



S.N.M COLLEGE MALIANKARA

(Affiliated to Mahatma Gandhi University, Kottayam)

1. Title of the programme: Overview of Space Science and Technology – an online training session under ISRO's Space science and Technology AwaReness Training (START) programme

2. Name of the Coordinator : Dr. Neena P

3. Organizing Department/Cell: Department of Physics in collaboration with ISRO

4. Date: 20th July 2023 to 7th August 2023

5. Number of participants: 32

6. Venue: Seminar Hall (Online live sessions)

7. Resource Persons: Scientists from Indian academia and ISRO centres

8. Objective of the Programme :

1. To provide students with an introductory-level training in space science and technology and to give them an overview of different facets of the field, research opportunities and career options.

2. To enable Indian students to become professionals in space science and technology.

9. Detailed description of the event:

ISRO has launched a new introductory-level online training programme called Space science and Technology AwaReness Training (START) aimed at post-graduate and final-year undergraduate students of physical sciences and technology. The training was scheduled by ISRO from 20th July to 7th August 2023. The training was designed to provide an overview of various aspects of space science and technology allowing students to better understand their aptitude for the field, appreciate its cross-disciplinary nature and choose their career path accordingly. Department of Physics, S.N.M College, Maliankara being the nodal center of ISRO's START programme made necessary arrangements for the registered students to watch the online live lecture series at seminar hall on the stipulated dates for 2 to 3 hours per day. The programme was conducted online through ISRO E-CLASS platform. Live lectures was be delivered by the scientists from Indian academia and ISRO centres. The lectures covered various domains of space science, Astronomy, Astrophysics, Heliophysics, Sun-Earth interaction, Instrumentation, Aeronomy, Indian space science exploration programme and research opportunities in space science and technologies.

Students were also exposed to the ongoing research in different Indian institutes through this program. Nearly 32 students attended the online training session. Each lecture series were followed by interactive sessions where students were able to clear their doubts on the relevant topic with the speaker. The participants who secured minimum 70% attendance in live sessions were allowed to attend an online examination conducted through ISRO E-CLASS LMS on 22 August 2023. The online examination was conducted under close supervision of coordinator of START. The successful participants were awarded with merit certificate from ISRO.

10. Outcome of the event/Evaluation by Programme Coordinator: The student community were highly benefited by the training programme because they received an overview of the different facets of space science and technology, exposure to the research ongoing in different Indian institutes, insight into how their individual aptitude would suit some of the facets of space science and technology, appreciate the cross-disciplinary nature of the subject and accordingly choose their career path. The training session has prepared them as future leaders to take forward the country's space exploration programme and has developed in them interest in space exploration-related activities which will eventually enable them to space scientists and technologists of excellence in the future.

Brochure



ISRO_START @ SNMC Maliankara

Walk along with ISRO....

GET TRAINED IN SPACE TECHNOLOGY

FOCUS AREA

- Space Science & Technology
- Nurturing Individual Aptitude on Space Field
- Research Opportunities
- Career Options

WHO ALL CAN JOIN ???

PG & Final Year UG Students of Physics, Chemistry & Technology

Joining Link:

<https://elearning.iirs.gov.in/edusatregistration/student>

Institute Registration No. - START23-941-148116

FOR FURTHER DETAILS

Co-ordinator : Dr Neena P, Dept. of Physics
Contact No : 9495241542 / 8129888879

ISRO



Photos





Schedule and Contents

Date	Lecture Series	Topic	Resource Person	Time Duration
20 th July 2023	Inauguration			10:30 am to 11:00 am
20 th July 2023	Introductory Talk	India's Space Exploration Endeavour: Context of ISRO's START programme	Tirtha Pratim Das, Director, SPO, ISRO HQ	11:30 am to 12:30 pm
21 th July 2023	Lecture 2	Space observations of Geosphere - Biosphere – atmosphere interactions and climate	Dr. Suresh Babu, SPL, VSSC	11:00 am to 12:00 noon
	Lecture 3	Earth's Magnetic Field and Geospace	Prof. Archana Bhattacharyya, IIG	3:00 pm to 4:00 pm

24 th July 2023	Lecture 4	Earth's Ionosphere, Magnetosphere, Sun-Earth interaction and Space Weather	Dr. Tarun Kumar Pant, SPL, VSSC	11:00 to 1:00 pm
25 th July 2023	Lecture 5	Introduction to Remote Sensing of Earth and planetary bodies	Dr. R.P. Singh, IIRS, ISRO	11:00 to 12:00 noon
	Lecture 6	Rockets to access the Near-Earth Space: Sounding Rockets & Launch Vehicles	Mr. Sheeju Chandran, VSSC, ISRO	3:00 pm to 4:00 pm
26 th July 2023	Lecture 7	Chemistry in Space Technology	Dr. S. A. Ilangovan, VSSC, ISRO	11:00 to 12:00 noon
	Lecture 8	Chemistry in Space Science	Dr. Bala, PRL	3:00 pm to 4:00 pm
27 th July 2023	Lecture 9	The Sun	Dr. K. Sankarasubramanian, URSC, ISRO 11	11:00 to 12:00 noon
	Lecture 10	The Solar System: Formation, evolution and the present state	Prof. Debabrata Banerjee, PRL	3:00 pm to 4:00 pm

28 th July 2023	Lecture 11	Scientific Payload development for Solar System Exploration	Dr. Tirtha Pratim Das, SPO, ISRO HQ	11:00 to 12:00 noon
	Lecture 12	Planets in the Solar System	Prof. Varun Sheel, PRL	3:00 pm to 4:00 pm
31 st July 2023	Lecture 13	Origin and Evolution of the Moon	Prof. Ramananda Chakrabarti, IISC	11:00 to 12:00 noon
	Lecture 14	Minor Bodies in the Solar System – Asteroids, Comets and Meteors	Dr. Kinsuk Acharya, PRL	3:00 pm to 4:00 pm
1 st August 2023	Lecture 15	Mission Design for Space Exploration	Dr. Ritu Karidhal, URSC, ISRO	11:00 to 12:00 noon
	Lecture 16	Observational Techniques for Space Science	Dr. V. Girish, SPO	3:00 pm to 4:00 pm
2 nd August 2023	Lecture 17	Basics of Astronomy & Astrophysics	Dr. R. Niruj Mohan, IIA	11:00 to 1:00 pm
3 rd August 2023	Lecture 18	Exoplanets and Earth-like Exoplanets	Dr. Aravind Singh Rajpurohit, PRL	11:00 to 12:00 noon
	Lecture 19	Introduction to Astrobiology and Search of Life Beyond Earth	Prof. Sudha Rajamani, IISER, Pune	3:00 pm to 4:00 pm
4 th August 2023	Lecture 20	Introduction to Cosmic Rays	Dr. P. K. Mohanty, TIFR	11:00 to 12:00 noon
	Lecture 21	Introduction to Cosmology	Prof. Tarun Sauradeep, RRI	3:00 pm to 4:00 pm

7 th August 2023	Lecture 22	Research Opportunities in Space Science and Technologies	Dr. K. Praveen Kumar, SPO, ISRO HQ	2:00 pm to 3:00 pm
	Concluding Session			3:30 pm to 4:00 pm

List of participants

Sl. No	Name	Register Number	Class	Department	Attendance (20 th July 2023 to 7 th August 2023)
1.	Ananya Roshan P	202330011934348	I M.Sc.	Physics	Online
2.	Chaithra U S	202330012006272	I M.Sc.	Physics	Online
3.	Devika P	202330011937232	I M.Sc.	Physics	Online
4.	Fathima Salam .N.A.	202330011936296	I M.Sc.	Physics	Online
5.	Lakshmi Mol. A.S.	202330011938791	I M.Sc.	Physics	Online
6.	Neha.K.C.	202330011937333	I M.Sc.	Physics	Online
7.	Nova. N.V.	202330011937547	I M.Sc.	Physics	Online
8.	Rohith R	202330012027452	I M.Sc.	Physics	Online
9.	Saranya N.B	202330011934348	I M.Sc.	Physics	Online
10.	Sreelekha Mohandas	202330011940992	I M.Sc.	Physics	Online
11.	Vismaya V.S.	202330011961627	I M.Sc.	Physics	Online
12.	Adwaith K. R	202330012029009	II M.Sc	Physics	Online
13.	Arya P. U.	202330012027600	II M.Sc	Physics	Online
14.	Kailasnath V R	202330012029852	II M.Sc	Physics	Online
15.	Ayma Lakshmi. T. S	202330012028957	II M.Sc	Physics	Online
16.	Chaithanya. K	202330012027456	II M.Sc	Physics	Online

17.	Eruthik Krishna T B	202330012027896	II M.Sc	Physics	Online
18.	Hridhya. C .S	202330012027622	II M.Sc	Physics	Online
19.	Parvathy M Prasad	202330012032460	III B.Sc	Physics	Online
20.	Manjusha. M. R	202330012028527	II M.Sc	Physics	Online
21.	Manuraj .K.	202330011924632	II M.Sc	Physics	Online
22.	Minnu Suresh	202330012027240	II M.Sc	Physics	Online
23.	Mithranand. P.R	202330011937331	II M.Sc	Physics	Online
24.	Parvathy. K .B	202330011936234	II M.Sc	Physics	Online
25.	Nasna Aboobacker	202330012003108	III B.Sc	Physics	Online
26.	Swathi Sankar	202330012027529	II M.Sc	Physics	Online
27.	Anjali R	202330011955639	II M.Sc	Physics	Online
28.	Athira C	202330012027729	II M.Sc	Physics	Online
29.	Malavika.V.S	202330011939072	II M.Sc	Physics	Online
30.	Neha S	202330011955284	II M.Sc	Physics	Online
31.	Sharika. P	202330011954718	II M.Sc	Physics	Online
32.	Vaishnav K D.	202330011957887	II M.Sc	Physics	Online

Certificates





भारत सरकार / GOVERNMENT OF INDIA
अंतरिक्ष विभाग / DEPARTMENT OF SPACE
भारतीय अंतरिक्ष अनुसंधान संगठन / INDIAN SPACE RESEARCH ORGANISATION (ISRO)



CERTIFICATE OF PARTICIPATION
SPACE SCIENCE AND TECHNOLOGY AWARENESS TRAINING (START)

संमति सं. / Enrolment No. :
202330011940992

यह प्रमाणपत्र

MS. ANANYA ROSHAN P

(एस एन एम कॉलेज मालियानकारा एर्नाकुलम)

के - अंतरिक्ष विज्ञान और प्रौद्योगिकी का अवलोकन

में ऑनलाइन प्रशिक्षण कार्यक्रम में भाग लेने पर प्रदान किया जाता है।

इस ऑनलाइन प्रशिक्षण कार्यक्रम का आयोजन 20-07-2023 से 07-08-2023 (कुल पाठ्यक्रम की अवधि = 22 घंटे) के दौरान किया गया।

**THIS CERTIFICATE IS
AWARDED TO**

MS. ANANYA ROSHAN P

(S N M College Maliankara Ernakulam)

ON HAVING PARTICIPATED IN THE ONLINE TRAINING PROGRAMME ON

"Overview of Space Science and Technology"

THIS ONLINE TRAINING PROGRAMME WAS CONDUCTED DURING 20-07-2023 to 07-08-2023 (Total course duration = 22 hours).

ATTENDANCE: 84 %

दिनांक/Date: 20-09-2023
स्थान/Place: ISRO HQ, Bangalore
UID: 49d0d18d531a66939c478867624fa96. This Certificate can be validated using URL: <https://certificate.isro.gov.in>

समन्वयक / Coordinator

इसरो स्टार्ट नोडल सेंटर/ISRO START Nodal Center

Sreelekha Mohandas
निदेशक / Director

एसपीओ, इसरो मुख्यालय / SPO, ISRO HQ Bangalore



भारत सरकार / GOVERNMENT OF INDIA
अंतरिक्ष विभाग / DEPARTMENT OF SPACE
भारतीय अंतरिक्ष अनुसंधान संगठन / INDIAN SPACE RESEARCH ORGANISATION (ISRO)



CERTIFICATE OF PARTICIPATION
SPACE SCIENCE AND TECHNOLOGY AWARENESS TRAINING (START)

संमति सं. / Enrolment No. :
202330012002564

यह प्रमाणपत्र

MS. SREELEKHA MOHANDAS

(एस एन एम कॉलेज मालियानकारा एर्नाकुलम)

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नामंकन सं. / Enrolment No.:
202330011997393

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स्थान/Place: ISRO HQ, Bangalore

समन्वयक / Coordinator

इसरो स्टार्ट नोडल सेंटर/ISRO START Nodal Center

Tejash Pratap Singh
निदेशक / Director

एसपीओ, इसरो मुख्यालय / SPO, ISRO HQ Bangalore

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अंतरिक्ष विभाग /DEPARTMENT OF SPACE
भारतीय अंतरिक्ष अनुसंधान संगठन /INDIAN SPACE RESEARCH ORGANISATION (ISRO)



CERTIFICATE OF MERIT
SPACE SCIENCE AND TECHNOLOGY AWARENESS TRAINING (START)

नामंकन सं. / Enrolment No.:
202330011924632

यह प्रमाणपत्र
MR. MANURAJ K

(एस एम एम कॉलेज मालियंकारा एर्नाकुलम)
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MR. MANURAJ K

(*S N M College Maliankara Ernakulam*)

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THIS ONLINE TRAINING PROGRAMME WAS CONDUCTED DURING 20-07-2023 to 07-08-2023 (Total course duration = 22 hours).

EXAM GRADE: A

ATTENDANCE: 88%

दिनांक/Date: 20-09-2023
स्थान/Place: ISRO HQ, Bangalore

समन्वयक / Coordinator

इसरो स्टार्ट नोडल सेंटर/ISRO START Nodal Center

Tejash Pratap Singh
निदेशक / Director

एसपीओ, इसरो मुख्यालय / SPO, ISRO HQ Bangalore

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अंतरिक्ष विभाग DEPARTMENT OF SPACE
भारतीय अंतरिक्ष अनुसंधान संगठन INDIAN SPACE RESEARCH ORGANISATION (ISRO)



CERTIFICATE OF MERIT

समयक्रम सं. / Enrolment No. :
20230011937331

SPACE SCIENCE AND TECHNOLOGY AWARENESS TRAINING (START)

यह प्रमाणपत्र

MR. MITHRANAND P R

(एस एन एम कॉलेज मालियंकारा एर्नाकुलम)

को " अंतरिक्ष विज्ञान और प्रौद्योगिकी का अवलोकन "

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EXAM GRADE : A
ATTENDANCE : 84%

दिनांक/Date: 20-09-2023
स्थान/Place: ISRO HQ, Bangalore

समन्वयक / Coordinator

इसरो स्पेस नोडल सेंटर/ISRO-START Nodal Center

निदेशक / Director

एसपीओ, इसरो मुख्यालय / SPO, ISRO HQ Bangalore

URL: <https://www.isro.gov.in> | This Certificate can be validated using URL: <https://www.isro.gov.in>

Phone: 080-2250150, 02205-81433300, 02



भारत सरकार GOVERNMENT OF INDIA
अंतरिक्ष विभाग DEPARTMENT OF SPACE
भारतीय अंतरिक्ष अनुसंधान संगठन INDIAN SPACE RESEARCH ORGANISATION (ISRO)



CERTIFICATE OF MERIT

समयक्रम सं. / Enrolment No. :
202300119316234

SPACE SCIENCE AND TECHNOLOGY AWARENESS TRAINING (START)

यह प्रमाणपत्र

MS. PARVATHY K B

(एस एन एम कॉलेज मालियंकारा एर्नाकुलम)

को " अंतरिक्ष विज्ञान और प्रौद्योगिकी का अवलोकन "

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EXAM GRADE : B+
ATTENDANCE : 84%

दिनांक/Date: 20-09-2023
स्थान/Place: ISRO HQ, Bangalore

समन्वयक / Coordinator

इसरो स्पेस नोडल सेंटर/ISRO-START Nodal Center

निदेशक / Director

एसपीओ, इसरो मुख्यालय / SPO, ISRO HQ Bangalore

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Phone: 080-2250150, 02205-81433300, 02