொண்டிருக்கும். நவம்பர் மற்றும் டிசம்பர் மாதங்களில் நாட்கள் போகப்போக இந்த இரண்டு




## WEBINAR SERIES -9 DURING THE OBSERVANCE OF NATIONAL MATHEMATICS DAY CELEBRATION 2020

An Half-a-Day Webinar on the Observance of National Mathematics Day 2020 was conducted on 22.12.2020 from 10:30 A.M to 1:00 P.M at Dr. Abdul Kalam Science Centre and Planetarium (Dr.AKSC&P), Lawspet, Puducherry.


Two Resource Persons viz. Thiru S. Damodaran, Head of the Department, Department of Mathematics, Tagore Government Arts and Science College, Puducherry and Thiru S.B. Sridaran, Lecturer in Mathematics, Ilango Adigal Government Higher Secondary School, Muthirapalayam, Puducherry had delivered technical lectures on “The History of Shri Srinivasa Ramanujam and his works” and “Simple Solutions for solving problem in Mathematics” respectively.

Earlier, floral tribute to the Scientist bust of Shri Srinivasa Ramanujam was offered on that day. Students in the following educational institutions viz., Kendra Vidyalaya (K.V) No.1 Hr. Sec. School, K.V No. 2 Hr. Sec. School, St. Patrick Hr. Sec. School, Petit Seminare Hr. Sec. School, Amalorpavam Hr. Sec. School, Vallalar Govt. Hr. Sec. School, Navallar Nedunchezian Govt. Hr. Sec. School were intimated about participation in the webinar through classroom online multimedia arrangements. More than 100 students participated in the webinar and gained knowledge delivered in the technical lectures.



Govt. of Puducherry  
Department of Science, Technology and Environment  
Puducherry Council for Science and Technology

**Webinar on  
Observance of National Mathematics Day**



**Talk 1 :**  
**The History of Srinivasa Ramanujam and his works**  
Dr. S. Damodaran  
HOD, Department of Mathematics  
Tagore Govt. Arts College  
Puducherry

**Talk 2 :**  
**Simple Solutions for solving problems in Mathematics**  
Thiru S. B. Sridharan  
Lecturer in Mathematics  
Ilango Adigal Govt. Hr.Sec. School  
Puducherry

Date : 22.12.2020      Time : 10.30 am - 12.30 pm

Join at : Google Meet      Meeting id : ofd-gdgt-jrv

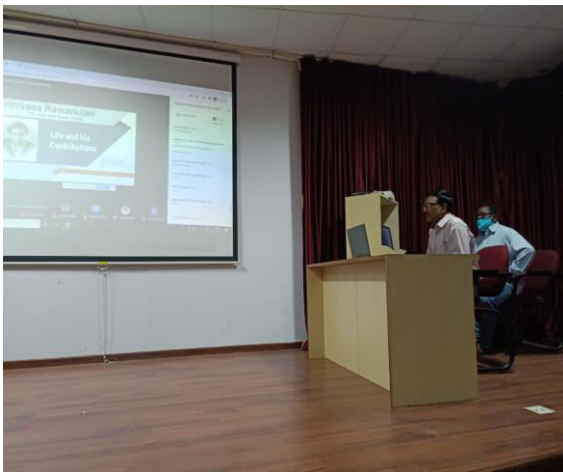
**Meeting Link : [meet.google.com/ofd-gdgt-jrv](https://meet.google.com/ofd-gdgt-jrv)**

Kindly Register your name and other detail in google form  
**<https://forms.gle/n3MSKkZthVwvAgUd9>**

Contact No. : 0413 - 2257222, 9442550077

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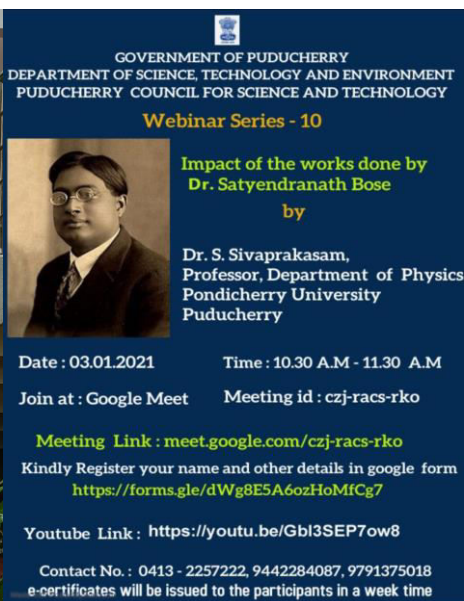





**WEBINAR SERIES - 10 ON S&T SPECIFIC SIGNIFICANT EVENTS ON THE OBSERVANCE OF BIRTH ANNIVERSARY OF “DR. SATYENDRANATH BOSE” AT DR. ABDUL KALAM SCIENCE CENTRE & PLANETARIUM, PUDUCHERRY ON 03.01.2021.**

Dr. Satyendranath Bose was born on 3<sup>rd</sup> January, 1874. He is Specialised in Theoretical Physics and he is best known for his work on Quantum Physics in the early 1920s. He has collaborated with Albert Einstein in developing the foundation for Bose-Einstein Condensate (BEC). While studying at the University of Calcutta, Bose also served as a Lecturer in the Physics Department. In 1921, Bose joined the Physics Department at the University of Dhaka. He wrote a paper in 1924 in which he derived Planck's quantum radiation law without referencing classical physics which he was able to do by counting states with identical properties.

To commemorate on his 127<sup>th</sup> birth anniversary (03.01.2021) a webinar was conducted on the **“Impact of Works Done by Dr. Satyendranath Bose”** lectured by Dr. S. Sivaprakasam, Professor, Department of Physics, Pondicherry University, Puducherry on 03.01.2021.



GOVERNMENT OF PUDUCHERRY  
DEPARTMENT OF SCIENCE, TECHNOLOGY AND ENVIRONMENT  
PUDUCHERRY COUNCIL FOR SCIENCE AND TECHNOLOGY

**Webinar Series - 10**

**Impact of the works done by  
Dr. Satyendranath Bose**  
by

Dr. S. Sivaprakasam,  
Professor, Department of Physics  
Pondicherry University  
Puducherry

Date : 03.01.2021      Time : 10.30 A.M - 11.30 A.M

Join at : Google Meet      Meeting id : czj-racs-rko

**Meeting Link : [meet.google.com/czj-racs-rko](https://meet.google.com/czj-racs-rko)**

Kindly Register your name and other details in google form  
<https://forms.gle/dWg8E5A6ozHoMfCg7>

Youtube Link : <https://youtu.be/Gbl3SEP7ow8>

Contact No. : 0413 - 2257222, 9442284087, 9791375018  
e-certificates will be issued to the participants in a week time



The Director/M.S (PCS&T), Resource Person, Scientific Officer garlanded and paid Flower Tribute to the Statue of “Dr. Satyendranath Bose”.The Director/M.S. (PCS&T) welcomed the resource person and all participants for the webinar. The Director / M.S(PCS&T) honoured the resource persons Dr. S. Sivaprakasam, Professor, Department of Physics, Pondicherry University, Puducherry with Bouquet and Shawl.

Totally 72 participants were benefitted by this webinar and the E-Certificates has been issued for all the participants.

## **WEBINAR SERIES - 11 ORGANISED BY PCS&T AT THE CONFERENCE HALL OF DSTE ON 28.01.2021.**

The Webinar Series – 11 on “Crystals and the Modern World” was conducted on 28.01.2021 at 10.30 A.M in the Conference Hall of DSTE, Puducherry. Dr. P. Rajesh, Ph.D, Assistant Professor from Department of Physics, Sri Sivasubramaniyar Nadar College of Engineering, Old Mahabalipuram Road, Kalavakkam, Chennai was the Resource Person for the Webinar. Director (DSTE) had delivered the introduction speech. It was then followed by the technical lecture by the Resource Person. The Importance of Crystals, Crystalline solid, Non-Crystalline solids, Classification of Matter (Gases, Liquids and Liquid crystals, Solid), Crystal Properties, Factors influencing the crystalline perfection of the crystal, applications are the topics covered during the webinar.

**Importance of Crystals:** In the modern world, the development of science & technology in many areas has been achieved through the growth of single crystals. Large sized single crystals are essential for device fabrication and efforts are taken to grow large single crystals in short duration with less cost. It is increasingly important requirement in materials such as semiconductors, superconductors, polarizers, transducers, radiation detectors etc.

**Classification of matters:** The classification of matters divided into three types such as Gases, Liquid and Liquid crystals and Crystalline and non – crystalline solids was elucidated.

**Crystalline Solids:** By definition, a crystalline solid is a solid material, whose constituent atoms, molecules, or ions are arranged in an orderly repeating pattern extending in all three spatial dimensions. A single crystal consists of only one crystal, whereas the polycrystalline material of many crystals separated by well – defined boundaries was narrated.

**Non – Crystalline Solids:** In amorphous solids, non arrangement of constituent particle in an orderly manner, its randomly distribution, no directional properties and wide range of melting point possessing an irregular shape was explained.

**Crystal Properties:** The properties of Crystals such as sharp melting points, long range of positional order, exhibiting Piezoelectric and Ferroelectric effect was briefed.

**Factors influencing the crystalline perfection of the crystal:** The common factors that influence the crystalline perfection of the crystal, such as the Purity of the starting materials, Perfection of the seed crystal, Cooling or evaporation rate, pH of the growth solution was elaborated in detail.

**Applications:** Gemstone necklace, Laser treatment for Acne Scars, Security Scanning, and Silicon Solar cells was portrayed with pictures in the power point presentation. Nearly 54 participants attended the program.

\* \* \*



## WEBINAR SERIES-12 ORGANISED BY PCS&T AT DSTE ON 11.02.2021.

The 12<sup>th</sup> Webinar Series during the observance of Birth Anniversary of Thomas Alva Edison was conducted on 11.02.2021 at the Conference Hall of DSTE, Puducherry. Dr. S. Santhosh Kumar, Associate Professor from the Department of Physics, KMGIPSR, Puducherry was the Resource Person for the program. Senior Scientific Officer welcomed the participants followed by introductory remarks about the Webinar by Director/M.S (PCS&T)


It was then followed by the technical lecture by the Resource Person at 10:30 a.m. At the beginning, a remarks by Freeberg a distinguished professor of Humanities, University of Tennessee about Edison which narrates **“An invention not only has to work fairly well, but it has to be something that the market wants and can afford to buy. Edison understood that as well as anyone in his day”** was screened.

To enlighten more achievement about the scientist, he listed out the patents attained by Thomas Alva Edison viz. 1093 – U.S Patents including his foreign patents of 2332. 425 nos. of patent in Electric light & power, 2000 nos. of patent in phonographic and recording sound, 185 nos. of patent in Telegraphy and Telephony findings, 145 nos. of patent in batteries, 50 patent in mining and iron ore milling, 40 patent in cement, 10 patent in motion picture and 50 miscellaneous patent.

The most significant invention of Edison is the Automatic Telegraph which is a superior system in which a telegraph receiver utilized a metal stylus to mark chemically treated paper, which then could be run through a typewriter like device. It was capable of recording up to 1000 words a minute, which made it possible to send long message quickly.

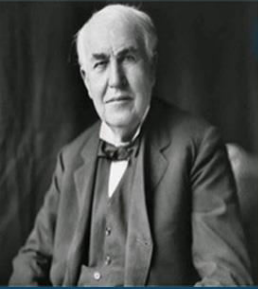
Thomas Alva Edison was died on October 18, 1931 in West Orange, New Jersey. The contribution made the scientist in the society which was remembered by his monument built three years later after his death at Iwashimzu Hachimangu's precincts at the top of Mt. Otokoyama, Japan was elucidated. Every year Edison's birth and death anniversaries was observed by a light festival at this shrine with traditional bamboo lanterns lilted around the monument along with the playing of the American National Anthem.

Nearly 70 participants attended the program. The webinar ends at 11:45 p.m. Technical Assistant from PCS&T conveyed the vote of thanks.

  
 GOVERNMENT OF PUDUCHERRY  
 DEPARTMENT OF SCIENCE, TECHNOLOGY AND ENVIRONMENT  
 PUDUCHERRY COUNCIL FOR SCIENCE AND TECHNOLOGY

**Webinar Series - 12**

**Observance of Birth Anniversary of Thomas Alva Edison**



**Thomas Alva Edison -  
A Scientist for the Society**

by

**Dr. S. Santhosh Kumar**  
Associate Professor,  
Department of Physics,  
Kanchi Maa Munivar Govt.  
Institute for Post Graduate  
Studies and Research,  
Lawspet, Puducherry

**Date : 11.02.2021      Time : 10.30 A.M - 11.30 A.M**

**Join at : Google Meet    Meeting id : hgu-uckn-kox**

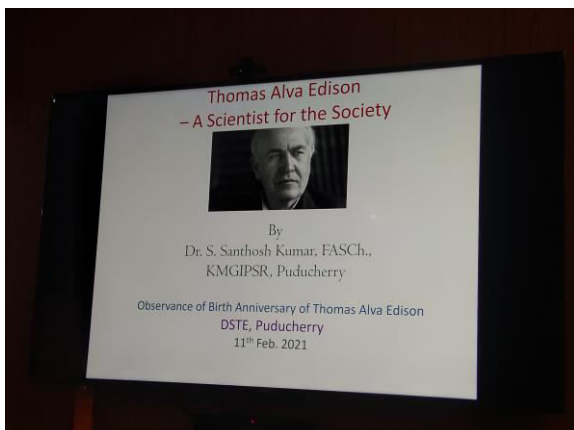
**Meeting Link : [meet.google.com/hgu-uckn-kox](https://meet.google.com/hgu-uckn-kox)**

Kindly Register your name and other details in google form  
<https://forms.gle/K456jkMDk3WCTcA79>

**Youtube Link : <https://youtu.be/FE2qo7RAef8>**

**Contact No. : 0413 - 2257222, 9442550077, 9791375018**

**e-certificates will be issued to the participants in a week time**



### **WEBINAR SERIES -13 ORGANISED BY PCS&T AT DSTE ON 12.02.2021.**

The 13<sup>th</sup> Webinar Series during the observance of Birth Anniversary of Charles Darwin was conducted on 12.02.2021 at the Conference Hall of DSTE, Puducherry. Dr. V. Ravichandran, Associate Professor and Head, Department of Zoology, KMGIPSR, Puducherry was the Resource Person for the program. Senior Scientific Officer welcomed the participants followed by introductory remarks about the Webinar by Director/M.S (PCS&T)


It was then followed by the technical lecture by the Resource Person at 10:30 a.m. A general introduction about Charles Darwin childhood days, studies, family background was narrated. Later observation of wildlife in the Galapagos island where many of the Darwin's findings happened was revealed.

The theory of evolution says that all living things on Earth, including plants, animals and microbes, come from a common ancestor by slowly changing throughout the generations. Darwin suggested that the way living things changed over time is through *natural selection*. This is the better survival and reproduction of those that best fit their environment. Fitting into the place where you live is called adapting. Those who fit best into the place where they live, the best adapted, have the best chance to survive and breed. Those who are less well-adapted tend not to survive. If they do not survive well enough to raise young, this means they do not pass on their genes. In this way, the species gradually changes.

A simple definition about coining Darwin as Father of Evolution was conveyed. Evolution which is going on all organisms was first identified by Darwin in 1859. Hence, considering his contribution in the field of science and that during 19<sup>th</sup> century he was called as "Father of Evolution"

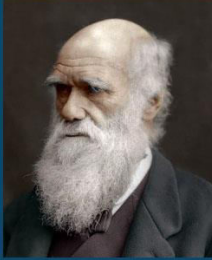
The technical lecture ends at 11:30 a.m. More queries from the students were patiently answered by the Resource person. Nearly 80 participants attended the program. The webinar ends at 11:45 a.m. Technical Assistant from PCS&T conveyed the vote of thanks.



  
 GOVERNMENT OF PUDUCHERRY  
 DEPARTMENT OF SCIENCE, TECHNOLOGY AND ENVIRONMENT  
 PUDUCHERRY COUNCIL FOR SCIENCE AND TECHNOLOGY

**Webinar Series - 13**

**Observance of Birth Anniversary of Charles Darwin**



**Charles Darwin:**  
**The Father of Evolution**  
 by  
**Dr. V. Ravichandirane**  
 Associate Professor and HOD  
 Department of Zoology,  
 Kanchi Maa Munivar Govt.  
 Institute for Post Graduate  
 Studies and Research,  
 Lawspet, Puducherry

**Date : 12.02.2021      Time : 10.30 A.M - 11.30 A.M**  
**Join at : Google Meet    Meeting id : fdx-otbn-vds**  
**Meeting Link : [meet.google.com/fdx-otbn-vds](https://meet.google.com/fdx-otbn-vds)**  
 Kindly Register your name and other details in google form  
<https://forms.gle/E7uBL9oimsmZomsu9>  
**You Tube: <https://youtu.be/MRbdSx1GRmU>**  
 Contact No. : 0413 -2963422, 9442550077, 9791375018  
 e-certificates will be issued to the participants in a week time



## **WEBINAR CONDUCTED DURING THE OBSERVANCE OF NATIONAL SCIENCE DAY CELEBRATION 2021**

Puducherry Council for Science and Technology (PCS&T) had conducted a Webinar on the Observance of National Science Day 2021 on 28.02.2021 from 10:30 A.M to 12:00 P.M at Dr. Abdul Kalam Science Centre and Planetarium (Dr.AKSC&P), Lawspet, Puducherry. General public through online and students from Green Skill Development Program were the participants. Two Resource Persons viz. Dr. S. Vincent, Former Member Secretary, Tamilnadu State Council for Science & Technology, Chennai and Dr. Joseph Selvin, Professor and Head, Department of Microbiology, Pondicherry University, Puducherry delivered webinar lectures on “Future of STI: Impacts on Education” and “Future of STI: Impacts on Skills and Work ” respectively. Earlier Director/ M.S(PCS&T) paid tribute to the Scientist bust of Sir C.V. Raman laid at the Garden Area of Science Centre. More than 80 students attended the online technical session and gained knowledge about the theme opted for National Science Day – 2021.



**Government of Puducherry**  
**Department of Science, Technology and Environment**  
**Puducherry Council for Science and Technology**  
**Observance of National Science Day - 2021**

**Webinar on**  
**Future of STI : Impacts on Education, Skills and Work**

**Talk 1 - Future on STI : Impacts on Education**  
Dr. S. Vincent  
Former Member Secretary,  
Tamilnadu State Council for  
Science & Technology,  
Chennai

**Talk 2 - Future on STI : Impacts on Skills & Work**  
Dr. Joseph Selvin  
Professor, Head of the Department,  
Department of Microbiology,  
Pondicherry University

**Date : 28.02.2021** **Time : 10.30 AM - 12.30 PM**  
**Join at : Google Meet** **Meeting id : nib-atow-cvm**  
**Meeting Link : [meet.google.com/nib-atow-cvm](https://meet.google.com/nib-atow-cvm)**  
**Youtube Link : <https://youtu.be/MLIqUfHVtwo>**  
**Kindly Register your name and other details in google form**  
**<https://forms.gle/GDyX7YREuSWbMYom7>**  
**Contact No : 0413 - 2963422, 9442284087, 9442550077, 9791375018**  
**e - Certificates will be issued to the participants in a week time**







**OBSERVANCE OF DEATH ANNIVERSARY OF Dr. A.P.J. ABDUL KALAM ON 27.07.2021**



**WEBINAR ON THE OBSERVANCE OF BIRTH ANNIVERSARY OF “DR. VIKRAM SARABHAI” AT DR. ABDUL KALAM SCIENCE CENTRE & PLANETARIUM, PUDUCHERRY ON 13.08.2021.**

Dr. Vikram Sarabhai was born on August 12, 1919 at Ahmedabad in an affluent family of progressive industrialists. He was widely regarded as the Father of the Indian Space Programme. Apart from being a scientist, he was a rare combination of an Innovator, Industrialist and Visionary. He was instrumental in establishing the Physical Research Laboratory (PRL).

Vikram Sarabhai did research on the time variations of cosmic rays and concluded that meteorological effects could not entirely affect the observed daily variations of cosmic rays. Vikram Sarabhai visualized a new field of research opening up in solar and interplanetary Physics. With active support from Homi Bhabha, Vikram Sarabhai, set up the first Rocket Launching station (TERLS) in the country at Thumba near Thiruvananthapuram on the Arabian Coast, as Thumba is very close to the Equator. The first rocket with sodium vapour payload was launched on November 21, 1963. In 1965, the UN General Assembly gave recognition to TERLS as an international facility. Dr. Vikram Sarabhai was awarded with Shanti Swarup Bhatnagar Medal in 1962 and Padma Bhushan in 1966. Vikram Sarabhai passed away in his sleep on December 31, 1971.



Government of Puducherry  
Department of Science, Technology and Environment  
Puducherry Council for Science and Technology

*Webinar on*  
Observance of Birth Anniversary of Dr. Vikram Sarabhai



Contribution of Dr. Vikram Sarabhai  
in Space Technology

By  
Dr. R. Madivanane  
Professor & HOD, Department of Physics  
BGCW, Puducherry

Date : 13.08.2021 Time : 10.30 am to 11.30 am  
Join at : Google Meet Meeting id : pcb-pkcv-zzg  
Meeting Link : [meet.google.com/pcb-pkcv-zzg](https://meet.google.com/pcb-pkcv-zzg)  
Kindly Register your Name and other Details in google form  
<https://forms.gle/gJqQKBui7VLIe6RA>  
Contact No. : 0413-2257222, 9442284087, 9442550077, 9791375018



To commemorate his 102<sup>nd</sup> birth anniversary webinar was conducted on the topic “**Contribution of Dr. Vikram Sarabhai in Space Technology**” lectured by Dr. R. Madivanane, Professor & Head of Department, Department of Physics, Bharathidasan Govt. College for Women, Pondicherry on 13.08.2021.





The Director/M.S (PCS&T), Resource Person, Scientific Officer garlanded and paid Flower Tribute to the Statue of “Dr. Vikram Sarabhai”.The Director/M.S. (PCS&T) welcomed the resource person and all participants for the webinar. The Director / M.S(PCS&T) honoured the resource persons Dr.R.Madivanane, Professor & Head of Department, Department of Physics, Bharathidhasan Govt. College for Women, Pondicherry on 13.08.2021 with Bouquet and Shawl.

Totally 75 participants were benefitted by this webinar and the E-Certificates has been issued for all the participants.

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## **WEBINAR CONDUCTED DURING THE OCCURRENCE OF ZERO SHADOW DAY PROGRAM 2021**

Puducherry Council for Science and Technology (PCS&T) along with Pondicherry Science Forum and Sri Aurobindo Society had conducted a Press meet followed by a live program in connection with the Zero Shadow Day 2021 on 21.08.2021 at Dr. Abdul Kalam Science Centre and Planetarium (Dr.AKSC&P), Lawspet, Puducherry. General public through online participated in the program. Resource Person Dr. T. V. Venkateswaran, Scientist F from Vigyan Prasar, New Delhi attended the event and explains the significance of the Zero Shadow Day during the program. Nearly 85 participants attended the program.



### **WEBINAR CONDUCTED DURING THE ENGINEER'S DAY CELEBRATION 2021**

Puducherry Council for Science and Technology (PCS&T) had conducted a webinar commemorating 160<sup>th</sup> Birth Anniversary of Sir. M.Visvesvaraya on 15.09.2021.The lecture was handled by Er. S. Suresh, Vice President, Indian Concrete Institute, South and former Superintendent Engineer, PWD, Puducherry under the title “Sir M. Visvesvaraya: A visionary who spearheaded development”. Nearly 40 participants attended the webinar.



**WEBINAR ON THE OBSERVANCE OF BIRTH ANNIVERSARY OF“MICHAEL FARADAY” AT DR. ABDUL KALAM SCIENCE CENTRE & PLANETARIUM, PUDUCHERRY ON 22.09.2021.**

Puducherry Council for Science and Technology has organised a webinar in commemoration of the 230<sup>th</sup> Birth anniversary of Michael Faraday.

Michael Faraday was born on 22 September 1791 in London. He started his carrier as an apprentice with a local bookbinder and educated himself by reading books on a wide range of scientific subjects. In 1812, Faraday attended the lectures given by the Chemist Humphry Davy at the Royal Institution. In 1813, Davy appointed him in the job of chemical Assistant at the Royal Institution.

In 1821 he published his work on electromagnetic rotation (the principle behind the electric motor). The famous principle behind the electric transformer and generator called electromagnetic induction was discovered by Faraday in 1831. During that decade he worked on developing his ideas about Electricity. He was partly responsible for coining many familiar words including 'electrode', 'cathode' and 'ion'.

The Electromagnetic Induction principle for the electric transformer and generator was crucial in allowing electricity to a powerful new technology. He obtained the most Prestigious Scientific Copley Medal Award in the United Kingdom given annually by the Royal Society of London for outstanding achievements in research in any branch of Science.

In this 21<sup>st</sup> century this Electromagnetic Principle is at largely used in CERN commonly known **European Council for Nuclear Research**, for identifying the fundamental particle like HIGG's Boson in physics in Large Hadron Collider nuclear accelerator reactor of length 22 km. This research was helpful in understanding the Science of the Universe, Sub Atomic Particles and Fusion reactors.

In order to felicitate the achievements, PCS & Torganised the webinar on Michael Faraday's Birth Anniversary on the topic **“Faraday Laws in Fusion Machines”** with Expert/ Resource person as Dr. Suraj Kumar Sinha, Associate Professor, Physics Department, Pondicherry University, Pondicherry.

Dr. Suraj Kumar Sinha is an expert in the field of Plasma (Fourth state of Matter) from the Department of Physics who has contributed his work in many



journals, publications and guided many Doctorates in the field of Plasma Physics. He was Best Teacher Awardee during the year 2011. His expertise and his lecture has helped the student and public community to know more about the renowned scientist “Michael Faraday” during the webinar.



Government of Puducherry  
Department of Science, Technology and Environment  
Puducherry Council for Science and Technology

## Webinar on

Observance of Birth Anniversary of Michael Faraday  
**"Faraday Laws in Fusion Machines"**



**Talk By :**  
Dr. Suraj Kumar Sinha  
Associate Professor,  
Physics Department,  
Pondicherry University.

22 - 09 - 2021    10.30 am - 11.30 am

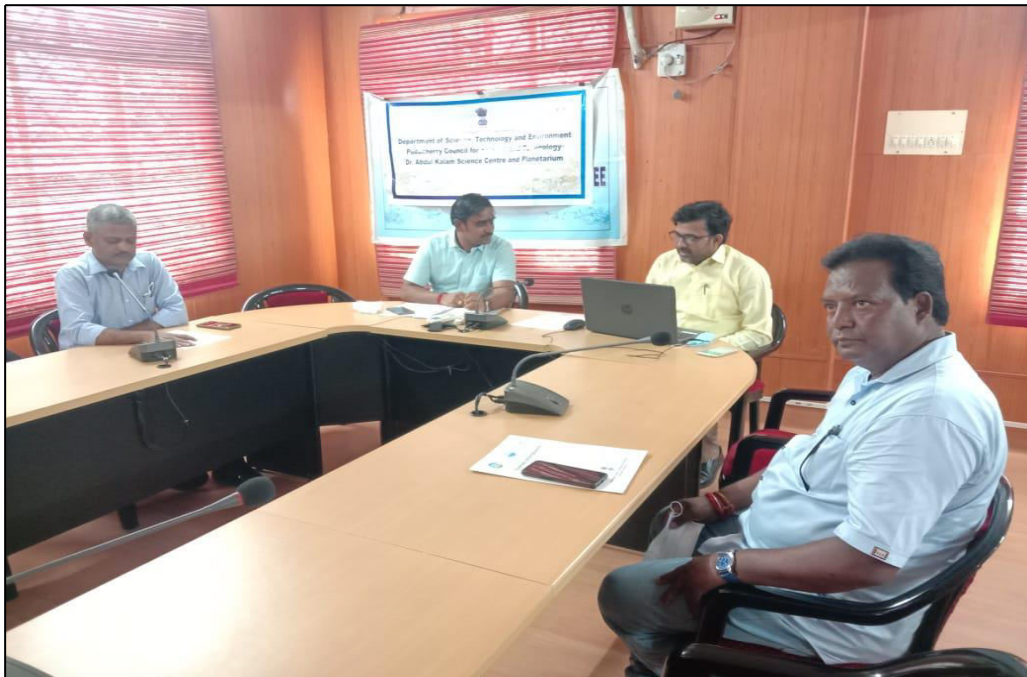
 Google Meeting ID : oni-eqtb-jak

 <https://youtu.be/IUWmmdSSbho>

Kindly Register Your Name and other details in google form  
<https://forms.gle/F3kZMg2ufWMXQtPq7>

Contact No. 9442284087, 9442550077, 9791375018  
**E- Certificates will be issued to the participants**

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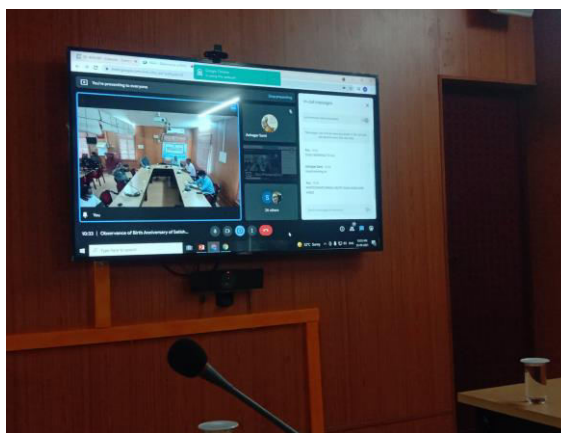
Totally 60 participants were benefitted by this webinar and the E-Certificates has been issued for all the participants.

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## **WEBINAR CONDUCTED DURING OBSERVANCE OF BIRTH ANNIVERSARY OF SATISH DHAWAN**

Puducherry Council for Science and Technology had conducted a webinar commemorating the 101<sup>st</sup> Birth anniversary of Prof. Satish Dhawan on 25.09.2021. This webinar was conducted in remembrance of the achievements of the greatest Indian Mathematician and Aerospace Engineer who is also regarded as the father of fluid dynamics research in India. The lecture was handled by Dr. P. Nallasamy, Associate Professor in Physics, Tagore Arts College, Puducherry under the title “Prof Satish Dhawan: The Legend who shaped India’s Space Programme”. Nearly 80 participants attended the webinar session.





**Webinar on the Observance of Birth Anniversary of Shri Meghnad Saha: “Achievements of Great Indian Scientist Shri. Meghnad Saha” at Dr. AKSC&P on 06.10.2021.**

The Great Indian Scientist Shri. Meghnad Saha was born on 06<sup>th</sup> October, 1893 in Shaoratali, a village near Dhaka, in the former Bengal (Now situated in Bangladesh). He joined the Indian School Certificate from Dhaka College. He put forward the “ionization formula” which explained the presence of the Spectral lines. In 1920 he published four papers on his Astrophysical research in the Philosophical Magazine. He joined the University of Allahabad in 1923 as a professor and remained for 15 years. In 1927, Shri. Meghnad Saha was elected as a fellow of London’s Royal Society. Saha was the first to install the first cyclotron in operation in India. Many Unique books were written by Shri. Meghnad Saha. In 1952, he stood as an independent candidate for Parliament and was elected by a wide margin. Shri. Meghnad Saha died on February 16, 1956.

To commemorate his birth anniversary (06.10.1893) a webinar was conducted on “Achievements of Great Indian Scientist Meghnad Saha” lectured by Dr. K.V.P. Lata, Associate Professor, Department of Physics, Pondicherry University, Puducherry on 06.10.2021.



Government of Puducherry  
Department of Science, Technology and Environment  
Puducherry Council for Science and Technology

Observance of Birth Anniversary of Shri. Meghnad Saha

**Webinar on**  
"Achievements of Great Indian Scientist Meghnad Saha"

**Talk By :**  
Dr. K. V. P. Lata  
Associate Professor,  
Department of Physics,  
Pondicherry University,  
Puducherry.

06 October 2021 10.30 am - 11.30 am  
Google Meet ID : tqn-rkqd-leu  
Youtube Link : <https://youtu.be/V71chlw2uAo>

Kindly Register Your name and other Details in the Google form  
<https://forms.gle/r8h5zdvs4ti8XCWx9>

Contact No. : 9442284087, 9442550077, 9791375018

Made with E-Certificate will be issued to the Participants

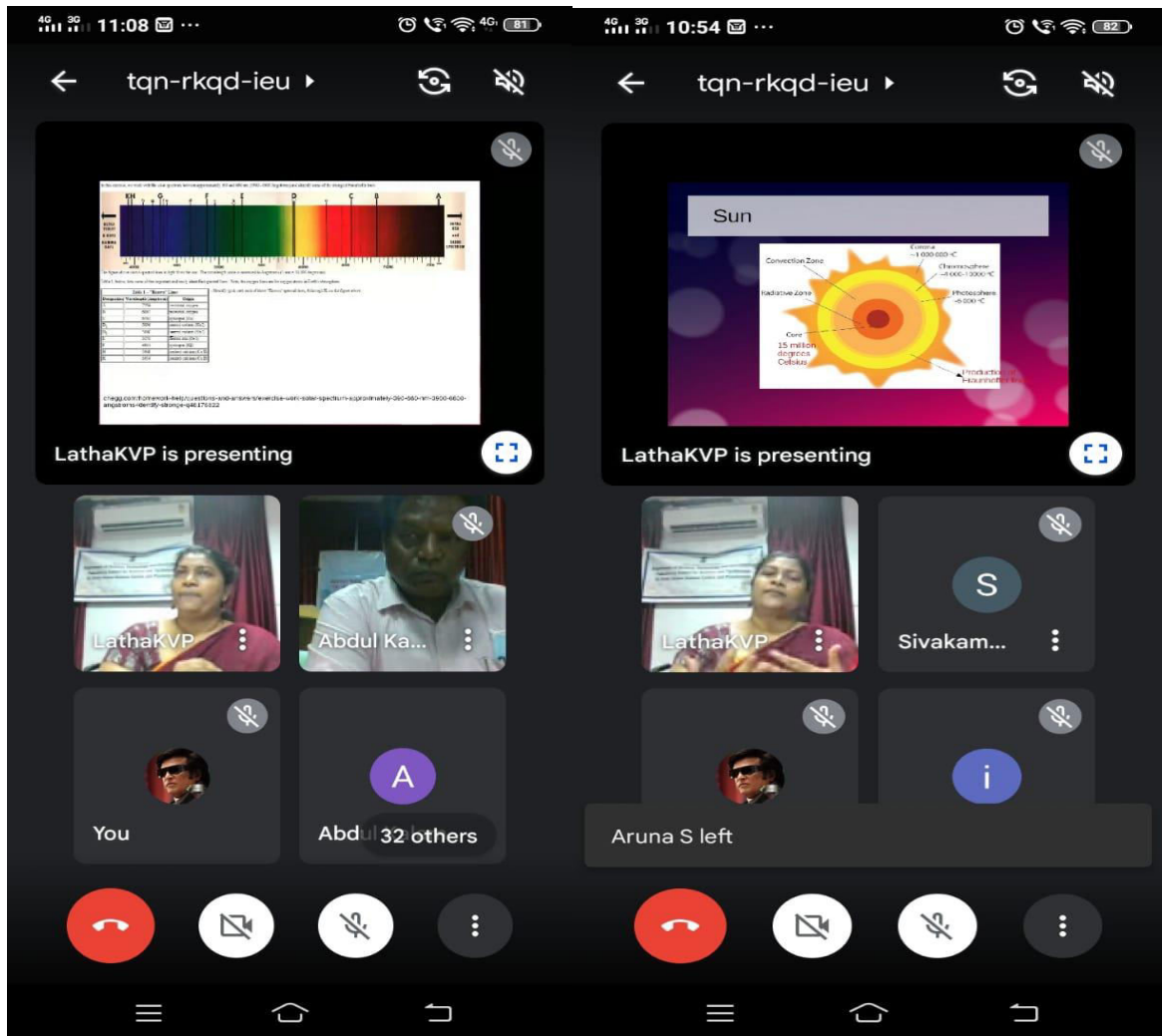




The Resource Person, Senior Scientific Officer, Scientific Officer garlanded and paid Flower Tribute to the Statue of “Shri. Meghnad Saha”. The Senior Scientific Officer welcomed resource person and all participants for the webinar programme. Dr. K.V.P. Lata delivered her lecture on the above topic which was very much useful to the Public and Students. They learnt a lot about the Solar spectrum and thermal ionisation theory.







Students of Thiru.Vi.Ka. Govt. Higher Secondary School, Arumpathapuram, Puducherry also attended the Webinar. Totally 75 participants were benefitted by this lecture on this webinar and the E-Certificates has been issued for all the participants.

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## **Webinar on the Observance of Birth Anniversary of Dr. A.P.J. Abdul Kalam on 15.10.2021 held at Dr. AKSC&P, Puducherry.**

The Webinar during the observance of Birth Anniversary of Dr. A.P.J. Abdul Kalam was conducted on 15.10.2021 at the Conference Hall of Dr. AKSC&P, Puducherry. Dr. P. Nallasamy, Associate Professor in Physics, Tagore Arts College, Pondicherry and Prof. R. R. Elangovan, Former ISRO Scientist, Head of Aerospace Department, KCG College of Technology, Bangalore was the Resource Person for the program. Senior Scientific Officer welcomed the participants followed by introductory remarks about the Webinar by M.S (PCS&T).

It was then followed by the technical lecture by the Resource Person at 10:30 a.m. A general introduction about Dr. A.P.J. Abdul Kalam childhood days, studies, family background was narrated. Later his inventions, achievements, contributions, Awards and honours was narrated.

Dr. A.P.J. Abdul Kalam was born on 15<sup>th</sup> October, 1931. Kalam moved to the Indian Space Research Organisation in 1969. Kalam was project director of the SLV-3, the first satellite launch vehicle that was both designed and produced in India. Kalam single-handedly supervised every aspect of the project. On July 18, 1980, SLV-3 was successfully launched from Sriharikota range. It deployed the Rohini satellite in near-earth orbit. His prominent role in the 1998 nuclear weapons tests enabled India as a nuclear power and established Kalam as a national hero. He achieved Pokhran-II tests successfully to build fission and nuclear weapons. Dr.Kalam had always encouraged the young population of India to develop the habit of reading and he wrote many inspirational books that addressed the burning issues relevant to India.

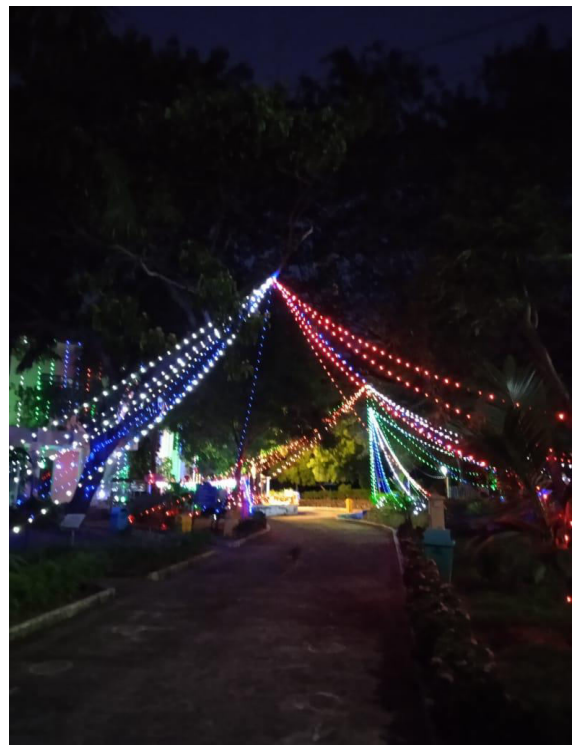
Kalam wrote the autobiography “Wings of Fire (1999)”. “India 2020”, “Ignited Minds”. Ignited Minds narrates the obstacles that are preventing India from rising up to the challenge of development. Upon returning to Civilian life, Kalam remained committed for the use of science & Technology to transform India into a developed country. Kalam served as visiting Professor at several Universities. Kalam helped to develop low-weight calipers for polio patients. In 1998, Kalam developed a low cost coronary stent, named the “Kalam–Raju Stent”. The cost of the existing stent was between Rs. 1 lakh and Rs. 1.75 lakh. The indigenously developed Kalam-Raju coronary stent just Rs. 10,000/- making cardiac care

affordable. Kalam received – Country’s highest three awards Padma Bhushan in 1981, Padma Vibhushan (1999), Bharat Ratna (1997). In 1998 Kalam put forward a plan called TechnologyVision 2020 for transforming India to a developed society in 20 years. His plan includes increasing agricultural population, emphasizing technology as a vehicle for economic growth, and widening access to health care and education. He delivered the lecture quotes “If you want to be a bright like a sun, First burn like a sun” at the Indian Institute of Management Shillong to give inspiration to the youngsters.

The technical lecture ends at 11:30 A.M. More queries from the students were patiently answered by the Resource person. Nearly 102 participants attended the program. The webinar ends at 12:00 P.M. Technical Assistant from PCS&T conveyed the vote of thanks. On that day the campus of Dr. Abdul Kalam Science Centre and Planetarium was illuminated with series of light covering the entire premises. Earlier Secretary (DSTE) / Chairperson (EC,PCS&T) garlanded the statue of Dr. A.P.J. Abdul Kalam laid at the centre.









**Webinar on the Observance of Birth Anniversary of Shri.Homi. J. Bhabha : “A Tribute to the contributions of Shri. Homi.J. Bhabha” held at Dr. AKSC&P on 30.10.2021**

The Great Indian Nuclear Physicist Homi J. Bhabha was born to a rich Aristocratic family on 30<sup>th</sup> October, 1909 in Mumbai. His contribution to India's development goes far beyond the sphere of atomic energy. He had established two great research institutions of National Importance namely the Tata Institute of Fundamental Research (TIFR), and the Atomic Energy Establishment at Trombay (which after Bhabha's death was renamed as the Bhabha Atomic Research Centre (BARC)).

He explained the cosmic ray shower formation by the cascade production of gamma rays, positive and negative electron pairs. In 1954, he was **conferred with Padma Bhushan** award for outstanding contributions to nuclear science. In 1955, he was elected as the president of the first international conference on the **Peaceful Uses of Atomic Energy**, which was organized by the United Nations at Geneva.

Bhabha was killed in an air-crash near the famous Mont Blanc peak of the Alps on January 24, 1966. We would like to conclude the sketchy and perhaps incoherent account of Bhabha's life and work by quoting J R D Tata on Bhabha: “Scientist, Engineer, Master-builder and administrator. Homi was a truly complete man”.

To commemorate his birth anniversary (30.10.1909) a webinar was conducted on “**A Tribute to the contributions of Shri. Homi.J. Bhabha**” lectured by Dr. Alok Sharan, Associate Professor, Department of Physics, Pondicherry University, Puducherry on 30.10.2021.



The Senior Scientific Officer, Resource Person and the Scientific Officer garlanded and paid Flower Tribute to the Statue of “Shri. Homi.J. Bhabha”. The Senior Scientific Officer welcomed resource person and all participants for the webinar programme.



Dr. Alok Sharan delivered her lecture on the above topic which was very much useful to the Public and Students. They learnt a lot about three stage Nuclear Power Programme and Production of Secondary Cosmic Ray Particles in terrestrial atmosphere.

Totally 68 participants were benefitted by this lecture on this webinar and the E-Certificates has been issued for all the participants.

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## **Webinar on the Observance of Birth Anniversary of Sir.C.V. Raman: “Fore Fathers Scientific Knowledge” on 07.11.2021 at Dr.AKSC&P, Puducherry**

The Great Indian physicist Chandrasekhar Venkata Raman, popularly known as C.V Raman, was born on 7<sup>th</sup> November, 1888 at Trichirapalli in Tamil Nadu. His father was a Physics teacher and so it was natural that Raman developed love for this subject. He was a brilliant student from the very beginning. He studied at Hindu College, Visakhapatnam and Presidency College, Madras. He obtained his post-graduation degree in physics in 1907 with the top position. During his student period he conducted many researches and published his papers in many reputed magazines.

The Great Indian Physicist Sir C.V. Raman was born on 7<sup>th</sup> November, 1888. His achievements, contributions and research are as follows:

1. He established the Indian Journal of Physics in 1926 where he was the Editor. He also sponsored the establishment of the Indian Academy of Sciences and served as the President of the Current Science Association in Bangalore.
2. At the Indian Association for the Cultivation of Science (IACS), Raman did a ground-breaking experiment that eventually earned him the Nobel Prize in Physics on February 28 in 1928.
3. He discovered the evidence of the quantum nature of light by observing the scattering of light, an effect that came to be known as the Raman Effect. The day is celebrated as National Science Day in India.
4. Raman was the first Asian and non-white individual to win a Nobel Prize in science.
5. In 1948, he also studied the fundamental problems of crystal dynamics.


### **Awards and Honours**


- He won the Nobel Prize in Physics in 1930.
- He was awarded the Franklin Medal in 1941.
- He was awarded the Bharat Ratna in 1954, the highest civilian award in India
- In 1957, he was awarded the Lenin Peace Prize.

In 1970, he received a major heart attack while working in the laboratory. He took his last breath in the Raman Research Institute on 21st November, 1970. Dr. C.V. Raman was one of the great legends from India whose hard work and determination made India proud and became the first Indian to receive a Nobel Prize in Physics.


Puducherry Council for Science and Technology has organised this webinar commemorating the 133<sup>rd</sup> Birth Anniversary of Sir. C.V. Raman. PCS&T is proud to organise this webinar in remembrance of the achievements of the greatest Indian Physicists Sir C.V. Raman on the Topic **“Forefathers Scientific Knowledge”** lectured by Dr. V. Gnanamoorthi, Assistant Professor, Department of Mechanical Engineering, University College of Engineering Kakuppam, Villupuram,







Government of Puducherry  
Department of Science, Technology and Environment  
Puducherry Council for Science and Technology



**Observance of the  
Birth Anniversary of  
Sir. C. V. Raman**

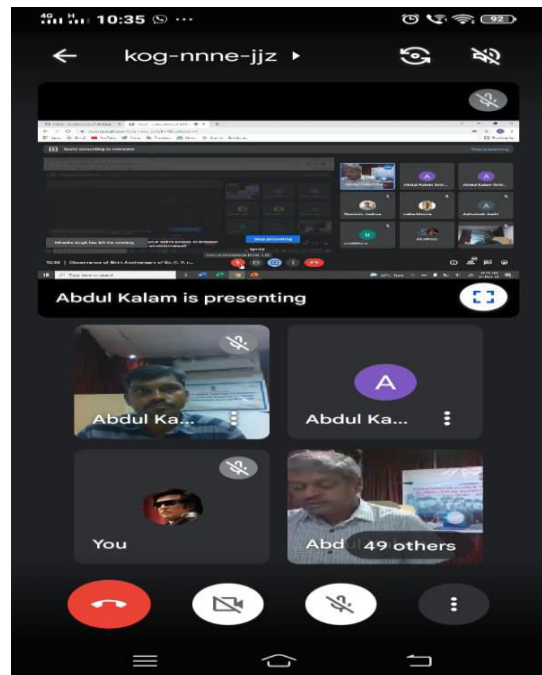
**Webinar on  
"Forefathers Scientific Knowledge"**

Talk by  
**Dr. V. Gnanamoorthi**  
Assistant Professor  
Department of Mechanical Engineering  
University College of Engineering  
Villupuram

**07.11.2021 - 10.30 AM - 11.30 AM**

Google Meet id : kog-nnne-jjz  
Youtube Link : <https://youtu.be/tVSJozfkmIE>

E-Certificate will be issued to the Participants







The Senior Scientific Officer, Resource Person and the Scientific Officer garlanded and paid Flower Tribute to the Statue of “Sir C.V. Raman”. The Senior Scientific Officer welcomed resource person and all participants for the webinar programme.



Dr. V. Gnanamoorthi delivered his lecture on the above topic which was very much useful to the Public and Students. Totally 75 participants were benefitted by this lecture on this webinar and the E-Certificates has been issued for all the participants.

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**Webinar on the Observance of Birth Anniversary of Dr. Birbal Sahni the Indian Paleobotanist : The Roots of Indian Paleobotany : Birbal Sahni and Fossil Plants” at Dr.AKSC&P 14.11.2021.**

The Great Indian Paleo-Botanist Dr. Birbal Sahni was born on 14<sup>th</sup> November, 1891. He was the founder of Birbal Sahni, Institute of Palaeo-Botany, Lucknow. In 1911 he went to England, studied at the Emmanuel College at Cambridge. In 1913 Sahni obtained a first class in Part-I of the Natural Sciences Tripos and he completed the Part-II of the Tripos in 1915. After that he studied under Professor A.C. Seward, and got his D.Sc. Degree from Landon University in 1919. After completion of his education Birbal Sahni came back to India and worked as Professor of Botany at Banaras Hindu University, Varanasi and Punjab University for about a year. His achievements and contributions are:

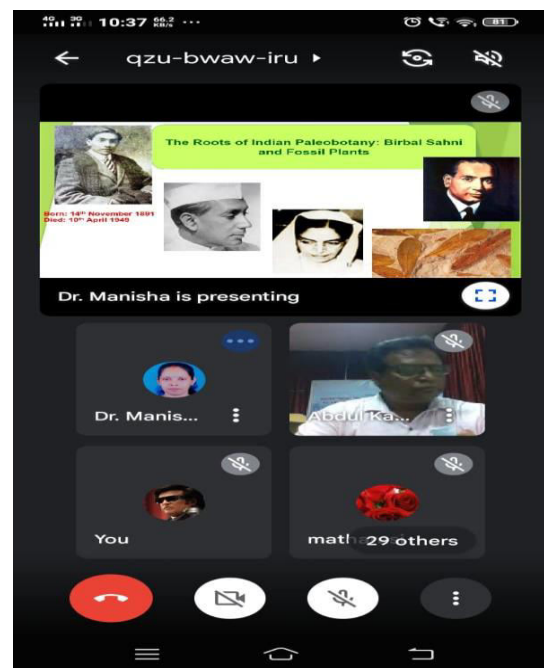
1. Birbal Sahni was a renowned Paleobotanist of India, who studied the fossils of the Indian subcontinent.
6. He also took an interest in Geology and Archaeology.
7. Birbal served as the president of the National Academy of Sciences. India and as an Honorary President of the International Botanical Congress, Stockholm.
8. The Birbal Sahni Gold Medal for students of botany was instituted in memory.
9. Professor Sahni was respected by all academicians and scholars of his time both in India and abroad
10. The Birbal Sahni Gold Medal for students of botany was instituted in memory.
11. Professor Sahni was respected by all academicians and scholars of his time both in India and abroad

**Awards and Honours**

- He was appointed as the Fellow of the Royal Society of London (FRS) in the year 1936, which is the biggest British scientific honor. And for the first time since its inception, this award was given out to an Indian botanist.
- He was the recipient of the Barclay Medal of Royal Asiatic Society of Bengal in 1936, the Nelson Wright Medal of the Numismatic Society of India in 1945 and the Sir C. R. Reddy National prize in 1947.

BirbalSahni passed away a week after the foundation stone laying ceremony was conducted, on 10th April 1949.

To commemorate on his birth anniversary (14.11.2020) a webinar was conducted on **“The Roots of Indian Paleobotany: Birbal Sahni and Fossil Plants”** by Dr.Manisha Kumari, Assistant Professor, Department of Earth Sciences, Pondicherry University, Puducherry on 14.11.2021.







The Resource Person, Scientific Officer garlanded and paid Flower Tribute to the Statue of “Dr. Birbal Sahni”.



Dr.Manisha Kumari delivered her lecture on the above topic which was very much useful to Public and Students. Totally 50 participants were benefitted by this lecture on this webinar and the E-Certificates has been issued for all the participants.

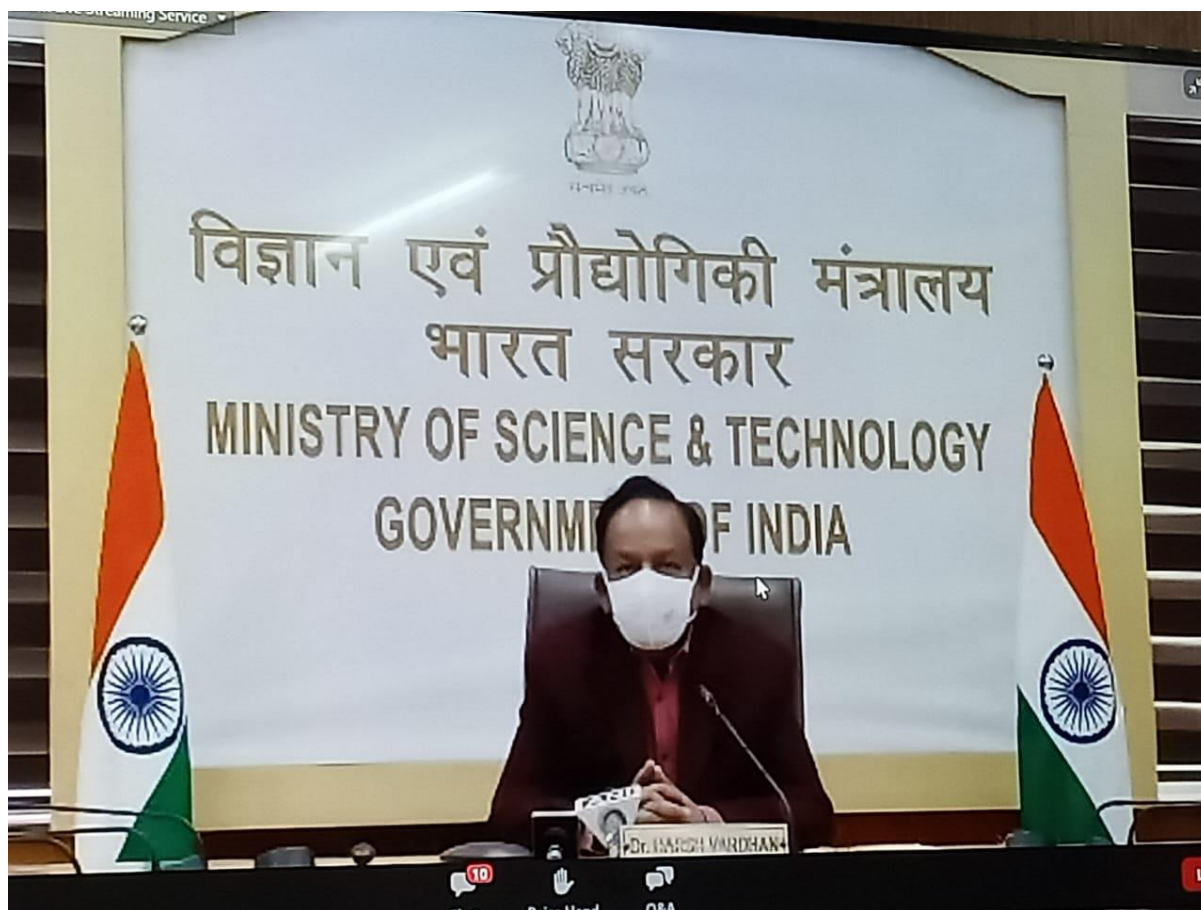
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### **India International Science Festival Conclave 2020**

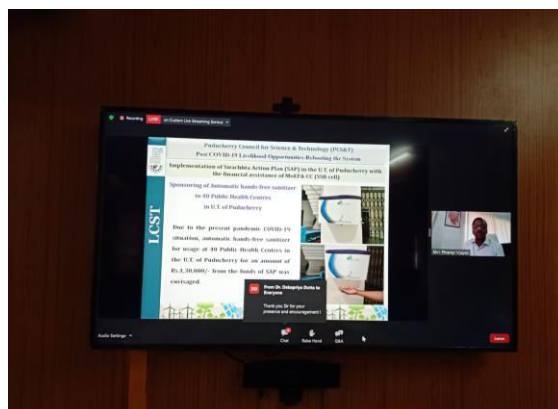
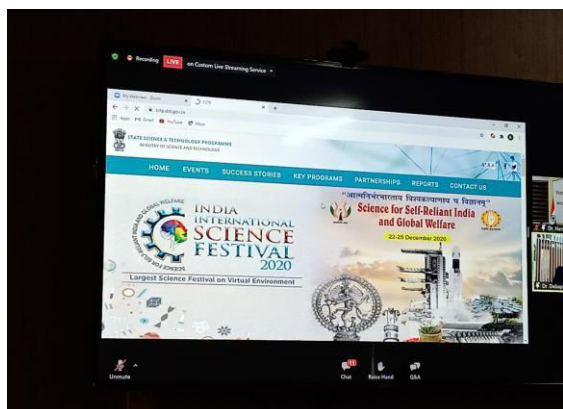
The Council of Scientific and Industrial Research (CSIR), Ministry of Science and Technology, Ministry of Health and Family Welfare and Ministry of Earth Sciences in association with Vijnana Bharathi (VIBHA) had organised the 6<sup>th</sup> edition of “India International Science Festival 2020 (IISF 2020)” during December 22-25, 2020 in Virtual mode. The focal theme of the IISF 2020 is “Science for Self Reliant India and Global Welfare”.

The four days program contains several scientific activities such as Young Scientists Congress, Science Village, International Science Film Festival, Industry Academia Meet, Mega Science & Technology Exposition, S& T Ministers Conclave, Women Scientists & Entrepreneurship Conclave, Bio-diversity Conclave and Clean Air, Energy Conclave etc.



Further to strengthen the Centre and State S& T cooperation, mechanism and propagate S&T at State level to meet the state and National priorities, State S&T Minister's Conclave (SSTMC) was organised on December 23, 2020 from 10:00 A.M to 6:00 P.M as a part of the IISF-2020. SSTMC aims to harness the views of S&T Ministers of all State & U.T's to strengthen the State Level Science, Technology and Innovation (STI) ecosystem.

The Inaugural session of the meet was addressed by Dr. Harsh Vardhan, Honourable Minister of Science and Technology, Earth Sciences & Health and Family Welfare. It was then followed by presentation on "Post COVID-19 Livelihood Opportunities – Rebooting the system" of every states. Kerala State Council for Science, Technology and Environment (KSCST&E) had been the consigned the nodal centre for collection of data (inputs) pertaining to Southern States. Accordingly presentation about Puducherry Council for Science and Technology under "Creating Opportunities through S&T Councils of Southern States" of 10 mts duration was delivered by Member Secretary of KSCST&E.



Around 3:30 P.M, in the S&T Minister's Conclave session, Hon'ble Minister of Science and Technology cum Chairman (PCS&T) had participated in the meeting and offered comments about implementing various centrally sponsored schemes funded by DST, GoI.

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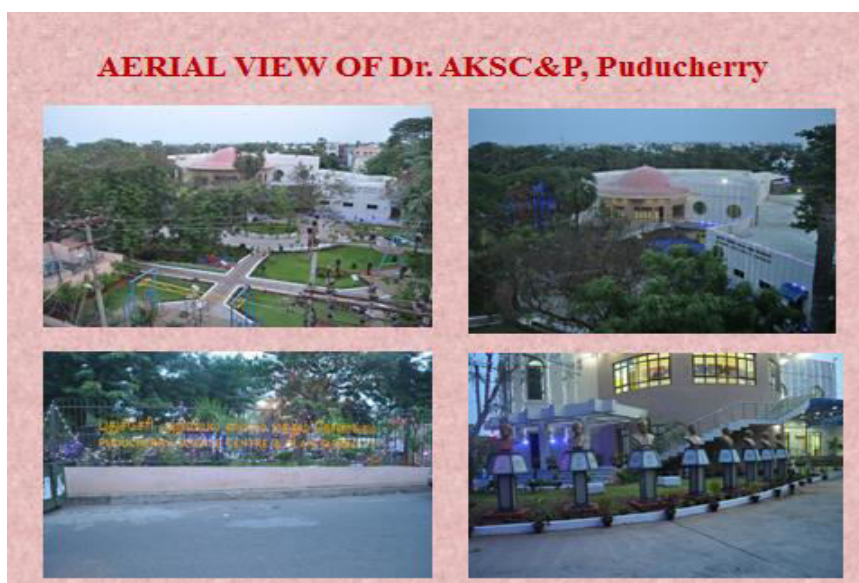
## **Dr. ABDUL KALAM SCIENCE CENTRE AND PLANETARIUM**

### **MINISTRY OF CULTURE:**

The Ministry of Culture is the Indian Government ministry charged with preservation and promotion of art and culture of India. National Council of Science Museums (NCSM) is an autonomous society under the Ministry of Culture, Government of India set up with the objective to develop a culture of science, technology & innovation and to encourage scientific temper in the society by setting up of Science Cities/Science Centres/Innovation Hubs and organising S& T awareness programmes throughout the country. The organization is engaged in setting up of facilities such as Science Cities, Science Centres, Innovation Hubs, Mobile Science Exhibitions (MSE) etc. and Science Outreach programmes such as Science Seminar, Science Drama, Science & Engineering Fair, Science Film Festival, Workshops, Training, Lectures and Science demonstrations etc. for general public and students in particular.

### **COMPONENTS OF Dr. ABDUL KALAM SCIENCE CENTRE AND PLANETARIUM**

Dr. Abdul Kalam Science Centre and Planetarium, Puducherry has been set up by the National Council of Science Museums (NCSM) with active support of Puducherry Council for Science and Technology & Environment. The Centre is established in a built – up area of 1.5 acres of land and houses 2 permanent exhibition galleries namely “Marine Gallery” and a “Fun Science Gallery”. It also has a Science Park, Planetarium, Science Demonstration Lecture Corner, Children’s Activity Corner, Air Conditioned Auditorium, a Mini Conference Hall and other public facilities. Dr. Abdul Kalam Science Centre and Planetarium Science Centre is situated in the Airport road in Lawspet, Puducherry. This is an ideal place to engage the young and the old alike with the process of discovering science through a fun filled experience. The facilities available are as follows:





## GALLERIES AND OTHER FACILITIES



**FUN SCIENCE GALLERY**



**MARINE LIFE GALLERY**



**OUTDOOR EXHIBITS**



**PLANETARIUM**



**SINGLE USE PLASTIC  
FREE COMPLEX**



**AUDITORIUM**



Dr. ABDUL KALAM SCIENCE CENTRE & PLANETARIUM															
Visitors Details ( 2015 – 2021 )															
Year	Planetarium visitors						Science Centre visitors						Govt Schools Free Entry	Total visitors	Total Fees Collection (in Rs)
	Adult		Children		Foreigners		Adult		Children		Foreigners				
	Nos	Fees	Nos	Fees	Nos	Fees	Nos	Fees	Nos	Fees	Nos	Fees			
2015-16	21695	433900	27652	276520	95	3800	27761	277610	31894	159470	173	3460	0	59828	1154760
2016-17	15003	300060	12374	123740	52	2080	19388	193880	14453	72265	95	1900	6552	40488	693925
2017-18	14611	292220	12065	120650	48	1920	19888	198880	14304	71520	109	2180	2375	36676	687370
2018-19	12729	254580	13196	131960	56	2240	16422	164220	14167	70835	84	1680	1401	32074	625515
2019-20	10041	200820	10844	108440	14	560	12998	129980	14060	70300	26	520	1036	28120	510620
2020-21	930	18600	340	3400	0	0	1994	19940	946	4730	2	40	0	2942	46710
Total	75009	1500180	76471	764710	265	10600	98451	984510	89824	449120	489	9780	11364	200128	3718900



Dr. ABDUL KALAM SCIENCE CENTRE AND PLANETARIUM																	
Particulars of Monthly Visitors for the period from 01.04.2021 to 31.10.2021																	
Month	SCIENCE CENTRE						PLANETARIUM						Free entry	Total visitors	Total Fees	Schools	Colleges
	Adults		Children		Foreigners		Adults		Children		Foreigners						
	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Amount	Nos	Nos	Amount		
Apr-21	158	1580	87	435	0	0	34	680	14	140	0	0		245	2835		
May-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Jun-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Jul-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Aug -21	234	2340	88	440	0	0	156	3120	41	410	0	0		322	6310		
Sep-21	277	2770	148	740	0	0	175	3500	41	410	0	0		425	7420		
Oct-21	494	4940	146	730	0	0	412	8240	100	1000	0	0		640	14910		

## Corporate Social Responsibility (CSR) Scheme

- ❖ Memorandum of Understanding (MoU) for further period of 3 years (upto March 2023) was extended between Puducherry Council for Science and Technology and M/s EATON Power Quality Pvt. Ltd for upkeep and maintenance of exhibits, Planetarium and upcoming Innovation Hub at Dr. Abdul Kalam Science Centre and Planetarium (Dr.AKSC&P), Puducherry.



- ❖ The development and maintenance of garden at Dr. AKSC&P for an amount of Rs. 3.00 Lakhs was carried through by M/s MRF Ltd, Puducherry under Corporate Social Responsibility (CSR) scheme. MoU between PCS&T and MRF Ltd for the Development and maintenance of Garden was extended upto 2022.





## **NEW INITIATIVES**

### **INNOVATION HUB AT DR. ABDUL KALAM SCIENCE CENTRE AND PLANETARIUM:**



#### **Innovation Hub**

Innovation hubs are social communities or work space or research centres that provide subject-matter expertise on technology trends, knowledge and strategic innovation management, and industry-specific insights and facilitate to develop the new idea's and engage students in research. These hubs enable active knowledge transfer between researchers and business experts, on the one hand, and industry, government and representatives of academia, on the other hand. Here, decision makers can meet and brainstorm with scientists and business experts and discuss their complex business challenges.

#### **Objectives**

1. Hands on practical training will motivate human resource to do creative and innovative things.
2. To understand the scientific and technological concept and principles permanently.
3. To create awareness, interest and to motivate the human resource towards Make in India programme.

## Significance of Innovation Hub

1. Helping the society to developing scientific mode.
2. Face future challenges.
3. To rise the aspiration of the growing population.
4. Promoting innovation and spirit of exploration among the young generation and provide facility to encourage school children and the public to make discoveries and innovation in different disciplines, including physics, chemistry and computer science.
5. Even a common man with an innovative idea can approach, the hub to further development and improve it.

## Innovation Hubs that exists across the Nation

1. National Council of Science Museums (Head Quarters), Kolkata.
2. Central Research & Training Laboratory, Kolkata.
3. Birla Industrial & Technological Museum, Kolkata.
4. Visvesvaraya Industrial & Technological Museum, Bengaluru.
5. Nehru Science Centre, Mumbai
6. And many numbers in the Country.

### **Facilities proposed at the Innovation Hub**

1. **Discovery Hall:** This hall will have 10-15 interactive science exhibits / experiments.
2. **Hall of Fame:** This Hall will be used to showcase innovative ideas/products that have transformed our world.
3. **Idea Lab:** This lab will have necessary basic facilities to pursue creative and innovative hobbies / activities that involve model making, basic science experimentation design and fabrication of useful gadgets of practical use.
4. **Thod Phod - Jod (break & remake) corner:** By using this corner students learn to do things with their own hands, dismantle, reassemble and remake devices home appliances/devices and gadgets.
5. **Kabad Se Jugad (build from scraps):** Students learn more by doing things practically using day to day scrap.
6. **Idea Box:** student can create their own innovative model\ project work.
7. **Design Studio:** The student will be offered creative environment to design various objects\projects etc.
8. **Innovation Hub shall be Operated as per the guidelines of NCSM.**



## **INNOVATION HUB – LOCATION DETAILS**

- In the First Floor (open space) of Dr. Abdul Kalam Science Centre & Planetarium. **(Category –II, without space)**
- 300 sq.metres are available in 1<sup>st</sup> floor.
- Discovery hall - 100 sq.m
- Hall of Fame – 50 sq.m
- Idea Lab – 100 sq.m
- Design studio – 50 sq.m
- Public utilities - Toilets\ lift\ water\ electricity supply shall be used from the existing facility.

## **Financial requirements**

- The tentative estimate for innovation Hub is Rs.150 Lakhs on 50:50 sharing basis.
- Dr.AKSCP, GoP – Rs.75 lakhs and Rs.22.5 lakhs recurring expdt. for 3 years.
- NCSM, GoI – Rs. 75 lakhs and Rs.22.5 lakhs recurring expdt. for 3 years.

1	Construction and campus development	50.00
2	Interiors, furnitures, panels, space development and partitions	50.00
3	Information display and kiosks	20.00
4	Exhibits\Multimedia\Display for hall of fame	10.00
5	Experiments\Materials\Tools for Idea Lab	10.00
6	Literature\Books\Journals\Films\raw materials\infra structure	10.00
Total		150.00
<b>Rupees one Hundred and fifty lakhs only</b>		



## Tentative Recurring Expenditure – Rs.15 lakhs\Year

Head & Details	Expenditure per annum
<u>Honourarium\Remuneration</u> Chief & Junior mentors – Rs.30000 & Rs. 20000\month Helpers – Rs.1000\ day for 40 days in a year on need basis	8,80,000.00
Raw materials – training kits, grease, screw,nut bolt, washer, insulation tapes, battery, casing bulbs, PCB, Diodes, IC, repairing.	2,00,000.00
Stationery\IT consumables	20,000.00
Displays\posters\literature\Books\audio visual media	50,000.00
Publicity expenses – FM radio, newspaper publicity	2,50,000.00
Organisational \ Contingency Expenses	1,00,000.00
	15,00,000.00

## Output of Innovation club

- Revenue generation through membership, rental spaces and sponsorships.
- Implementation of SPICES schemes as per GoI .
- Harnessing the Creative potential in the public.
- Project based learning(PBL).
- Linking Education to real-life experience.
- Motivating and creating the interest of learning science subject among the slow learners.
- Practical and Lab based learning by extending the facilities to schools.
- Extending IPR support to Puducherry people.

## **STATUS OF INNOVATION HUB**

As on date all the 95% of Civil, Electrical and Plumbing work have been completed. Works related to Fabrication of Galleries are under process.

### **Photos of the Innovation Hub (Interior works)**



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## **PROPOSED SPACE EXPOSITION CENTRE, INNOVATION HUB AND PLANETARIUM IN THIRUNALLAR TEMPLE TOWN, KARAIKAL IN COLLABORATION WITH THE NCSM, KOLKATTA**

Puducherry Council for Science & Technology (PCS&T) in National Council for Science Museums (NCSM) has established Dr. Abdul Kalam Science Centre & Planetarium at Puducherry on Cost Sharing basis of 50:50 between GoI & GoP. The Cost of the Planetarium was entirely borne by the GoP. On similar lines, it is proposed to establish another Space Exposition Centre, Innovation Hub and Planetarium, Karaikal at a cost of Rs. 5.00 crores in 5 acres of land at Thirunallar Temple Town, Karaikal.

### **Salient Features:**

- Shall be set up by NCSM, MoC, GoI with support of PCS&T an autonomous body functioning under DST&E.
- An ideal place to engage young students and public community alike with the process of discovering science through a fun filled experience.
- Total Area : 5.07 Acres.
- Total cost : 5.00 crores
- Science Centre: Permanent exhibition galleries viz., Space Exposition Gallery and Innovation Hub.
- Digital Planetarium

### **Objectives**

1. Hands on practical training will motivate human resource to do creative and innovative things.
2. To understand the scientific and technological concept and principles permanently.
3. To create awareness, interest and to motivate the human resource towards Make in India programme.

### **SPACE EXPOSITION CENTRE, INNOVATION HUB & PLANETARIUM**

Science Galleries with interactive indoor and outdoor exhibits for innovative play way learning of basic principles of Science & technology by the student community. 8 metre dome diameter with Opto-mechanical projection system with a seating capacity of 50 persons along with all other necessary accessories. The main gallery will be on a theme of scientific importance

Innovation hubs are social communities or work space or research centres that provide subject-matter expertise on technology trends, knowledge and strategic innovation management, and industry-specific insights and facilitate to develop the new idea's and engage students in research. These hubs enable active knowledge transfer between researchers and business experts, on the one hand, and industry, government and representatives of academia, on the other hand. Here, decision makers can meet and



brainstorm with scientists and business experts and discuss their complex business challenges.

### **Significance of Innovation Hub**

1. Helping the society to developing scientific mode.
2. Face future challenges.
3. To rise the aspiration of the growing population.
4. Promoting innovation and spirit of exploration among the young generation and provide facility to encourage school childrens and the public to make discoveries and innovation in different disciplines, viz., physics, chemistry, and computer science.
5. Even a common man with an innovative idea can approach, the hub to further development & improve it.

### **The innovation Hub has the following facilities:**

1. **Discovery Hall:** This hall will have 10-15 interactive science exhibits/experiments.
2. **Hall of Fame:** This Hall will be used to showcase innovative ideas/products that have transformed our world.
3. **Idea Lab:** This lab will have necessary basic facilities to pursue creative and innovative hobbies / activities that involve model making, basic science experimentation design and fabrication of useful gadgets of practical use.
4. **Thod Phod - Jod (break & remake) corner:** By using this corner students learn to do things with their own hands, dismantle, reassemble and remake devices home appliances/devices and gadgets.
5. **Kabad Se Jugad (build from scraps):** Students learn more buy doing things practically using day to day scrap.
6. **Idea Box:** Student can create their own innovative model\ project work.
7. **Design Studio:** The student will be offered creative environment to design various objects\ projects etc.
8. **Innovation Hub shall be operated as per the guidelines of NCSM.**

### **FACILITIES TO BE MADE AVAILABLE**

- Other facilities: Science Park, science Demonstration Lecture Corner, Children's Activity Corner, A/C Auditorium and Mini Conference Hall.
- Disabled friendly with Ramp provision.
- Lift facility.
- Potable R.O. water.
- Power and Water supply.
- Canteen facility.
- Fire fighting equipment's
- Provision for sky watching.
- Ex-servicemen and House-keeping services.
- Surveillance by CCTV.

## Land transfer:

Land in Thirunallar Revenue village, Karaikal to an extent of 01H 69A 47Ca has been transferred vide G.O.Ms.No.04/2015/Tsmdt: 11.11.2015 from Department of Tourism to the Department of Science, Technology & Environment, Puducherry on "No Profit – No Loss" basis for setting up of the proposed Centre. This Road is adjacent to the spiritual centre project of the Tourism Department.

**No.981/DSTE/SEIH/KKL/2018/48**  
**GOVERNMENT OF PUDUCHERRY**  
**DEPARTMENT OF SCIENCE, TECHNOLOGY AND ENVIRONMENT**  
**PUDUCHERRY COUNCIL FOR SCIENCE & TECHNOLOGY**  
**III FLOOR, PHB BUILDING, ANNA NAGAR, PUDUCHERRY - 5.**  
**Phone: (0413) 2201256 Fax: (0413) 2203494**

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Puducherry, the **7 MAY 2018**

To  
The Chief Engineer,  
Public Works Department,  
Puducherry.

Sir,

Sub : PCS&T – Works to be carried out in respect of setting up of Space Exposition Theatre and Innovation Hub with Planetarium at Karaikal Reg.

Ref : 1. G.O. Ms. No. 04/2015/Tsm dated 11.11.2015 issued by the Under Secretary to Government (Tourism), Puducherry.  
2. Letter No. 1-11012/36(A)/5331 dated 09<sup>th</sup> March '2018 received from the Director (Hqrs.), NCSM, Kolkata.

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It is informed that the Department of Science, Technology & Environment, Puducherry, has proposed to setting up of "Space Exposition Centre, Innovation Hub and Digital Planetarium at Thirunallar, Karaikal in collaboration with National Council of Science Museums (NCSM), Kolkata, an autonomous body under Ministry of Culture, Government of India.

In this regard, it is stated that a land to an extent of 01H 69A 47 Ca has been transferred from the Department of Tourism to the Department of Science, Technology and Environment, Puducherry vide reference cited (1) above for setting up of the above mentioned project in Thirunallar Revenue Village, Karaikal. After this, a joint inspection has been made with NCSM officials and NCSM has given consent that the plot is suitable for the project provided with an instruction to take up the following works initially and also requested to construct the building by the local authorities based on the architectural design and specifications provided by NCSM.

1. Complete development of the plot including filling up to the required level;
2. Necessary storm water and sewage line in the plot;
3. Securing the plot with a boundary wall.

Hence, it is requested to provide estimate cost for taking up the above mentioned work in the proposed site at Thirunallar, Karaikal to take up the work immediately as the work should be completed in a time bound manner. Once the estimate is received, after issuance of Letter of Acceptance between DST&E and PWD, work will be carried out immediately.

Encl : As above.

Yours sincerely,  
(SMITHA. R)  
Director / Member Secretary (PCS&T)

**COLLECTORATE KARAİKAL**

Copy to : 1. The Collector, Karaikal  
2. The Director (HQ), NCSM, Kolkata.  
3. Standing Guard File.

Forw. to me by (TTTP), Karaikal  
As discussed with me Collatr.  
215  
To the EE(TTTP), Karaikal.

SECRETARY TO COLLECTOR  
KARAİKAL

**Tentative Budget Estimate:**

Sl.No.	Item of Works/Expenditure	Amount (in lakhs.)
1	Setting up of Digital planetarium (including building), exhibition space of approx. 20 sq.mts, including the equipments and the exhibition of astronomy & Space Sciences	25.00
2	Innovation Hub in 300 sq.mts. area with various facilities such as idea lab, design studio, hall of fame, activity area etc.,	75.00
3	Outdoor science and Astropark	50.00
Total		375.00
4.	Construction of compound wall around the periphery (5 acres) of the science centre, land filling work, storm water drain and sewage line	150.00
Total		525.00

**Site inspection for Construction of Space Exposition Centre, Innovation Hub and Digital Planetarium at Thirunallar, Karaikal**

Site inspection for Construction of Space Exposition Centre, Innovation Hub and Digital Planetarium in 5 acres of land at Thirunallar, Karaikal was done on 21.11.2017 under the Chairmanship of Collector-Karaikal, Director/M.S. (PCS&T) and Director VITM, Bengaluru.



As instructed by NCSM, Kolkata a proposal to carryout construction of compound wall with storm water drain and earth filling at the proposed site for setting up of Space exposition centre, Innovation Hub and Digital Planetarium in Karaikal was taken up by PWD under deposit works at an estimated cost of Rs. 1.50 crores. Accordingly, the administrative approval and expenditure sanction has been obtained for an amount of Rs.60.00 lakhs towards the earth filling works at the project site. The amount was released to PWD, Karaikal.



## **PROPOSED ACTIVITIES FOR THE YEAR 2021 – 2022 IN ADDITION TO THE REGULAR SCIENCE, TECHNOLOGY AND ENVIRONMENTAL AWARENESS ACTIVITIES**

- Operation and maintenance of Dr.AKSC&P, Puducherry
- Establishment and Operation of Innovation Hub at Puducherry.
- Establishment of Space Exposition Centre, Innovation Hub and Digital Planetarium at an estimated cost of Rs. 3.75 Crores in Thirunallar Temple Town, Karaikal.
- Setting up of Patent Information Centre at Puducherry.
- Implementation of State Skill Vigyan Program funded by Department of Biotechnology, MoS&T, GoI.
- Setting up of SC/ST/Women cell in the PCS&T funded by DST, GoI.
- Implementation of programs under Science for Equity Empowerment and Development (SEED), DST, GoI.
- Implementation of Program under Science, Technology and Innovation Policy 2020 funded by MoS&T, GoI.
- Mapping of Science and Technology Local needs program in the U.T of Puducherry.
- Project Related Grant (PRG) from MoS&T, GoI.
- Implementation of EEAT Program of MoEF&CC, GoI.
- Implementation of Swachhta Action Plan funded by MoEF&CC, GoI.

### **5 years vision of the Council:**

- ❖ Operation and Maintenance of Innovation Hub in Dr. AKSC&P, Puducherry.
- ❖ Operation and Maintenance of Space Exposition Centre, Innovation Hub and Digital Planetarium at Thirunallar, Karaikal.
- ❖ Patent Information Centre at Karaikal.
- ❖ Construction of Office Building in Puducherry.
- ❖ Establishment of Science Centre and Planetarium in Mahe and Yanam regions.
- ❖ Acquiring Mobile Science Exhibition Bus at Mahe and Yanam regions.
- ❖ Implementation of Programs/ Schemes in the U.T of Puducherry as per the Science and Technology Innovation Policy 2020 of DST, GOI.

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## **INTERVENTIONS DURING COVID-19 AND OUTBREAK IN THE COVID SITUATION**

- ❖ Dr. Abdul Kalam Science Centre and Planetarium functioning under Puducherry Council for Science and Technology was closed temporarily from 24<sup>th</sup> April 2021 in the wake of COVID situation.
- ❖ After reopening, the Public visiting the centres will be thoroughly checked with temperature scanning device at the entrance and sanitizer will be provided to all. They will not be permitted to enter the centre without mask. The public will be advised to maintain social distancing at the ticket counter and while visiting the galleries. Alternate seating arrangement for the visitors to watch the Planetarium show was organised.
- ❖ As per the Correspondence from the Adviser & Head, Department of Science and Technology, Government of India “COVID Katha: A Multimedia Guide for Mass Awareness” was publicized in the official website of our Department and also for wider dissemination in the website of the District Collector, Puducherry , Health and Family Welfare Service, The Collector, Karaikal and the Regional Administrator of Yanam and Mahe.
- ❖ Further as a precaution step, to tackle more no. of public visiting the centre during this COVID-19 pandemic, an automatic Sanitizer Dispenses of 5 L quantity was purchased. Visitors before purchasing the entry tickets will be advised to sanitize their hands with the automatic device for safety aspects.
- ❖ Staff working at Dr. AKSC&P will be provided facemask once in a week and also during programs / functions carried out at the Centre. The exhibits displayed at Dr.AKSC&P were sterilized once in a month with the newly purchased sprayer machine. Sufficient quantity of sanitizer for spraying at the exhibits, temperature scanning device and facemasks are readily available at this centre as a standby for replacement.
- ❖ Pledge to fight against COVID19 issued by Ministry of Information and Broadcasting, New Delhi, GOI was taken by all employees of Dr. AKSC&P on 08.10.2020.



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