



सीएसआईआर-भारतीय विषविज्ञान अनुसंधान संस्थान  
CSIR-INDIAN INSTITUTE OF TOXICOLOGY RESEARCH



# विश्व पर्यावरण दिवस World Environment Day

Wednesday, 05 June 2024 at 02:30 PM



Dr. C.R. Krishnamurti

## 28<sup>th</sup> Dr. C.R. Krishnamurti Memorial Oration

on

“Energy and Environment: CSIR’s Road Ahead”

Webcast:

<https://www.youtube.com/channel/UCOVLCu0thQ38e3pGQQmsOFA>

<https://www.facebook.com/csiriitr>



to be delivered by  
**Dr. (Mrs.) N. Kalaiselvi**  
Secretary, DSIR &  
Director General, CSIR

Venue: CRK Campus, IITR, Lucknow-Kanpur Road, Sarojini Nagar, Lucknow



# INVITATION



The Staff & Director

CSIR-Indian Institute of Toxicology Research, Lucknow

Cordially invite you on the occasion of

**World Environment Day**

Wednesday, 05 June, 2024 at 02:30 PM

to the 28<sup>th</sup> Edition of the

**Dr. C.R. Krishnamurthy Memorial Oration**

by

**Dr. (Mrs.) N. Kalaiselvi**

Secretary, DSIR & Director General, CSIR

**On “Energy and Environment: CSIR’s Road Ahead”**

in the august presence of

Dr Prabodh Trivedi, Director CSIR-CIMAP

Dr Radha Rangarajan, Director CSIR-CDRI

&

Dr Ajit K Sashany, Director CSIR-NBRI

as Guests of Honor

**R.S.V.P.:**

**Dr K.C. Khulbe**

Head, PME

**Dr V P Sharma**

Chief Scientist

**Venue:** CRK Campus, IITR, Lucknow-Kanpur Road, Sarojini Nagar, Lucknow

**Webcast:**

<https://www.youtube.com/channel/UCOVLcu0thQ38e3pGQQmsOFA>

<https://www.facebook.com/csiriitr>

**Dr. Bhaskar Narayan**

Director, CSIR-IITR

# PROGRAM

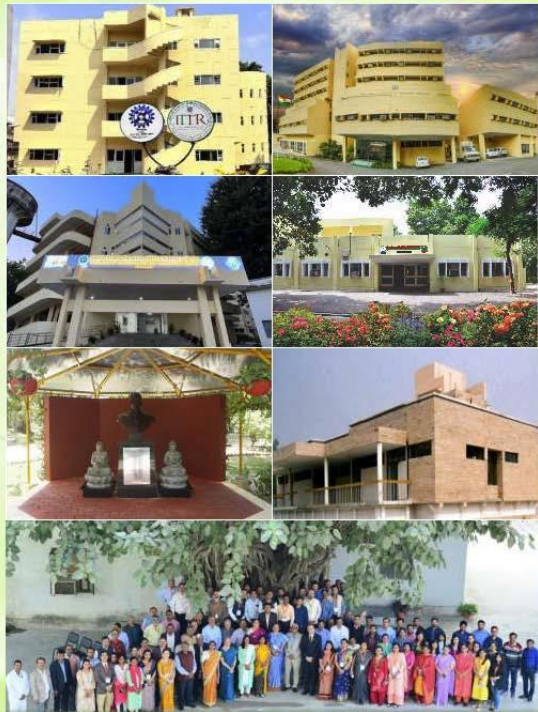
14:45	DG CSIR Arrival at CRK Campus	
15:15	Plantation and inaugurations etc	
15:35	Lighting of the lamp	
15:40	Welcome of dignitaries	Dr Bhaskar Narayan
15:45	Welcome address and Introduction of CRK memorial orator	Dr Bhaskar Narayan
15:50	28 <sup>th</sup> CRK memorial oration " <i>Energy and Environment: CSIR's Road Ahead</i> "	Dr N Kalaiselvi
16:40	Handing over of vetiver saplings to farmers	Dr Prabodh Trivedi, Director, CIMAP
16:50	Remarks	Dr Prabodh Trivedi
16:57	About EARTH-2024 conference	Dr Bhaskar Narayan
17:02	Unveiling of logo and conference brochure EARTH-2024	Dr N Kalaiselvi
17:05	Official inauguration of PMS Workshop (6-8 June)	Dr Ajit Sashney, Director, NBRI
17:07	Remarks	Dr Ajit Sashney, Director, NBRI
17:17	Report on Environmental Status of Lucknow Release	Dr N Kalaiselvi
17:20	Microbiology Facility Ground Breaking	Dr Radha Rangarajan, Director, CDRI
17:22	Remarks	Dr Radha Rangarajan, Director, CDRI
17:30	MoU exchange	
17:32	Prize Distribution – Poster/Oral Presentation of Hindi Sangoshthi	Dr N Kalaiselvi
17:40	Remarks of DG & Conclusion of International Hindi Sangoshti	Dr N Kalaiselvi
17:45	Remarks of the Host Director	Dr Bhaskar Narayan
17: 50	Vote of Thanks	Dr. Alok Kumar Pandey
17:55	National Anthem	



सीएसआईआर-भारतीय विषविज्ञान अनुसंधान संस्थान  
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1965 से निरंतर स्वास्थ्य एवं पर्यावरण सुरक्षा में सेवा  
IN SERVICE OF HEALTH & ENVIRONMENTAL SAFETY SINCE 1965



"हम भारत के रूप में विविध हैं, हम सीएसआईआर हैं"

सामूहिक सफलता में ही प्रत्येक व्यक्ति की सफलता निहित है



विश्व पर्यावरण दिवस  
5 जून 2024

28वाँ डॉ. सी. आर. कृष्णमूर्ति  
स्मृति व्याख्यान

विषय : ऊर्जा एवं पर्यावरण : सीएसआईआर का आगामी कार्य-पथ



डॉ. एन. कलैसेल्वी

सचिव, सीएसआईआर एवं महानिदेशक, सीएसआईआर

सीएसआईआर-भारतीय विषविज्ञान अनुसंधान संस्थान  
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<http://iitrindia.org/En/Index.aspx>





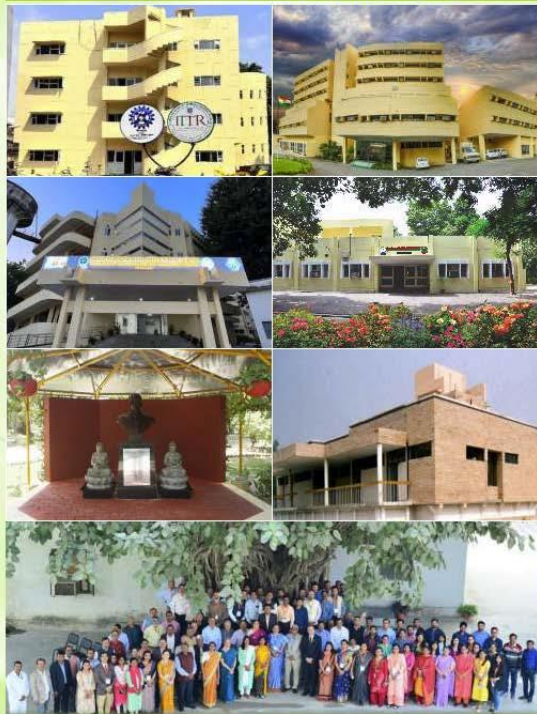




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१९६५ से निरंतर स्वास्थ्य एवं पर्यावरण सुरक्षा में सेवामय  
IN SERVICE OF HEALTH & ENVIRONMENTAL SAFETY SINCE 1965



"We are as diverse as India, We are CSIR"

"Until all of us have succeeded none of us have"



World Environment Day

5<sup>th</sup> June 2024

## 28<sup>th</sup> Dr C.R. Krishnamurti Memorial Oration

on

*Energy and Environment: CSIR's Road Ahead*



By

**Dr. N. Kalaiselvi**

Secretary, DSIR and Director General, CSIR

**CSIR-Indian Institute of Toxicology Research**

31, Mahatma Gandhi Marg, Lucknow - 226 001,  
Uttar Pradesh, India

<http://iitrindia.org/En/Index.aspx>







## Dr. (Mrs.) N. Kalaiselvi

Secretary, DSIR and Director General, CSIR

Dr. (Mrs.) N. Kalaiselvi assumed charge as Secretary, DSIR and Director General, CSIR, New Delhi on August 8, 2022. Dr. Kalaiselvi is the first woman Director General of CSIR. Prior to taking over as Secretary, DSIR and DG, CSIR, she was working as Director, CSIR-Central Electrochemical Research Institute (CSIR-CECRI), Karaikal.

Dr. (Mrs.) N. Kalaiselvi (born: February 5, 1967) obtained her Bachelor's degree in Chemistry from Government Arts College, Tirunelveli affiliated to Madurai Kamaraj University, Madurai. She obtained her Post Graduate Degree in Chemistry from Government Arts College Coimbatore and did her Ph.D. at Annamalai University, Chidambaram.

Dr. Kalaiselvi's research work of more than 25 years is primarily focused on electrochemical power systems and in particular, development of electrode materials, custom designed synthesis methods, optimization of reaction parameters and electrochemical evaluation of in-house prepared electrode materials for their suitability in energy storage device assembly. Her research interests include lithium and beyond lithium batteries, supercapacitors and waste-to-wealth driven electrodes and electrolytes for energy storage and electrocatalytic applications.

A glimpse of her R&D activities includes:

- Modified electrode materials for high energy and high power lithium battery applications
- Novel/tailor-made electrodes for aqueous and non-aqueous lithium battery
- Development of polymer based electrolytes, characterization and deployment of polymer films as electrolytes
- Ionic liquid based electrodes and electrolytes
- Exploration of bio ionic liquids crystalline electrolytes for extended electrochemical potential windows.

Apart from executing numerous extramural research, collaborative and sponsored projects funded by DST, MNRE and CSIR, Dr. Kalaiselvi has served as a Nodal Scientist for MULTIFUN (Multifunctional Electrodes and Electrolytes for Funistic Technologies – a Twelfth five-year plan project, sponsored by CSIR to the tune of Rs. 66.54 Crore) with CSIR-CECRI as the Nodal lab and 6 CSIR Institutes as participating labs during 2012-2017. The steering/monitoring committee chaired by Prof. Baldevraj guided this project as EXCELLENT.

She was involved in the development of practically viable Sodium-ion/Lithium-ion hybrid batteries and supercapacitors and continues her research in these fields. As a nominee of CSIR-CECRI, she has participated in the meetings conducted at various levels by MNRE and TIFAC (2015 onwards) for the implementation of e-mobility in India with indigenous technological support from CSIR and in particular from CSIR-CECRI in a major way. She was instrumental and coordinated the preparation of the Technical Report on NMEM (National Mission for Electric Mobility) in collaboration with TIFAC identified academic, research and industrial partners. She was a part of MNRE initiated Mobility Mission Concept Note too. Dr. Kalaiselvi was the Theme Director of Energy and Energy Devices (EED) of CSIR, wherein CSIR-CECRI is the Nodal laboratory.

Dr. Kalaiselvi has more than 135 research papers and 6 patents to her credit. Under her guidance, 12 research scholars have received Ph.D. Degrees and 2 researchers are currently pursuing their Ph.D. She is a recipient of many prestigious awards including MRSI medal, CSIR Raman Research Fellowship, INSA-NRF Exchange award, Brain Pool Fellowship of Korea, the Most Inspiring Women Scientist Award and C.V.Ramam Mahila Vijnana Puraskara at 12th National Women's Science Congress held at Mysore.

## Energy and Environment: CSIR's Road Ahead



## Dr C.R. Krishnamurti

(1923-1990)



## Dr Coimbatore Ramadorai Krishna Murti, a native of

Thrissur, Kerala was exceptional Bio-chemical Technologist & Environmental Toxicologist. After completing school education at his home state, he acquired higher education in Chemical Technology from Andhra University and Bombay University. Before joining the CSIR-CDRI in Lucknow in 1950, he worked at the IISc in Bangalore. He joined this Institute in 1975 and served as Director from 1978 till his superannuation in March 1983. Dr Murti, a pioneering environmental scientist, was the first to recognize the respiratory system as a significant route of absorption for harmful dust and pollutants. He was crucial in the growth of solid waste management, industrial hygiene, industrial toxicology, and occupational medicine as new areas of toxicology in India. His long-cited insight in converting laboratory findings into actual field settings in environmental toxicology, bioremediation, and occupational health is demonstrated by the development of the Gheru Campus and Occupational Health Centre in Kanpur. Among his notable research contributions are deciphering the mechanistic insights of pathogenesis of *Vibrio cholerae*, *Mycobacterium tuberculosis*, amoebic encystation, maturation of erythrocytes, and application of agricultural and slaughterhouse waste for protein supplements in biological products, photodegradation pattern of bilirubin and its management of neonatal jaundice. Dr Murti mentored over 70 Ph.D. students and published over 300 research papers. In recognition of his excellent efforts, he received fellowships from all four national academies of the country. He was the recipient of several prestigious awards, including ICMR's Basanti Devi Amir Chand Award (1973), INSA's SL Hora Medal (1981), Ministry of Environment and Forests' Pitamber Pant Fellowship (1983), and National Academy of Sciences SICO-ASCI Award (1989). He was also the 'Chairman' of the Scientific Commission on the Impact of Bhopal Gas Leakage on Life Systems (1985-1989).

## Distinguished Speakers of Dr C. R. Krishnamurti Oration

1997	Professor S.S. Agarwal	2011	Professor Kasturi Datta
1998	Professor A. K. Datta	2012	Professor H.N. Verna
1999	Professor R. K. Maheshwari	2013	Professor V.S. Chauhan
2000	Dr M.K. Sahib	2014	Dr S.W.A. Naqvi
2001	Professor R. Prasad	2015	Professor K.P. Gopinathan
2002	Dr K.V.S. Rao	2016	Professor P. Balaram
2003	Professor S. K. Brahmachari	2017	Professor D. Balasubramanian
2004	Dr D.M. Salmke	2018	Shri Ricky Kej
2005	Professor M.K. Raizada	2019	Wing Commander P. Singh
2006	Professor N.K. Ganguly	2020	Dr R.A. Mashelkar
2007	Professor A.K. Tyagi	2021	Padma Bhushan Shri A.P. Joshi
2008	Professor H. Gupta	2022	Professor Rup Lal
2009	Professor J. Iqbal	2023	Professor (Dr) Kannan
2010	Dr S.R. Shetye		Srinivasan