

Report on

Workshop on

“Science-Mathematics Workshop-2025”

Date: 16-19 September, 2025

Venue: Department of Physics, UTU

Time: 9:00 AM to 5:00 PM

Total No. of Participants: 65

Name of the Expert:

1. **Dr. Abhitosh Kedia** (Assistant Professor, Department of Physics, UTU)
2. **Dr. Jaymin Ray** (Assistant Professor, Department of Physics, UTU)
3. **Dr. Kinjalben Patel** (Assistant Professor, Department of Physics, UTU)
4. **Dr. Hitesh Rajput** (Assistant Professor, Department of Physics, UTU)
5. **Mrs. Maltiben Gujjar** (Research Scholar, Department of Physics, UTU)
6. **Mr. Yash Tandel** (Research Scholar, Department of Physics, UTU)

Event Coordinator:

1. **Dr. Jaymin Ray** (Assistant Professor, Department of Physics, UTU)
2. **Shri Rashmikant M. Patel** (Lecturer, District Institute of Education and Training (DIET), Surat)
3. **Shri Kishore G. Patel** (Head Teacher, District Institute of Education and Training (DIET), Surat)

Institute Name: Department of Physics and Tarsadia Institute of Chemical Sciences

Program Objective:

- To empower government science and mathematics teachers (Standards 6 to 8) from Surat district and city with practical pedagogical tools.
- To bridge the gap between theoretical physics concepts and classroom experiments, facilitating a more engaging learning environment for students.
- To align teaching methodologies with the National Education Policy (NEP-2020) by emphasizing skill development and hands-on experimental learning.



Program outline:

- The workshop was a joint initiative between the Department of Physics, Uka Tarsadia University (UTU) and the District Institute of Education and Training (DIET), Surat, Government of Gujarat.
- The four-day event (September 16–19, 2025) was conducted in two strategic phases to accommodate teachers from various talukas, including Mahuva, Mangrol, Olpad, Bardoli, Choryashi, Kamrej, and several URCs.
- The sessions focused on fundamental physics modules, including: Optics, Electronics, Electromagnetism, Wave Mechanics

Program outcomes:

- Participating teachers gained the proficiency to perform and explain complex physics experiments using easily accessible materials, making science more relatable for primary and secondary students.
- The workshop successfully sensitized educators toward the skill-based experimental requirements of the New Education Policy.
- The event fostered a strong collaborative network between university-level researchers and grassroots-level government educators, ensuring a continuous flow of scientific knowledge and modern teaching techniques.

Schedule of Events in a tabular format

Every day schedule was as follows:

Time	Activity
9:00 AM – 9:30 PM	Breakfast
9:30 AM - 10:30 AM	Expert Talk
10:30 AM - 12:30 PM	Lab session
12:30 PM - 1:30 PM	Lunch Break
1:30 PM -3:30 PM	Lab session
3:30 PM-4:30 PM	Expert Talk
4:30 PM – 5:00 PM	Group Discussion

List of Participants in a tabular format

Science-Mathematics Workshop 2025 - Phase I Participants			
Sr. No.	Name	Stream	Place / School Name
1	Ankurkumar Chimanbhai Panchal	Science/Maths	Shala Kramank - 167 (URC 1)
2	Dharmisthaben Patel	Science/Maths	Shala Kramank - 145 (URC 1)
3	Vijaybhai Nathabhai Patel	Science/Maths	Shala Kramank - 060 (URC 1)
4	Farjanabegum Samsuddin Saiyad	Science/Maths	Shala Kramank - 153 (URC 1)
5	Gayatriben Chetanbhai Patel	Science/Maths	Shala Kramank - 394 (URC 1)
6	Monank Bipinbhai Patel	Science/Maths	Bamaniya (Mahuva)
7	Alpesh Rameshbhai Patel	Science/Maths	Karcheliya (Mahuva)
8	Prasannkumar Hasmukhbhai Patel	Science/Maths	Machhisadada (Mahuva)
9	Sejalben Thakorbbhai Patel	Science/Maths	Kachal (Mahuva)
10	Sejalben Kishorbhai Chaudhari	Science/Maths	Kani (Mahuva)

11	Ashabai Rajendra Patil	Science/Maths	School 175 (URC 4)
12	Nilam Mohit Patel	Science/Maths	School 246 (URC 4)
13	Prakashbhai Sajerav Patil	Science/Maths	School 229 (URC 4)
14	Kirtiben Jashwantbhai Panchal	Science/Maths	School 266 (URC 4)
15	Jigneshkumar Ashokbhai Patel	Science/Maths	School 225 (URC 4)
16	Nilamben Ishwarlal Kevat	Science/Maths	Kanya Shala Bardoli
17	Ankurkumar Bipinchandra Kedariya	Science/Maths	Kumar Shala Kadod (Bardoli)
18	Priyankaben Thakorabhai Patel	Science/Maths	Kanya Shala Kadod (Bardoli)
19	Alpitkumar Champakbhai Patel	Science/Maths	Moti Falod Pra. Shala (Bardoli)
20	Pinkeshkumar Vijaykumar Patel	Science/Maths	Bhuvasan Pra. Shala (Bardoli)
21	Chaudhari Mayankkumar Manubhai	Science/Maths	Gijaram Pra. Shala (Mangrol)
22	Gajjar Rashmiben Jashwantlal	Science/Maths	Ambawadi Pra. Shala (Mangrol)
23	Patel Mitalikumari Sureshbhai	Science/Maths	Nana Naugama Pra. Shala (Mangrol)
24	Chaudhari Jaykumar Govindbhai	Science/Maths	PM Shri Tarsadi U. Pra. Shala (Mangrol)
25	Chaudhari Sandipkumar Punajibhai	Science/Maths	PM Shri Vankal A.B. Pra. Shala (Mangrol)
26	Rachnaben Rohitkumar Jesur	Science/Maths	Kim (Olpad)
27	Jinalben Rameshbhai Patel	Science/Maths	Kathodara (Olpad)
28	Jagrutiben Manikant Upadhyay	Science/Maths	Bhadol (Olpad)
29	Chaudhari Dhirendrakumar Kanubhai	Science/Maths	Asnabad Primary School (Olpad)
30	Chaudhari Kajalkumari Bipinbhai	Science/Maths	Narthan Primary School (Olpad)

Science-Mathematics Workshop 2025 - Phase II Participants

Sr. No.	Name	Stream	Place / School Name
1	Chaudhari Rajeshbhai Narsingbhai	Science/Maths	Rudhigavan Primary School (Umarpada)
2	Chaudhari Hemlataben Jamubhai	Science/Maths	Chimipatal Primary School (Umarpada)
3	Chaudhari Vijaybhai Babubhai	Science/Maths	Kalijaman Primary School (Umarpada)
4	Chaudhari Tarunbhai Ravindrabhai	Science/Maths	Vadpada Primary School (Umarpada)
5	Chaudhari Vijaybhai Ukaljibhai	Science/Maths	Pinpur Primary School (Umarpada)
6	Falguniben Gajendrasinh Devdhara	Science/Maths	Amba Kendra Pra. Sha. (Mandvi)
7	Jayshreeben Sundarbhai Chaudhari	Science/Maths	Fali Pra. Sha. (Mandvi)
8	Jigishaben Thakorabhai Mistry	Science/Maths	Dharampor Pra. Sha. (Mandvi)
9	Grishmaben Balkrushna Bhagat	Science/Maths	Naugama Pra. Sha. (Mandvi)
10	Mayuriben Surajbhai Patel	Science/Maths	Chudhel Pra. Sha. (Mandvi)
11	Meghnaben Patel	Science/Maths	School No. 121 (URC 3)
12	Ashishbhai Trivedi	Science/Maths	School No. 007 (URC 3)
13	Shri Purvi Daksheshbhai Nayak	Science/Maths	School No. 45 (URC 3)
14	Surendrakumar Ratilal Patel	Science/Maths	School No. 296 (URC 3)
15	Dalal Tejash Hasmukhlal	Science/Maths	School No. 372 (URC 3)
16	Divyesh C. Prajapati	Science/Maths	Orna (Kamrej)
17	Ashishbhai B. Patel	Science/Maths	Ghala (Kamrej)
18	Falguniben M. Vahiya	Science/Maths	Haldharu (Kamrej)
19	Yankitaben B. Gamit	Science/Maths	Timba (Kamrej)
20	Yogeshkumar S. Prajapati	Science/Maths	Nansad (Kamrej)
21	Truptiben Hasmukhbhai Patel	Science/Maths	School 183 (URC 2)
22	Lalakia Dip Govindbhai	Science/Maths	School 321 (URC 2)
23	Dipun Kumar Narendra Panda	Science/Maths	School 288 (URC 2)

24	Pragnesh Bharatbhai Devkar	Science/Maths	School 352 (URC 2)
25	Jitendrabhai K. Patel	Science/Maths	School 122 (URC 2)
26	Sanjaykumar Kirtibhai Parekh	Science/Maths	Hazira Primary School (Choryasi)
27	Bhaviben Babubhai Patel	Science/Maths	Rajagari-1 Primary School (Choryasi)
28	Jigarbhai Somabhai Patel	Science/Maths	Popada Primary School (Choryasi)
29	Sonalben Bharatbhai Patel	Science/Maths	Lajpor Primary School (Choryasi)
30	Rinaben Jagdishbhai Patel	Science/Maths	Bonand Primary School (Choryasi)
31	Patel Parimalkumar Ishwarbhai	Science/Maths	Dastan Pra. Shala (Palsana)
32	Gavit Pinal Rameshbhai	Science/Maths	Baleshwar Pra. Shala (Palsana)
33	Yadav Pravinakumari Dharmpal	Science/Maths	Ena Pra. Shala (Palsana)
34	Jayshreeben Bhupatbhai Hadiya	Science/Maths	Kadodara Pra. Shala (Palsana)
35	Taruna Sureshbhai Dhimmar	Science/Maths	Palsana Pra. Shala (Palsana)

Details:

The Science-Mathematics Workshop-2025 was a collaborative four-day initiative organized by the Department of Physics at Uka Tarsadia University in partnership with the District Institute of Education and Training (DIET), Surat. Conducted from September 16 to 19, 2025, the program specifically targeted government teachers of standards six to eight from various talukas and urban resource centers across Surat. The workshop was strategically divided into two phases to ensure a personalized learning experience, focusing on equipping educators with hands-on experimental skills aligned with the National Education Policy (NEP-2020). Under the expert guidance of mentors from both DIET and the UTU Physics faculty, participants engaged in practical sessions covering fundamental concepts such as optics, wave mechanics, electricity, and magnetism.

The primary outcome of this workshop was the empowerment of teachers to transform traditional classroom theory into interactive, experiment-based learning. By mastering the use of mirrors, lenses, lasers, and electromagnetic kits, the educators gained the confidence to simplify complex physics phenomena for their students using accessible materials. This initiative not only enhanced the pedagogical skills of the participating teachers but also strengthened the link between university-level academic expertise and grassroots-level school education. Ultimately, the program successfully fostered a spirit of scientific inquiry and professional growth, ensuring that the benefits of modern experimental physics reach students across the Surat district.

Photos: Glimpse of the event given below







Concluding Remarks:

The Science-Mathematics Workshop-2025 successfully bridged the gap between theoretical physics and classroom practice by empowering Surat district's government educators with hands-on experimental skills. By aligning with NEP-2020 standards and utilizing practical tools across optics, electricity, and mechanics, the initiative ensured that teachers are now better equipped to inspire scientific curiosity in their students.

This collaborative effort between Uka Tarsadia University and DIET, Surat, stands as a significant step toward elevating the quality of science education and fostering a culture of innovation at the grassroots level.

NAAC Criteria: 5 and 7

Report prepared by: Dr. Jaymin Ray

Date: 23 September 2025



Sign of the HOD
Department of Physics, UTU

