

ICCSSH 2023

INTERNATIONAL CONFERENCE ON  
**CHEMICAL SAFETY & SECURITY FOR  
HEALTH & ENVIRONMENT**

8 - 10 December, 2023



ORGANIZED BY

Gujarat University, Ahmedabad, Gujarat  
University of Ladakh, UT-Ladakh

NACS - National Association for Chemical Security  
National Forensic Sciences University, Gujarat

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## ABOUT CONFERENCE

"Chemical safety and security" refer to the measures to prevent non-deliberate and deliberate release of certain toxic or hazardous chemicals. Every day, a wide variety of chemicals are produced, transported, used and/or stored (in small to very large quantities) in laboratories, industries, pharma/agriculture products, food processing sector, consumer products etc. Some of these chemicals need special safety and/or security measures because of their toxicity or due to their potential use as precursors for weapons of mass destruction. So any intentional/unintentional compromise by internal or external adversary in their safety and/or security will be detrimental to our health and environment. Practicing chemists and chemical safety/security professionals need to be aware of the dual-use properties of many commonly used chemicals, and operate their facilities in accordance to the best practices, safety standards and/or their relevant conventions, and promote a culture of high professional standards that includes chemical safety and security. This conference aims to promote chemical safety and security by providing tools and knowledge to mitigate the risks arising from chemical accidents, incidents and potential misuse of toxic and dual use chemicals, including the threat of terrorism and forensic approaches. The objective is to reiterate the need for the education and outreach in order to drive the focus of everyone towards the goal that chemicals are stored safely, securely and used for peaceful purposes throughout their lifecycle, preventing any harmful effects on health and environment. The conference also highlights the importance of using substituted chemicals or green chemistry for minimizing the use of hazardous or dual use chemicals in processes. The conference will include keynote speeches, presentations, panel discussions, and poster presentations to provide a comprehensive platform for experts, researchers, industry leaders, and policymakers to share their knowledge and experiences on chemical safety and security. Ultimately, the conference aims to promote international cooperation and collaboration towards achieving a safer and more sustainable future for all.

## THE ORGANIZERS

### NACS - National Association for Chemical Security

The National Association for Chemical Security (NACS) was founded in India in 2021 with the objective of promoting awareness of chemical safety and security in the industrial, scientific, and academic communities. The founder members of this association have been organizing Indo-US workshops on chemical security since 2016. In addition, NACS has been working on the development of curriculum for undergraduate and graduate students to increase awareness of chemical safety and security, who would be future generation of researchers, academics, and entrepreneurs.

### NFSU - National Forensic Sciences University

The National Forensic Sciences University was established in 2009 by the Government of Gujarat to create professional experts in the field of forensic sciences. Since then, it has introduced unique courses based on the requirement of the country to solve societal issues. The university has reached many milestones and obtained UGC recognition and NAAC accreditation. It has been successful in training professionals from various countries and has established various centres of excellence on its campus. The Ministry of Home Affairs has already annexed the Delhi Centre with this university. The university aims to establish academic centres across the globe for the benefit of scientific investigative experts.

### GUJARAT UNIVERSITY

Gujarat University was established in 1949 under the Gujarat University Act and is the largest university in the state, with over 235 affiliated colleges and 34 post-graduate departments. The university is responsible for post-graduate instruction and offers a coordinated plan of instruction to ensure effective teaching. External examinations in the faculties of Arts and Commerce were introduced to support working students and those who cannot afford university education. Despite the establishment of seven additional universities in the state, Gujarat University remains a premier institution, providing education to approximately two lakh students in a wide range of disciplines

### UNIVERSITY OF LADAKH

The University of Ladakh, established in 2019, is trans-Himalayan University in India with headquarters at Leh. It has six constituent colleges and offers core and applied academic programs, as well as courses specific to the Himalayan and South/Central Asian regions. The university began its first academic program in 2020 and also offers Ph.D. programs in various disciplines. Its goal is to provide opportunities for students to excel in higher education and shape the future of society through educational, research, and social contributions. The university has MoU with prominent institutions/universities of India to advance knowledge in different domains.

# CONFERENCE TOPICS

## Chemical Safety, Security and human health - General Perspectives

Culture, ethics, communication, classification of chemicals, exposure, human health in workplace, safety data, malicious use, education and outreach.

## Sensors for Chemical Safety, Security, Human Health and Environment

Chemical sensors, nano sensors, optical sensors / optoelectronics, sensor systems, signal processing & interfaces, materials for chemical sensing, biomedical

## Chemical Safety and Security – Areas of Concern

Chemical Safety : Chemical/pharmaceutical industries, laboratories, Agriculture and food sector, consumer or other products.  
Chemical Security : Dual-use chemicals and their applications, Control mechanisms.

## Chemical Safety and Security – Transportation and Storage

Storage/inventory management, supply-chain management, regulations and compliance.

## Surveillance, Accidents and Incidents

Chemical monitoring, surveillance, accidents, incidents, investigations.

## Chemical Emergency Preparedness and Response

Chemical Safety : Chemical safety risk assessment and management, emergency plan and management, community awareness, training, capacity building, on-site/off-site emergency response, mock drills and exercises.

Chemical Security : Chemical security vulnerability assessment, emergency plan and management, training, capacity building, on-site emergency response and mock drills.

## International Cooperation and Information Sharing

International regulations - Conventions and Treaties - CWC, AG, WA, Regulations for trade control - SCOMET regulations, REACH.

## Cybersecurity and Emerging Technologies

Network and data security/ management, facility security and emergency management, artificial intelligence (AI).

## Environmental, Social and Governance

Resources and management, hazardous waste treatment and management, chemical toxicity, environmental sustainability and development, pollution, climate change.

## Advances in Science and Technology

Green Chemistry, chemical alternatives, analytical methods for the identification of toxic chemicals and their adducts or degradation products, chemical forensics.

NOTE: There will a separate session for discussions on the importance of chemical safety and security and the development of educational programs to increase public awareness of the impact of chemicals on human health and the environment.

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Occupation	Fees
Foreign Delegate	US\$ 150.00
Corporate/Industry Delegate	Rs. 5000/-
Delegate (Academic)	Rs. 3000/-
Students	Rs.1500/-
Life Member (NACS)	Rs.1500/-

QR CODE

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Registration fees for the Conference once paid will not be refundable in any circumstances.  
Registration is compulsory for participation/paper presentation. All authors of paper/poster presentations should register for the certificate.  
Accommodation on Request and Chargeable

### Important Date to Remember:

Last Date for Registration	13th November 2023
Last Date for Submission of Abstract	20th November 2023
Last Date for Submission of Travel Plan	-
Notification of Abstract Acceptance	-

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The abstract must be sufficiently informative to allow fair evaluation of the intended presentation. The text should be written in clear and concise English. The entire abstract (including title, authors, affiliation, figures and references) is restricted to one page. The abstract should include a title (Times New Roman letter type 18) followed by one blank line after which authors, institutions, and e-mail address of corresponding authors are stated as shown above (Times New Roman letter type 12, authors in normal text, institutions in italic). The presenting author should be underlined. A blank line should separate authors and their institutions from the bulk text.

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