Tirumala Tirupati Devasthanams
శ్రీ వేంకటేశ్వర కళాశాల
Sri Venkateswara College
(University of Delhi)
NAAC Grade A+

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SRI VENKATESWARA COLLEGE
(UNIVERSITY OF DELHI)

EVENT REPORT

NAME OF THE EVENT: Field Visit to the Atomic Minerals Directorate for Exploration and Research (NR), Department of Atomic Energy, Government of India, New Delhi.			
DATE	**DEPARTMENT**	**COMMITTEE/SOCIETY**	**COORDINATORS' NAME**
28 February 2025	Electronics	Electronics	Dr Hari Singh
TIME	**VENUE**	**NUMBER OF PARTICIPANTS**	**NATURE**
09:00 AM – 02:00 PM	Atomic Minerals Directorate for Exploration and Research (NR), Department of Atomic Energy, Government of India, Rama Krishna Puram, New Delhi.	17 (16 Students, 1 Faculty Member)	Indoor, Offline
FINANCIAL SUPPORT/ASSISTANCE (if any):	N/A		

BRIEF INFORMATION ABOUT THE ACTIVITY

TOPIC/SUBJECT OF THE ACTIVITY	Field Visit to explore the concepts of Atomic Minerals, Nanotechnology, and their Applications in Scientific Research on the theme "Fostering Public Interest in Science" to celebrate National Science Day.
OBJECTIVES	1. To gain an in-depth understanding of atomic mineral exploration, including Uranium, Thorium, and other radioactive minerals. 2. To explore the latest advancements in nanotechnology and nanoparticles. 3. To observe practical applications of Physics, Chemistry, Geology, electronics and Instrumentation in atomic research. 4. To learn about the importance of atomic minerals in energy production and safety measures involved in handling them.
METHODOLOGY	1. 16 students visited the Atomic Minerals Directorate for Exploration and Research (AMD-NR), Department of Atomic Energy (DAE), Government of India (GoI), under the supervision of Dr Hari Singh.

	2. The visit was planned in collaboration with the Atomic Minerals Directorate (AMD) Northern Region, ensuring access to laboratories and expert-led sessions. 3. A seminar on Nanotechnology and Nanoparticles was conducted by Dr Pankaj Thakur, Associate Professor, Special Centre for Nanoscience, Jawaharlal Nehru University to introduce students to the latest advancements in the field of Nano-Science. 4. After that, the students were divided into groups and taken to various labs such as Physics, Chemistry, Geology, and Electronics and Instrumentation, where they observed radiation analysis, mineral testing, rare-earth metal research and their measurements. 5. Scientists and Technical Experts from different fields demonstrated radiation detection techniques, uranium extraction processes, and sample analysis methods, giving students hands-on exposure. 6. Students took notes, interacted with scientists, and engaged in a Q&A session to clarify their doubts and enhance understanding. 7. After the visit, feedback was collected from all the participating students to evaluate learning outcomes and the scope for future visits, and a detailed report was prepared and submitted.
INVITED SPEAKERS WITH AFFILIATION DETAILS (IF ANY)	Dr Pankaj Thakur (Associate Professor), Special Centre for Nanoscience, Jawaharlal Nehru University (Chief Guest and Speaker)
OUTCOMES	1. Participants gained first-hand knowledge of uranium, thorium, and rare earth metal exploration, along with their significance in nuclear energy. 2. Observing radiation detection, mineral testing, and nanotechnology applications helped bridge the gap between theoretical learning and real-world applications. 3. Engaging with scientists and researchers allowed students to clarify doubts, understand career opportunities in atomic research, and explore advanced study prospects. 4. Exposure to cutting-edge research in nanotechnology and nuclear sciences motivated students to pursue further studies and consider contributions to these fields.

PROOFS & DOCUMENTS ATTACHED (Tick mark the proofs attached):

1 Notice & Letters ✓	2 Number of Participants & Name of Participants ✓	3 Video clip	4 Photos ✓	5 Feedback Form & analysis
6 News clip with details	7 Sample Copy of the Certificate	8 Posters/ Invites	9 Event report Attested by Event Coordinator & IQAC Coordinator ✓	10 Any other document

Departmental File No: ELECTRONICS/2024- 2025/ELECTRSOC/03
IQAC File No: IQAC/SVC/2024- 25/ELECTR/03
Criterion No: III, V
NAME OF EVENT-IN-CHARGE & SIGNATURE: Dr. Hari Singh

Note: Please fill in your own details in places with red font

For Reference

Criterion I	Curricular Aspects (Planning & Implementation)		Criterion V	Student Support & Progression
Criterion II	Teaching Learning & Evaluation		Criterion VI	Governance, Leadership & Management
Criterion III	Research, Innovations & Extension		Criterion VII	Institutional Values & Best Practices
Criterion IV	Learning Resources and Infrastructure			

SUMMARY

As part of a scientific outreach and educational engagement initiative, a group of students and faculty visited the Atomic Minerals Directorate for Exploration and Research (AMD), Northern Region, Department of Atomic Energy, Government of India to explore its multidisciplinary research divisions on 28 February 2025 on the occasion of National Science Day. The visit provided invaluable exposure to the workings of a premier research organization functioning under the Department of Atomic Energy, Government of India, with a focus on the exploration of atomic minerals vital to the nation's nuclear program. It provided students with a unique opportunity to explore atomic mineral research, radiation analysis, and nanotechnology applications. The visit included 16 students from the Department of Electronics, Sri Venkateswara College, University of Delhi accompanied and supervised by Dr Hari Singh.

The highlight of the visit was a seminar on "Nanotechnology and Nanoparticles", delivered by Dr Pankaj Thakur (Associate Professor) from the Special Centre for Nanoscience, Jawaharlal Nehru University who explained the role of nanotechnology in atomic research and its applications in Material Sciences, Electronics, and Medicine.

The session was followed by the onsite visits to Physics, Chemistry, Geology, Electronics and Instrumentation divisions, where students observed radiation detection techniques, uranium extraction processes, rare earth mineral analysis and many more processes of design, analysis and measurements. The visit to the Physics Division introduced students to the role of geophysical methods in mineral exploration. Scientists demonstrated how techniques like gamma-ray spectrometry, magnetometers, and resistivity surveys are used to detect subsurface anomalies that may indicate the presence of uranium or thorium deposits. At the Chemistry Division, visitors were shown the processes used to analyse the chemical composition of rock and soil samples. Various sophisticated equipment and their significant roles were demonstrated. The scientists emphasized the importance of precision in detecting trace amounts of uranium and other rare elements. The division's work supports not only the identification of mineral-rich zones but also environmental monitoring and safety assessments. The Geology Division provided an in-depth look into how geological surveys and mapping form the backbone of mineral exploration. Core samples, drill logs, and detailed stratigraphic maps were displayed. Students were particularly interested in the role of fieldwork, petrography, and tectonic analysis in AMD's exploration strategies. The team also highlighted ongoing research in identifying new mineralization patterns across India. The visitors also learned about the development and maintenance of advanced instruments used in field exploration and laboratory analysis. The experts showcased in-house designed data acquisition systems and explained how custom-built electronics are essential for precise measurements in remote and harsh field conditions. Emphasis was placed on how interdisciplinary collaboration ensures that electronic systems meet the demanding requirements of atomic mineral detection. The division also demonstrated the vital role of calibration, testing, and integration of instruments used across AMD's scientific departments. Students observed how instrumentation supports the seamless functioning of geophysical tools, analytical labs, and remote sensing devices.

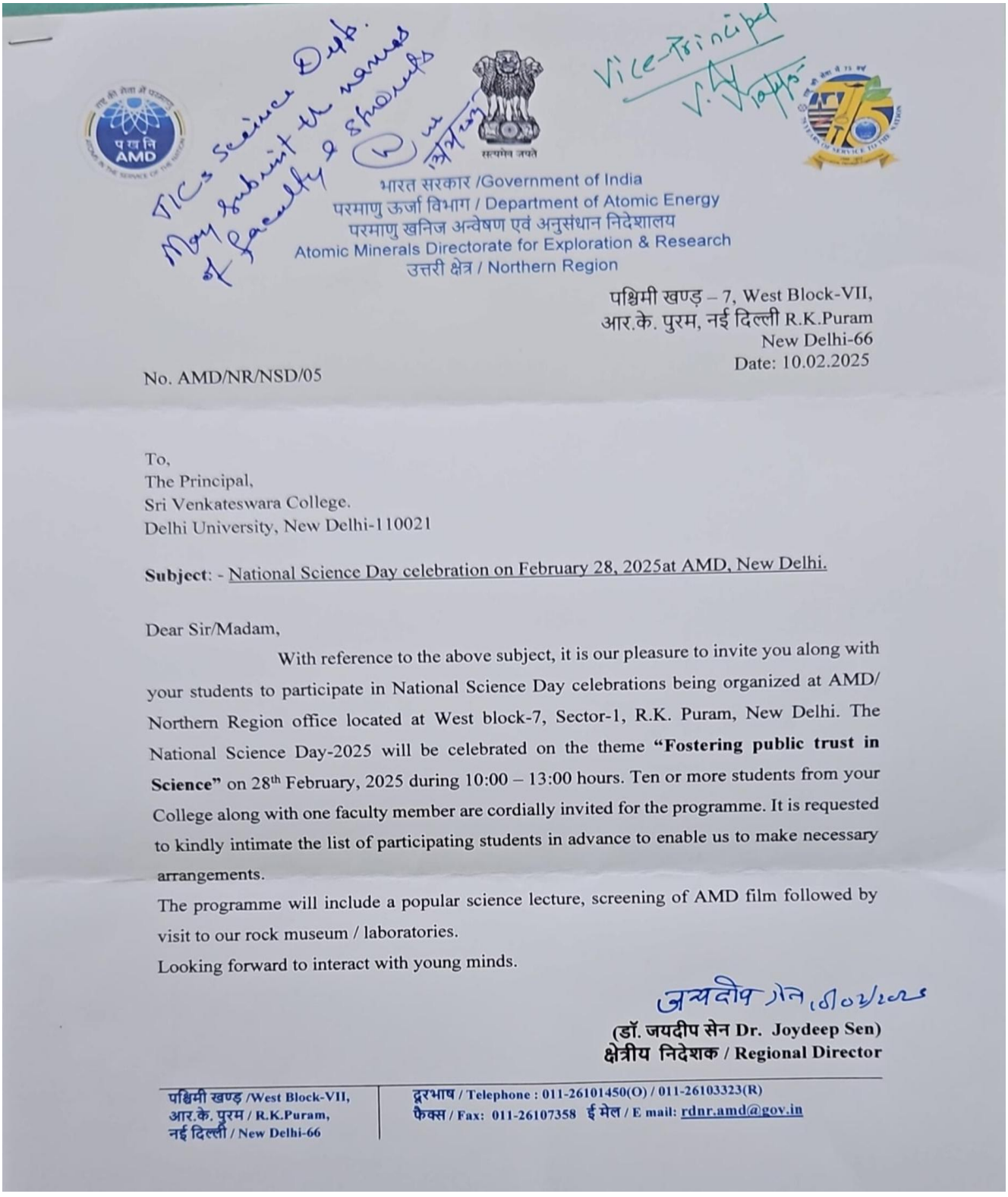
As part of an educational initiative to promote awareness of India's scientific advancements and natural resource exploration, the students and faculty attended a special exhibition followed by a guided visit to the Atomic Minerals Directorate for Exploration and Research (AMD). It was an informative exhibition showcasing India's progress in the field of atomic energy and mineral exploration. The exhibition featured interactive displays, models, and infographics explaining the origin, identification, and uses of atomic minerals such as uranium and thorium. Attendees learned about the critical role these minerals play in the generation

of nuclear energy and their importance to the country's strategic and energy needs. Experts from the field gave talks and answered questions, providing insight into India's exploration techniques, sustainable mining practices, and the history of nuclear science in the country. The exhibition also emphasized the role of AMD under the Department of Atomic Energy, highlighting its contributions since its establishment in 1948.

This educational field visit to the Atomic Minerals Directorate for Exploration and Research offered a comprehensive, hands-on understanding of the interdisciplinary approach required in atomic mineral exploration. Each division showcased how science and technology converge to support India’s energy independence and resource security. The visit was not only educational but also inspirational, highlighting the nation’s robust scientific infrastructure and offering students a glimpse into potential future careers in physics, geosciences, chemistry, and engineering.

NOTICE & LETTERS

Invitation from Atomic Minerals Directorate for Exploration and Research (AMD-NR), Department of Atomic Energy, Government of India



Vice-Principal
V. Gupta

VICs science Dept.
May submit the names
of faculty & students

भारत सरकार /Government of India
परमाणु ऊर्जा विभाग / Department of Atomic Energy
परमाणु खनिज अन्वेषण एवं अनुसंधान निदेशालय
Atomic Minerals Directorate for Exploration & Research
उत्तरी क्षेत्र / Northern Region

पश्चिमी खण्ड – 7, West Block-VII,
आर.के. पुरम, नई दिल्ली R.K.Puram
New Delhi-66
Date: 10.02.2025

No. AMD/NR/NSD/05

To,
The Principal,
Sri Venkateswara College.
Delhi University, New Delhi-110021

Subject: - National Science Day celebration on February 28, 2025at AMD, New Delhi.

Dear Sir/Madam,

With reference to the above subject, it is our pleasure to invite you along with your students to participate in National Science Day celebrations being organized at AMD/ Northern Region office located at West block-7, Sector-1, R.K. Puram, New Delhi. The National Science Day-2025 will be celebrated on the theme **"Fostering public trust in Science"** on 28th February, 2025 during 10:00 – 13:00 hours. Ten or more students from your College along with one faculty member are cordially invited for the programme. It is requested to kindly intimate the list of participating students in advance to enable us to make necessary arrangements.

The programme will include a popular science lecture, screening of AMD film followed by visit to our rock museum / laboratories.

Looking forward to interact with young minds.

जयदीप सेन, 10/2/25

(डॉ. जयदीप सेन Dr. Joydeep Sen)
क्षेत्रीय निदेशक / Regional Director

पश्चिमी खण्ड /West Block-VII,
आर.के. पुरम / R.K.Puram,
नई दिल्ली / New Delhi-66

दूरभाष / Telephone : 011-26101450(O) / 011-26103323(R)
फैक्स / Fax: 011-26107358 ई मेल / E mail: rdnr.amd@gov.in

NUMBER OF PARTICIPANTS & NAME OF PARTICIPANTS

Department of Electronics
Tirumala Tirupati Devasthanams
Sri Venkateswara Collge
University of Delhi
New Delhi 110021

List of students to attend the National Science Day Celebration to be held on 28 February 2025 organized by Atomic Minerals Directorate for Exploration & Research (NR), Department of Atomic Energy, Government of India, New Delhi

Name of the Teacher : Dr Hari Singh
Name of the Department : Electronics

S. No.	College Roll No.	Name of the Student	Name of the Course	Semester
1	1624003	Mishthi Angirash	B.Sc.(Hons) Electronics	II
2	1624006	Rachit Singh	B.Sc.(Hons) Electronics	II
3	1624008	Shivam Kumar	B.Sc.(Hons) Electronics	II
4	1624012	Parikshit Kumar	B.Sc.(Hons) Electronics	II
5	1624014	Vibhav Kumar	B.Sc.(Hons) Electronics	II
6	1624020	Sakshi Kumari	B.Sc.(Hons) Electronics	II
7	1624021	Ankit Sharma	B.Sc.(Hons) Electronics	II
8	1624022	Shreya Mishra	B.Sc.(Hons) Electronics	II
9	1624026	Rudra	B.Sc.(Hons) Electronics	II
10	1624028	Swayam Arora	B.Sc.(Hons) Electronics	II
11	1624040	Sarvesh Kumar	B.Sc.(Hons) Electronics	II
12	1624016	Sana Singh	B.Sc.(Hons) Electronics	IV
13	1623039	Shivjeet Kumar	B.Sc.(Hons) Electronics	IV
14	1623010	Samuel Matthews	B.Sc.(Hons) Electronics	IV
15	1623011	Vidushi Sharma	B.Sc.(Hons) Electronics	IV
16	1623024	Ritu Rawat	B.Sc.(Hons) Electronics	IV

PHOTOS

Office of the
West Block No. 7, R.K. Puram,
GPS Map Camera
New Delhi, Delhi, India
26, West Block, Rama Krishna Puram, New Delhi, Delhi
110066, India
Lat 28.565559° Long 77.179379°
28/02/2025 01:47 PM GMT +05:30
Google

COMPLETION CERTIFICATE

Tirumala Tirupati Devasthanams
శ్రీ వేంకటేశ్వర కళాశాల
Sri Venkateswara College
(University of Delhi)
NAAC Grade A+

समापन प्रमाण पत्र
COMPLETION CERTIFICATE

यह प्रमाणित किया जाता है कि **परमाणु खनिज अन्वेषण एवं अनुसंधान निदेशालय (एनआर), परमाणु ऊर्जा विभाग, भारत सरकार, नई दिल्ली का क्षेत्रीय दौरा** को **28 फ़रवरी 2025** को **09:00 पूर्वाह्न** से दोपहर **02:00 अपराह्न** तक **इलेक्ट्रॉनिक्स विभाग** द्वारा **ऑफ़लाइन माध्यम** में सफलतापूर्वक आयोजित किया गया और इस कार्यक्रम की रिपोर्ट अभिलेख के लिए आंतरिक गुणवत्ता आश्वासन प्रकोष्ठ (IQAC) को जमा कर दी गई है।

This is to certify that the **Field Visit to the Atomic Minerals Directorate for Exploration and Research (NR), Department of Atomic Energy, Government of India, New Delhi** was successfully conducted on **28 February 2025** from **09:00 am** to **02:00 pm** by **Department of Electronics** in the **Offline Mode** and its event report has been submitted to IQAC for records.

Event-in-Charge

For Richa Misra
IQAC Coordinator
Coordinator, IQAC
Sri Venkateswara College
(University of Delhi)
Dhaula Kuan, New Delhi-110021

Principal
प्रधानाचार्य
Principal
श्री वेंकटेश्वर महाविद्यालय
Sri Venkateswara College
दिल्ली विश्वविद्यालय / University of Delhi
धौला कुआँ, नई दिल्ली / Dhaula Kuan, New Delhi