



1st NATIONAL SCIENTISTS ROUND TABLE CONFERENCE 2024 FOR VIKSIT BHARAT 2047

(NSRTC)

Theme 2: Advanced Materials and Processing

Raghunath A. Mashelkar, Vijay P. Bhatkar, Bharat B. Kale

Walk through

Advanced materials are revolutionizing industries and technologies, driving innovation and sustainability. At the forefront are Nanomaterials, Nanohybrids, and Nanocomposites, offering extraordinary properties and applications.

Organic Electronics pave the way for flexible, lightweight, and cost-effective electronic devices. Inspired by nature, Bioinspired Materials and Biomimetic Designs mimic biological processes, leading to groundbreaking advancements.

Biodegradable and Sustainable Materials are crucial for reducing environmental impact, promoting a greener future. In Device Engineering, 3D Printing and other advanced techniques are transforming manufacturing, enabling rapid prototyping and complex designs.

Did you know that nanomaterials can make materials stronger and lighter? Or that 3D printing can reduce waste by up to 90%? These insights highlight the transformative potential of advanced materials and processing techniques.

Throughout this session, we will explore key takeaways and objectives: harnessing the unique properties of nanomaterials, advancing organic electronics, developing bioinspired materials, promoting biodegradable and sustainable solutions, and leveraging device engineering and 3D printing for innovative applications.

Let's dive into the world of Advanced Materials and Processing at NSRTC 2024!



INITIATED BY
Dr. Vishwanath Karad
MIT WORLD PEACE UNIVERSITY | PUNE
TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & PARTNERSHIPS



SUPPORTED BY

1st NATIONAL SCIENTISTS ROUND TABLE CONFERENCE 2024 FOR VIKSIT BHARAT 2047

(NSRTC)

Proposed Minute to Minute Program for Theme 2: Advanced Materials and Processing

Day	Saturday, 20th July 2024; Hall No: 01	
Venue	Hotel Tip Top International; Hall Name: Abdul Kalam Hall	
Time	Duration	Description
8:00	60 min	Tea and Snacks
9:00	01 min	Dignitaries to be seated at the venue
9:01	03 min	Welcome to the Panel Members by the Anchor: Dr. Samarth Patwardhan and Prof. Datta Dandge
		Felicitation of the Dignitaries by Dr. Sanjay Kamtekar
9:07	03 min	Playing the Theme Film-by IT Team
9:10	30 min (25+5)	Plenary Talk-Prof. Dr. D D Sarma, IISc Bengaluru
9:40	30 min	Plenary Talk-Prof. Dr. Ashok Kumar Ganguli, Director, IISER Berhampur
		Q & A session / Quiz / Scientific Film
10:10	30 min	Plenary Talk-Prof. Dr. Vijayamohan Pillai, IISER Tirupati
10:40	30 min	Plenary Talk-Prof. Dr. Amitava Patra, Director, INST Mohali
		Q & A session / Quiz / Scientific Film
11:10	20 min (15+5)	Invited Talk-Prof. Dr. Satish Patil, IISc Bengaluru
11:30	20 min	Invited Talk-Prof. Dr. Shobha Shukla, IIT Bombay
11:50	15 min	NETWORKING ACTIVITY / TEA & SNACKS
12:05	45 min	Round Table Panel Discussion on “Nanomaterials” & Interaction Moderator: Prof. Dr. Dinesh Seth Panel Members: All above distinguished speakers, Dr. Krupanidhi, Dr. P.S. Anil Kumar, and Industry Experts
12:50	05 min	<ul style="list-style-type: none"> • Expression of Gratitude-by Prof. Dr. Vikrant Gaikwad • Group Photograph-Coordinated by Prof. Dr. Debabrata Saha • Video Byte of the Scientists-Coordinated by Prof. Dr. Malhari Kulkarni
12:55–2:00 PM		LUNCH & Visit to Science Expo (coordinated by Dr. Ganesh Borikar), Poster Presentation (coordinated by Dr. Devkumar Thapa and Dr. Soumava Biswas)

1st NATIONAL SCIENTISTS ROUND TABLE CONFERENCE 2024 FOR VIKSIT BHARAT 2047

(NSRTC)

Proposed Minute to Minute Program for Theme 2: Advanced Materials and Processing

Day	Saturday, 20 th July 2024; Hall No: 01	
Venue	Hotel Tip Top International; Hall Name: Abdul Kalam Hall	
Time	Duration	Description
2:00 PM	01 min	Dignitaries to be seated at the venue
2:01	03 min	Welcome to the Panel Members by the Anchor: Dr. Ratnadip Joshi and Prof. Dr. Rajib Sinha Ray
		Felicitation of the Dignitaries by Dr. Bharat Kale
2:04	03 min	Playing the Theme Film-by IT Team
2:07 PM	30 min (25+5)	Plenary Talk-Prof. Dr. Satishchandra Ogale, TCG-CREST, Kolkata
2:37	30 min	Plenary Talk-Prof. Dr. Samit Kumar Ray, IIT Kharagpur
		Q & A session / Quiz / Scientific Film
3:07	30 min	Plenary Talk-Prof. Dr. S. B. Krupanidhi, IISc Bengaluru
3:37	20 min (15+5)	Invited Talk-Prof. Dr. B. R. Sankapal, VNIT Nagpur
4:00 PM	20 min	Invited Talk-Prof. Dr. Chandana Rath, IIT BHU
4:20	10 min	NETWORKING ACTIVITY/TEA & SNACKS
4:30	20 min	Invited Talk-Prof. Dr. Ajay Soni, IIT Mandi
4:50	20 min	Invited Talk-Prof. Dr. Sarang Gumfekar, IIT Ropar
		Q & A session / Quiz / Scientific Film
5:10 PM	20 min	Invited Talk-Prof. Dr. Pritam Deb, Tezpur University
5:30	20 min	Invited Talk-Prof. Dr. S. K. S. Parashar, KIIT Bhubaneswar
5:50	45 min	Round Table Panel Discussion on “Organic Electronics” & Interaction Moderator: Prof. Datta Dandge Panel Members: All above distinguished speakers and Industry Experts
6:35	05 min	<ul style="list-style-type: none"> • Expression of Gratitude-by Prof. Dr. Gopinath T • Group Photograph-Coordinated by Prof. Dr. Debabrata Saha • Video Byte of the Scientists-Coordinated by Prof. Dr. Malhari Kulkarni
6:40 PM	50 min	Poster Presentation (coordinated by Dr. Devkumar Thapa and Dr. Soumava Biswas)

1st NATIONAL SCIENTISTS ROUND TABLE CONFERENCE 2024 FOR VIKSIT BHARAT 2047

(NSRTC)

7:30 PM onwards	Dinner at Hotel Tip Top International
------------------------	--

Proposed Minute to Minute Program for Theme 2: Advanced Materials and Processing

Day	Sunday, 21st July 2024; Hall No: 01	
Venue	Hotel Tip Top International; Hall Name: Abdul Kalam Hall	
Time	Duration	Description
8:00 AM	60 min	Tea and Snacks
9:00	01 min	Dignitaries to be seated at the venue
9:01	03 min	Welcome to the Panel Members by the Anchor: Dr. Anagha Khare
		Felicitation of the Dignitaries by Prof. Dr. Dinesh Seth
9:04	03 min	Playing the Theme Film-by IT Team
9:07 AM	30 min (25+5)	Plenary Talk-Prof. Dr. P. S. Anil Kumar, IISc Bengaluru
9:40	30 min	Plenary Talk-Prof. Dr. Vilas G. Pol, Purdue University, USA
		Q & A session / Quiz / Scientific Film
10:10	20 min (15+5)	Invited Talk-Prof. Dr. Gopi Sharma, Kanya Maha Vidyalaya, Jalandhar
10:30	20 min	Invited Talk-Prof. Dr. Sachin Rondiya, IISc Bengaluru
10:50 AM	10 min	NETWORKING ACTIVITY / TEA & SNACKS
11:00	30 min	Plenary Talk-Prof. Dr. R. Jayavel, Anna University, Chennai
11:30	20 min	Plenary Talk-Prof. Dr. Balasubramanian K., DIAT Pune
		Q & A session / Quiz / Scientific Film
11:50	20 min	Invited Talk-Dr. Milind G. Acharya, CEO, Milman Thin Film Systems, Pune
12:10 PM	20 min	Invited Talk-Prof. Dr. Shantanu Madge, IIT Jammu
12:30	45 min	Round Table Panel Discussion on “Hybrid Materials” & Interaction Moderator: Prof. Dr. Dinesh Seth Panel Members: All above distinguished speakers and Industry Experts
01:15	03 min	Expression of Gratitude by Prof. Dr. Gopinath T
01:18	02 min	Vote of Thanks by Prof. Dr. Dinesh Bhutada
01:20 PM		Group Photograph-Coordinated by Prof. Dr. Debabrata Saha Video Byte of the Scientists-Coordinated by Prof. Dr. Malhari Kulkarni



1st NATIONAL SCIENTISTS ROUND TABLE CONFERENCE 2024 FOR VIKSIT BHARAT 2047

(NSRTC)

Till 2:00 PM	LUNCH / Visit to Science Expo (coordinated by Dr. Borikar) / Poster Presentation (coordinated by Dr. Thapa & Dr. Biswas)
02:00-04:00 PM	VALEDICTORY FUNCTION



INITIATED BY

Dr. Vishwanath Karad
MIT WORLD PEACE UNIVERSITY | PUNE
TECHNOLOGY, RESEARCH, SOCIAL INNOVATION & ENTREPRENEURSHIP



SUPPORTED BY