

**The First International Conference on Sustainable Technologies (ICST-2024)**  
**Venue: New Academic Building, National Institute of Technology, Durgapur 713209, WB, India**

**TECHNICAL PROGRAMME**

<b>PROGRAMME on 12.12.2024</b>					
9.00-10.00 a.m.		<b>Registration and High-Tea in front of Max Planck auditorium</b>			
10:00-11.00 a.m.		<b>Inaugural Session at Max Planck Auditorium (401)</b>			
		Welcoming the guests on dais by flower bouquet Lighting of the lamps by the guests on dais Welcome Address by the <b>Director, NIT-Durgapur</b> Welcome Address by the <b>Principal, Bidhan Chandra College, Asansol</b> Theme address by Conference Chair, <b>Prof. Amit K. Chakraborty, NIT Durgapur</b> Address by the Guest of Honour, <b>Prof. K.K. Nanda, Director, IoP Bhubaneswar</b> Address by the Guest of Honour, <b>Prof. S.K. Ray, IIT Kharagpur</b> Address by Chief Guest, <b>Prof. H. Inokawa, Japan</b> Vote of thanks by the Convenor, <b>Dr. Amit Banerjee, BC College, Asansol</b>			
11.00-11.15 a.m.		<b>Tea/coffee break at the Foyer</b>			
<b>Technical Session 1 on 12.12.2024 at Max Planck Auditorium (401)</b> <b>Session Chair: Prof. B. K. Panigrahi, IoP Bhubaneswar</b>					
11.15-12.00		<b>Plenary (P1) by Prof. H. Inokawa, Japan</b>			
12.00-12.45 p.m.		<b>Plenary (P2) by Prof. Karuna Kar Nanda, Director, IOP, Bhubaneswar</b>			
12.45 a.m.-1.00		<b>Special publication lecture by Dr. Subhabrata Mukhopadhyay, Wiley</b>			
1.00-1.15 pm		<b>Group Photo</b>			
<b>LUNCH at the Foyer (1.00-2.00 p.m.)</b>					
<b>Technical Session 2 (2:00 pm to 4:20 pm)</b>					
<b>Technical Session 2A (Energy)</b> Venue: Room no. 205 <b>Session Chair: Prof. Sagar Mitra</b>		<b>Technical Session 2B (Solid State)</b> Venue: Venue: Room no. 206 <b>Session Chair: Prof. H. Inokawa</b>		<b>Technical Session 2C (ICST Awards &amp; Medal Lecture)</b> Venue: Venue: Room no. 207 <b>Session Chair: Prof. J. N. Ray</b>	
02.00-02.30 p.m.	K1 by U. Sarkar	02.00-02.30 p.m.	K13 by Debashis De		02.00-03.00 p.m. <b>Distinguished Scientist Award:</b> Dr. Abhik Banerjee Dr. Uttam Kumar Ghorai Dr. Tushar Kanti Bera
02.30-03.00 p.m.	K2 by Sudipto De	02.30-03.00 p.m.	K8 by B K Panigrahi		
03.00-03.20 p.m.	I1 by Bhaskar Biswas	03.00-03.20 p.m.	I8 by Puja Dey		03.00-03.20 p.m. <b>Young Scientist Award:</b> Dr. Ashim Pramanik Dr. Kousik Bhunia
03.20-03.30 p.m.	O1   Abs-1	03.20-03.30 p.m.	O5	Abs-24	03.20-04.20 p.m. <b>Empowering Women Award:</b> Dr. Udit Mukhopadhyay Dr. Moupiya Ghosh Dr. Baby Salini Dr. Barnali Ghatak Dr. Udit Goswami
03.30-03.50 p.m.	I2 by Supravat Karak	03.30-03.40 p.m.	O6	Abs-25	
03.50-04.00 p.m.	O2   Abs-2	03.40-03.50 p.m.	O7	Abs-26	
04.00-04.10 p.m.	O3   Abs-3	03.50-04.00 p.m.	O8	Abs-27	
04.10-04.20 p.m.	O4   Abs-4				
04.20-05.20 pm		<b>Tea &amp; Poster Session-1 at The Foyer</b>			
5:20 pm to 6:20 pm <b>Cultural program, Max Planck auditorium</b>					
6:20 to 6:30 pm <b>Snacks and dispersal</b>					

PROGRAMME ON 13.12.2024 (FRIDAY)										
9.00-10.00 a.m.		High-Tea in front of Max Planck auditorium								
<b>Technical Session 3 at Max Planck Auditorium (401)</b> <b>Session Chair: Prof. Karuna Kar Nanda, IOP Bhubaneshwar</b>										
10.30-11.15 a.m.		Plenary (P3) by Prof. Satis Chandra Ogale, TCG-CREST, Kolkata								
11.15-12.00 a.m.		Plenary (P4) by Prof. Sagar Mitra, IIT Bombay								
12.00-12.45 p.m.		Plenary (P5) by Prof. Samit K. Ray, IIT Kharagpur								
12.45:1.00 p.m.		Special Lecture by Dr. Sukumar Dey on activities of ANRF, DST								
LUNCH at the FOYER (1.00 p.m.- 2:00 pm)										
Technical Session 4 (2:00 pm to 4:00 pm)										
<b>Technical Session 4A</b> <b>(Energy)</b> <b>Venue: Room no. 205</b> <b>Session Chair: Prof. Apurba Layek</b>		<b>Technical Session 4B</b> <b>(Solid state)</b> <b>Venue: Venue: Room no. 206</b> <b>Session Chair: Prof. R. Mahapatra</b>			<b>Technical Session 4C</b> <b>(Water &amp; Environment)</b> <b>Venue: Venue: Room no. 207</b> <b>Session Chair: Prof. Rajnarayan Saha</b>					
02.00-02.30 p.m	K3 by G. Halder		02.00-02.20 p.m	I7 by Bholanath Pal		02.00-02.10 p.m	O15	Abs-72		
						02.10-02.20 p.m	O16	Abs-73		
						02.20-02.30 p.m	O17	Abs-74		
02.30-03.00 p.m	K4 by S. Batabyal		02.20-02.40 p.m	I10 K Parida		02.30-02.40 p.m	O18	Abs-75		
						02.40-02.50 p.m	O19	Abs-76		
03.00-03-20 p.m	I3 by Basudev Pradhan		02.40-03.00 p.m	Digitoad Tech. (Industry)		02.50-03.00 p.m	O20	Abs-77		
						03.00-03.10 p.m	O21	Abs-78		
03.20-03.30 p.m	O9	Abs-5	03.10-03.30 p.m	VVDN Techn. (Industry)		03.10-03.20 p.m	O23	Abs-79		
03.30-03.50 p.m	I4 by S. Bhattacharya					03.20-03.30 p.m	O24	Abs-80		
03.50-04.00 p.m	O10		Abs-6	03.40-03.50 p.m	O14		Abs-30	03.30-03.40 p.m	O25	Abs-81
								03.40-03.50 p.m	O26	Abs-82
04.00-04.10 p.m	O11	Abs-7								
04.00-04.20 p.m. Tea at The Foyer										
Technical Session 5 (4:20 to 6:20 pm)										
<b>Technical Session 5A (Energy)</b> <b>Venue: Room no. 205</b> <b>Session Chair: Prof. Sudipta De</b>			<b>Technical Session 5B (Biotech &amp; health)</b> <b>Venue: Venue: Room no. 206</b> <b>Session Chair: Prof. Ajit K. Meikap</b>							
04:20- 04.50 pm	K5 by P. Kumbhakar		04:20- 04.40 pm	I16 by Sankar Moi						
04:50- 05.00 pm	I6 by Rohit Shahi		04:40- 05.00 pm	I17 by R Bhattacharjee						
05.00-05.10 p.m.	O28	Abs-8	05.00-05.10 p.m	O33	Abs-98					
05.10-05.30 p.m.	O29	Abs-9	05.10-05.20 p.m	O34	Abs-99					
05.30-05.40 p.m.	O30	Abs-10	05.20-05.30 p.m	O35	Abs-100					
05.40-05.50 p.m.	O31	Abs-11	05.30-05.40 p.m	O36	Abs-101					
05.50-06.00 p.m.	O32	Abs-12	05.40-05.50 p.m	O37	Abs-102					
			05.50-06.00 p.m	O38	Abs-103					
			06.00-06.10 p.m	O39	Abs-107					
			06.10-06.20 p.m	O40	Abs-110					
6:20 to 6:30 pm Snacks and dispersal										

PROGRAMME ON 14.12.2024 (SATURDAY)						
9.00-9.30 a.m.		High-Tea in front of Max Planck auditorium				
Technical Session 6 (9:30 to 11:15 am)						
<b>Technical Session 6A</b> <b>(Water &amp; Environment)</b> <b>Venue: Room no. 205</b> <b>Session Chair: G. Halder</b>		<b>Technical Session 6B</b> <b>(Solid state)</b> <b>Venue: Venue: Room no. 206</b> <b>Session Chair: A. K. Bhattacharya</b>			<b>Technical Session 6C</b> <b>(Data Science)</b> <b>Venue: Venue: Room no. 207</b> <b>Session Chair: Prof. Karforma</b>	
09.30-10.00 a.m.	K15 by Nimai Saha	09.30-10.00 a.m.	K6 by P. Banerjee		09.30-10.00 a.m.	K4 by Amlan Chakraborty
10.00-10.20 a.m.	I14 by S. Chakraborty	10.00-10.30 a.m.	K7 by S. Mukherjee		10.00-10.10 a.m.	O45 Abs-50
10.20-10.40 a.m.	I15 by Ravindra Jha	10.30-10.40 a.m.	I5 by Abhik Banerjee		10.10-10.20 a.m.	O46 Abs-51
10.40-10.50 a.m.	O41 Abs-84	10.40-10.50 a.m.			10.20-10.30 a.m.	O47 Abs-52
10.50-11-00 a.m.	O42 Abs-85	10.50-11-20 a.m.	K9 by S, Chattopadhyay		10.30-10.40 a.m.	O48 Abs-53
11.00-11-10 a.m.	O43 Abs-86				10.40-10.50 a.m.	O49 Abs-54
11.10-11-20 a.m.	O44 Abs-87				10.50-11-00 a.m.	O50 Abs-55
					11.00-11-10 a.m.	O51 Abs-56
					11.10-11-20 a.m.	O52 Abs-57
11.20-11.30 a.m. Tea at The Foyer						
Technical Session 7 (11:30 to 01:30 pm)						
<b>Technical Session 7A (Quantum)</b> <b>Venue: Room no. 205</b> <b>Session Chair: T. Som</b>		<b>Technical Session 7B (Solid State)</b> <b>Venue: Venue: Room no. 206</b> <b>Session Chair: Prof. S. K. Ray</b>			<b>Technical Session 7C (Data Science)</b> <b>Venue: Venue: Room no. 207</b> <b>Session Chair: Prof. A. Chakraborti</b>	
11.30-12-00 a.m.	K10 by Arun K Pati	11.30-11-50 a.m.	I12 by Abhijit Kar		11.30-11-40 a.m.	O65 Abs-58
12-00-12:30 p.m.	K11 by M. Mukherjee	11-50-12:00 p.m.	O56	Abs-31	11.40-11-50 a.m.	O66 Abs-59
12.30-12.50 p.m.	I13 by Joyee Ghosh	12.00-12.10 p.m.	O57	Abs-32	11.50-12-00 p.m.	O67 Abs-60
12-50-1:00 p.m.	O53	12-10-12:20 p.m.	O58	Abs-33	12-00-12:10 p.m.	O68 Abs-61
01-00-1:10 p.m.	O54	12-20-12:30 p.m.	O59	Abs-34	12.10-12.20 p.m.	O69 Abs-62
01-10-1:20 p.m.	O55	12.30-12.40 p.m.	O60	Abs-35	12.20-12.30 p.m.	O70 Abs-63
		12.40-12.50 p.m.	O61	Abs-36	12.30-12.40 p.m.	O71 Abs-64
		12-50-1:00 p.m.	O62	Abs-37	12.40-12.50 p.m.	O72 Abs-65
		01-00-1:10 p.m.	O63	Abs-38	12.50-1.00 p.m.	O73 Abs-66
		01-10-1:20 p.m.	O64	Abs-43	01.00-01.10 p.m.	O74 Abs-67
					01-10-1:20 p.m.	O75 Abs-71
LUNCH at the FOYER (1.30 p.m.- 2:30 pm)						
Technical Session 8 (2:30 pm to 3:30 pm)						
<b>Industry Academia Conclave : "Bridging the Gap between Academia &amp; Industry for Sustainable Future"</b> <b>Moderator: Prof. Amit K. Chakraborty</b> <b>Esteemed Guest Panelists:</b> Prof. Tapobrata Som, Prof., Institute Of Physics, & Scientist-In-Charge, Bhubaneswar Node, UGC-DAE CSR; Prof. Sourangshu Mukhopadhyay, Professor, The University of Burdwan; Prof. Nimai Chandra Saha, Professor and Director of public instruction, Education Directorate, Government of West Bengal; Prof. Amlan Chakraborti, Professor and Director, A.K. Choudhury School of IT, University Of Calcutta; DR. Goutam K. Dalapati, CEO, Hydrogen Innovation; SRI Abhijit Banerjee, Director & Regional HR Head, TDK Electronics; MR. Suprakash Das, Director Finance, TCG CREST;						
<b>Valedictory Session (3:30-4:30 pm)</b> Address by the Guest of Honour, Sri Niladri Roy, Director (Technical) OP/P&P, Eastern Coalfield Limited Announcement of ICST-Sponsored Best Paper Awards and RSC-Sponsored Best Paper Awards						
Group Photo & Dispersal						