3rd International Conference
on
Recent Advancements in Materials science And Nanotechnology (RAMAN)-2026
January 30 – 31, 2026
Organized by
Electronics and Communication Engineering Department, Nirma University, Ahmedabad

List of Participants with Oral Presentation Number

Sr. No.	Name of Participant	Affiliation	Paper Title	Presentation No.
1	Manan Rajesh Nahta	Student, Nirma University	Polymeric Nanocomposite Membrane for Waste water Treatment	OP1
2	Gajjar Niyati Bhupendra	Research Scholar at Gujarat University	Graphene-Supported Ag_4 Clusters for CH_4 Dissociation: A DFT Study	OP2
3	Dipti D. Parmar	Research Scholar, Department of Physics Electronics and Space Science, Gujarat University, Ahmedabad	Effect Of Mg- Substitution on Structural, Morphology, Raman, Magnetic, Dielectric Properties, And Antenna Performance of Sr–Zn Hexaferrites	OP3
4	Anmol Jaiswal	PhD Student	Low-Cost Graphite Based Thin Film Transistor on Flexible Substrate	OP4
5	Trivedi Reena R	Professor, Nirma University	Experimental and Machine Learning–Based Parametric Study of Dielectric Elastomer Bending Actuators for Finger-Like Gripping	OP5

6	Kaushal Agheda	Research Scholar, The Maharaja Sayajirao University of Baroda, Vadodara	Relaxation Processes and Intermolecular Interactions in Bromopropane–Methanol Binary Mixtures: A Dielectric and DFT Approach	OP6
7	Shebaz A Memon	Assistant Professor, Institute of Technology, Nirma University	Device-Level Physics-Based Multi-Objective Genetic Algorithm Optimization Of PV–Wind–Biomass Hybrid Energy System	OP7
8	Karan Mungra	Student, Mechanical Engineering Department, Nirma University	Relative Energetic Stability of Functionalized MXenes From High-Throughput First-Principles Data Using Uncertainty-Aware Ensemble Machine Learning	OP8
9	Simmy Joseph Kuttippurathu	Research Scholar, P. D. Patel Institute of Applied Sciences, Charotar University of Science and Technology (CHARUSAT)	DFT Study of Oxygen Electrocatalysis on Pd Decorated Aza-Triphenylene Based Covalent Organic Framework: Insights into OER and ORR Activity	OP9
10	Adwait Mevada	Assistant Professor, Monark University	Electronic Structure and Magnetism in $MgZnX_2$ (X = Co, Rh, Ir): A First- Principles Comparative Study	OP10
11	Sapna Ajay Gawali	Research Scholar, Department of Chemical Engineering, Pandit Deendayal Energy University, Gandhinagar	Synthesis and Characterization of UF PSF Membrane Modified with GO Impregnated ZIF-11 Nanohybrids for Enhanced Permeation and Antifouling Behaviors	OP11
12	Dev Yogeshbhai Karelia	Post Graduate Student, Indian Institute of Teacher Education	DFT Investigation of Electronic and Thermoelectric Properties of Bulk and Two-Dimensional LiGeN	OP12

13	Gauswami Apekshaben Shaileshgir	Research Scholar, The Maharaja Sayajirao University of Baroda.	A DFT Study of Strain-Controlled Chiral Magnon Splitting in Tetragonal β-MnO_2 Altermagnet	OP13
14	Riddhi D. Sainda	Ph.D. Scholar, Department of Physics, The Maharaja Sayajirao University of Baroda, Vadodara, Gujarat, India-390002.	Systematic Computational Study of External Field Effect on Stability and Electronic Properties of Inorganic Nanoring	OP14
15	Patel Nirali Amrutbhai	Ph.D. Scholar, Pandit Deendayal Energy University	Enhancement of Performance of In_2O_3/Cu Based Thin-Film Thermocouple on Flexible Substrate	OP15
16	Maunil Dhavalkumar Modi	UG Student	Performance, Emissions, And Durability Assessment of Ethanol-Blended Flex Fuels with Emphasis on India's Transition to E20	OP16
17	Smita Borole	PhD Student- UGC-DAE CSR, Mumbai Centre, BARC Mumbai	Magnetothermoelectric correlation of Ca2-xPrxMnTiO6 (x=0.0, 0.25, 0.5, 0.75, 1.0)	OP17
18	Nilofar Gafoor Kurawle	PhD Student At UGC-DAE Consortium for Scientific Research Mumbai Centre	Experimental Investigations for Magnetic Properties of Ce_2FeAl_3: Dependence on Structure	OP18
19	Narasimha Reddy Ravuru	Assistant Professor, Chemical Engineering Department, Nirma University	Influence of Support Materials on the Activity of Nickel Based Nano Catalysts for Hydrogen Production Via Steam Reforming	OP19
20	Dr Jumisree Sarmah Pathak	Assistant Professor, Department of Physics, Indian Institute of Teacher Education	Credibility and Future Potential of Laser-Induced Breakdown Spectroscopy as a Next-Generation Analytical Technique	OP20
21	Tukadiya Namrata A	Department Of Physics, Faculty of Science, The M S University of Baroda, Gujarat	Optoelectronic Properties of Quaternary Chalcogenides: A First-Principles Study Toward Photovoltaic Applications	OP21

22	Khushang Ghael	UG Student	Nanofluids for Solar Thermal Collectors: Performance, Challenges, Environmental Impacts and Future Prospects	OP22
23	Dr. Nikunj V. Joshi	Assistant Professor, Department of Applied Sciences, Faculty of Engineering and Technology, Parul University, Vadodara	Strain-Induced Modulation of Electronic Structure in Metallic $PdBiS_2$: A First-Principles Study	OP23
24	Dr. Abhishek A. Gor	Assistant Professor, Pandit Deendayal Energy University.	Nonlinear Optical Response of M-Type Hexaferrite Thin Films: A Thickness-Dependent Study	OP24
25	Dr. Lakshmana Rao Jeeru	Assistant Professor	Preparation And Characterization of Karanja Cake Powder Filled Jute Fibre Reinforced Epoxy Composites	OP25
26	Urmil D. Raval	PhD Scholar, Department of Physics, Sardar Patel University	Study of Refractometric and Volumetric Properties of N-Butanol with Benzonitrile Binary Mixtures at Various Temperatures with DFT Analysis	OP26
27	Dr. Nimish Shah	Associate Professor, Chemical Engineering Department, Institute of technology Nirma University	Solid-State Microstructural and Thermal Analysis of Cassava–PVA–Fiber Biofoam as a Sustainable Polymer Composite	OP27
28	Jeet R. Makkampara	Post Graduate Student	Study of Physical and Dielectric Properties of Sabarmati River in Ahmedabad.	OP28
29	Vaishnavi Khalas	Research Scholar, Pandit Deendayal Energy University	DFT And Vibrational Spectroscopy-Based Theoretical and Experimental Investigation of Nobiletin	OP29
30	Dr. Lakshmana Rao Jeeru	Assistant Professor	Screening And Characterization of Indigenous Microbes for Crude Oil Biodegradation	OP30

31	Snehal Ratilal Paladiya	Research Scholar, Gujarat Technological University	"Electronic Band Structure of LuN: Comparative Study Using LDA, GGA, And HSE Approaches"	OP31
32	Saloni Mishra	Research Scholar	Solid State Structure and Crystallization Behavior of Polylactic Acid: Influence of Microwave Assisted Synthesis	OP32
33	Dr. Vanarajsinh Solanki	Assistant Professor, Charotar University of Science and Technology	Free Stading Carbon/TiO_2 Composite Film Based NO_2 Sensor	OP33
34	Amita Chaudhary	Assistant Professor, Nirma University	Performance Of Hemp-Derived Interconnected Carbon Nanosheets on Counter Electrode in DSSCs	OP34
35	Shruti C Bhatt	Assistant Professor, Mechanical Engineering Department, Nirma University	Multiphysics Simulation of Electromagnetic-Thermal Coupling in Metal-Ceramic Compacts During Microwave Heating	OP35
36	Saumil Hirenbhai Desai	Assistant Professor, Department of Mechanical Engineering, School of Engineering, Institute of Technology, Nirma University	Coupled Atomistic-Continuum Modeling of Graphene-Germanene Bilayer Nanoresonators with Position-Dependent Mass Sensitivity	OP36
37	Dr. Sandeep Malhotra	Assistant Professor, Nirma University	Realizing Piezoelectricity In 2D Janus Nanowire by Green's Function Approach	OP37
38	Dr. Lakshmana Rao Jeeru	Assistant Professor	Valorization Of Algal Waste Via Conventional Pyrolysis: Production and Characterization of Bio-Oil and Bio-Char	OP38

39	Narasimha Reddy Ravuru	Assistant Professor, Chemical Engineering Department, Nirma University	Study Of Physiochemical Properties and Application of Nanomaterial in Detection of Adulteration in Edible Oils	OP39
40	Nilesh Mohan Khalse	Asst. Professor, Pres Sir Visvesvaraya Institute of Technology, Nashik	Adsorption Of Ibuprofen Using Mesoporous Carbon Derived from One-Step Pyrolysis of Walnut Shells	OP40

List of Participants with Poster Presentation Number

Sr. No.	Name of Participant	Designation & Affiliation	Paper Title	Poster Presentation No.
1	Pratik Himmatlal Mesvaniya	Research Scholar, Department of Physics, University School of Sciences, Gujarat University	Ab Initio Study of HfS_2 Monolayer as a Gas Sensor for CO, H_2S, And NH_3 Gases	PP1
2	Darji Bhargavkumar Kanubhai	Research Scholar, Department of Physics, Gujarat University	Emerging Janus Tivc MXene For Thermoelectric Applications	PP2
3	Navinbhai Arjanbhai Chaudhary	Temporary Lecturer, Applied Physics Department, Polytechnic, The. M. S. University of Baroda	Exploring Dielectric Dispersion and Microwave Heating Characteristics In N-Butanol-Valeronitrile Mixtures	PP3

4	Priyankaben N. Thorat	Research Scholar, Department of Physics, SVNIT, Surat.	Strain-Tuned Thermoelectric Properties of Si_2Xy Janus Sheets	PP4
5	Nileshkumar Parmar	The Maharaja Sayajirao University of Baroda	Transition From Paramagnetic Behavior to Weak Ferromagnetic Ordering in Fe-Doped Gete Bulk Alloy	PP5
6	Jesalkumar R Soni	Department Of Physics, Gujarat University	Investigation Of Dielectric Property Changes in Milk After Expiry and Water Adulteration Using LCR Meter	PP6
7	Mauleshkumar Dahyabhai Vala	Research Scholar, Sardar Vallabhbhai National Institute of Technology	First Principles Study of Structural Electronic and Photovoltaic Properties Of 2D CsPbBr3 Perovskite Solar Cell	PP7
8	Heenaben Hasmukhlal Rathod	Research Scholar, Ganpat University, Kherva, Mehsana, Gujarat, India	Investigation Of Structural, Optical and Dielectric Properties Of X-$BaTiO_3$–(1−X)$LaFeO_3$ Perovskite Composites	PP8
9	Dr. Nirali Nikunj Shah	New L J Institute of Engineering and Technology	Temperature And Concentration Effects on Volumetric, Viscometric, And Optical Properties Of P-Anisaldehyde-Methanol Mixtures	PP9
10	Shukla Parth Hiteshkumar	Post Graduate Student (M.Sc., M.Ed.)	Structural, Optical and Antibacterial Properties of Chemically Grown Zinc Oxide Nanoparticles.	PP10

11	Arjun Rathod	Research Scholar, Department of Physics, Gujarat University, Ahmedabad, Gujarat, India.	Ab Initio Investigation of The Structural, Electronic, Magnetic, And Thermodynamic Characteristics of Half-Heusler Crmnge	PP11
12	Darshan J. Jadav	Research Scholar, Department of Physics, Gujarat University, Ahmedabad, Gujarat, India.	Optical And Electrical Characterization of Zn- And Cd-Doped MnSe Thin Films Deposited by Thermal Evaporation	PP12
13	Disha M. Bambhaniya	PhD Student at Department of Physics, Gujarat University	Acetone Detection Mechanism on Pristine And F-Terminated Y_2C MXenes: A First-Principles Study	PP13
14	Chauhan Pratipalsinh Dilipsinh	Research Scholar Department of Physic Gujarat University	Analysis Of Dielectric Properties of Sweet Basil Leaves Cultivated Hydroponically Over The 100 Hz To 15 GHz Frequency Range	PP14
15	Bhavesh Motwani	Student From Nirma University	Fabrication And Characterization of Dye Sensitized Solar Cell	PP15
16	Riddhi Moteria	Student, ECE Department, Nirma University	Integrating Band-Gap Engineering and Magnetocaloric Response in Armchair 2D Materials	PP16
17	Jayshree Adwani	Student From Nirma University	Hexaferrite-Based Memristor Device for Neuromorphic and Magnetically Tunable Applications	PP17
18	Bharat Avdheshsingh Rajput	Research Scholar, Gujarat Technological University, Ahmedabad, 382424, Gujarat, India	Janus HfSeO Monolayers for Neurotoxicant Gas Sensing: A First-Principles Study	PP18

19	Prahlad Chaudhary	Assistant Professor, Department of Physics, M. N. College, Visnagar, Gujarat, India	Effect Of Variation of Moisture and Fertilizer Solution on Complex Permittivity of Soil at Microwave Frequencies	PP19
20	Minal V. Makvana	Post Graduation Student	Study Of Dielectric Behavior of Wheat, Pearl, And Jowar Millet Flours Over 1 KHz to 2 MHz Frequency Range	PP20
21	Renykumari Manoharsinh Champavat	PG Student at Department of Physics, Electronics and Space Sciences, Gujarat University	Study Of Dielectric Properties of Spices as A Function of Frequency and Density	PP21
22	Haard S Shah	Student	Germanene-Graphene Heterostructure for Early Earthquake Sensing	PP22
23	Devnetra Jain	Post Graduate Student	Study Of Dielectric Behavior of Tree Leaves with Moisture Content Over 100 Hz To 2 MHz Frequency Range	PP23
24	Ananya Shandilya	2nd Year MBBS, Smt NHL Municipal Medical College, Pritan Rai Crossroad, Ellis Beidge, Paldi, Ahmedabad, 380006, Gujarat, India	Electronic Structure Modulation and Adsorption Mechanism of Ciprofloxacin on Graphene Oxide and Reduced Graphene Oxide Using DFT Approach	PP24
25	Shir Jayesh Devshibhai	Assistant Professor, Government Arts and Science College, Bavla, Ahmedabad	Influence Of Texture Structure and Moisture Content on Complex Permittivity of Soils at Microwave Frequencies	PP25
26	Shraddha D. Chaudhari	Faculty Of Science and Humanities at Sankalchand Patel University, Visnagar	Novel Approaches for Investigating the Melting Curve of Zirconium Carbide (ZrC)	PP26

27	Devarshi Amitabh Brahmakshatriya	MSc Physics; Pandit Deendayal Energy University	Synthesis And Multifunctional Properties of $Fe_2(Moo_4)_3$ For Magneto-Electronic Applications	PP27
28	Astha Patel	Student, Pandit Deendayal Energy University	Rare Earth (Nd) Substitution Induced Structural and Functional Modulation in Green Synthesized M-Type Ba–Sr Hexaferrites	PP28
29	Patel Mili Kiritbhai	Post Graduate Student - Department of Physics, GU	Study Of Dielectric Behavior of Tree Leaves with Moisture Content Over 100 Hz To 2 MHz Frequency Range	PP29
30	Raval Manasi Bhupendrabhai	Research Scholar, Department of Physics, Faculty of Science, Ganpat University, Mehsana	Influence Of Heating Temperature on Structural, Electrical, Magnetic and Optical Properties of Ni2w Hexaferrites Prepared Using Musa Acuminata Leaves Extract	PP30
31	Dr. Ankur Dwivedi	Assistant Professor, Chemical Engineering Department, Institute of Technology Nirma University	Electron Transport Investigation in Carburized and Fluorinated H-Boron Nitride Nanoribbons	PP31
32	Dharti Tank	Physics Research Scholar, PDEU	Vanadium-Doped Barium Hexaferrite as A Tunable Magnetic-Dielectric Platform for Wideband Mimo Antenna Applications	PP32
33	Chirag K Patel	Research Scholar, Institute of Science, Nirma University	Investigating Structural, Magnetic and Dielectric Properties Of U-Type Hexaferrite	PP33
34	Akhilesh Kumar Gupta	Research Scholar, Maharaja Sayaji Rao University of Baroda, Vadodara	Multiscale Computational Investigation of Pentacyclic Triterpenoids: Structural, Electronic, And Dynamical Analyses of EGFR Inhibition and Amino Acid Interactions	PP34

35	Ratnamala N. Kharatmol	Research Scholar	Compressive Study of $LaTmO_3$ (Tm= Fe, Mn) Electronic, Structural, Mechanical and Thermophysical Properties Using Computational Investigation (DFT).	PP35
36	Dr Dipika B Patel	Associate Professor of Physics	Ab Initio Study of The Structural Stability and Electronic Behavior of The $MnCo_2Si$ Heusler Alloy	PP36
37	Nisarg Vashi	School Of Technology, Nirma University	Comprehensive Investigation of Mechanoelectrical Parameters in Lead-Free Piezoelectric Materials for Sustainable Noise-To-Electricity Conversion	PP37
38	Dr Tanuj Gupta	Assistant Professor, Institute of Technology, Nirma University	Cr^{3+} Substitution Effects on Multidomain Magnetism in Co_2-X Hexaferrites	PP38
39	Mr. Hemal Khatri	Research Scholar, Institute of Science, Nirma University	Green Synthesis of Cobalt Doped Ba–Zn X- Type Hexaferrites Using Phyllanthus Emblica Extract: Structural, Electrical and Magnetic Property Evaluation	PP39
40	Mr. Mrudang Shah	Research Scholar, Institute of Science, Nirma University	Mechanical Properties of Multilayer Bio-Polymeric Films	PP40

List of Participants with Online Presentation Number

Sr. No.	Name of Participant	Designation & Affiliation	Paper Title	Poster Presentation No.
1	Jasvinder Singh	Ph.D. Research Scholar (Physics), Department of Physics, School of Applied Sciences, Om Sterling Global University, Hisar, Haryana, India	Defect-Mediated Magnetic and Dielectric Modulation Led Magneto-Dielectric Response Inpb2+ Substituted $PrFeO_3$ Antiferromagnetic Nano-Ceramics	VP1
2	Patel Maneshwar Rai	Research Scholar	First-Principles Investigation of Structural and Electronic Properties of Sr0.875la0.125nbo3	VP2
3	Jay Patel	University Of Cincinnati	Correlation Between Electronic and Thermal Properties of 2D Materials Nanoribbons	VP3
4	Afsana Surkhayali	Baku State University	Comparative Study of The Thermal Behavior of PVC/Silicon Nanocomposites Produced by Different Cooling Modes	VP4

5	Kapil Kalme	Research Scholar, Maharaja Bhoj Govt PG College Dhar	Effect Of Annealing on Structural and Morphological and Magnetic Properties of $NiCo_2O_4$ Thin Films	VP5
6	Gaurang Umesh Potdar	PhD Scholar, Dr. Vishwanath Karad Mit World Peace University	Characteristics Of Cos Gaussian Beams in Presence of a Photonic Double-Defect Super- Lattice in Photorefractive Crystals with Both Linear and Quadratic Electro Optic Effect	VP6
7	Dakshata Mandloi	JRF, Department of Physics, Dr. Vishwanath Karad Mit World Peace University (MIF-WPU)	Propagation And Transmission Characteristics of Quasiperiodic Fibonacci Chalcogenide–Polymer Bragg Fibers	VP7