युवा विज्ञानी कार्यक्रम (युविका)
YUva VIgyani KAryakram (YUVIKA)

1st Row- 1- Swastik Kumar Dash (Odisha), 2- Sreeharinarayanan (A&N), 3- Vasudha B (Female Student Mentor), 4- Dr. Rajashree V Bothale (Chairperson YUVIKA), 5- Dr. Prakash Chauhan (Director, NRSC), 6- Dr.K.V.Ramana (GD, PPEG), 7- Hariesh P (Male Student Mentor), 8-Addagulla Bhavishya (TS), 9- Prathyusha Doosa (TS).
2nd Row- 1- V Charan Naga Krishna Tej (AP), 2-Shouryam Raj (Jharkand), 3-Prakhar Agrawal (CH), 4- Nischay Jain (MP), 5-Vignesh Singh (MP), 6-M Kranthi Kumar (AP), 7-Lakshmi Sowjanya K (AP), 8- L Bhoomika (A&N), 9-Soumya Agrawal (CH), 9-Kavya Singh (CH), 10-Padmalaya Mahapatra (Odisha), 11-Megha Sharma (JH).
3rd Row- 1- Abhinav (MP), 2-Rohit Kumar Kushwaha (JH), 3-Anshuman Sahoo (Odisha), 4-Deepan Haridas(MP), 5-Shaurya Gupta (CH), 6-V Jyothiraditya (AP), 7-E Rahul Ranganatha Rav (TS), 8- A Hemachandra Sai (AP), 9-Vijaya C (TS), 10-Jyotirmayee Panda (Odisha), 11-Saniya Rupavath (TS),12-Pankhudi Singh (A&N), 13-Priyal Pinjani (CH), 14-Rishika Agarwal (JH). (Read From Left to Right)

May 16 – May 28, 2022

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre, Hyderabad

युवा विज्ञानी कार्यक्रम (युविका)
YUva VIgyani KAryakram (YUVIKA)

भारतीय अंतरिक्ष कार्यक्रम के विभिन्न पहलुओं को समझने के लिए इसरो में इंटर्नशिप के लिए विशेष रूप से स्कूली बच्चों से शिक्षाविदों की निरंतर मांग रही है। इस संदर्भ में, इसरो ने एक वार्षिक युवा वैज्ञानिक कार्यक्रम युवा विज्ञान कार्यक्रम (युविका) आयोजित करने का निर्णय लिया है जो सरकार के दृष्टिकोण जय विज्ञान, जय अनुसंधान और इसरो की चल रही क्षमता निर्माण और आउटरीच पहल का विस्तार करने के दृष्टिकोण के हिस्से के रूप में भी है।

There has been a constant demand from academia especially from school children for internship at ISRO to understand various aspects of Indian Space Program. In this context, ISRO has decided to conduct an annual Young Scientist Program Yuva Vigyani Karyakram (Yuvika) in tune with the Government's vision Jai Vigyan, Jai Anusandhan and also as part of the vision to expand the ongoing Capacity Building and outreach initiatives of ISRO.

कार्यक्रम मुख्य रूप से स्कूली छात्रों को अंतरिक्ष गतिविधियों के क्षेत्र में बुनियादी ज्ञान प्रदान करने के लिए डिज़ाइन किया गया है, जो हमारे देश के भविष्य के निर्माण खंड हैं, और इसलिए यह कार्यक्रम इस क्षेत्र में उनकी रुचि पैदा कर रहा है। युवा वैज्ञानिक कार्यक्रम इस प्रकार युवा विज्ञान कार्यक्रम (युविका) के रूप में गढ़ा गया है और जैसा कि नाम से पता चलता है, यह कार्यक्रम युवा और मेधावी छात्रों के लिए है जिन्होंने सफलतापूर्वक अपनी आठवीं कक्षा पूरी कर ली है।

The program is primarily designed to impart basic knowledge in the field of space activities to the school students, who are the future building blocks of our nation, and hence this programme is arousing their interest in this field. The Young Scientist Program is thus coined as YUva VIgyani KAryakram (YUVIKA) and as the name asserts, the program is for young and meritorious students who have successfully completed their eighth standard.

देश भर से छात्रों को अच्छी तरह से परिभाषित मानदंडों के आधार पर कार्यक्रम के लिए चुना जाता है। ग्रामीण स्कूलों से ताल्लुक रखने वाले छात्रों को चयन मानदंड में विशेष महत्व दिया गया है। इस प्रकार कुल मिलाकर 28 राज्यों और 8 केंद्र शासित प्रदेशों से कुल 153 छात्रों का चयन किया गया।

Students from all over the country are selected for the program based on the well-defined criteria. Students who belong to rural schools have been given special weightage in the selection criteria. Thus a total of 153 students were selected in 2022 from 28 states and 8 Union territories put together.

कार्यक्रम को दो सप्ताह की अवधि के लिए सावधानीपूर्वक तैयार किया गया और राज्यों के भौगोलिक वितरण के आधार पर, छात्रों को इसरो के पांच प्रमुख केंद्रों पर रिपोर्ट करने के लिए बैचों में विभाजित किया गया। इस कार्यक्रम का आयोजन इसरो के पांच केंद्रों, उत्तर पूर्वी अंतरिक्ष अनुप्रयोग केंद्र (एनई-सैक), मेघालय, राष्ट्रीय सुदूर संवेदन केंद्र (एनआरएससी), हैदराबाद, अंतरिक्ष अनुप्रयोग केंद्र (एसएसी), अहमदाबाद, यूआर राव उपग्रह केंद्र

(यूआरएससी) बेंगलुरु और विक्रम साराभाई अंतरिक्ष केंद्र (वीएसएससी) तिरुवनंतपुरम में किया गया था। कार्यक्रम के दौरान प्रतिभागियों को रॉकेट लॉन्चिंग सेंटर, सतीश धवन स्पेस सेंटर (एसडीएससी), श्रीहरिकोटा जाने का भी मौका दिया गया।

The program is meticulously designed for two weeks duration and based on the geographical distribution of the states, the students are divided into batches for reporting to five major centres of ISRO. The program were organized in five centres of ISRO namely, North Eastern Space Applications Centre (NE-SAC), Meghalaya, National Remote Sensing Centre (NRSC), Hyderabad, Space Applications Centre (SAC), Ahmedabad, U R Rao Satellite Centre (URSC), Bengaluru and Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram. The participants were also be given a chance to visit the rocket launching Centre, Satish Dhawan Space Centre (SDSC), Sriharikota during the program.

इस कार्यक्रम में आमंत्रित वार्ता, प्रख्यात वैज्ञानिकों द्वारा अनुभव साझा करना, सुविधा और प्रयोगशाला का दौरा, विशेषज्ञों के साथ चर्चा के विशेष सत्र, व्यावहारिक और प्रतिक्रिया सत्र और अंतरिक्ष विभाग के अध्यक्ष इसरो / सचिव के साथ एक इंटरैक्टिव सत्र (संवाद) शामिल थे। कार्यक्रम के दौरान कवर किए गए कुछ विशिष्ट विषय भारत में विज्ञान और प्रौद्योगिकी का इतिहास, लॉन्च वाहनों का इतिहास, विभिन्न प्रकार के रॉकेट प्रणोदन, ब्रह्मांड की उत्पत्ति, सौर प्रणाली, भारतीय उपग्रह प्रौद्योगिकी का इतिहास, उपग्रहों के प्रकार, उपग्रह के हिस्से, उपग्रहों के अनुप्रयोग, अंतरिक्ष विज्ञान, मौसम/जलवायु अध्ययन के लिए उपग्रह, अंतरग्रहीय अंतरिक्ष मिशन, मानवयुक्त अंतरिक्ष मिशन आदि थे।

The program included invited talks, experience sharing by the eminent scientists, facility and lab visits, exclusive sessions of discussions with experts, practical and feedback sessions & an interactive session (SAMWAD) with Chairman ISRO/Secretary, Department of Space. Some of the specific topics covered during the program were history of science and technology in India, history of Launch Vehicles, different kinds of rocket propulsion, origin of Universe, solar system, history of Indian satellite technology, types of satellites, parts of a satellite, applications of satellites, space science, satellites for weather/climate studies, interplanetary space missions, manned space missions, etc.

युविका-2022 इस साल 16 मई से 28 मई 2022 तक आयोजित किया गया था।

The Yuvika-2022 was held from May 16 – May 28, 2022 this year.

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद National Remote Sensing Centre, Hyderabad

युविका अनुसूची (15 मई, 2022 - 29 मई, 2022)

	रवि Sun	सोम Mon	मंगल Tue	बुध Wed	गुरु Thu	शुक्र Fri	शनि Sat	रवि Sun	सोम Mon	मंगल Tue	बुध Wed	गुरु Thu	शुक्र Fri	शनि Sat	रवि Sun
Time (Hrs)	15-May	16-May	17-May	18-May	19-May	20-May	21-May	22-May	23-May	24-May	25-May	26-May	27-May	28-May	29-May
06:00 - 07:00	Reporting		**Free Hand Exercise**		Travel at 0700	**फ्री हैंड एक्सरसाइज / योग Free Hand Exercise/Yoga**						Arrival			Arrival
08:30 - 09:00	**नाश्ता Breakfast**														**Breakfast**
09:30 - 10:15		Inauguration from HQ Auditorium	4	9-ORF	शादनगर	Travel	Local	Local	18	Quiz	22				
10:15 - 11:00			5	11-ORF	Shadnagar	Travel	Local	Local	19	Quiz	23				
11:00 - 11:30	रिपोर्टिंग Reporting	High tea	**Tea**						**Tea**						
11:30 - 12:15		1	6	12-ORF	शादनगर	15	Local	Local	20	रोबोटिक Robotics	24				
12:15 - 13:00		2	7	13-ORF	Shadnagar	16	Local	Local	21		25				Departure
13:00 - 14:00	**भोजन / Lunch**														**Lunch**
14:00 - 14:45		3	8	ORF	14-Shadnagar	17	Local	Local	Challenge	रोबोटिक Robotics	**Personality Development**				
14:45 - 15:30	रिपोर्टिंग Reporting	10	चुनौती Challenge	ORF	शादनगर	Library	Local	Local							Departure
15:30 - 15:45	**चाय/ जूस Tea/Juice**														
16:00 - 17:30	Orientation	Interactive games	Challenge	ORF	Shadnagar	NASA	Local	Local	Challenge	Cultural programme	Concluding				
17:30 - 18:30		**अवकाश/खेल/नाश्ता Recess/Sports/ Snacks**													
18:30 - 19:30		**Interaction with scientists**	Sci-Fi	Challenge	Shadnagar	Sci-Fi	Local	Local	**Meet astronomer**	Meet Director	Departure				
19:30 - 20:30			Sci-Fi	Challenge	Shadnagar	Sci-Fi	Local	Local		Dinner	Travel				
20:30 - 21:30		**तारा दर्शन/ रात्रिभोज Sky watching/ Dinner**								DJ	Travel			**Travel**	
21:30 - 22:00	**Reporting to designated rooms**														

ओआरएफ - आउटरीच सुविधा (प्रदर्शनी, वाटर रॉकेट, कैनसैट, स्पेस ऑन व्हील्स) ORF – Outreach facility (Exhibition, water rocket, Cansat, Space on wheels)

शादनगर- लाइव सैटेलाइट पास, कंट्रोल रूम, अंटार्कटिका में वैज्ञानिकों से मिलें, ऐन्टेना, वायुमंडल विज्ञान प्रयोगशाला, कैलवल साइट, सौर ऊर्जा संयंत्र, आपदा प्रबंधन पर चर्चा, रात और सुबह का तारा दर्शन

Shadnagar- Live satellite pass, control room, Meet scientists at Antarctica, visit antenna, Atmosphere science lab, Calval site, solar power plant, Talk on Disaster management, Night and morning star gazing आकाश देखना

1.0 विद्यार्थी Students

एनआरएससी हैदराबाद में कुल 31 छात्रों को आवंटित किया गया था, जिनमें से 30 ने कार्यक्रम में भाग लिया। छात्र अंडमान और निकोबार द्वीप समूह, आंध्र प्रदेश, छत्तीसगढ़, झारखंड, मध्य प्रदेश, ओडिशा और तेलंगाना राज्य के थे। छात्रों की राज्यवार सूची यहां दी गई है

Total 31 students were allotted to NRSC Hyderabad, out of which 30 participated in the programme. The students were from Andaman & Nikobar islands, Andhra Pradesh, Chhattisgarh, Jharkhand, Madhya Pradesh, Odisha and Telangana state. State wise list of students in given here.

S.No	नाम Name		Application No	Gender		राज्य State	
1.	एल भूमिका	L Bhoomika	183216	महिला	Female	अंडमान और निकोबार द्वीप समूह	Andaman and Nicobar
2.	पंखुड़ी सिंह	Pankhudi Singh	136436	महिला	Female	अंडमान और निकोबार द्वीप समूह	Andaman and Nicobar
3.	श्रीहरिनारायणन	Sreeharinarayanan	134848	पुरुष	Male	अंडमान और निकोबार द्वीप समूह	Andaman and Nicobar
4.	हेमचंद्र साई अकुनुरु	Hemachandra Sai Akunuru	102294	पुरुष	Male	आंध्र प्रदेश	Andhra Pradesh
5.	ज्योतिरादित्य वक्कापतला	Jyotiradithya Vakkapatla	141262	पुरुष	Male	आंध्र प्रदेश	Andhra Pradesh
6.	लक्ष्मी सौम्या कोम्मुरी	Lakshmi Sowjanya Kommuri	176553	महिला	Female	आंध्र प्रदेश	Andhra Pradesh
7.	मतिगुंटा क्रांति कुमार	Mattigunta Kranthi Kumar	133223	पुरुष	Male	आंध्र प्रदेश	Andhra Pradesh
8.	वुसा चरण नागा कृष्ण तेज	Vusa Charan Naga Krishna Tej	151332	पुरुष	Male	आंध्र प्रदेश	Andhra Pradesh
9.	काव्या सिंह	Kavya Singh	132231	महिला	Female	छत्तीसगढ़	Chattisgarh
10.	प्रखर अग्रवाल	Prakhar Agrawal	141325	पुरुष	Male	छत्तीसगढ़	Chattisgarh
11.	प्रियल पिंजानी	Priyal Pinjani	138406	महिला	Female	छत्तीसगढ़	Chattisgarh

S.No	नाम Name		Application No	Gender		राज्य State	
12.	शौर्य गुप्ता	Shaurya Gupta	152648	पुरुष	Male	छत्तीसगढ़	Chattisgarh
13.	सौम्या अग्रवाल	Soumya Agrawal	136781	महिला	Female	छत्तीसगढ़	Chattisgarh
14.	मेघा शर्मा	Megha Sharma	191752	महिला	Female	झारखंड	Jharkand
15.	ऋषिका अग्रवाल	Rishika Agarwal	199018	महिला	Female	झारखंड	Jharkand
16.	रोहित कुशवाहा	Rohit Kushwaha	164655	पुरुष	Male	झारखंड	Jharkand
17.	शौर्यम राज	Shouryam raj	115640	पुरुष	Male	झारखंड	Jharkand
18.	अभिनव	Abhinav	129293	पुरुष	Male	मध्य प्रदेश	Madhya Pradesh
19.	दीपन हरिदास	Deepan Haridas	120884	पुरुष	Male	मध्य प्रदेश	Madhya Pradesh
20.	निश्चय जैन	Nishchay jain	135399	पुरुष	Male	मध्य प्रदेश	Madhya Pradesh
21.	विघ्नेश सिंह	Vighnesh Singh	137246	पुरुष	Male	मध्य प्रदेश	Madhya Pradesh
22.	अंशुमान साहू	Anshuman Sahoo	175651	पुरुष	Male	ओडिशा	Odisha
23.	ज्योतिर्मयी पांडा	Jyotirmayee Panda	156022	महिला	Female	ओडिशा	Odisha
24.	पद्मालय महापात्रा	Padmalaya Mahapatra	177826	महिला	Female	ओडिशा	Odisha
25.	स्वास्तिक कुमार दास	Swastik Kumar Dash	108938	पुरुष	Male	ओडिशा	Odisha
26.	अडागुल्ला भविष्या	Addagulla Bhavishya	170739	महिला	Female	तेलंगाना	Telangana
27.	प्रत्युषा दोसा	Prathyusha Doosa	153190	महिला	Female	तेलंगाना	Telangana
28.	राहुल रंगनाथ राव एतुरु	Rahul Ranganatha Rav Eeturu	113008	पुरुष	Male	तेलंगाना	Telangana
29.	सानिया रूपवथ	Saniya Rupavath	118364	महिला	Female	तेलंगाना	Telangana
30.	विजया चिंतापल्ली	Vijaya Chintapalli	166091	महिला	Female	तेलंगाना	Telangana

फोटो के साथ छात्रों के स्कूल का नाम और राज्य यहां दिखाया गया है। Students school name and state along with photos are shown here

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युविका YUVIKA-2022

YUV22-129293

ABHINAV

ST. MONTFORT SCHOOL,
PATEL NAGAR, BHOPAL
MADHYA PRADESH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-170739

ADDAGULLA BHAVISHYA

SHANTINIKETAN VIDYALAYA
GURURAGHAVENDRA COLONY,
CHINNAMALLAREDDY,
NH7 ROAD, KAMAREDDY
TELANGANA

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-175651

ANSHUMAN SAHOO

DELHI PUBLIC SCHOOL,
DAMANDODI, SECTOR-3,
NALCO TOWNSHIP
ODISHA

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-183216

BHOOMIKA L

KAMARAJ ENGLISH MEDIUM SENIOR
SECONDARY SCHOOL,
BROOKSHABAD PORTBLAIR,
SOUTH ANDAMAN

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-120884

DEEPAN HARIDAS

JAWAHAR NAVODAYA VIDYALAYA,
BOHANI, DIST. NARSINGHPUR
MADHYA PRADESH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-102294

HEMACHANDRA SAI AKUNURU

ZPHS TALAGADADEVI,
NAGAYLANK MANDAL,
KRISHNA DISTRICT
ANDHRA PRADESH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-141262

JYOTIRADITHYA VAKKAPATLA

DR. K.K.R GOWTHAM (E.M) HIGH
SCHOOL,
VENGALAYAPALEM (V), GUNTUR,
ANDHRA PRADESH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-156022

JYOTIRMAYEE PANDA

KENDRIYA VIDYALAYA, GAJAPATI,
AT BETAGUDA PO JAMMI
DIST GAJAPATI
ODISHA

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-132231

KAVYA SINGH

BHARATIYA VIDYA BHAVAN'S
R.K.SARDA VIDYA MANDIR,
GSI-TI VIA MCF, BARONDA (V),
SADDU, RAIPUR,
CHATTISGARH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-176553

LAKSHMI SOWJANYA KOMMURI

Z.P.HIGH SCHOOL,
MUTLURU (V),
VATTICHERUKURU (M),
GUNTUR DISTRICT,
ANDHRA PRADESH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-133223

MATTIGUNTA KRANTHI KUMAR

Z.P.H.SCHOOL, MANGAMURU,
SANTHANUTHLAPADU MANDAL,
PRAKASAM DIST
ANDHRA PRADESH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-191752

MEGHA SHARMA

SANT NANDLAL SMRITI VIDYA
MANDIR, NEAR DAK BUNGLOW
ROAD, GHATSHILA,
EAST SINGHBHUM
JHARKAND

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-135399

NISHCHAY JAIN

JAWAHAR NAVODAYA VIDYALAYA
BOHANI, NARSINGHPUR
MADHYA PRADESH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-177826

PADMALAYA MAHAPATRA

ST XAVIER HIGH SCHOOL,
BIRAHAREKRUSHNAPUR, PURI
ODISHA

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-136436

PANKHUDI SINGH

VIVEKANANDA KENDRA VIDYALAYA,
LAMBA LINE, PORT BLAIR,
SOUTH ANDAMAN

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-141325

PRAKHAR AGRAWAL

JAWAHAR NAVODAYA VIDYALAYA
LAWAN BALODABAZAR VILLAGE:
LAWAN DISTRICT: BALODABAZAR
BHATAPARA,
CHATTISGARH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-153190

PRATHYUSHA DOOSA

ZPHS.GARSHAKURTHY,
MNDL: GANGADHARA,
DIST: KARIMNAGAR
TELANGANA

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-138406

PRIYAL PINJANI

BHAVAN'S RK SARDA VIDYA MANDIR:
SADDU-BARONDA ROAD, OFF
VIDHAN SABHA ROAD,
BARONDA (V), RAIPUR,
CHATTISGARH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-113008

RAHUL RANGANATHA RAV EETURU

T S MODEL SCHOOL,
GUNDLAPALLY,
NALGONDA DISTRICT
TELANGANA

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-199018

RISHIKA AGARWAL

O P JINDAL SCHOOL, BALKUDRA,
PATRATU, RAMGARH,
JHARKAND

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-164655

ROHIT KUMAR KUSHWAHA

JAWAHAR NAVODAYA VIDYALAYA
GANDEY, GIRIDIH
JHARKAND

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-118364

SANIYA RUPAVATH

JAWAHAR NAVODAYA VIDYALAYA,
CHALAKURTHY CAMP,
NALGONDA DISTRICT
TELANGANA

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-152648

SHAURYA GUPTA

THE ADITYA BIRLA PUBLIC SCHOOL,
GRASIM VIHAR, RAWAN,
DIST-BALODA BAZAR
CHATTISGARH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-115640

SHOURYAM RAJ

SHEELA AGRAWAL SARASWATI
VIDYA MANDIR, LOHARDAGA,
JHARKAND

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-136781

SOUMYA AGRAWAL

BHARATIYA VIDYA BHAVAN'S R K
SARDA VIDYA MANDIR
SADDU, BARONDA (V), RAIPUR
CHATTISGARH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-134848

SREEHARINARAYANAN

KAMARAJ ENGLISH MEDIUM
SCHOOL, BROOKSHABAD,
CHAKKARGAON, PORT BLAIR,
SOUTH ANDAMAN

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-108938

SWASTIK KUMAR DASH

VIKASH RESIDENTIAL SCHOOL,
VIKASH KNOWLEDGE HUB, NEAR
BARAHAGUDA CANAL CHOWK,
BARAHAGUDA
ODISHA

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-137246

VIGHNESH SINGH

JAWAHAR NAVODAYA VIDYALAYA
BOHANI, NARSINGHPUR
MADHYA PRADESH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-166091

VIJAYA CHINTAPALLI

KENDRIYA VIDYALAYA,
KESARAJUPALLY,
MLG ROAD, NALGONDA
TELANGANA

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

युविका YUVIKA-2022

YUV22-151332

VUSA CHARAN NAGA KRISHNA TEJ

Z.P.HIGH SCHOOL, SATRAMPADU,
ELURU DISTRICT
ANDHRA PRADESH

राष्ट्रीय सुदूर संवेदन केंद्र, हैदराबाद
National Remote Sensing Centre - Hyderabad

2.0 पंजीकरण और अभिविन्यास Registration & Orientation

सभी छात्रों का रजिस्ट्रेशन 15 मई को किया गया। छात्रों को दो सप्ताह के प्रवास के दौरान उनके उपयोग के लिए बैग, टैबलेट, टी-शर्ट, टोपी और अन्य सामग्री दी गई।

Registration of all the students was done on 15th May. The students were given bag, tablet, T-shirt, cap and other material for their use during two weeks of stay.

अभिविन्यास कार्यक्रम में विभिन्न विवरणों के बारे में जानकारी शामिल थी।

1. आवास - छात्रों को कमरे के नंबर के साथ ट्विन शेयरिंग आवास के बारे में जानकारी दी गई।
2. छात्रों को पुरुष छात्र संरक्षक, श्री हरीश, महिला छात्र संरक्षक, सुश्री वसुधा और अध्यक्ष, युविका, डॉ राजश्री बोथले का विवरण और कमरा नंबर दिया गया।
3. छात्रों के साथ पंजीकरण किट के बारे में विवरण साझा किया गया। विद्यार्थियों को पूर्व क्रमादेशित कार्ड की जानकारी एवं उपयोग के बारे में बताया गया।
4. परिसर में आने-जाने, पहचान-पत्र धारण करने, बिना अनुमति के आवाजाही न करने, माता-पिता के न आने आदि की जानकारी विद्यार्थियों को दी गई। माता-पिता को सलाह दी गई थी कि वे अध्ययन के घंटों के दौरान कॉल न करें।

5. छात्रों को दैनिक भोजन योजना की जानकारी दी गई। ओरिएंटेशन में ही दूध, विभिन्न प्रकार के खाद्य पदार्थ, फल, जूस आदि का प्रावधान बताया गया। बच्चों से किसी भी प्रचलित खाद्य एलर्जी के बारे में पूछा गया।
6. अभिविन्यास के दौरान व्याख्यान और चुनौतियों के बारे में जानकारी प्रदान की गई। छात्रों के साथ चुनौतियों के विषय भी साझा किए गए।
7. खगोल विज्ञान सत्र, रोबोटिक्स सत्र और WeMsat डेमो के बारे में विवरण साझा किया गया।
8. विद्यार्थियों को खेलों और योग सत्रों की जानकारी दी गई।
9. सांस्कृतिक कार्यक्रम के विवरण पर चर्चा की गई और छात्रों से सांस्कृतिक कार्यक्रम में भाग लेने के लिए नाम पूछे गए।
10. छात्रों के लिए एक प्रश्नोत्तरी की भी योजना बनाई गई थी और इसके बारे में विवरण अभिविन्यास सत्र में सूचित किया गया था।
11. छात्रों को जीदीमेटला आउटरीच सुविधा का दौरा करने और शादनगर परिसर में रहने और रहने के बारे में बताया गया।
12. रात्रि में होने वाले खगोल विज्ञान सत्रों की जानकारी साझा की गई।
13. स्वास्थ्य संबंधी मुद्दों के लिए की गई व्यवस्थाओं पर चर्चा की गई और दवाओं, डॉक्टरों और नर्सों आदि की उपलब्धता के बारे में जानकारी छात्रों और अभिभावकों के साथ साझा की गई।
14. छात्रों के साथ शहर के दौरे का विवरण साझा किया गया।
15. एसडीएससी श्रीहरिकोटा के भ्रमण की जानकारी दी गई।

Orientation programme included information about different details.

1. Accommodation – Details about twin sharing accommodation with room numbers were given to the students.
2. Details and room number of male student mentor, Mr Hariesh, female student mentor, Ms Vasudha and Chairperson, Yuvika, Dr Rajashree Bothale were given to the students.
3. Details about the registration kit were shared with students. Information and use of preprogrammed card was told to the students.
4. Rule and regulations about movement in the campus, wearing ID card, no movement without permission, no visit of parents, etc. were informed to the students. Parents were advised not to make calls during study hours.
5. Daily meals plan were informed to the students. Provision made for milk, variety food items, fruits, juices etc. were told in the orientation itself. Children were asked about any prevailing food allergy.
6. Information about lectures & challenges were provided during orientation. Topics of the challenges were also shared with students.

7. Details were shared about astronomy sessions, robotics sessions and WeMsat demo.
8. Information about games and yoga sessions were told to the students.
9. Cultural programme details were discussed and the students were asked names for participating in the cultural programme.
10. A quiz was also planned for the students and details about the same were informed in the orientation session.
11. Students were told about visit to Jeedimetla Outreach facility and visit and stay at Shadngar campus.
12. Information was shared about astronomy sessions to be held at night.
13. Arrangements made for health related issues were discussed and information about availability of medicines, doctors and nurses on call, etc. was shared with students and parents.
14. City tour details were shared with the students.
15. Information was given about trip to SDSC, Shriharikota.

<table>
<tr><td> 
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<tr><td>यूविका बैनर Yuvika banner</td><td>यूविका छात्र Yuvika students</td></tr>
<tr><td> 
</td><td>  </td></tr>
<tr><td>अभिविन्यास कार्यक्रम Orientation programme</td><td>छात्रों और अभिभावकों के साथ With parents and students</td></tr>
</table>

3.0 उद्घाटन Inauguration

उद्घाटन कार्यक्रम का इसरो मुख्यालय से सीधा प्रसारण किया गया, जिसमें भाग लेने वाले सभी पांच केंद्रों के छात्रों ने संबंधित स्थानों से भाग लिया। इसरो के अध्यक्ष श्री एस सोमनाथ ने छात्रों को संबोधित किया। निदेशक, एनआरएससी ने युविका छात्रों के लाभ के लिए एनआरएससी, हैदराबाद में नियोजित गतिविधियों के बारे में जानकारी दी।

Inauguration programme was telecasted live from ISRO HQ where students from all the five participating centres took part from respective places. Chairman, ISRO, Shri S Somnath addressed the students. Director, NRSC briefed about the activities planned at NRSC, Hyderabad for the benefit of Yuvika students.

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>विद्यार्थी और मेंटर Students and mentors</td><td>अध्यक्ष, आईएसआरओ Chairman, ISRO</td></tr>
<tr><td>  </td><td> 
</td></tr>
<tr><td>श्री निशांत, इसरो मुख्यालय Mr Nishant, ISRO, HQ</td><td>निदेशक, एनआरएससी Director, NRSC</td></tr>
</table>

4.0 व्याख्यान Lectures

छात्रों के लिए कुल 25 व्याख्यान की योजना बनाई गई थी। व्याख्यान और वक्ताओं के बारे में विवरण यहां दिया गया है।

Total 25 lectures were planned for the students. The details about the lectures and speakers are given here.

Sl.No	विषय	Topic	नाम	Name Dr/S/Shri/Ms.
1.	अंतरिक्ष का परिचय	Introduction to Space	राधा कृष्ण के	Radha Krishna K
2.	जर्नी टू स्पेस: द पास्ट, प्रेजेंट एंड फ्यूचर ऑफ रॉकेट्स एंड सैटेलाइट्स।	Journey to Space: The Past, Present and Future of Rockets and satellites.	मेदिनी सिंह	Medini Singh
3.	रॉकेट के पीछे भौतिकी	Physics Behind Rockets	ए एस अरविंद	A S Aravind
4.	उपग्रह के पीछे भौतिकी	Physics Behind Satellite	सी साई कृष्णा	C.Sai Krishna
5.	भारत में अंतरिक्ष, इसरो की उत्पत्ति और विस्तार	Space in India, Origin and expansion of ISRO	संतोषी टी	Santhoshi T
6.	इसरो प्रक्षेपण वाहन	ISRO launch vehicles	डी चिदानंदप्पा जी	D.Chidanandappa J
7.	इसरो उपग्रह	ISRO Satellites	पी वी नागमणि	P V Nagamani
8.	उपग्रह पेलोड और अनुप्रयोग	Satellite payload and applications	शैलेंद्र कुमार एसपी	Shailender Kumar SP
9.	इसरो ग्राउंड स्टेशन	ISRO ground stations	आर श्रीनिवास	R Srinivas
10.	स्काई ऑब्जर्वेशन, एस्ट्रोनॉमी, एस्ट्रोफिजिक्स का बेसिक	Basic of Sky Observation, Astronomy, Astrophysics	रघुनंदन	Raghunandan

Sl.No	विषय	Topic	नाम	Name Dr/S/Shri/Ms.
11.	ब्रह्मांड हम में है: स्टारडस्ट रहस्यमय अंतरिक्ष / अंतरिक्ष में रहस्य	The Universe is in Us: Stardust Mysterious Space / Mysteries in Space	एन आर शंकर राम	N R Shankar Ram
12.	एक्सोप्लैनेट और जीवन घटक	Exoplanets and Life component	प्रियम रॉय	Priyom Roy
13.	दुनिया भर में अंतरिक्ष एजेंसियां और उनके मिशन	Space Agencies across the World and their missions	मंजुश्री पी	Manjusree P
14.	संचार उपग्रह और अनुप्रयोग	Communication satellites and applications	प्रशांत कुमार	Prashant Kumar
15.	रिमोट सेंसिंग	Remote Sensing	हरीश पी	Hariesh P
16.	मार्गदर्शन	Navigation	अंजुम महताब	Anjum Mahtab
17.	खगोलीय पिंड	Celestial Bodies	दास अनुपम लक्ष्मण	Das Anupam Laxman
18.	चंद्रयान	Chandrayaan	संवरम साहू	Samvram Sahu
19.	गगनयान मिशन	Gaganyaan Mission	बी संथिश्री	B Santhisree
20.	मंगलयान	Mangalyaan	के हर्ष निखिता	K.Harsha Nikhita
21.	अंतरिक्ष में चुनौतियां	Challenges in Space	स्वाति सिंह	Swati Singh
22.	अंतरराष्ट्रीय अंतरिक्ष स्टेशन	International space station	सचिन प्रकाश के	Sachin Prakash K
23.	अंतरिक्ष पर्यटन	Space Tourism	करुण कुमार चौधरी	Karun Kumar Choudhary
24.	अंतरिक्ष कानून और प्रबंधन	Space Law & Management	के लक्ष्मीनारसिम्हाराव	K Laxminarsimharao
25.	अंतरिक्ष में करियर	Careers in Space	पी महेश	P Mahesh

सभी 25 व्याख्यानों की झलक यहां दी गई है: Glimpses of all the 25 lectures are given here:

5.0 चुनौतियां Challenges

छात्रों को तकनीक और एनआरएससी में किए जा रहे कार्यों के बारे में जागरूक करने के लिए युविका के छात्रों को 8 अलग-अलग चुनौतियाँ दी गईं। प्रत्येक चुनौती के लिए दो सलाहकार प्रदान किए गए थे। छात्रों ने विषय को समझा, शोध किया, प्रस्तुति दी और न्यायाधीशों के पैनल के सामने प्रस्तुत किया। टीम का चयन अलग-अलग राज्यों के छात्रों के साथ टीम बनाकर यादृच्छिक रूप से किया गया था।

To make the students aware about the technology and the work being carried out at NRSC, 8 different challenges were given to the Yuvika students. Two mentors were provided for each challenge. Students understood the topic, did research, made presentation and presented to the panel of judges. Team selection was done randomly with students from different states forming the teams.

प्रत्येक टीम के लिए आवंटित छात्र थे:

The students allotted for each team were:

1. Moon features findings	Mattigunta Kranthi Kumar Nishchay jain Padmalaya Mahapatra Prathyusha Doosa
2 Changes in glacial lake	Soumya Agrawal Rohit Kushwaha Abhinav Vijaya Chintapalli
3 Satellite based monitoring (Watershed)	Jyotiradithya Vakkapatla Shaurya Gupta Anshuman Sahoo Addagulla Bhavishya
4 Satellite based assesment (crop)	Sreeharinarayanan Priyal Pinjani Shouryam raj Jyotirmayee Panda
5 Stereo images	Pankhudi Singh Hemachandra Sai Akunuru Vighnesh Singh Anwesha Mahapatra
6 Neighbourhood Mapping (BHUVAN)	Kavya Singh Megha Sharma Deepan Haridas Swastik Kumar Dash
7 Understanding global warming	L Bhoomika Vusa Charan Naga Krishna Tej Prakhar Agrawal Saniya Rupavath
8 Remote sensing applications (forest)	Lakshmi Sowjanya Kommuri Rishika Agarwal Rahul Ranganatha Rav Eeturu

Challenges - Topics and mentors

Sl.No.	विषय	Topic	नाम	Name Dr/S/Shri/Ms.		
1.	चंद्रयान के आधार पर चंद्रमा की विशेषताएं	Moon features findings based on Chandrayaan	निखिल कुमार बरनवाल	Nikhil Kumar Baranval	स्वाति सिंह	Swati Singh
2.	उपग्रह डेटा का उपयोग करके हिमनद झील में परिवर्तन	Changes in glacial lake using satellite data	बी सिम्हाद्री राव	B Simhadri Rao	श्वेता	Swetha
3.	वाटरशेड विकास कार्यक्रम की उपग्रह आधारित निगरानी	Satellite based monitoring of watershed development programme	स्तुति गुप्ता	Stutee Gupta	अंजुम महताब	Anjum Mahtab
4.	फसल के मौसम का उपग्रह आधारित आकलन	Satellite based assessment of cropping seasons	डॉ अभिषेक चक्रवर्ती	Dr Abhishek Chakraborty	वरुण पांडे	Varun Pandey
5.	स्टीरियो इमेज और एप्लिकेशन	Stereo images and applications	जयलक्ष्मी आई	Jaylakshmi I	श्रीनिवास नरसिम्हम के	Srinivas Narasimham C
6.	भुवन का उपयोग करते हुए पड़ोस का मानचित्रण	Neighbourhood mapping using Bhuvan	ए लेस्ली	A Lesslie	प्रशांत कुमार	Prashant Kumar
7.	ग्लोबल वार्मिंग को समझना	Understanding global warming	महालक्ष्मी डी वी	Mahalakshmi D V	पी महेश	P Mahesh
8.	वन मानचित्रण में रिमोट सेंसिंग अनुप्रयोग	Remote Sensing applications in forest mapping	एम.प्रवीन सोमासत्य	M.Praveen Somasatya	जयंत सिंघल	Jayant Singhal

प्रतियोगिता के निर्णायक निम्न थे
डॉ टी रविशंकर, डीडी, बीजी और डब्ल्यूएसए
डॉ जी श्रीनिवास राव, जीडी, टीईओजी, एमएसए
सुश्री पी मंजुश्री, प्रमुख, एफएमडी, आरएसए
Following were the judges for the competition

Dr T Ravishankar, DD, BG&WSA
Dr G Srinivas Rao, GD, TEOG, MSA
Ms P Manjusree, Head, FMD, RSA

चुनौती प्रतियोगिता के परिणाम हैं:

The results of the challenge competition are:

S.No	चुनौती का शीर्षक Title of the Challenge	मेंटर्स Mentors	टीम के सदस्य Team Members	परिणाम Result
1	भुवन का उपयोग करते हुए पड़ोस का मानचित्रण Neighbourhood Mapping using Bhuvan	ए लेस्ली और प्रशांत कुमार A Lesslie & Prashant Kumar	काव्या सिंह, मेघा शर्मा, दीपन हरिदास, स्वास्तिक कुमार दास Kavya Singh, Megha Sharma, Deepan Haridas, Swastik Kumar Dash	1st Prize
2	ग्लोबल वार्मिंग को समझना Understanding Global Warming	महालक्ष्मी डीवी और पी महेश Mahalaxmi DV & P Mahesh	एल भूमिका, वी चरण नागा कृष्ण तेज, प्रखर अग्रवाल, सानिया रूपावत L Bhoomika, V Charan Naga Krishna Tej, Prakhar Agarwal, Saniya Rupavath	2nd Prize
3	चंद्रयान डेटा और चंद्रमा फ़ीचर निष्कर्ष Chandrayaan Data & Moon Feature Findings	निखिल कुमार बरनवल और स्वाति सिंह Nikhil Kumar Baranval & Swati Singh	एम क्रांति कुमार, निश्चय जैन, पद्मालय महापात्रा, प्रत्युषा दोसा M Kranti Kumar, Nischay Jain, Padmalaya Mahapatra, Prathyusha Dosa	3rd Prize

6.0 विशेष वार्ता श्रृंखला Special talk series

विशेष वार्ता श्रृंखला में विभिन्न विषयों पर कुछ व्याख्यान आयोजित किए गए।
In special talk series, few lectures were organized on different topics.

नाम Name	विषय Topic
डॉ पी वी एन राव Dr P V N Rao	अंतरिक्ष प्रौद्योगिकी और उसके अनुप्रयोग Space Technology and its Applications
श्री विनोद एम बोथले Shri Vinod M Bothale	सैटेलाइट सबसिस्टम और अंतरिक्ष में उपग्रहों को नियंत्रित करने के सिद्धांत Satellite subsystems & principles of controlling satellites in space
डॉ प्रकाश चौहान Dr Prakash Chouhan	अंतरिक्ष से अवलोकन Observing from space
डॉ राजश्री वी बोथले Dr Rajashree V Bothale	अंटार्कटिका अभियान - एक अनुभव Antarctica expedition – An experience

व्याख्यान की कुछ झलकियां इस प्रकार हैं:

Few glimpses of the talk are:

डॉ पी वी एन राव Dr PVN Rao

श्री विनोद एम बोथले Shri Vinod Bothale

डॉ प्रकाश चौहान Dr Prakash Chouhan

डॉ राजश्री वी बोथले Dr Rajashree V Bothale

7. प्रश्नोत्तरी Quiz

युविका के छात्रों के लिए दो राउंड में क्विज का आयोजन किया गया। पहला राउंड सिलेक्शन राउंड था जिसमें 25 प्रश्न दिए गए थे जिन्हें 15 मिनट में हल करना था। पहले दौर में प्रदर्शन के आधार पर 12 छात्रों का चयन किया गया और 4 टीमों को यादृच्छिक रूप से बनाया गया। विभिन्न क्षेत्रों के प्रश्नों के विभिन्न दौरों के बाद विजेताओं का निर्णय लिया गया। गैर-प्रतिभागी छात्रों को भी उत्तर देने के लिए प्रश्न मिले और विजेता टीम के लिए यह कड़ी प्रतिस्पर्धा थी। प्रश्नोत्तरी का आयोजन और संचालन श्री टी एस विश्वनाथम, सुश्री जया सक्सेना और श्री शंकर प्रसाद द्वारा किया गया था। प्रश्नोत्तरी के परिणाम हैं:

Quiz was organized for the students of Yuvika in two rounds. First round was selection round where 25 questions were given which were to be attempted in 15 minutes. 12 students were selected based on the performance in first round and 4 teams were made randomly. After various rounds comprising of questions from different fields winners were decided. Non participant students also got questions to answer and it was tough competition for the winning team. The quiz was organized & conducted by Mr TS Viswanadham, Ms Jaya Saxena and Mr Shankar Prasad. Results of the quiz are:

टीम Team	सदस्य Members			परिणाम Result
भास्कर Bhaskara	निश्चय Nischay	मेघा शर्मा Megha Sharma	स्वास्तिक Swastik	प्रथम First
आर्यभट्ट Aryabhatta	पंखुड़ी Pankhudi	सानिया Saniya	सौम्या Soumya	द्वितीय Second
रोहिणी Rohini	विग्नेश Vignesh	चरण तेज Charan Teja	विजया Vijaya	तृतीय Third
कल्पना Kalpana	प्रखर Prakhar	श्रीहरिनारायणन Shriharinarayanan	प्रियल Priyal	सांत्वना Consolation

प्रतियोगिता की कुछ झलकियां

Few glimpses of the competition are

आयोजकों के साथ प्रश्नोत्तरी प्रतिभागी Quiz participants with organisers

8.0 खगोल शास्त्र Astronomy

प्लेनेटरी सोसाइटी और उस्मानिया विश्वविद्यालय की मदद से छात्रों के लिए विशेष खगोल विज्ञान सत्र और व्याख्यान आयोजित किए गए।

Special astronomy sessions and lectures were organized for the students with the help of Planetary Society and Osmania University.

श्री रघुनंदन Mr Raghunandan	प्लेनेटरी सोसाइटी ऑफ इंडिया Planetary Society of India	रात्रि आकाश देखना, खगोल विज्ञान पर व्यावहारिक अभ्यास, सुबह का आकाश देखना Nigh sky watching, practical exercise on Astronomy, morning sky watching
डॉ. जे. रुक्मिणी Dr. J. Rukmini	उस्मानिया विश्वविद्यालय Osmania University	व्यावहारिक सत्र पेपर प्लेट अल्टीमीटर, धूमकेतु बनाना चंद्र क्रेटर अध्ययन Hands-on session on Paper plate Altimeter, Comet making Lunar crater studies

व्यावहारिक सत्र की कुछ झलकियां इस प्रकार हैं: Few glimpses of the practical session are:


Night sessions


व्यावहारिक सत्र Hands-on session


व्यावहारिक सत्र Hands-on session

9.0 रोबोटिक Robotics

रोबोटिक्स सेशन में छात्रों ने किट के इस्तेमाल से तरह-तरह के रोबोट बनाने का काम किया। लाइन फॉलोइंग, एज डिटेक्शन रोबोट ऐसे उदाहरण हैं।

In robotics session, students worked to make different types of robot using the kit. Line following, edge detection robot are such examples.


Robot making with mentors


Robot making with mentors

10. कैनसैट Cansat

आउटरीच सुविधा में मौसम निगरानी उपग्रह डेमो आयोजित किया गया, जहां छात्रों ने प्रोटोटाइप उपग्रह के काम को देखा। तापमान, आर्द्रता और ऊंचाई में परिवर्तन दर्ज किया गया और छात्रों ने डेमो का आनंद लिया।

Weather Monitoring Satellite demo was held at Outreach facility, where students saw the working of prototype satellite. The change in temperature, humidity and altitude were recorded and students enjoyed the demo.

11. व्यक्तित्व विकास Personality development

व्यक्तित्व विकास के तहत, सुश्री स्नेहा ने "अपने व्यक्तित्व को डिकोड करें" पर एक प्रश्नावली दी और छात्रों के उत्तर के आधार पर, संघर्ष प्रबंधन के अलावा समय प्रबंधन, संचार कौशल, शिष्टाचार और व्यक्तित्व सवारने पर चर्चा की गई। इस सत्र के दौरान हेल्थ टिप्स और साइबर सुरक्षा पर भी चर्चा की गई। नियंत्रक विंग कमांडर श्री विभास सिंह गुप्ता ने सत्र का पर्यवेक्षण किया।

Under personality development, Ms Sneha gave a questionnaire on “decode your personality” and based on the reply from the students, time management, communication skills, etiquette and grooming apart from conflict management were discussed. Health tips and cyber security were also discussed during this session. Controller Wing Commander Shri Vibhas Singh Gupta has supervised the session.

12. शादनगर का दौरा Visits to Shadnagar

युविका के छात्रों के लिए इंटीग्रेटेड मल्टी मिशन ग्राउंड सेगमेंट फॉर अर्थ ऑब्जर्वेशन सैटेलाइट्स (IMGEOS) का दौरा आयोजित किया गया था। छात्रों ने परिसर के दौरे के साथ-साथ तकनीकी सत्रों का आनंद लिया। कैलवल साइट और वायुमंडलीय प्रयोगशाला का दौरा, सौर ऊर्जा संयंत्र और यूएवी डेमो अतिरिक्त आकर्षण थे। आकाश चार्ट पढ़ने पर खगोल विज्ञान व्यावहारिक सत्र की व्यवस्था की गई थी क्योंकि बादलों और बारिश ने रात के आकाश के अवलोकन की अनुमति नहीं दी थी।

A visit to Integrated Multi Mission Ground Segment for Earth Observation Satellites (IMGEOS) was organized for the Yuvika students. Students enjoyed the technical sessions along with tour of the campus. Visit to calval site, atmospheric lab, solar power plant and UAV demo were the added attractions. Astronomy practical session on reading sky chart was arranged as the clouds and rains did not permit night sky observations.

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>एंटेना Antenna visit</td><td>नियंत्रण कक्ष Control room</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>अंटार्कटिका वैज्ञानिकों के साथ With scientists at Antarctica</td><td>कैलवल साइट Calval site</td></tr>
</table>

	
यूएवी प्रदर्शन UAV demo	सौर ऊर्जा संयंत्र Solar panels

13. आउटरीच सुविधा का दौरा –Visits to Outreach facility

युविका के छात्रों को आउटरीच सुविधा में ले जाया गया जहां व्याख्यान के अलावा, कैनसैट डेमो, वाटर रॉकेट लॉन्चिंग डेमो भी दिया गया। छात्रों ने केंद्र में प्रदर्शनी बस और विभिन्न प्रदर्शनियों का आनंद लिया।

Yuvika students were taken to Outreach Facility where apart from lectures, Cansat demo, water rocket launching demo were given to the students. Students enjoyed the exhibition bus and various exhibits at the centre.

	
At Outreach Facility जनसम्पर्क सुविधा में	With satellite models उपग्रह मॉडेल के साथ
	
प्रक्षेपण यान का मॉडेल Model of launch vehicle	वॉटर रॉकेट प्रदर्शन Water rocket launch

14. सह पाठ्यक्रम गतिविधियां Co-curricular activities

छात्रों के लिए विभिन्न सह-पाठयक्रम गतिविधियों की व्यवस्था की गई जिसमें योग, खेल, सांस्कृतिक रात्रि, संगीत, अलाव आदि शामिल थे।

Various co-curricular activities were arranged for the students which included yoga, sports, cultural night, music, bon-fire, etc.

14.1 योग Yoga – छात्रों के लिए 0600 बजे से 0700 बजे तक योग आयोजित किया गया जहां उन्होंने सक्रिय रूप से योग अभ्यास में भाग लिया। अंत में छात्रों के बीच मिस्टर योग और मिस योग घोषित किया गया।

Yoga was organized for the students from 0600 Hrs to 0700 Hrs where they actively took part in the yoga exercises. Finally Mr Yog and Miss Yog were declared amongst the students.

योग सत्र Yoga sessions

14.2 खेल Sports - छात्रों का दैनिक खेल सत्र था जहाँ उन्होंने बैडमिंटन, कैरम, शतरंज और टेबल टेनिस खेला। विद्यार्थियों के बीच प्रतियोगिता का भी आयोजन किया गया। शुरुआती दिनों में उनके बीच की झिझक मिटाने के लिए समूह खेल खिलाये गए.

Students had daily sports session where they played badminton, carom, chess and Table tennis. Competitions were also held amongst the students. To break the ice amongst them during initial days, group games were played.

समूह खेल Group games

प्रतियोगिता

विभिन्न प्रतियोगिता के परिणाम इस प्रकार हैं: The results of various competition are:

विभिन्न खेल प्रतियोगिताओं के परिणाम Results of various competition

S.No	नाम	Name	स्कूल	School	खेल	Sport	Prize
1	शौर्य गुप्ता	Shaurya Gupta	आदित्य बिड़ला पब्लिक स्कूल, रावन, छत्तीसगढ़	Aditya Birla Public School, Rawan , Chattisgarh	बैडमिंटन	Badminton	Winner
2	वी ज्योतिरादित्य	V Jyotiradithya	डॉ केकेआर गौतम (ईएम) हाई स्कूल, आंध्र प्रदेश	Dr KKR Gowtham (EM) High School, Andhra Pradesh	बैडमिंटन	Badminton	Runner Up
3	सानिया रूपावत	Saniya Rupavath	जवाहर नवोदय विद्यालय, नलगोंडा, तेलंगाना	Jawahar Navodaya Vidyalaya, Nalgonda, Telangana	बैडमिंटन	Badminton	Winner
4	प्रियल पिंजानी	Priyal Pinjani	भवन आरके शारदा विद्यामंदिर रायपुर, छत्तीसगढ़	Bhavan's RK Sarda Vidyamandir Raipur, Chattisgarh	बैडमिंटन	Badminton	Runner Up
5	विघ्नेश सिंह	Vighnesh Singh	जवाहर नवोदय विद्यालय बोहानी, मध्य प्रदेश	Jawahar Navodaya Vidyalaya Bohani, Madya Pradesh	शतरंज	Chess	Winner
6	प्रखर अग्रवाल	Prakhar Agrawal	जवाहर नवोदय विद्यालय भाटापारा, छत्तीसगढ़	Jawahar Navodaya Vidyalaya Bhatapara, Chattisgarh	शतरंज	Chess	Runner Up
7	एम क्रांति कुमार	M Kranthi Kumar	जेडपीएचएस, मुंगमुरु प्रकाशम, आंध्र प्रदेश	ZPHS, Mungamuru Prakasham, Andhra Pradesh	कैरम	Carrom	Winner
8	ए हेमचंद्र साईं	A Hemachandra Sai	जेडपीएचएस, नागयलंक कृष्णा, आंध्र प्रदेश	ZPHS, Nagaylank Krishna, Andhra Pradesh	कैरम	Carrom	Runner Up
9	विग्नेश सिंह	Vignesh Singh	जवाहर नवोदय विद्यालय बोहानी, मध्य प्रदेश	Jawahar Navodaya Vidyalaya Bohani, Madya Pradesh	योग	Yoga	Mr Yoga
10	एम क्रांति कुमार	M Kranthi Kumar	जेडपीएचएस, प्रकाशम, एपी	ZPHS, Prakasam, AP	योग	Yoga	Consolation
11	विजया चिंतापल्ली	Vijaya Chintapalli	केन्द्रीय विद्यालय, तेलंगाना	Kendriya Vidyalaya, Telangana	योग	Yoga	Ms Yoga
12	अभिनव	Abhinav	सेंट मोंटफोर्ट स्कूल, भोपाल, मध्य प्रदेश	St. Montfort School, Bhopal, Madhya Pradesh	इंटरएक्टिव गेम्स	Interactive games	Winner
13	वी. चरण नागा कृष्ण तेज	V. Charan Naga Krishna Tej,	जेडपीएचएस, स्ट्रम्पाडु, एलुरु, पश्चिम गोदावरी, आंध्र प्रदेश	ZPHS, Strampadu, Eluru, West Godavari, Andhra Pradesh	इंटरएक्टिव गेम्स	Interactive games	First runner up
14	निश्चय जैन	Nishchay Jain	जेडपीएचएस जवाहर नवोदय विद्यालय, बोहानी नरसिंहपुर, मध्य प्रदेश	ZPHS Jawahar Navodaya Vidyalaya, Bohani Narsinghpur, Madhya Pradesh	इंटरएक्टिव गेम्स	Interactive games	Second runner up

14.3 सांस्कृतिक कार्यक्रम Cultural programme - युविका के विद्यार्थियों ने सांस्कृतिक कार्यक्रम में भाग लिया जो उनके लिए और उनके द्वारा भी आयोजित किया गया था। छात्रों ने नृत्य, गीत, वाद्य संगीत प्रस्तुत किया और स्टैंड-अप कॉमेडी की। एनआरएससी कर्मचारियों ने भी छात्रों के लिए प्रस्तुति दी।

Yuvika students participated in the cultural programme which was organized for them and by them also. Students presented dance, songs, instrument music and did stand-up comedy. NRSC employees too gave performances for the students.

युविका के विद्यार्थियों द्वारा सांस्कृतिक कार्यक्रम की प्रस्तुति Cultural programme by Yuvika students

14.4 शहर का भ्रमण City tours – युविका के छात्रों को शहर के विभिन्न ऐतिहासिक और अन्य स्थानों पर ले जाया गया जिसमें चारमीनार, सालारजंग संग्रहालय, बिड़ला प्लेनिटोरियम और विज्ञान केंद्र और रामोजी फिल्म सिटी शामिल थे। इन जगहों को देखना छात्रों के लिए एक अनूठा अनुभव बन गया।

Yuvika students were taken to different historic and other places in the city which included Charminar, Salarjung Museum, Birla Planitorium and science centre and Ramoji film city. Visiting these places became unique experience for the students.

Students at Charminar चारमिनार पर यूविका छात्र

Students at Ramoji City रामोजी सिटि में विद्यार्थी

14.5 नृत्य रात्रि Dance night - बालानगर व शादनगर में आयोजित नृत्य, डीजे व अलाव रात्रि के दौरान विद्यार्थियों ने जमकर मस्ती की। Yuvika students had fun during dance, DJ and bon-fire nights arranged at Balanagar and Shadnagar.

15. समापन कार्यक्रम Concluding programme

छात्रों के एसडीएससी, शार जाने के पहले एनआरएससी में समापन कार्यक्रम आयोजित किया गया था। कार्यक्रम की अध्यक्षता एनआरएससी के नियंत्रक ने की। समापन सत्र में श्री हरीश, आयोजन सचिव, युविका, हैदराबाद ने कार्यक्रम की रिपोर्ट पढ़ी। नियंत्रक एनआरएससी ने छात्रों को संबोधित किया और पुरस्कार वितरित किए। कार्यक्रम में भाग लेने वाले प्रत्येक छात्र को स्मृति चिन्ह दिए गए। छात्रों ने कार्यक्रम के बारे में फीडबैक दिया। डॉ राजश्री बोथले ने धन्यवाद ज्ञापित किया। कुल मिलाकर छात्रों ने युविका कार्यक्रम का हिस्सा बनने के लिए अपनी खुशी, अनुभव और रोमांच व्यक्त किया। कार्यक्रम का संचालन महिला छात्र संरक्षक सुश्री वसुधा ने किया।

Concluding programme was organized at NRSC before the students moved to SDSC, Shar. Controller, NRSC presided over the programme. Programme report was read by Mr Hariesh, rganizing Secretary, Yuvika, Hyderabad in the concluding session. Controller NRSC addressed the students and gave away the prizes. Mementoes were given to each student for participating in the programme. Students gave feedback about the programme. Vote of thanks was given by Dr Rajshree Bothale. Overall the students expressed their joy,

experience and thrill to be part of YUVIKA programme. Ms Vasudha, the female student mentor conducted the programme.

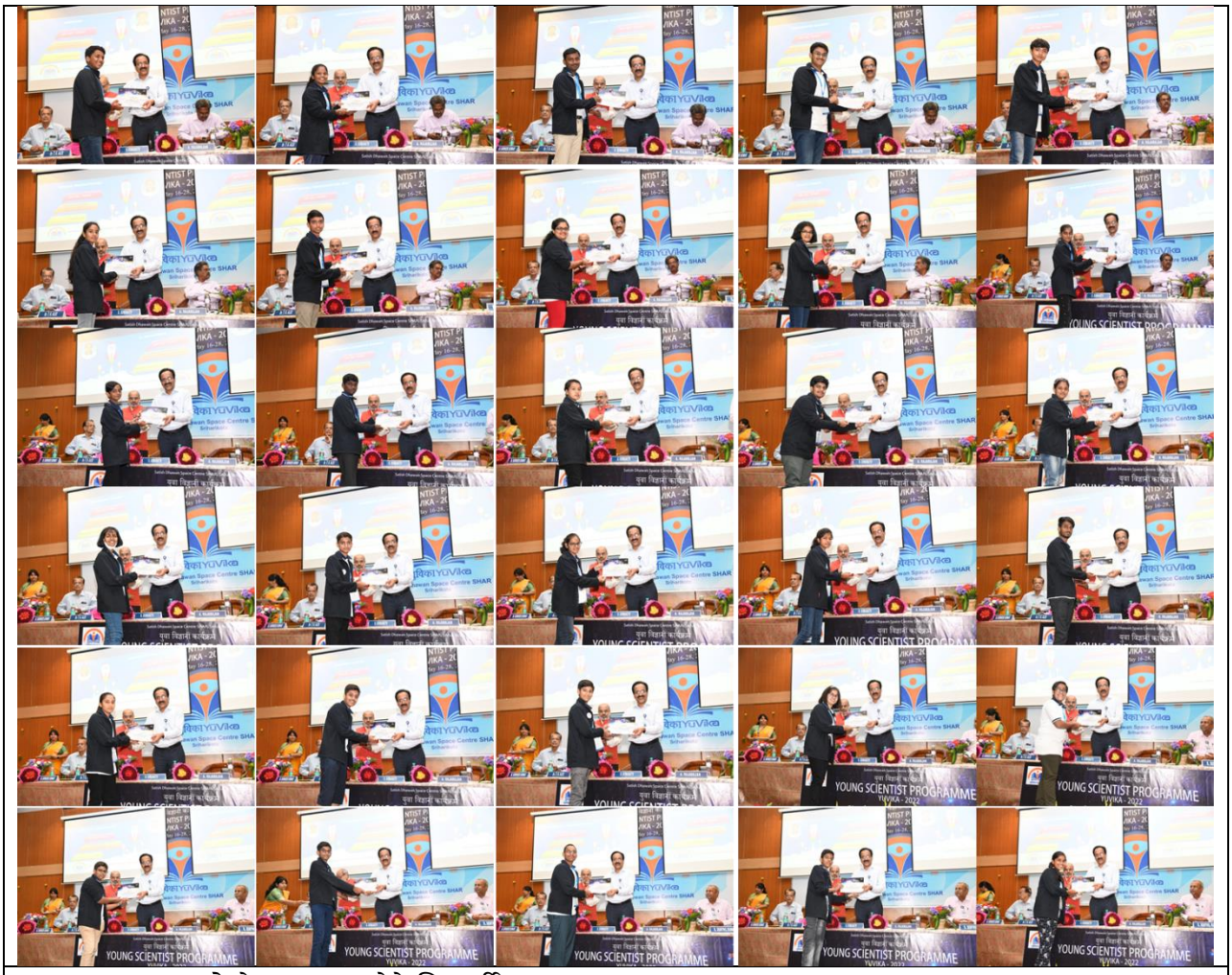
स्मृति चिन्ह के साथ छात्र Students with memento

16. Trip to SDSC, Shar

एसडीएससी, श्रीहरिकोटा में एक भ्रमण का आयोजन किया गया जहां सभी 153 युविका प्रतिभागी एकत्रित हुए। उन्होंने लॉन्च पैड्स का दौरा किया, कंट्रोल रूम, असेंबली रूम देखे और साउंडिंग रॉकेट का लॉन्च भी देखा। छात्रों को अध्यक्ष, इसरो द्वारा प्रमाण पत्र दिया गया और उन्होंने अध्यक्ष के साथ बातचीत की

A visit was organized to SDSC, Shriharikota where all the 153 Yuvika participants assembled. They visited launch pads, saw control rooms, assembly rooms and also saw launch of sounding rocket. Students were given certificate by Chairman, ISRO and they interacted with the Chairman.

युविका-हैदराबाद के छात्र अध्यक्ष, इसरो के साथ Yuvika-Hyderabad students with Chairman, ISRO



अध्यक्ष, इसरो से प्रमाण पत्र लेते विद्यार्थी Students taking certificate from Chairman, ISRO

पांच केंद्रों के समन्वयक एवं छात्र मार्गदर्शक Coordinaotors and student mentors of five centres

श्रीहरिकोटा में छात्र Students at SDSC, Shar

17. छात्रों से प्रतिक्रिया Feedback from the students

Students gave feedback about the Yuvika programme after leaving the campus. Few of their feedbacks are:

Sreeharinarayanan from A & N - Good noon friends, rajashri madam, vasudha madam and hariesh sir. This YuViKa programme has been so inspiring and memorable that I shall never forget these memories. Though this was an educational programme, it played a big role in my character building and most importantly, it created a sense of pride in me for the number of things that our own space agency does based on indigenous technology. Also is the fact that these things cannot be seen by every normal person, thus I count myself lucky for the experience. I expect every one of you to remember me unlike the people I have befriended till now. Ps: I specially thank vasudha Ma'am, hariesh sir, and rajashree madam for the love and determined helpfulness. I loved all the food and bedding facilities. That's also a factor.

V Charan Nag Krishna Tej, AP - Very Good Afternoon Rajshree Mom, Vasudha Mam and Hariesh Sir. You have given so much support and encouragement to achieve my goals. after this training I have improved my confident levels to do any challenges in my life. Through out of this journey I learnt alot of knowledge about data science, space which is helpful to my career. Thank you frnds for giving me a memorable experience, Without you there is no fragrance. Thank you very much for your blessings and support ma'am and sir.

Anshuman Sahoo, Odisha - Good morning Mam, my mentors and all my friends. I reached Damanjodi safely. I feel proud and blessed that I got such wonderful opportunity to be a participant of YUVIKA-2022 . Many many thanks for Dr. Rajashree mam, Vasudha mam, Hariesh sir and all the members of team NRSC who guided us, encouraged us and took care of us like parents for whom we forgot our own parents for a fortnight. It gave me a lot of exposure and experiences which I can't get anywhere in life. It has improved my confidence level like PSLV. Thanks to all my friends who have added a lot of essence to the camp life. Hope we surely meet in future. Thank you all.

Prakhar Agrawal, Chhattisgarh - I have so much things to describe about this great 15 days YUVIKA programme as all the moments of this wonderful programme are recorded permanently in my heart and mind..
The experience of all those lectures, games, visit to ISRO facilities, Local city tour, quiz, challenges, practical sessions, shriharikota visit and most importantly bonding with all those friends are inexpressible in words....
These things are not commonly accessible for all and I thank you all from the bottom of my heart for providing me this opportunity. Regards

Vignesh Singh, **Madhya Pradesh**- Rajashree ma'am , Harish sir and Vasudha ma'am. I have reached my home safely. The visit to nrsc was really a great experience. Thankyou for giving this once in a lifetime opportunity . I learned lot of new things and made many friends.

Deepan Haridas, Madhya Pradesh - I have safely reached my home, this programme was a great experience, most importantly the nrsc campus, it was so much inviting and fresh. thank you for this wonderful opportunity of learning and experiencing a lot of new things.

Vijaya Chintapalli, Telangana - Thank you for taking good care of us and making us comfortable during our stay at NRSC. This was really a wonderful experience for us.

L Bhoomika, A & N islands - There is no words to thank u all. As I am Baha'i, I offered many prayers for u all. It was really a life time experience for me to be there with you all wonderful people's around me with so much positive and motivating vibes. All the activities, visits, lectures, were so wonderful and learnable. It really encouraged me to be more determined in focussing my future goals(binds with ISRO) . It was so helpful , I'm feeling so blessed to be a part of the Yuvika program. Hope after going back to Andaman my experience will motivate many more children to take space science as there career and part of ISRO.I will try my best to transform my dream to real.

Pankhudi, A & N islands - This camp has been and will always be the best and most memorable one in my life. The whole team of Yuvika has done an exceptionally awesome job to make our stay so comfortable and enjoyable. I find myself so lucky that I could experience all this. Thanks to ur encouragement and interactive games..our friendship has grown by leaps and bounds. "It was where strangers met and have become friends who wish to stay together forever. " I hope u will all have a special place in your heart for us and remember us as SUPER 30 .

Soumya Agrawal, Chhattisgarh - I am writing this message to thank you for the continuous support and guidance that you shared with us during the YUVIKA program. It was a beautiful experience and a lifetime memory. The facilities available for us were also great and we spent our time comfortably. I am really thankful to you for the same. Also I apologise for any instance wherein I have been hurting you. I really hope to meet you in the near future.

Annexure – 1: YUVIKA 2022 Executive Committee Members order

No. D.O/25/07/2022
Government of India
Department of Space
National Remote Sensing Centre

Balanagar
Hyderabad-500 037

April 11, 2022

OFFICE ORDER

ISRO has decided to organized YUva VIgyani KAryakram (Yuvika) programme this year in May 2022. This two week event will be held during May 15 to May 29 at NRSC. In order to execute the programme, following committee is constituted:

Sl. No	Name & Designation S/Shri/Ms/Dr.	Role
1.	Rajashree V.Bothale, DD, ECSA	Chairman
2.	K.V. Ramana, GD, PPEG	Alt-Chairman
3.	G. Srinivasa Rao, GD, TEOG	Member
4.	KM Reddy, GD, FIDG	Member
5.	D. Shantan Kumar, GH, CMG	Member
6.	PVSSN Gopalakrishna, Sc.Engr -`SG', TEOG	Member
7.	T.S.Viswanadham, Sc.Engr-`SF', TEOG	Member
8.	V V Ganesh, Sc.Engr-`SF', TEOG	Member
9.	Jaya Saxena, Sc.Engr-`SF', TEOG	Member
10.	K. Vijaya Chandra, Sr Admin Officer	Member
11.	Ch Bhaktavatsalam, Sr Purchase & Stores Officer	Member
12.	R. Sanjay Kumar, Accounts Officer	Member
13.	Asstt Commandant, CISF	Member
14.	B. Vasudha, JPA	Female student mentor
15.	P. Hariesh, Sc.Engr-`SE', TEOG	Male student Mentor & Member-Secretary

Terms of reference:

- Planning the activities for the smooth conduct of the programme.
- Preparation of course schedule & identification of speakers.
- Arrange for local logistic support, facility visits, site seeing, entertainment, workout & yoga sessions.
- Identify resource persons for star gazing, robotic kit etc.
- Coopt members for smooth conduct of the programme

The committee will liaise with the ISRO HQ overseeing committee for the implementation of the programme.

(Prakash Chauhan)
Director

To,

Chairman & Members of the Committee

Cc: NCMC

Annexure 2: Yuvika sub-committee order

No. D.O/25/11/2022
Government of India
Department of Space
National Remote Sensing Centre

Balanagar
Hyderabad-500 037

April 29, 2022

OFFICE ORDER

Sub: YUva Vigyani KAryakram (Yuvika) – sub committee - reg:

In continuation to office order No D.O/25/07/2022, dated April 11, 2022, different sub-committees are constituted to execute the programme which is being held in NRSC during May 15 to May 29. The sub-committee will coordinate with execution committee for carrying out different activities.

Lectures

Sl.No.	Topic	Name Dr/S/Shri/Ms.	Designation	Area
1.	Introduction to Space	Radha Krishna K	Sci./Engr. SD	WPDSD/DPSG/DPA
2.	Journey to Space: The Past, Present and Future of Rockets and satellites.	Medini Singh	Sci./Engr. SC	RDASD/RDASG/SDR&ISA
3.	Physics Behind Rockets	A S Aravind	Sci./Engr. SF	ICID/ICIG/DPA
4.	Physics Behind Satellite	C.Sai Krishna	Sci./Engr. SE	WRAD/RSA
5.	Space in India, Origin and expansion of ISRO	Santhoshi T	Sci./Engr. SC	CGVAG/BG&WSA
6.	ISRO launch vehicles	D.Chidanandappa J	Sci./Engr. SE	TSD/SISG/MSA
7.	ISRO Satellites	P V Nagamani	Sci./Engr. SG	BOD/ECSA
8.	Satellite payload and applications	Shailender Kumar SP	Sci./Engr. SE	TSQAG/SRQA
9.	ISRO ground stations	R Srinivas	Sci./Engr. SF	TSQAG/SRQA
10.	Basic of Sky Observation, Astronomy, Astrophysics	Raghunandan		Planetary society of India
11.	The Universe is in Us: Stardust Mysterious Space / Mysteries in Space	N R Shankar Ram	Sci./Engr. SD	RC-North
12.	Exoplanets and Life component	Priyom Roy	Sci./Engr. SE	RSAGSG/GGD/RSAA
13.	Space Agencies across the World and their missions	Manjusree P	Sci./Engr. SG	FMD/DMSG/RSA
14.	Communication satellites and applications	Prashant Kumar	Sci./Engr. SC	BWSD/BGWSG/BG&WSA
15.	Remote Sensing	Harlesh P	Sci./Engr. SE	TCPD/TEOG/MSA
16.	Navigation	Anjum Mahtab	Sci./Engr. SG	RDWMD/RSAA
17.	Celestial Bodies	Das Anupam Laxman	Sci./Engr. SD	SC&MPAD/SDPEG/DPA
18.	Chandrayaan	Samvram Sahu	Sci./Engr. SC	SARDPD/MDPG/DPA
19.	Gaganyaan Mission	B Santhisree	Sci./Engr. SG	SC&MPAD/SDPEG/DPA
20.	Mangalyaan	K.Harsha Nikhita	Sci./Engr. SC	HDD/HDG/SDR&ISA
21.	Challenges in Space	Swati Singh	Sci./Engr. SE	MEGD/GSG/RSAA
22.	International space station	Sachin Prakash K	Sci./Engr. SD	AS&CID/AS&CIG/RSA
23.	Space Tourism	Karun Kumar Choudhary	Sci./Engr. SF	CAD/ASAG//RSAA
24.	Space Law & Management	K Laxminarsimharao	Sci./Engr. SE	AMSMF/AMG/SDR&ISA
25.	Careers in Space	P Mahesh	Sci./Engr. SE	ACD/ECSA

Overall arrangements/Activities

Sl.No.	Topic	Name Dr/S/Shri/Ms.	Designation	Area
1.	G Praveen Kumar	PSO	P&S	Purchase
2.	Soumya S Raj	Admn.Officer (VDLS)	P&GA	Entry permission/ Pre-programmed cards
3.	G Srinivas	Sci./Engr. SF	CMG	Venue support
4.	S Nageswara Rao	Sci./Engr. SF	CMG	Venue support
5.	Balamoorthy V	Sci./Engr. SD	CMG	Venue support
6.	Prabhakar K	Jr Engr	Canteen	Food – Balanagar campus
7.	K Balakrishna	Sr. Proj. Asst	Canteen	Food – Balanagar campus
8.	Rajkumar D L	Sr. Proj. Asst.	P&GA	Food – Shadnagar campus
9.	Harish G	Admn Officer (PR)	P&GA	Accommodation & Admin support - Balanagar
10.	Sunil Kumar M	Sr. Asst.	P&GA	Accommodation & Admin support - Balanagar
11.	Robin Dev prasad	Assistant	P&GA	Accommodation & Admin support - Shadnagar
12.	A K Dhankar	SI/Exe	CISF	Support at Balanagar campus
13.	G Sreenivas	CT/GD	CISF	Support at Balanagar campus
14.	D K Mishra	INSP/EXE	CISF	Support at Shadnagar campus
15.	G Jagadeesh Babu	CT/GD	CISF	Support at Shadnagar campus
16.	Rajendra Prasad S	Sci./Engr. SG	Transport/FIDG	Transport arrangements
17.	Vijay Kumar T	Sr. Asst.	Transport/FIDG	Transport arrangements
18.	Kondal Goud M	Dy Manager	CSF/TSD/MSA	AV/VC support
19.	Raveendranadh A	Manager	GPF/PPEG/MSA	Photo/video support
20.	E Vijaya sekhar Reddy	Manager	PFD/SISG/MSA	Printing support
21.	Ramaiah B	Technical Offr - C	SPOD/TEOG/MSA	Local sight seeing support
22.	MN Ramesh Babu	Sr Proj Asstt	TEOG/MSA	Local sight seeing support
23.	Suresh Madan Kumar M	Asst. Engr.	PFPQ/DPA	Recreation
24.	Sneha Deepthi G	Assistant	Controller's office	Personality Development
25.	Shafali Tandon	Sci./Engr. SF	SPOD/TEOG/MSA	Coordination with all the teams

Team Yoga/Sports

1.	I Jayalakshmi	Sci./Engr. SG	AS&CS/ASDMA
2.	VSVSSR Murthy	Ex NRSC	
3.	Rakesh Kumar Sharma	Sci./Engr. SD	AS&CIG/RSA
4.	Anantha Padmanabha E	Head DM&GSD	DMGDS/ASDMA
5.	Karun Kumar Choudhary	Sci./Engr. SF	CAD/ASAG/RSA
6.	P Samatha	Sci./Engr. SF	WPDSD/DPSG/DPA
7.	Saila'a P	Sci./Engr. SF	DPS&NAD/DPSG/DPA

Team Cansat

1.	Prashant Kumar	Sci./Engr. SC	BWSD/BGWSA
2.	Nagalakshmi G:	Sci./Engr. SE	ASD/S&ASG/SDRISA
3.	B Srikanth	Sci./Engr. SE	SSD/S&ASG/SDRISA
4.	Shafali Tandon	Sci./Engr. SF	SPOD/TEOG/MSA

Team Quiz

Sl.No.	Topic	Name Dr/S/Shri/Ms.	Designation
1.	T.S.Viswanadham	Sci./Engr. SF	TOFM/TEOG/MSA
2.	Jaya Saxena	Sci./Engr. SF	SPID/TEOG/MSA
3.	T. Shanker Prasad	Sci./Engr. SF	SPOD/TEOG/MSA

Team ORF visit

1.	V V Ganesh	Sci./Engr. SF	SPOD/TEOG/MSA
2.	Jaya Saxena	Sci./Engr. SF	SPID/TEOG/MSA
3.	T Shanker Prasad	Sci./Engr. SF	SPOD/TEOG/MSA
4.	Yamuna P	Sr. Proj. Asst.	TEOG/MSA
5.	Ramaiah B	Technical Offr - C	SPOD/TEOG/MSA

Team Shadnagar visit

1.	Alok Taori	Sci./Engr. SG	ACD/ECSA	Atmospheric Science lab
2.	Vijay Krishna RS	Sci./Engr. SD	BGWD/BGWSG/BG&WSA	Bhuvan demo
3.	C Pradeep	Sci./Engr. SC	ICIG/MDPG/DPA	Data centre
4.	Supantha Sen	Sci./Engr. SC	SDPEG/DPA	Calval visit
5.	K.Rama Krishna	Technical Officer E	DASD,RDASG/SDR&ISA	Control room visit
6.	Ankitha Reddy	Sci./Engr. SD	WPDSD/DPSG/DPA	Bhoonidhi Demo
7.	P Srilakshmi	Head,EDSS	EDSS/DMSG/RSA	NDEM demo

(Prakash Chauhan)
Director

To,

All Committee Members

Cc: NCMC

Annexure 3: Yuvika brochure

युविका YUVIKA - 2022

Young Scientist Program
YUva VIgyani KAryakram (YUVIKA)

There has been a constant demand from academia especially from school children for internship to ISRO and to understand various aspects of Indian Space Program in this context, ISRO has decided to conduct an annual Young Scientist Program Yuva Vigyani Karyakram (Yuvika) yet another year in tune with the Government's vision Jai Vigyan, Jai Anusandhan and also as part of the vision to expand the ongoing Capacity Building and outreach initiatives of ISRO. The program is primarily designed for the school students to impart basic knowledge in the field of space activities and hence arousing their interest in the field who are the future building blocks of our nation. The Young Scientist Program is thus coined as YUva VIgyani KAryakram (YUVIKA), as the name asserts, the program is for young and meritorious students who have successfully completed their eighth standard.

Indian Space Research Organisation
युविका YuVika

Students from all over the country are selected for the program based on the well-defined criteria, students who belong to rural schools have been given special weightage in the selection criteria. Thus a total of 150 students were selected from 28 states and 8 Union territories put together.

The program is meticulously designed for two weeks duration and based on the geographical distribution of the states, the students are divided into batches for reporting to five major centres of ISRO. The program will be organized in five centres of ISRO namely, North Eastern Space Applications Centre (NE-SAC), Meghalaya, National Remote Sensing Centre (NRSC), Hyderabad, Space Applications Centre (SAC), Ahmedabad, U R Rao Satellite Centre (URSC), Bengaluru and Vikram Sarabhai Space Centre (VSSC) Thiruvananthapuram. The participants will also be given a chance to visit the rocket launching Centre, Satish Dhawan Space Centre (SDSC), Sriharikota during the program.

The program includes invited talks, experience sharing by the eminent scientists, facility and lab visits, exclusive sessions of discussions with experts, practical and feedback sessions. An interactive session (SAMWAD) with Chairman ISRO/Secretary, Department of Space is also planned. Some of the specific topics to be covered during the program are history of science and technology in India, history of Launch Vehicles, different kinds of rocket propulsion, origin of Universe, solar system, history of Indian satellite technology, types of Satellites, parts of a satellite, applications of satellites, space science, satellites for weather/ climate studies, interplanetary space missions, manned space missions etc.,

National Remote Sensing Centre, Hyderabad

Message

With immense pleasure, I welcome the vibrant young scientist community to yet another batch of the ISRO's Young Scientist Program **YUVIKA 2022**. The program is part of Government's vision **"Jai Vigyan, Jai Anusandhan"** on Science and Technology.

Students are the future of the Nation and with the objective of motivating the best young minds to Space Science and Technology, ISRO has envisioned the ***Yuva Vigyani Karyakram (YUVIKA)*** in line with the Government of India's Vision. The programme is aimed at creating awareness about the emerging trends in science and technology amongst the youngsters, who are the future building blocks of our nation. ISRO has chalked out this programme to "Catch them young". The Young Scientist Program was launched by ISRO in 2019, and the second edition is set to take place in May 2022. Around 150 students are chosen from all the states & union territories to participate in this program. The program is being organized at five centres of ISRO namely, North Eastern Space Applications Centre (NE-SAC), Meghalaya, National Remote Sensing Centre (NRSC), Hyderabad, Space Applications Centre (SAC), Ahmedabad, U R Rao Satellite Centre (URSC), Bengaluru and Vikram Sarabhai Space Centre (VSSC) Thiruvananthapuram.

During these two weeks, students will be participating from any one ISRO centre and will be visiting Satish Dhawan Space Centre (SDSC), Shriharikota. Many activities like interaction with eminent scientists, lectures, facility visits, group activities, local educational excursions, etc. are part of the programme. With this exposure, I am sure that students will be able to connect what they are being taught in school to real applications in Space Science and Technology.

I appreciate the Capacity Building Program Office, ISRO HQ and the ISRO Centres for framing this year's Yuvika Program. I wish the young students make optimum use of this opportunity and carry lots of joyous and pleasant memories.

(सोमनाथ एस / Somanath S)
अध्यक्ष, इसरो / Chairman, ISRO

युविका YUVIKA - 2022

Message

With the advent of Space Technology, human imagination has been converted to realities leading to stunning discoveries. However, space science is not only limited to these fantastical ideas and innovations but also involves the utilization of space based technology to improve the overall socio-economic conditions in each and every segment of society. Indian Space Research Organization has therefore taken up a mission to familiarize the Space Science, Technology, and its applications to the bright and young minds of our country.

Indian Space Research Organisation is organising a special programme for School Children called "Young Scientist Programme" "YUva VIgyani KAryakram" (YUVIKA), to impart basic knowledge on Space Technology, Space Science and Space Applications to the younger students with a preference to rural areas. The programme is also expected to encourage more students to pursue in Science, Technology, Engineering and Mathematics (STEM) based research /career.

NRSC, Hyderabad is hosting the programme for the first time and after the critical pandemic times, this is the first residential programme in offline mode. This whole program is designed with several lectures by the eminent scientists in the field of Space Science and Technology. This is followed by hands-on sessions, practical activities, demonstrations and challenges which will address several aspects of remote sensing and its applications. A visit to outreach facility, Jeedimetla and Integrated Multi Mission Ground Segment for Earth Observation Satellites (IMGEOS), Shadnagar is planned along with local excursions. In addition, the students will be taken to Satish Dhawan Space Centre (SHAR), Sriharikota so that they can explore the space port of India.

It is a matter of great pleasure for me to welcome the Young Scientists from the neighbouring states of Telangana as well as Andaman and Nicobar islands to National Remote Sensing Centre, Hyderabad. We have made our best possible effort to make the program a memorable one for the dear young scientists.

I am sure that this program will be instrumental in inspiring each every participant to take upon Space Science and Technology in the future and learn how this may help shape the world they live in. I sincerely hope that each and every Young scientist will find the program interesting and will actively be involved in it. I wish all the students the best in every endeavor and let us all inspire our Young Scientists to reach for the Stars.

(Prakash Chauhan)
Director, NRSC

National Remote Sensing Centre, Hyderabad

About ISRO

Indian Space Research Organisation, formed in 1969, superseded the erstwhile INCOSPAR. Vikram Sarabhai, having identified the role and importance of space technology in a Nation's development, provided ISRO the necessary direction to function as an agent of development. ISRO then embarked on its mission to provide the Nation space based services and to develop the technologies to achieve the same independently.

Throughout the years, ISRO has upheld its mission of bringing space to the service of the common man, to the service of the Nation. In the process, it has become one of the six largest space agencies in the World. ISRO maintains one of the largest fleet of communication satellites (INSAT) and remote sensing (IRS) satellites, that cater to the ever growing demand for fast and reliable communication and earth observation respectively. ISRO develops and delivers application specific satellite products and tools to the Nation: broadcasts, communications, weather forecasts, disaster management tools, Geographic Information Systems, cartography, navigation, telemedicine, dedicated distance education satellites being some of them.

Satellites designed, developed, built, launched and managed in orbit by ISRO are playing a vital role in many important sectors like telecommunications, T V broadcasting, meteorological observation, natural resources survey and monitoring as well as navigation. The indigenous launch vehicles PSLV, GSLV Mark II and GSLV Mark III have launched many of our satellites to orbit. In Feb 2022 earth observation satellite EOS-4 and two co-passenger technology demonstrator and scientific satellites was launched.

In August 2018, the country's intention to undertake a human spaceflight mission GAGANYAAN by 2022 was announced by the Prime Minister. The Gaganyaan mission, set to launch with three Indian astronauts, will splash down near the Indian coast. New details have emerged about the choices of the landing zone, which could be either in the Arabian Sea or the Bay of Bengal.

Future readiness is the key to maintaining an edge in technology and ISRO endeavours to optimise and enhance its technologies as the needs and ambitions of the country evolve. Thus, ISRO is moving forward with the development of heavy lift launchers, human spaceflight projects, reusable launch vehicles, semi-cryogenic engines, single and two stage to orbit (SSTO and TSTO) vehicles, development and use of composite materials for space applications etc.

About NRSC

National Remote Sensing Centre (NRSC) at Hyderabad is responsible for remote sensing satellite data acquisition and processing, data dissemination, aerial remote sensing, remote sensing applications including decision support for disaster management and Earth & climate studies. It is involved in training, capacity building and outreach programmes. NRSC has a state of the art ground station facility at Shadnagar near Hyderabad and at Larsemann hills, Antarctica for acquiring data from Indian as well as other remote sensing satellites. The Aerial Services provide end-to-end Aerial Remote Sensing services and value-added solutions for various large scale applications like aerial photography and digital mapping, infrastructure planning, etc.

Regional Remote Sensing Centres (RRSCs) support various remote sensing tasks specific to their regions as well as at the national level. National Remote Sensing Centre (NRSC) is one of the primary centers of Indian Space Research Organisation (ISRO), Department of Space (DOS). NRSC has the mandate for establishment of ground stations for receiving satellite data, generation of data products, dissemination to the users, development of techniques for remote sensing applications, geospatial services for good governance and capacity building for professionals, faculty and students. NRSC disseminates satellite and geospatial data through its portals Bhuvan and Bhoonidhi.

NRSC operates through multiple campuses to meet national and regional remote sensing data and applications needs of the country.

- Main Campus at Balanagar, Hyderabad for Administration, Remote Sensing Applications and Aerial Services
- The Campus at Shadnagar for Satellite Data Reception, Data Processing and Dissemination, Earth and Climate Studies and Disaster Management Support
- Five Regional Centres at Jodhpur (Regional Centre-West), New Delhi (Regional Centre-North), Kolkata (Regional Centre-East), Nagpur (Regional Centre-Central), Bangalore (Regional Centre-South) for promoting remote sensing applications in various states.
- Outreach facility at Jeedimetla in Hyderabad for providing training for professionals, faculty and students and for general outreach.
- Aircraft operations facility at Begumpet Airport, Hyderabad

National Remote Sensing Centre, Hyderabad

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Yuvika schedule (15 May, 2022 – 29 May, 2022)

	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Time (Hrs)	15-May	16-May	17-May	18-May	19-May	20-May	21-May	22-May	23-May	24-May	25-May	26-May	27-May	28-May	29-May
06:00 - 07:00	Reporting		Free Hand Exercise		Travel at 0700	Free Hand Exercise/Yoga						Arrival			Arrival
08:30 - 09:00	Breakfast														Breakfast
09:30 - 10:15		Inauguration from HQ. Auditorium	4	9-ORF	Shadnagar	Travel	Local	Local	18	Quiz	22				
10:15 - 11:00			5	11-ORF	Shadnagar	Travel	Local	Local	19	Quiz	23				
11:00 - 11:30	Reporting	High tea	Tea						Tea						Departure
11:30 - 12:15		1	6	12-ORF	Shadnagar	15	Local	Local	20	Robotics	24				
12:15 - 13:00		2	7	13-ORF	Shadnagar	16	Local	Local	21		25				
13:00 - 14:00	Lunch														Lunch
14:00 - 14:45	Reporting	3	8	ORF	14-Shadnagar	17	Local	Local	Chal-lenge	Robotics	Personality Development	At Shar	At Shar	At Shar	
14:45 - 15:30		10	Chal-lenge	ORF	Shadnagar	Library	Local	Local							Departure
15:30 - 15:45	Tea/Juice														
16:00 - 17:30	Orientation	Interactive games	Chal-lenge	ORF	Shadnagar	NASA	Local	Local	Chal-lenge	Cultural pro-gramme	Con-cluding				
17:30 - 18:30		Recess/Sports/ Snacks													
18:30 - 19:30		Interaction with scientists	Sci-Fi	Challenge	Shadnagar	Sci-Fi	Local	Local	Meet astronomer	Meet Director	Depar-ture				
19:30 - 20:30			Sci-Fi	Challenge	Shadnagar	Sci-Fi	Local	Local		Dinner	Travel				
20:30 - 21:30		Sky watching/ Dinner								DJ	Travel			Travel	
21:30 - 22:00	Reporting to designated Rooms														

1 - 25: Lectures on Space Science Technology & Applications
ORF – Outreach facility (Exhibition, water rocket, Cansat, Space on wheels)
Shadnagar- Live satellite pass, control room, Meet scientists at Antarctica, visit antenna, Atmosphere science lab, Calval site, solar power plant, Talk on Disaster management, Night and morning star gazing

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List of Students At NRSC, Hyderabad for Yuvika 2022

 **BHOOMIKA L** Kamaraj English Medium Senior Secondary School, Brookshabad Portblair, Andaman and Nicobar	 **SREEHARINARAYANAN** Kamaraj English Medium School Brookshabad, Portblair Andaman and Nicobar	 **PANKHUDI SINGH** Vivekananda Kendra Vidyalaya, Lamba line,PORT BLAIR Andaman and Nicobar
 **V CHARAN NAGA KRISHNA TEJ** Z.P.High School, Eluru Andhra Pradesh	 **VAKKAPATLA JYOTHIRADITHYA** Dr. KKR s Gowtham High School. Guntur Andhra Pradesh	 **AKUNURU HEMACHANDRA SAI** ZPHS Talagadadevi, Krishna District, Andhra Pradesh
 **MATTIGUNTA KRATHI KUMAR** Z.P.H.S, Mangamuru, Prakasam Dist, Andhra Pradesh	 **KOMMURI LAKSHMI SOWJANYA** Z.P.High School, Guntur Andhra Pradesh	 **KAVYA SINGH** Bharatiya Vidya Bhavan's Baronda, Chattisgarh
 **PRIYAL PINJANI** Bharatiya Vidya Bhavan's Baronda, Chattisgarh	 **PRAKHAR AGRAWAL** Jawahar Navodaya Vidyalaya Lawan Balodabazar Chattisgarh	 **SOUMYA AGRAWAL** Bharatiya Vidya Bhavan's Raipur Chattisgarh

National Remote Sensing Centre, Hyderabad

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SHAURYA GUPTA
Aditya Birla Public school,
Grasim Vihar, Chattisgarh

ROHIT KUMAR KUSHWAHA
Jawahar Navodaya Vidyalaya
Gandey, Giridih Jharkand

RISHIKA AGARWAL
O P Jindal School Patratu
Jharkand

MEGHA SHARMA
Sant Nandlal Smriti Vidya Mandir
Jharkand

SHOURYAM RAJ
Sheela agrawal saraswati vidya
mandir lohardaga Jharkand

DEEPAN HARIDAS
Jawahar Navodaya Vidyalaya,
Bohani, Madhya Pradesh

ABHINAV
St. Montfort School,
Patel Nagar, Madhya Pradesh

NISHCHAY JAIN
Jawahar Navodaya Vidyalaya
bohani, Madhya Pradesh

VIGHNESH SINGH
Jawahar Navodaya Vidyalaya
bohani, Madhya Pradesh

SWASTIK KUMAR DASH
Vikash Residential School
Odisha

ANWESHA MAHAPATRA
Kendriya vidyalaya Kandhamal
Odisha

ANSHUMAN SAHOO
Delhi Public School, Damanjodi
Odisha

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PADMALAYA MAHAPATRA
St xavier High School,
Biraharekrushnapur, Odisha

JYOTIRMAYEE PANDA
Kendriya vidyalaya, Gajapati
Odisha

EETURU RAHUL RANGANATHA RAV
T S Model School, Gundlapally,
Nalgonda, Telangana

ADDAGULLA.BHAVISHYA
Shantiniketan Vidyalaya
Kamareddy, Telangana

VIJAYA CHINTAPALLI
Kendriya Vidyalaya,
Telangana

DOOSA PRATHYUSHA
ZPHS.Garshakurthy Kamareddy,
Telangana

SANIYA RUPAVATH
Jawahar Navodaya Vidyala
Nalgonda, Telangana

National Remote Sensing Centre, Hyderabad

About Hyderabad

Hyderabad, is the capital of the state Telangana, India. It also goes by its Sobriquet "City of Pearls". Hyderabad city is located in Telangana state in central India. Formerly, the city was the capital of Andhra Pradesh state. However, the creation of Telangana from Andhra Pradesh made the city serves as a capital of both states for some time. Hyderabad is known for its historic legacy and cultural diversity. Hyderabad is the most populous city of the state of Telangana, making it the 4th populous city in India. The culture of the city is a combination of mannerisms of its settlers, resulting in language, lifestyle and tradition diversities. Hyderabad is one of the safest cities in the world.

Hyderabad city is known for its rich history. The city was founded by the Qutb Shahi sultans of Golconda. The glory of the city lasted during Qutb Shahi's dynasty reign. In 1685, the Mughals conquered Hyderabad. The city was known for its beauty, but the Mughal occupation resulted in its destruction. It was followed by European intervention in Indian affairs. Asaf Jah Nizam al-Mulk, the Mughal viceroy in the Deccan, declared independence in 1724. With Hyderabad as its capital, the Deccan kingdom became the princely state of Hyderabad.

Since Hyderabad city is known for its religious and cultural diversity, it has a mixture of religions. The main religions are Hinduism, Islam, Christianity and Buddhism. The city is a multi-lingual city. The four languages spoken in Hyderabad are Hindi, Urdu, Telugu and English. English is the language of business and administration. Most of Hyderabad people are bilingual; they speak English as well as their mother tongue.

Hyderabad is famous for its arts, mosques, churches, temples, monuments historical places and food. The city's diversity is also reflected in the architecture. The monuments and places of worship display the unique artistic blend of Hinduism and Islam. Charminar is one of the structures that represent the architecture blend. Charminar consists of four towers, with domes over it. It has a staircase that leads to the upper floors of the structure. The famous Golconda Fort once stored the famous Koh-i-Noor and Hope diamonds.

Another monument in Hyderabad is Salar Jung Museum, the most visited museum in the city. The museum is known for its collection of sculptures and paintings. The museum has antiques that range from carvings, textiles, metallic artifacts, different types of clocks and furniture. Additionally, Mecca Masjid is the biggest and the most breathtaking mosque of Hyderabad. It is one of the largest mosques in India; it is listed as a heritage building.

Furthermore, Hyderabad is such an important trade centre, furthermore, tourism has grown. The city is associated with Telugu language movies production, giving rise to its famous "Tollywood". The city of Hyderabad has good transportation facilities accessible by road, rail and by air. Moreover, the climate of the city is warm to hot. It is characterized by wet and dry periods, with moderate annual precipitation.

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National Remote Sensing Centre, Hyderabad

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- Director, NRSC
- Controller, NRSC
- NCMC Members, NRSC

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