

IIT Bombay Workshop on Defence

as part of National Science Day

February 28 - March 1, 2025 | Venue: B. Nag Auditorium, VMCC, IIT Bombay

BETTER, FASTER TECH FOR DEFENCE

Using Next Gen Technology for Next Gen Defence

As part of IRCC's annual CONferences on emerging concepts (ICONS), IIT Bombay organizes workshops on various emerging technologies and specific domains. This year, ICONS 2025 will focus on defence technologies with the theme 'Better and Faster Tech for Defence' and will play a crucial role in fostering dialogue and knowledge exchange among IIT Bombay faculty, experts, policymakers, and military leaders. It will also provide a platform for discussing emerging security threats, advancing technological innovations, and exploring possibilities of collaborations. At ICONS 25, we are also putting on display selected research work and products developed by our faculty and the startups that are incubated at IITB.

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February 28, 2025 (Friday)



Guest of Honour

General Manoj Pande, PVSM AVSM VSM ADC (Retd.)

Former Chief of the Army Staff, Indian Army



Military Readiness for Next Gen Operations

Air Vice Marshal Dhananjay V. Khot, AVSM VM (Retd.)

Former Director General, Defence Space Agency, Indian Air Force & Principal Consultant - INSPACE

Aligning Innovation with Defence Strategies

Mr. Neelesh Tungar

Whole Time Director & CEO, Kalyani Strategic Systems Ltd



Innovation and Translational Research Ecosystem at IIT Bombay

Prof. Milind D. Atrey

Deputy Director (Academics, Research and Translation), IIT Bombay

High Performance Materials for Defence Applications



High Energy Density Materials in Defense Applications: Present and Future

Dr. Manjit Singh

Director-R&D, Economic Explosives Ltd (Solar Group of Industries)

Thematic Address



Use of Machine Learning to Formulate Novel Propellant Oxidizers

Prof. Neeraj R. Kumbhakarna

Mechanical Engineering, IIT Bombay

Novel Energetic Propellants for Defence Applications

Prof. Nagendra Kumar

Aerospace Engineering, IIT Bombay



Indigenous Materials for Smoke-free Heat Generation: Enhancing Habitat and Firing Readiness for Indian Army in Harsh, Cold Climate

Prof. C. Subramaniam

Chemistry, IIT Bombay

High Performance Ceramics for Strategic Applications: Defence, Nuclear and Aerospace

Mr. Niraj Bhukhanwala

Managing Director, Bhukhanwala Industries



March 1, 2025 (Saturday)



Guest of Honour

Air Chief Marshal Vivek Ram Chaudhari, PVSM AVSM VM ADC (Retd.)

Former Chief of the Air Staff, Indian Air Force

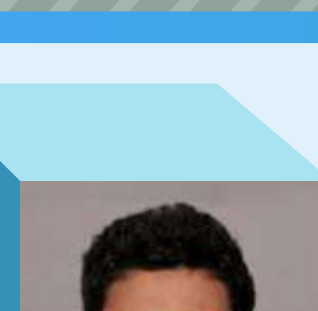
Digital Technology for Military Operations

Thematic Address

Present and Future Trends in Digital Technology for Planning of Military Operations

Rear Admiral Ankur Sharma, NM

Admiral Superintendent (ASD), Naval Dockyard, Indian Navy



Geo-Spatial Technology for Military Operations: Challenges and Way Forward

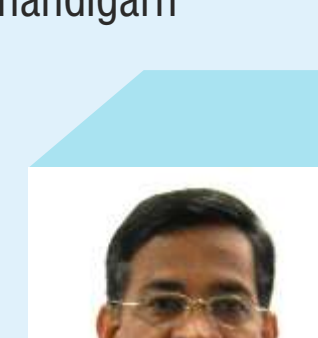
Dr. Pinaki Roy Chowdhury

Associate Director, Defence Geoinformatics Research Establishment, Chandigarh

Integrated Image Analysis for Target Identification and Characterization

Prof. D. Ramakrishnan

Earth Sciences, IIT Bombay



Evolution of Conflict from Kinetic to Cognitive Battlespaces: Information Operations in the Connected World

Mr. Balaji Venkateshwar

Cyber-Vidyapeeth Foundation, Ex-CISO-BSE, Ex-Director (Cyber Defense), Qualcomm



Advances in AI/ML Technology for Intelligence Gathering using Drone Camera Images

Prof. Ganesh Ramakrishnan

Computer Science and Engineering, IIT Bombay



IOT & Digital Twin-based Situation Aware Smart Assets

Capt. Dr. M. S. N. Murthy

Head - Centre of Excellence (Marine Engineering), INS Shivaji



Developing an AI Enhanced Maintenance Ecosystem in Aviation

Prof. Asim Tewari

Mechanical Engineering, IIT Bombay



Chayan – An Intelligent Decision Support Tool to Assist Asset Selection for Naval Missions

Prof. Makarand S. Kulkarni

Mechanical Engineering, IIT Bombay



Digital Twins and Cybersecurity

Prof. Manjesh Kumar Hanawal

Industrial Engineering & Operations Research, IIT Bombay



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