

# Spacetrronics & Deftrronics Summit

The only Electronics & Semiconductor focused event for Space and Defence in India

**25 26 MAY 2023**

HILTON BENGALURU EMBASSY MANYATA BUSINESS  
PARK (CONVENTION CENTRE)



**REPORT**

# An Overview

Spacetrionics & Deftrionics 2023, organised on May 25th & 26th at Hilton Bengaluru Embassy Manyata Business Park (convention center), stood as a paramount event curated by the Indian Electronics and Semiconductor Association (IESA). This eagerly anticipated gathering focused exclusively on India's space and defence sectors, accentuating the nation's remarkable advancements in these industries while bolstering self-reliance through the esteemed Make in India initiative. Embarking on an extraordinary journey, the event commenced with the resonating voices of students from the Parikrma Humanity Foundation as they harmoniously rendered the National Anthem of India. This captivating start set the stage for a momentous occasion, brimming with energy and pride for India's achievements in Space, Defense, and Electronics.

Spacetrionics & Deftrionics 2023 served as an unparalleled platform for collaboration and progress where industry leaders, government officials, aspiring innovators, and stakeholders converged to engage in insightful discussions. The event delved into cutting-edge technologies, the future trajectory of defence and space domains, and the immense potential harboured within India's electronics and semiconductor industry. By bringing together these influential stakeholders, IESA endeavoured to exhibit India's untapped potential, foster collaboration among stakeholders, and stimulate the growth of indigenous electronics manufacturing within the country.

The event showcased an exceptional lineup of keynote speakers who shared their profound insights on critical electronic components, emerging defence technologies, space and defence cyber security systems, and various other pertinent topics. Their expertise shed light on the transformative advancements and future prospects within these sectors, igniting inspiration and providing a roadmap for aspiring innovators. Furthermore, the event recognized individuals and organisations that displayed unwavering dedication to the Make in India initiative. By celebrating innovation and acknowledging significant contributions, the event underscored the importance of indigenous development and manufacturing.

The presence of government representatives, including dignitaries from the Government of Karnataka, Maharashtra, Gujarat, further emphasised their unwavering support and future-oriented strategies for fostering innovation and promoting growth in the space, defence, and electronics sectors. This collaboration between industry leaders and policymakers exemplified a shared vision to propel India's position as a global leader in the electronics and semiconductor industry.

Spacetrionics & Deftrionics 2023 aimed to foster dialogue, collaboration, and knowledge-sharing among participants, with a particular focus on nurturing the interests of the youth. By providing an inclusive platform for showcasing inventive ideas and recognizing exceptional contributions, the event played a pivotal role in inspiring and cultivating the innovative minds of students. These endeavours furthered India's journey towards self-reliance in the space, defence, and electronics sectors.

## HIGHLIGHTS

**11**

Sponsors

**25**

Exhibitors

**50+**

Speakers

**350+**

Total  
Delegates

# Exhibition



In the photo from left to right: K. Krishna Moorthy (CEO and President, IESA), Manoj Jain (Director R&D, Bharat Electronics Ltd.), Sanjay Gupta (Chairman, IESA, President & CEO, Minda Corporation), Jayant Patil (Member of Executive Committee of Management, I&T), Anshuman Tripathi (Member, National Security Advisory Board, New Delhi), Anurag Awasthi (Vice President, IESA), Dr. Nilesh M Desai (Director, Space Application Centre, Ahmedabad)



# Day 1: Spacetronics



Lamp Lighting - In the photo from left to right: Sanjay Gupta (Chairman, IESA, President & CEO, Minda Corporation), Manoj Jain (Director R&D, Bharat Electronics Ltd.), Jayant Patil (Member of Executive Committee of Management, L&T), Anshuman Tripathi (Member, National Security Advisory Board, New Delhi), Dr. Nilesh M Desai (Director, Space Application Centre, Ahmedabad), K. Krishna Moorthy (CEO and President, IESA).

The inaugural session of Spacetronics highlighted India's journey in overcoming technological challenges and executing the 1974 Pokhran-1 nuclear test. It emphasised the convergence of space and defence electronics technology for societal development, showcasing the transformative evolution of organisations like SAC and ISRO. The discussion revolved around the establishment of a dedicated R&D setup for Space Electronics at BEL, contributing to India's self-reliance in indigenous technologies and products for the space sector.

The session also delved into critical technologies in the space and defence sectors, underlining their strategic implications for national security and global competitiveness. Moreover, it emphasised India's position as the fastest-growing economy and the impact of the Make in India initiative, along with the aerospace sector's role as a manufacturing partner for ISRO.



Brief Introduction about Spacetronics & Deftrionics by **Mr. K. Krishna Moorthy**

Welcome Address by **Mr. Sanjay Gupta**

Convergence of Space and Defence Electronics Technologies by **Dr. Nilesh M Desai**

Convergence of Defence & Space Electronics Technologies by **Mr. Manoj Jain**

Presidential Address by **Mr. Jayant D Patil**

Inaugural Address by **Mr. Anshuman Tripathi**

# Day 1: Spacetrionics



KEYNOTE

**Dr. Vinod Kumar**

Director, IN-SPACe, Bengaluru



KEYNOTE

**Mr. Ranjith Naduvil**

Regional Manager and Country Head (Engineering), NI



KEYNOTE

**Mr. Jayshankar Narayanankutty**

Sales Group Director at Cadence



KEYNOTE

**Mr. Rohith Gopalakrishna**

Country Sales Manager, AMD



KEYNOTE

**Smt. Gunjan Krishna**

IAS, Commissioner of Industries and Commerce, Govt. of Karnataka



KEYNOTE

**Dr. E V Ramana Reddy**

IAS, Addl Chief Secretary, Dept of Electronics & IT Govt. of Karnataka



PANEL DISCUSSION

In the photo from left to right: Mr. Jairam Sampath (Wholtime Director and Member of the Board, Kaynes Technology, Mysore), Mr. Vijay SP (Director Sales & Marketing, Strategic Electronics Business Unit (SEBU), Centum Electronics Limited, Bengaluru), Mr. S.V. Sharma (Ex-Deputy Director, U R Rao Satellite Centre), Mr. Anilkumar Muniswamy (Founder & CEO, SLN Technologies), Capt. T.N. Pranesha (Executive Director, Alpha Designs, Bengalore)



PANEL DISCUSSION

In the photo from left to right: Mr. Naga Bharath Daka (Co-founder, Skyroot Aerospace Pvt Ltd, Hyderabad), Mr. Ajay Vincent Raj (Senior Lead - Flight Propulsion, Agnikul, Chennai), Mr. Abhay Egor (CTO, Dhruva Space, Hyderabad), Dr Prasad Bhat (Chairman & CTO of Astrome, Bengaluru), Mr. Govindarajan D S (President, Anira SpaceCom; Member, Executive Board, SatCom India Association (SIA), Mr. Sunil Cavale (Investment Manager, Speciale Invest)



PANEL DISCUSSION

**Panel 3 - Successful Design and Development of Satellites by Engineering Colleges Across India**

In the photo from left to right: Chetan Dixit (General Manager, KDEM -STUSAT, 2010), Dr. Raghav Murthy (Former Director, Earth Observatory System, ISRO HQ & Head, Small Satellites Office), Mr. Shouri (BMS College of Engineering Bengaluru), Mr. Nikhil Riyaz (Sri Shakti Institute of Engineering and Technology, Coimbatore), Ms. Medhavi Aggarwal (Ajay Kumar Garg Engineering College, Ghaziabad), Ms. Kavyashree (PES University)



PANEL DISCUSSION

In the photo from left to right: Dr. Sushama (Sr. Manager, IESA), Dr. Gaurab Banerjee (IISc Bengaluru), Dr. Srinivasan Raghavan (Director CeNSE, IISc Bengaluru), Dr. Devaprakash Muniraj (Dept of Aerospace Engineering, IIT Madras), Dr Ramaseshan Satagopan (Dayananda Sagar Institute of Technology, Bengaluru)

# Day 2: Deftronics



In the photo from left to right: Sanjay Gupta (Chairman, IESA, President & CEO, Minda Corporation), Sanjeev Gupta (CEO, KDEM, Bengaluru), Lt. Gen. Raj Shukla (Member UPSC & Retd. Army Commander, New Delhi), Lt. Gen. M.U. Nair (VSM, AVSM, SO-in-C, IHQ of MoD, New Delhi), Dr. G Satheesh Reddy (Scientific Advisor to Raksha Mantri, Government of India, New Delhi)

Defencetronics 2023's inaugural session highlighted India's defence sector journey, overcoming challenges and achieving milestones. The focus was on dedicated research and development facilities for defence electronics, promoting indigenous innovation and self-reliance. Discussions encompassed electronic warfare, secure communication, and sensor technologies, harnessing advanced electronics for enhanced defence operations.

The strategic implications of critical technologies such as AI, robotics, and autonomous systems were explored, emphasising collaboration among defence organisations, academia, and industry. India's commitment to self-reliance through the Make in India initiative was emphasised, showcasing achievements in defence electronics and industry growth. Overall, it provided valuable insights into India's advancements, positioning the country as a global player in defence electronics.



Introduction to the objectives of Deftronics & Welcome address by **Mr. Sanjay Gupta**

Address by **Mr. Sanjeev Gupta**

Address by **Lt. Gen. Raj Shukla**

Address by **Lt. Gen. M.U. Nair**

Presidential Address by **Dr. G Satheesh Reddy**

# Day 2: Deftronics



KEYNOTE

**Shri Amitesh Kumar Sinha**

Joint Secretary (E), MeitY, Government of India



KEYNOTE

**Dr. K. Natarajan**

Former AGM, Semiconductors, Bharat Electronics Ltd, Bengaluru



KEYNOTE

**Mr. Toby Simon**

Founder CEO, Synergia Foundation



KEYNOTE

**Mr. N. Subramanian**

Senior Program Executive, iDEX, DIO, New Delhi



KEYNOTE

**Shri Ram Prakash**

Addl. Director/Sc 'E' TDF, DRDO, New Delhi



KEYNOTE

**Mr. Satish Chandra Rao**

Group Director, ADG, Analog Devices, Bengaluru



KEYNOTE

**Dr. Chandrika Kaushik**

DG PC&SI, DRDO



KEYNOTE

**Mr. Videh Khare**

IAS Managing Director -Gujarat State Electronics Mission (GSEM)



KEYNOTE

**Col. Anurag Awasthi**

VP, IESA



MADHYA PRADESH STATE SESSION

In the photo from left to right: Shri Anshul Gupta (IAS, Project Director, Madhya Pradesh State Electronics Development Corporation, Department of Science & Technology, Govt. of Madhya Pradesh), Mrs. Awantika Varma (Team lead Investment, Promotion Govt. of Madhya Pradesh)



PANEL DISCUSSION

In the photo from left to right: Mr. Rahul Patil (Sarus Aerospace, Belagavi), Mr. Sameer Joshi (CEO, Newspace Technologies, Bengaluru), Col. Anurag Awasthi (VP, IESA), Mr. Nikhil Methiya (CEO, Drone Lab, Ahmedabad), Mr. Sandeep Unnithan (Chief Editor TV9)

# Event Highlights



## IESA DR. APJ ABDUL KALAM AWARD : NILESH DESAI

Shri Nilesh M. Desai is a highly accomplished engineer and distinguished scientist who has led the design and development of several advanced space-borne instruments and applications for the ISRO. He has made significant contributions to the field of microwave remote sensing and has been instrumental in the realization of various satellite missions, including RISAT-1, Chandrayaan-2, and Oceansat-2. He is the recipient of ISRO Performance Excellence Award-2018, ISRO Individual Merit Award-2010 and ISRO Team Award for RISAT-1 Payload Design, Realization and Data products-2012.



## PRODUCT LAUNCH NAVIC

NavIC stands for Navigation with Indian Constellation, and it is India's own regional satellite navigation system designed to provide accurate positioning and timing services in India and the surrounding regions. Accord SW Systems, along with Manjeera Digital Systems, unveiled NavIC receivers at the Spacetrionics and Deftronics Summit 2023 during Day 1. These receiver chips, developed with funding from MeitY (Govt of India), support multiple bands (L1 to L5 and S band). Notably, the launch coincided with the upcoming release of ISRO's next-generation Navigation satellite on GSLV FLT 12. As IESA members, both companies anticipate that these receiver cores will eventually become standard intellectual property integrated into future smartphone models.



## MOU SIGNED BETWEEN NI (INDIA) & PANINIAN

The MoU between NI (India) Pvt. Ltd. and Paninian signed at IESA Spacetrionics & Deftronics Event combines advanced hardware and software solutions for Emulation and Real-time Analysis with expertise in Design and Validation of Complex Systems, focusing on AeroEngines. This collaboration offers personalised Digital Twin solutions, promoting faster mission readiness, cost and time savings, and self-reliance in the Indian Aerospace & Defense sector. It aims to accelerate Product Development, Certification, and Life Extension of strategic platforms, including Aero Engines.

# KEY TAKEAWAYS

- Deftronics 2023 showcased India's growing self-reliance and emerging position as a global leader in the electronics and semiconductor industry, promoting the spirit of Make in India.
- The conference emphasised the significance of Aatmanirbharta and its intersection with the booming semiconductor industry, discussing new technologies and their potential applications in defence and space domains.
- Spacetrionics 2023 highlighted intelligent system design for mission-critical systems in the space industry, fostering innovation and transformative collaborations.
- The events provided a platform for recognizing exemplary individuals and organisations committed to the Make in India initiative, promoting the spirit of innovation and highlighting remarkable contributions made by young leaders.
- The government's involvement, including the Government of India and the Government of Karnataka, showcased their future plans and role in fostering innovation and promoting growth in the electronics and semiconductor industry.
- Successful Design and Development of Student Satellites in engineering colleges across India has demonstrated their capability in designing and developing satellites, showcasing the country's expertise in space technology with partnerships from ISRO and IN-SPACE.
- Advancements in Communication Systems by Indian industries have achieved success in developing complex V/UHF ECCM radios for communication systems. Additionally, ongoing developments in radar-on-a-chip technology and drone components, with dual-use applications in civilian and defence sectors, are being witnessed.
- Innovation in Tier 2/3 Cities, particularly in cities like Bhubaneswar and Indore, has led to significant advancements in underwater systems, remote management data terminals, and other technologies applicable to defence and various other sectors.
- The emergence of cybersecurity in space, as communication and media heavily rely on transponders, has increased the focus on developing robust cybersecurity systems for space applications, including SATCOM terminals.
- Next-generation space and defence systems, being computer-intensive, will require substantial computing power. As system complexity increases, the demand for advanced semiconductor technologies also rises to meet the compute power requirements.



# Day 1: Glimpses of Spacetrónica



# Day 2: Glimpses of Deftronics



## CO-HOSTS



## SPONSORS



## PARTNERS



## EXHIBITORS

