

BHARAT FORGE



KALYANI

Kalyani Group showcases the extensive portfolio at East Tech 2022

MEDIA DOSSIER

July 7, 2022



Online Coverage

Kalyani Group showcases the extensive portfolio at East Tech 2022			
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Headline: Inaugural defence technology exhibition - East Tech 2022 kicks off in Kolkata	Publication : Times of India
Date : July 7, 2022	Journalist: Tamaghna Banerjee

<https://timesofindia.indiatimes.com/city/kolkata/inaugural-defence-technology-exhibition-east-tech-2022-kicks-off-in-kolkata/articleshow/92730063.cms>

KOLKATA: From assault rifles and pistols to military drones and gunnery simulators to armoured vehicles – a plethora of modern defence weapons, tech solutions, vehicles and tactical gears are up for display in the first ever defence tech exhibition in the city featuring 200 plus Indian manufacturers including large number of MSMEs and start ups for a two day exposition at Biswa Bangal Mela Prangan. The East Tech 2022 was inaugurated by Rana Pratap Kalita, General Officer Commanding-in-Chief (GoC-IC) of the Indian Army's Eastern Command in presence of state chief secretary HK Dwivedi and city police commissioner Vineet Goyal along with other senior defence officials on Thursday. The exhibition was organised in association with Society of Indian Defence Manufactures (SIDM) and Confederation of Indian Industries (CII) to identify cutting-edge technologies needed for solving operational challenges in the Eastern Theatre and the Indian Army as a whole. Army commander Kalita said the concept of the fair dawned upon him while he realised the Eastern Command receives a number of letters from private exhibitors to showcase their products and while interacting with troops in difficult terrains, they also spoke of modern equipment for better capability. “Generally the procurements are driven by the ministry of defence and there is a centralised defence expo. However, the army commander has special financial power for equipment required for capability enhancement for the fleet working in difficult conditions. We have 120 odd officers at the exhibition to check the products, shortlist those needed and go for procurement process,” said army commander Kalita.

The state chief secretary lauded the initiative and proposed formation of a defence industrial corridor in the lines of Uttar Pradesh and Tamil Nadu.

“This is a golden opportunity for west Bengal to bring in investment and create jobs. We are upbeat given the large MSME sector we have and a pool of talented young boys and girls. We would like to have a defence manufacturing corridor in our state. If we have the right entrepreneurs, we would allot the land and whatever facilitation is required. Bengal has a locational advantage by the sheer presence of eastern command here. I would request the Eastern Command and the CII to help us in forming a state defence policy focussing on defence manufacturing units in the state,” said HK Dwivedi, the state chief secretary. The response from the Indian defence manufacturers was overwhelming as more than 200 Indian manufacturers including a large number of MSMEs and start ups, DRDO, DPSUs from throughout the country are participating in the event to showcase their latest and the most advanced weapon & equipment technology.

“We have been providing shoes to the Indian army for 35 years. Recently we have started exporting workwear and defence clothing to a number of countries including Israel army. We are showcasing our lightweight 3.5 killo suits and jackets that can keep a soldier warm even at -50 degrees Celsius,” said Samarjit Singh, CEO of Icon Designs, a Kanpur based company. **Kalyani Group**, a Pune based Indian conglomerate had on display a wide range of indigenously developed defense offerings like artillery gun systems, protected vehicles, armoured vehicles, multi motor drones, ammunition, small arms, defence electronics and air defence solutions. Also, at the expo was US based Zen Technologies that has a manufacturing unit in Hyderabad putting on

display corner shot weapon system, mortar integrated simulator, medium machine gun simulator and containerised tubular shooting range. “We are a regular at the central defence expo and are happy to be here at the inaugural East Tech event. We have briefed our products to the army officers and are awaiting a positive feedback from them,” said Ramamurthy, a senior official of the company.

Headline: Pune based Kalyani Group showcases the extensive portfolio at East Tech 2022	Publication : NE India Broadcast
Date : July 7, 2022	Journalist:

<https://neindiabroadcast.com/2022/07/07/pune-based-kalyani-group-showcases-the-extensive-portfolio-at-east-tech-2022/>

The Kalyani Group, a Pune based Indian conglomerate, is exhibiting a wide range of indigenously developed defense offerings at East Tech 2022. The showcase entails a glimpse of Artillery Gun Systems, Protected Vehicles, Armoured Vehicles, Ammunition, Missiles and Air Defence Solutions, Small Arms, and Defence Electronics developed by the Kalyani Group.

The major attractions at Kalyani Group’s booth are:

Garuda 105-V2:

Garuda 105-V2 is a 105mm 37 Caliber Mobile Weapon System with 360° firing capability. It is an ultra-light weight gun system weighing under 5.5 ton created with state-of-the-art Hybrid Recoil Technology. The gun system is mounted on a 4 x 4 wheeled chassis that enables all terrain maneuverability including high altitude. It is a go anywhere gun with a Grade Ability of 30°. Garuda 105-V2 has a coming into action time of 1.5 minutes during the day and 2 minutes during the night. The system comes with a shoot and scoot capability, low maintenance cost and is adaptable for fitting into any service vehicle. It also has quicker emplacement, onboard fire control panel, and electrically controlled elevation and traverse.

Elevation	and	Traverse:
Elevation	: -5°	to 72°
Traverse : 30° Right and Left. (360° firing capable)		
Rate	of	Fire:
Normal Rate	: 4	rounds/1 min
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Unmanned Ground Vehicles

- **Enhanced Collaborative Autonomous Rover System (ECARS)**_____

ECARS is a 4 and 6 wheeled multi-terrain unmanned ground vehicle (UGV) designed to perform surveillance, security, safety and rescue missions. ECARS is armed with enhanced collision avoidance system, and missions planning. This UGV can be used with systems like RCWS, Water Jet machines and transportation of heavy material across border/water channels.

The applications of ECARS are Border surveillance, strategic Asset perimeter security, Riot control operations, CBRN, Fire-Fighting or Chemical Spray, carrying payload requirements. ECARS 6x6 can also be operated as an amphibious vehicle

Multi-Rotor Drone – Bharat 150

BHARAT 150, a multi-payload, variable mission drone indigenously developed by the group. The X-8 configuration drone is already under testing by the Indian Army in high altitude areas in Leh-Ladakh and performed 8.5 KM with 20 kg payload.

The drone is a vertical take-off and landing (VTOL) Unmanned Aerial Vehicle (UAS), with a maximum take-off weight of 150 kg and empty take-off weight of 58 kg. The craft comes integrated with an indigenously developed radio communication system and Inertial Navigation System (INS) with anti-jamming and anti-spoofing capabilities, making it operational in jamming and GPS-denied environment as well.

The drone’s batteries can give minimum 30 minutes of endurance with a communication link encryption (128 AES) for 50 km – 200 KM. The endurance can be enhanced as per the application.

The water and dust proof Bharat 150 can be used in the temperature range of -30°C to 65°C with an average speed of 50 Km/h and a gust resistance of 15 m/s. It can operate at 1000 m above the take-off ground and is designed to work at 5500 m ASL.

It's autonomous and electronically stable design makes it suitable for application in Logistics, Search and Rescue, Signal Intelligence and communication intelligence, ISR, Loitering Munition for warhead dropping etc.

Unmanned Aerial Vehicles

The Unmanned Aerial Vehicles is an autonomous, mechanically and electronically stabilized drone. It has a Short Take off range of 10 meters. The drone is fail safe with a Parachute Recovery system available. Its applications include surveillance and mapping, small package delivery (up to 5kg) for long distance, and Search and Rescue.

Acoustic Warning Device:

The Kalyani high performance sound system/warning device is made using advanced technology for mobile application with clear and intelligible announcement. The device is capable of directing acoustic energy with a narrow beam and a good front to back ratio with the continuous output of 130 dB+ sound pressure level. It is a modern solution constructed in an ultra-compact array format with an integrated MP3 player/recorder, internal USB mass storage memory, PTT-microphone and DSP power amplifiers. The device is capable of being operated with 100-240 V AC input power or from a separate 12/24 V battery powered high performance loud-speaker system.

It is serviceable in all terrains, portable, easy to carry in a backpack and is endowed with excellent speech intelligibility at a distance of 50 to 1000 metres. Its unique safety feature protects users during commissioning and health risks caused by excessive noise. The device comes with a long term service and support to ensure that system continues in operation for entire life cycle.

The typical operational uses are disaster/mass panic management, unexploded bomb discovery, warzone clearance/psychological warfare, training over large areas, official public speaking with announcement, search and rescue operation, and a mobile 3600 paging/siren alarm sound system mounted on emergency vehicles in a small form factor package.

Small Arms:

- **JVPC**

The Protective Carbine is a unique calibre weapon for short range operations. Its low recoil provides stabilized firing during rapid firing and can be fired by single hand which is most suitable for concealed area operations. The Protective Carbine, a 5.56 x 30mm weapon, is being developed and manufactured for the DRDO.

- **Sniper Rifles**

The T-5000M rifle is a multi-purpose weapon, providing high-accuracy long shots of upto 1500m distance. It has a battle proven platform to meet the needs of modern military forces.

The rifle has an interchangeable spare barrel, a bracket to mount pre-sighting lens cap, a monopod, and a tactical fore end. Its specialty includes cutting of 5R grooves and a twist rate change within the recommended limits.

- **Advance Carbine**

The Advance Carbine is designed and developed by the ARDE and manufactured by the Kalyani Group. The 5.56 x 45 mm Carbine is a lightweight, compact, effective weapon used in close combat CI/CT



operations. It is developed to meet the requirements of the Law enforcement forces and Indian Defence forces in close-quarter. The Advance Carbine weapon is being developed and manufactured for the DRDO.

- **Assault Pistols**

The pistol has reduced dimensions and slimmer profile and is a concealable full size handgun. The pistol has a redesigned frame with three different textures. Three independent safety features (grip safety, trigger safety and firing pin safety) and two indicators (loaded chamber and striker status indicator) provides maximum security for the user.

Superior Ergonomics and reliability makes it a great all-around performer. Its small frame, lightweight and reliability makes S7/S5 an excellent carry pistol.

The pistol has a hammer forged barrel with a calibre of 9mm/.45ACP. It also has an ambidextrous magazine release, accessory rail, and steel three-dot sights.

Ammunition and Spares

- **Shells**

Kalyani Group has supplied more than 2 million ready to fill shells to Ordnance Factories and DRDO in the range of 70 to 155mm covering all variants including HE, smoke, illuminating and incendiary.

- **FSAPDS**

120mm FSAPDS Mark II is a DRDO designed prime ammunition for the indigenously developed 120 mm ARJUN Tank. It is the first time in India that a Private Sector Company was entrusted with and has successfully manufactured this ammunition.

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Dual Technology Mine Detector (DTMD):

The Dual Technology Mine Detector (DTMD) is a state-of-the-art ultra-sensitive detector for mines and IEDs using ground penetrating radar and metal detector manufactured in India with German collaboration. It is incorporated with an Audio-Visual feedback for operator. This device is currently in service with the Indian Army.

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- o Incorporates Graphical display for enhanced detection accuracy.

- o Effective in different soil conditions.

- **DSMD**

- o Highly Sensitive Next Generation Detector.
- o Ability to detect low-conductive material.
- o Infrared LEDs for use with night-vision device.
- o Audio, visual & Vibration feedback.

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Publication : Aviation Defence Universe

Date : July 7, 2022

Journalist:

<https://www.aviation-defence-universe.com/kalyani-group-showcases-the-extensive-portfolio-at-east-tech-2022/>

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The major attractions at Kalyani Group's booth are:

Garuda 105-V2:

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Multi-Rotor Drone – Bharat 150

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The drone is a vertical take-off and landing (VTOL) Unmanned Aerial Vehicle (UAS), with a maximum take-off weight of 150 kg and empty take-off weight of 58 kg. The craft comes integrated with an indigenously developed radio communication system and Inertial Navigation System (INS) with anti-jamming and anti-spoofing capabilities, making it operational in jamming and GPS-denied environment as well.

The drone's batteries can give minimum 30 minutes of endurance with a communication link encryption (128 AES) for 50 km – 200 KM. The endurance can be enhanced as per the application.

The water and dust proof Bharat 150 can be used in the temperature range of -30°C to 65°C with an average speed of 50 Km/h and a gust resistance of 15 m/s. It can operate at 1000 m above the take-off ground and is designed to work at 5500 m ASL.

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Acoustic Warning Device:

The Kalyani high performance sound system/warning device is made using advanced technology for mobile application with clear and intelligible announcement. The device is capable of directing acoustic energy with a narrow beam and a good front to back ratio with the continuous output of 130 dB+ sound pressure level. It is a modern solution constructed in an ultra-compact array format with an integrated MP3 player/recorder, internal USB mass storage memory, PTT-microphone and DSP power amplifiers. The device is capable of being operated with 100-240 V AC input power or from a separate 12/24 V battery powered high performance loud-speaker system.

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Journalist:

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The drone is a vertical take-off and landing (VTOL) Unmanned Aerial Vehicle (UAS), with a maximum take-off weight of 150 kg and empty take-off weight of 58 kg. The craft comes integrated with an indigenously developed radio communication system and Inertial Navigation System (INS) with anti-jamming and anti-spoofing capabilities, making it operational in jamming and GPS-denied environment as well.

The drone's batteries can give minimum 30 minutes of endurance with a communication link encryption (128 AES) for 50 km – 200 KM. The endurance can be enhanced as per the application.

The water and dust proof Bharat 150 can be used in the temperature range of -30°C to 65°C with an average speed of 50 Km/h and a gust resistance of 15 m/s. It can operate at 1000 m above the take-off ground and is designed to work at 5500 m ASL.

It's autonomous and electronically stable design makes it suitable for application in Logistics, Search and Rescue, Signal Intelligence and communication intelligence, ISR, Loitering Munition for warhead dropping etc.

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The Unmanned Aerial Vehicles is an autonomous, mechanically and electronically stabilized drone. It has a Short Take off range of 10 meters. The drone is fail safe with a Parachute Recovery system available. Its applications include surveillance and mapping, small package delivery (up to 5kg) for long distance, and Search and Rescue.

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It is serviceable in all terrains, portable, easy to carry in a backpack and is endowed with excellent speech intelligibility at a distance of 50 to 1000 metres. Its unique safety feature protects users during commissioning and health risks caused by excessive noise. The device comes with a long term service and support to ensure that system continues in operation for entire life cycle.

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- JVPC

The Protective Carbine is a unique calibre weapon for short range operations. Its low recoil provides stabilized firing during rapid firing and can be fired by single hand which is most suitable for concealed area operations. The Protective Carbine, a 5.56 x 30mm weapon, is being developed and manufactured for the DRDO.

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The Advance Carbine is designed and developed by the ARDE and manufactured by the Kalyani Group. The 5.56 x 45 mm Carbine is a lightweight, compact, effective weapon used in close combat CI/CT operations. It is developed to meet the requirements of the Law enforcement forces and Indian Defence forces in close-quarter. The Advance Carbine weapon is being developed and manufactured for the DRDO.

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The pistol has reduced dimensions and slimmer profile and is a concealable full size handgun. The pistol has a redesigned frame with three different textures. Three independent safety features (grip safety, trigger safety and firing pin safety) and two indicators (loaded chamber and striker status indicator) provides maximum security for the user.

Superior Ergonomics and reliability makes it a great all-around performer. Its small frame, lightweight and reliability makes S7/S5 an excellent carry pistol.

The pistol has a hammer forged barrel with a calibre of 9mm/.45ACP. It also has an ambidextrous magazine release, accessory rail, and steel three-dot sights.

Ammunition and Spares

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Kalyani Group has supplied more than 2 million ready to fill shells to Ordnance Factories and DRDO in the range of 70 to155mm covering all variants including HE, smoke, illuminating and incendiary.

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- DTMD

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- o Incorporates Graphical display for enhanced detection accuracy.
- o Effective in different soil conditions.

- DSMD

- o Highly Sensitive Next Generation Detector.
- o Ability to detect low-conductive material.
- o Infrared LEDs for use with night-vision device.
- o Audio, visual & Vibration feedback.

Headline: Inaugural defence technology exhibition - East Tech 2022 kicks off in Kolkata

Publication : Cybertech Gurus

Date : July 7, 2022

Journalist:

<https://cybertechgurus.com/inaugural-defence-expertise-exhibition-east-tech-2022-kicks-off-in-kolkata-kolkata-information/>

KOLKATA: From assault rifles and pistols to military drones and gunnery simulators to armoured vehicles – a plethora of modern defence weapons, tech solutions, vehicles and tactical gears are up for display in the first ever defence tech exhibition in the city featuring 200 plus Indian manufacturers including large number of MSMEs and start ups for a two day exposition at Biswa Bangal Mela Prangan. The East Tech 2022 was inaugurated by Rana Pratap Kalita, General Officer Commanding-in-Chief (GoC-IC) of the Indian Army's Eastern Command in presence of state chief secretary HK Dwivedi and city police commissioner Vineet Goyal along with other senior defence officials on Thursday. The exhibition was organised in association with Society of Indian Defence Manufactures (SIDM) and Confederation of Indian Industries (CII) to identify cutting-edge technologies needed for solving operational challenges in the Eastern Theatre and the Indian Army as a whole. Army commander Kalita said the concept of the fair dawned upon him while he realised the Eastern Command receives a number of letters from private exhibitors to showcase their products and while interacting with troops in difficult terrains, they also spoke of modern equipment for better capability. “Generally the procurements are driven by the ministry of defence and there is a centralised defence expo. However, the army commander has special financial power for equipment required for capability enhancement for the fleet working in difficult conditions. We have 120 odd officers at the exhibition to check the products, shortlist those needed and go for procurement process,” said army commander Kalita.

The state chief secretary lauded the initiative and proposed formation of a defence industrial corridor in the lines of Uttar Pradesh and Tamil Nadu.

“This is a golden opportunity for west Bengal to bring in investment and create jobs. We are upbeat given the large MSME sector we have and a pool of talented young boys and girls. We would like to have a defence manufacturing corridor in our state. If we have the right entrepreneurs, we would allot the land and whatever facilitation is required. Bengal has a locational advantage by the sheer presence of eastern command here. I would request the Eastern Command and the CII to help us in forming a state defence policy focussing on defence manufacturing units in the state,” said HK Dwivedi, the state chief secretary. The response from the Indian defence manufacturers was overwhelming as more than 200 Indian manufacturers including a large number of MSMEs and start ups, DRDO, DPSUs from throughout the country are participating in the event to showcase their latest and the most advanced weapon & equipment technology.

“We have been providing shoes to the Indian army for 35 years. Recently we have started exporting workwear and defence clothing to a number of countries including Israel army. We are showcasing our lightweight 3.5 killo suits and jackets that can keep a soldier warm even at -50 degrees Celsius,” said Samarjit Singh, CEO of Icon Designs, a Kanpur based company. **Kalyani Group**, a Pune based Indian conglomerate had on display a wide range of indigenously developed defense offerings like artillery gun systems, protected vehicles, armoured vehicles, multi motor drones, ammunition, small arms, defence electronics and air defence solutions. Also, at the expo was US based Zen Technologies that has a manufacturing unit in Hyderabad putting on

display corner shot weapon system, mortar integrated simulator, medium machine gun simulator and containerised tubular shooting range. “We are a regular at the central defence expo and are happy to be here at the inaugural East Tech event. We have briefed our products to the army officers and are awaiting a positive feedback from them,” said Ramamurthy, a senior official of the company.

Headline: Kalyani Group Showcases Extensive Defence Products At East Tech 2022	Publication : Bharat Shakti
Date : July 8, 2022	Journalist:

<https://bharatshakti.in/kalyani-group-showcases-extensive-defence-products-at-east-tech-2022/>

The first-ever defence technology exhibition – East Tech 2022 – kicked off in Kolkata on Thursday. The event was inaugurated by Lt Gen Rana Pratap Kalita, General Officer Commanding-in-Chief (GoC-in-C) of the Indian Army’s Eastern Command to identify cutting-edge technologies needed for solving operational challenges in the Eastern Theatre and the Indian Army as a whole. Over 200 Indian manufacturers, including many MSMEs and start-ups, display their products in a two-day event.

The Kalyani Group, a Pune-based Indian conglomerate, has on display a wide range of indigenously developed defence offerings like artillery gun systems, protected vehicles, armoured vehicles, multi-motor drones, ammunition, small arms, defence electronics, and air defence solutions. The major attractions at Kalyani Group’s stalls are:

Garuda 105-V2: Ultra-Light Weight Gun System

Garuda 105-V2 is a 105mm 37 Caliber Mobile Weapon System with 360° firing capability. It is an ultra-light weight gun system weighing under 5.5 ton created with state-of-the-art Hybrid Recoil Technology. The gun system is mounted on a 4 x 4 wheeled chassis that enables all terrain maneuverability, including high altitude areas. It is a go anywhere gun with a grade ability of 30°. Garuda 105-V2 has a coming into action time of 1.5 minutes during the day and 2 minutes at night. The system comes with a shoot and scoot capability, low maintenance cost and is adaptable for fitting into any service vehicle. It also has quicker emplacement, onboard fire control panel, and electrically controlled elevation and traverse.

Unmanned Ground Vehicles

Enhanced Collaborative Autonomous Rover System (ECARS)

ECARS is a 4 and 6 wheeled multi-terrain unmanned ground vehicle (UGV) designed to perform surveillance, security, safety, and rescue missions. ECARS is armed with enhanced collision avoidance system, and missions planning. This UGV can be used with systems like RCWS, Water Jet machines and transportation of heavy material across border/water channels.

The applications of ECARS are border surveillance, strategic asset perimeter security, riot control operations, CBRN, fire-fighting or chemical spray, carrying payload requirements. ECARS 6x6 can also be operated as an amphibious vehicle

Multi-Rotor Drone – Bharat 150

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The drone is a vertical take-off and landing (VTOL) Unmanned Aerial Vehicle (UAS), with a maximum take-off weight of 150 kg and empty take-off weight of 58 kg. The craft comes integrated with an indigenously developed radio communication system and Inertial Navigation System (INS) with anti-jamming and anti-spoofing capabilities, making it operational in jamming and GPS-denied environment as well.

The drone's batteries can give minimum 30 minutes of endurance with a communication link encryption (128 AES) for 50 km – 200 KM. The endurance can be enhanced as per the application.

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Headline: Kalyani Group Showcases the Extensive Portfolio at East Tech 2022 : APFSDS Mk2, JVPC, ECARS UGV, Carbine and Garuda 105 V2 Howitzer

Publication : IGMP

Date : July 8, 2022

Journalist:

<https://www.theigmp.org/2022/07/kalyani-group-showcases-extensive-portfolio-at-east-tech-2022-apfstds-mk2-jvpc-ecars-ugv-carbine-and-garuda-105-v2-howitzer.html>

Kalyani Group had exhibited a wide range of indigenously developed offerings at East Tech 2022 that includes the ECARS Unmanned Ground Vehicle, Bharat 150 Multi-Rotor Variable Mission drone, an acoustic warning device for mobile application, JVPC, 5.56 X 30 millimeters Carbine developed by DRDO and manufactured by Kalyani group, the 1.5 kilometers range the 5000m sniper rifle, a new 5.56 by 45 millimeters Advanced Carbine, Dual Technology Mine Detector and the Garuda 105 v2 mobile weapon system.

The Kalyani group also showcased the DRDO developed 120 millimeters Fin Stabilized Armor-Piercing Discarding Sabot (APFSDS) Mark 2 ammunition for the Arjun tank and it is the first time in India that a private sector company has successfully manufactured this ammunition.

Headline: Kalyani Group Participates in East Tech 2022

Publication : Force India

Date : July 8, 2022

Journalist:

<https://forceindia.net/kalyani-group-participates-east-tech-2022/>

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Social Media

<p>Headline: East Tech is the Defence Expo for the East. The constituents in the hall can be prime drivers for manufacturing to grow from 11 bn to 25 bn turnover Mr Rajinder Singh Bhatia, Chairman SIDM Membership Committee and President & CEO, Bharat Forge Ltd</p>	<p>Handle: CII Eastern Region</p>
<p>Date : July 7, 2022</p>	<p>Link</p>



Headline: #EastTech2022 is launched! More than 200 Exhibitors encompassing #MSMEs, #Startups, #DPSUs are showcasing state-of-the-art #technologies for meeting the emerging requirements

Handle: Society of Indian Defence Manufacturers

Date : July 7, 2022

[Link](#)

