



NANDHA ENGINEERING COLLEGE, (AUTONOMOUS) – ERODE 52
DEPARTMENT OF FRESHMEN ENGINEERING
DEPARTMENT OF PHYSICS



ONE-DAY NATIONAL CONFERENCE

**“NEXT GENERATION SUSTAINABLE MATERIALS FOR EMERGING TECHNOLOGIES
 (NGSMET-2026)”**



Activity	ONE-DAY NATIONAL CONFERENCE “NEXT GENERATION SUSTAINABLE MATERIALS FOR EMERGING TECHNOLOGIES (NGSMET-2026)”	
Target People	B.E., B.Tech I Year Students	
Date	April 28, 2026	
Venue	Conference Hall and Physics Lab	
Organized by	Quantum Crew (Physics Association)	
Prepared by	Dr.T. Jayanalina / HoD / Convenor	
SDG Alignments	SDG4–Quality Education Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	4 QUALITY EDUCATION 
	SDG7–Affordable and Clean Energy Ensure access to affordable, reliable, sustainable and modern energy for all	7 AFFORDABLE AND CLEAN ENERGY 
	SDG9–Industry, Innovation and Infrastructure Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 
	SDG11–Sustainable cities and communities Make cities and human settlements inclusive, safe, resilient and sustainable	11 SUSTAINABLE CITIES AND COMMUNITIES 

Event Report

Introduction

The Department of Physics, Nandha Engineering College (Autonomous), organized a One-Day National Conference entitled “Next Generation Sustainable Materials for Emerging Technologies (NGSMET-2026)” on 28 April 2026 at the Conference Hall of the institution. The conference served as a vibrant academic platform for academicians, scientists, researchers, faculty members, research scholars, and students to exchange knowledge on emerging developments in sustainable materials and their applications in advanced technologies.

Objective of Event

The conference was organized with the objective of promoting research, innovation, and interdisciplinary collaboration in the field of sustainable materials and emerging technologies. It aimed to connect fundamental scientific research with practical technological applications and to inspire young researchers to contribute to sustainable technological advancement.

- To promote awareness of next-generation sustainable materials and their technological significance.
- To encourage interdisciplinary research and innovation in advanced materials science.
- To facilitate knowledge exchange among academicians, scientists, researchers, and students.
- To highlight the role of materials science in developing environmentally Responsible technologies.
- To strengthen the interface between academic research, innovation, and industrial application.

Event Details:

Date	Time	Venue	Session	Session Learners
28.04.26	10.00AMto 4.30PM	Conference Hall & Physics Laboratory	ONE-DAY NATIONAL CONFERENCE	Researchers, participants and Students

Inaugural Ceremony and Programme Proceedings

The conference commenced with the ceremonial lighting of the traditional lamp, symbolizing the pursuit of knowledge, innovation, and enlightenment. The inaugural session was graced by the presence of the management, academic leaders, distinguished guests, faculty members, research scholars, and students.

The Welcome Address was delivered by Dr. T. Jayanalina, Professor & Head, Department of Physics, Nandha Engineering College. The Presidential Address was delivered by Thiru. V. Shanmugan, Chairman, Sri Nandha Educational Trust. The Principal Address was delivered by Dr. U. S. Ragupathy, Principal, and Nandha Engineering College.

The gathering was felicitated by the Joint Managing Trustees and academic dignitaries.

The conference proceedings were formally released, followed by the Chief Guest Address delivered by Dr. Muthu Senthil Pandian. His address emphasized the significance of advanced materials research, innovation, and interdisciplinary collaboration in addressing the technological and sustainability challenges of the future.

Technical Significance of the Conference

The conference explored the expanding frontier of sustainable materials and their applications in renewable energy, energy storage, optoelectronics, photonics, nanotechnology, sensors, biomedical technologies, and advanced engineering systems. The deliberations emphasized the need to develop materials that are technologically efficient, environmentally responsible, economically viable, and socially beneficial.

The event also highlighted the importance of collaborative research involving academic institutions, industries, and research organizations to accelerate the transition from

laboratory discoveries to practical technological applications.

Participation and Academic Engagement

The conference witnessed enthusiastic participation from faculty members, research scholars, postgraduate students, undergraduate students, and researchers from diverse academic and research backgrounds. Participants actively engaged in academic discussions, exchanged ideas, explored emerging research directions, and benefited from the expert perspectives shared during the conference.

Intended Outcomes

- ❖ Enhanced awareness of emerging trends in sustainable materials research.
- ❖ Promotion of interdisciplinary approaches to materials science and technology.
- ❖ Exposure to innovative research methodologies and advanced technological applications.
- ❖ Encouragement of research collaboration among academic institutions and scientific communities.
- ❖ Motivation for young researchers and students to pursue innovation-oriented research.
- ❖ Strengthening of the relationship between fundamental science, technological development, and industrial applications.
- ❖ Increased awareness of the role of sustainable materials in addressing global environmental and technological challenges.

SDG Alignment

SDG4: Quality Education - Promoted advanced scientific learning, knowledge exchange, and lifelong learning through exposure to current developments in materials science and emerging technologies.

SDG7: Affordable and Clean Energy - Highlighted the relevance of sustainable materials in renewable energy generation, energy storage, energy-efficient devices, and clean energy technologies.

SDG9: Industry, Innovation, and Infrastructure - Directly promoted research, innovation, advanced materials development, and technology-oriented solutions, strengthening the interface between academic research and industrial advancement.

SDG11: Sustainable Cities and Communities - Encouraged the development of sustainable materials and innovative technologies that can contribute to energy-efficient infrastructure and resilient communities.

Conclusion

The One-Day National Conference on “Next Generation Sustainable Materials for Emerging Technologies (NGSMET-2026)” successfully provided a vibrant academic forum for knowledge sharing, scientific interaction, and innovation. The conference emphasized that the future of technology depends significantly on the development of materials that are sustainable, efficient, intelligent, and environmentally responsible.

The event strengthened the culture of research and innovation among students, faculty members, and researchers and reinforced the importance of collaborative and interdisciplinary approaches in addressing the complex challenges of modern society. The conference stands as a significant academic initiative of the Department of Physics, Nandha Engineering College, in advancing sustainable materials research and promoting innovation in alignment with SDG 9: Industry, Innovation and Infrastructure.





NANDHA Engineering College

(Autonomous)

(Affiliated to Anna University, Chennai, Approved by AICTE, New Delhi, Accredited by NMA & NMAC with A+ Grade)
Erode, Tamil Nadu



*The Management, Principal, Faculty, Staff & Students
solicit your esteemed presence for the*

Department of Physics

Organize a

April
28
2026

Conference Hall
NGSME - 2026

National Conference on "Next Generation Sustainable Materials for Emerging Technologies (NGSMET - 2026)"



Dr. Muthu Senthil Pandian

Visi - President, LACC
Research Scientist, Senior Grade - II,
Research Coordinator, Executive Member
International Organization for Crystal Growth
ISPI Institutions (Autonomous), Chennai - 605 003



Dr. S. Esakki Muthu

Associate Professor
Department of Physics
Karpagam Academy of Higher Education
(Deemed to be University) Coimbatore - 641 031

Thiru. V. Shanmugan

Chairman, Sri Nandha Educational Trust

will preside over the function

Thiru. S. Thirumoorthi

Joint Managing Trustee,
Sri Nandha Educational Trust

Thiru. S. Nandhakumar Pradeep

Joint Managing Trustee,
Sri Nandha Educational Trust

will felicitate the gathering

Convener

Dr. T. Jayanalinga,
Professor & Head,
Department of Physics
Nandha Engineering College

Patrons

Mr. R. Thirunelakkandan
Assistant Professor & Head,
Freshmen Engineering Department
Nandha Engineering College

Dr. U. S. Ragupathy
Principal
Nandha Engineering College

Agenda

Lighting the Traditional Lamp

Welcome Address

: **Dr. T. Jayanallina**

Professor & Head, Dept. of Physics, Nandha
Engineering College

Presidential Address

: **Thiru. V. Shanmugan**

Chairman, Sri Nandha Educational Trust

Principal Address

: **Dr. U. S. Ragupathy**

Principal, Nandha Engineering College

Felicitations

: **Thiru. S. Nandhakumar Pradeep**

Joint Managing Trustee,
Sri Nandha Educational Trust

: **Thiru. S. Thirumoorthi**

Joint Managing Trustee,
Sri Nandha Educational Trust

Mr. R. Thirunelakkandan

Assistant Professor & Head,
Freshmen Engineering Department
Nandha Engineering College

Release of Conference Proceedings

Chief Guest Address

: **Dr. Muthu Senthil Pandian**

Vice – President, IACG Research Scientist,
Senior Grade – III Research Coordinator,
Executive Member
International Organization for Crystal Growth
SSN Institutions (Autonomous) Chennai – 603 110.

Vote of Thanks

: **Dr. K. S. Mohan**

Associate Professor, Dept of Physics
Nandha Engineering College
