SOFT
INNOVATIVE
SYSTEMS
PAKISTAN

Chairman Message,

       I am proud to be part of an excellent team at Soft Innovative Systems. We as a team pursue highest qualities for our products, services and operations to attain the highest levels of customer satisfaction and social value.We believe that technology innovation makes a difference, so we keep abreast of new and emerging technologies and continue to innovate. As a result Soft Innovative Systems has established a long history for developing and providing training Simulators of Small weapon (Shooting Simulator), Medium Weapon (Missile Simulator), Flight Simulator (Air Craft and Helicopter), Radar Simulator (Giraffe Radar) to arm forces. We look forward to continue our service and support to all of you in our efforts to exceed expectations.

Sincerely,

Javed Zaidi.

C.E.O Message,

       Our people at Soft Innovative Systems are our main asset and our achievements are the sum of the expertise and experience of our people. I would also like to take this opportunity to thank our Business Clients of their continued support and confidence in our abilities. Building long-term relationships with our clients is the key to our success as a company.

Sincerely,

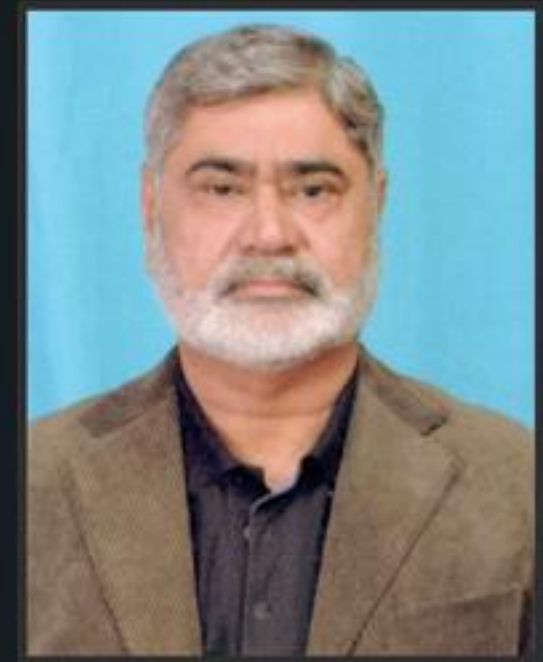**Nadeem Zaidi.**

Soft Innovative Systems

C.O.O Message,

Over a period of time through continuous hard work, Soft Innovative Systems has been able to achieve a capability in developing of defence related training simulators indigenously. SIS can develop customized training simulators for weapon systems held by different Armed Forces. These simulators can contribute tremendously towards training and achieving of additional expertise in weapon or equipment handling. Simulators are considered as force multipliers and a substitute to actual systems for effective and result oriented training. Our dedicated team of experts remain committed in achieving high standards of professionalism through maintenance of quality and credibility. We remain keen to excel and accept new challenges posed by our valuable clients.

Sincerely

Brig(Retd) Mazhar Mumtaz Qureshi

C.T.O Message,

Soft Innovative Systems continues to lead the way with our world-class, in-house research and development department. Our company is committed to innovation. We are continually developing our hardware, software, and support services in response to the needs of our customers. Our commitment to quality and excellence is second to none. Because our hardware and software is all designed and developed in-house, our sales and after-sales support teams have comprehensive knowledge of the capabilities of our products. This means that our customers get a product that is tailored to fit their needs, and that the moment they have a question about how to use it, our dedicated support team is there to help.
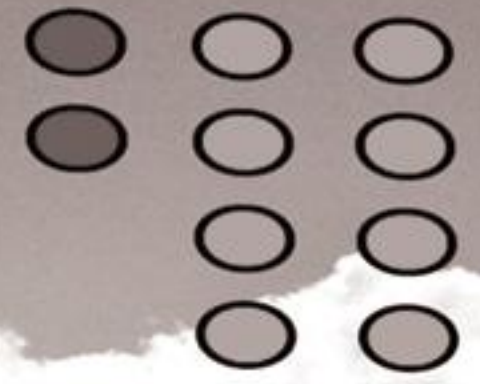
Sincerely,

Shuja Abidi

Soft Innovative Systems
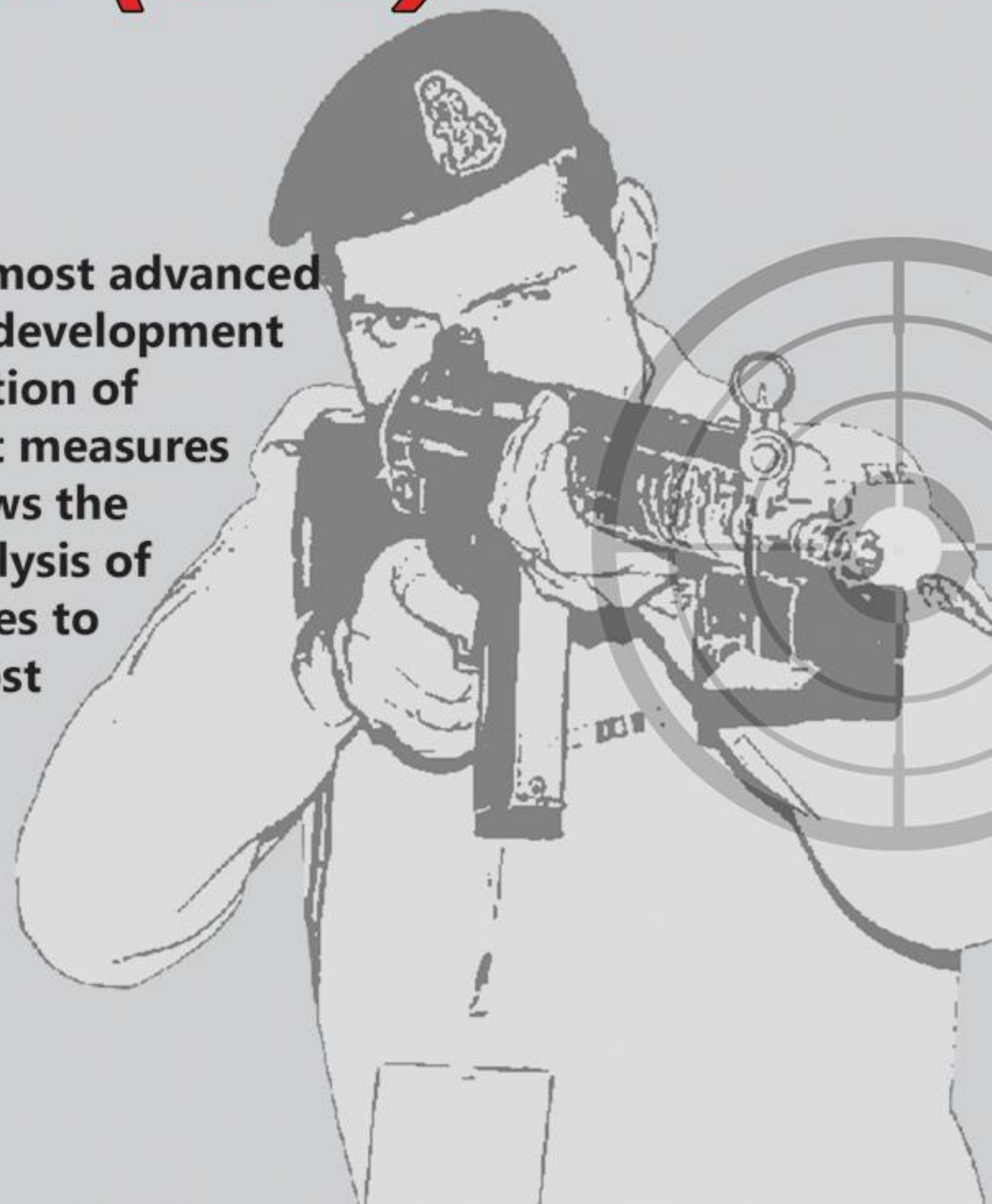
SOFT INNOVATIVE SYSTEMS PRODUCTS

Firer_1= 1/3
Firer_2= 0/3

Shooters Profile System (SPS)

Shooters Profile System

SIS Shooters Profile System provides the most advanced technology based on years of research & development with military users and enables the execution of comprehensive marksmanship training. It measures weapon movement, detects the shot, shows the location of both the hit and miss, and analysis of the shooter's performance. It helps trainees to become skilled shooters efficiently and cost effectively within a short period of time.

Soft Innovative Systems

Features:

Wireless, Portable & Rugged
Realistic Recoil & Firing Sound
Multiple Weapon Integration
Hit Sensor
Indoor Training
Physical & Virtual Targets
Scenarios Based Training
Training, Urban, Hilly & Airbase Scenarios
Analysis of Aim ,Hold & Trigger Control
Users Firing History
Easy Setup
Safe Environmen

Background

In a span of 9 years SIS has become one of the largest local weapon training simulator company having supplied numerous weapon simulators to military, law enforcement, security agencies and special forces. Our Shooters Profile System which was developed with extensive R&D with the military users is both for trainee as well as expert shooter to hone their shooting skills.

Technology

The IR based technology with wireless physical & virtual targets uses HAT (Hold, Aim, Trigger) shooting theory to measure & monitor with great accuracy holding, aiming & shooting process of any shooter in real time. The detailed user friendly highly customizable provides detailed analysis of shooter's performance and records them for future comparison. The software when supplemented with training, Urban, Hilly & Airbase Scenarios, Branching Videos and Augmented Reality (AR) also trains the shooters for urban warfare in addition to conventional combat.

Advantages

- Objective shooting skill analysis
- Graphical and numerical results
- Easy zeroing system
- Instructors train recruits to become skilled shooters quickly
- No special expertise required
- Cost saving due to saved bullets and logistics
- Transfer fault identification from the instructor to the system
- Safe Environment

Users

- Military training centers • Military bases
- War ships • Military schools • Police training centers
- Police stations • Special forces • Security training centers

Sharp Shooter

Accurate Mil-dot reticule

Bullet Trace

Accurate Ballistics

Breathing & Holding Breath

Run, walk, crawl

Full scope adjustment for windage & elevation

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Multi Screen Advance Training Shooting Systems (ATSS)

Advance realistic scenario generated across multiple screens creates immersive environment for training and fight rehearsal. Immersive environment with various scenarios will allow the instructors to train and test critical thinking and firearm skill under pressure for the trainee. It is a must simulator for training the basic skill of close quarter battle(CQB). Soft Innovative Systems (SIS)'s Advance Training Shooting simulator (ATSS) could improve how the soldiers react in unpredictable and unforeseen environment..
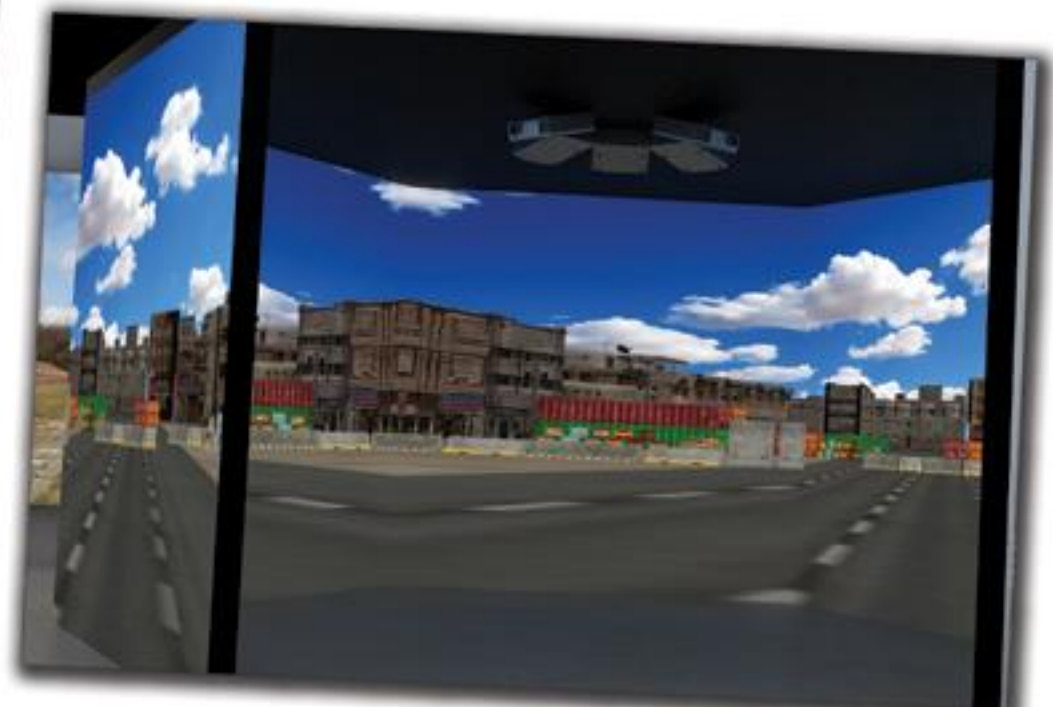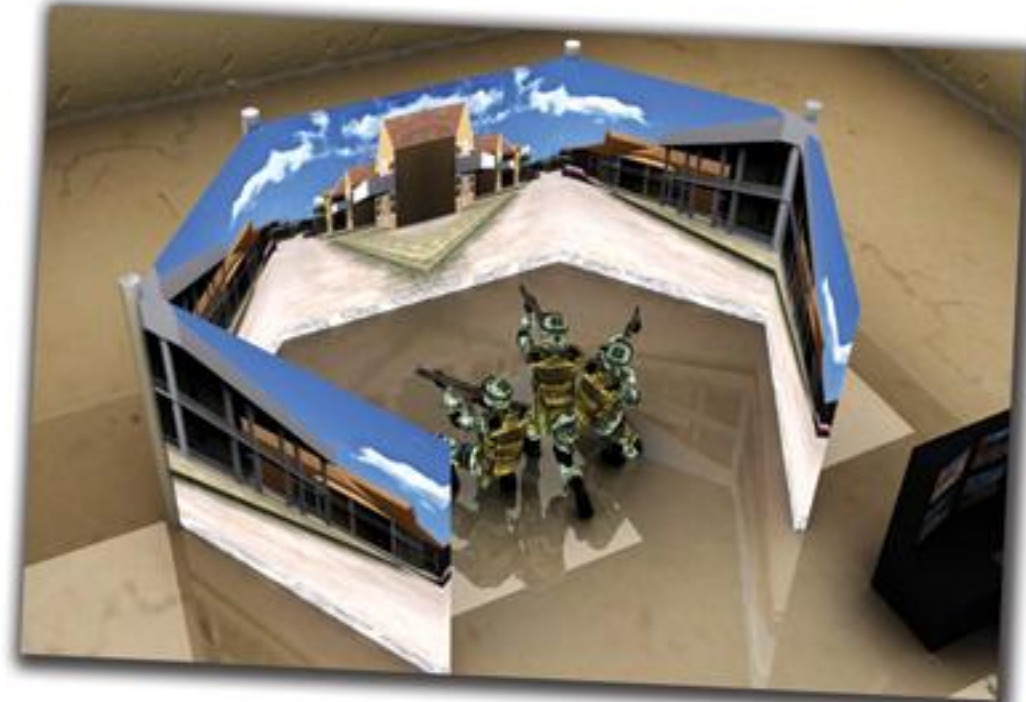

Features:

- 300 Immersive View
- Wireless, Portable & Rugged
- Realistic Recoil & Firing Sound
- Multiple Weapon Integration
- Hit Sensor
- Indoor Training
- Physical & Virtual Targets
- Scenarios Based Training
- Training, Urban, Hilly & Airbase Scenarios
- Analysis of Reaction Capability
- Situational Awareness
- Training of CQB

Technology

It is based upon laser technology. The laser fires from the weapon is detected by the multiple cameras by using advance technique of deep learning and image processing. Mutiple screen projection is achieved through specialized image generator. The software when supplemented with training, Urban, Hilly & Airbase Scenarios, Branching Videos and Augmented Reality (AR) also trains the shooters for urban warfare in addition to conventional combat.

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Mortar Training Simulator (MTS)

SIS Mortar Simulator is an indoor training simulator that provides the complete Mortar drill and fire control training. The Mortar Simulator simulates range conditions and weapon performance parameters to facilitate training of the fire controller (FC) and Mortar Position Controller (MPC).

MTS Features:

- High-resolution graphic scenario with various visual effects like day, dusk, night, and fog.
- 60mm, 81mm, 120mm - Mortars
- Night shoot practice.
- Realistic audio signals to enhance the sensation of the battlefield scenario
- Instructor facility
- Data Analysis and firing history
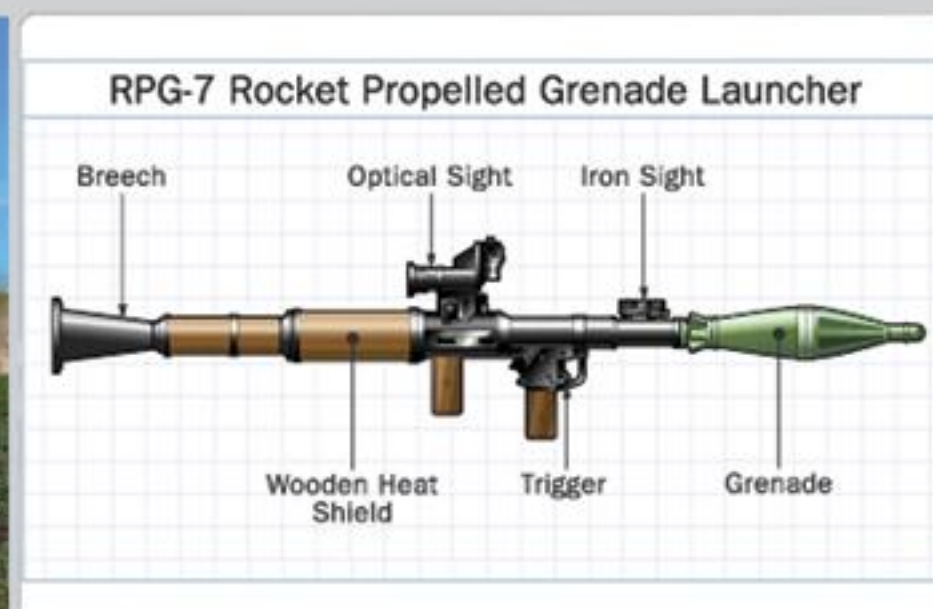- FC and MPC can be trained on same visuals

RPG-7 Simulator

Only realistic training gives soldiers experience in making the right decisions. The realism and experience provided by true-to-life tactical weapons simulators provides training units with the capability and experience to handle the threats they will encounter on the battlefield. SIS RPG-7 simulator provides a tactical representation of the RPG-7 anti-tank grenade launcher in indoor environment.

RPG Features:

- Provide required level of training to operator
- Actual Control
- High Quality Visualization
- Urban and rural scenarios
- Changeable weather conditions
- Realistic Sound and Re-Coil effects
- Indoor Training
- Rugged & Easy Setup
- Printed performance report

RPG-7 Rocket Propelled Grenade Launcher

Breech — Optical Sight — Iron Sight

Wooden Heat Shield — Trigger — Grenade

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Surface to Air Weapon Simulator (SAWSIM)

SIS's "Surface to Air Weapon Simulator" (SAW-SIM) trains recruits & hones the skills of trained soldiers in handling and firing missiles. It also enables instructor to track the performance of trainees in real time.

The training scenarios can be configured in accordance with the skill level of trainees. It measures movement, detects the shot, shows the location of both the hit and miss, and analyses of the shooter's performance. It helps trainees to become skilled shooters efficiently and cost effectively within a short period of time.

Features

- Adaptable to any version of Surface to Air Missile
- Adaptable to Laser aiming sights
- Multi target threat profile at one time
- Mock-up of launcher with controls
- Multiple environment like desert, urban, plain and hilly areas
- Vast inventory of aircraft , helicopters, UAVs and cruise missiles
- Instructors Operating System (IOS) to monitor & change parameters
- Easy maintainability
- Time and cost saving as compared to conventional training
- Record of training and trainees reflecting improvements

Technology

The IR based solution with highly configurable software connected with Instructor Operating System (IOS) provides the basic infrastructure on top which any Surface to Air Weapon variables/equations can be integrated to provide a specific simulator solution to suit the customer requirements. The live & simulated scenarios augmented with virtual threats using our state of the art technology makes SIS solution among the best in the market.

Training Capability

The simulator trains the trainee in:

- Detecting
- Prioritizing
- Acquiring
- Tracking &
- Engaging the targets

SAW-SIM has the actual controls of the missile launcher to enhance the training value
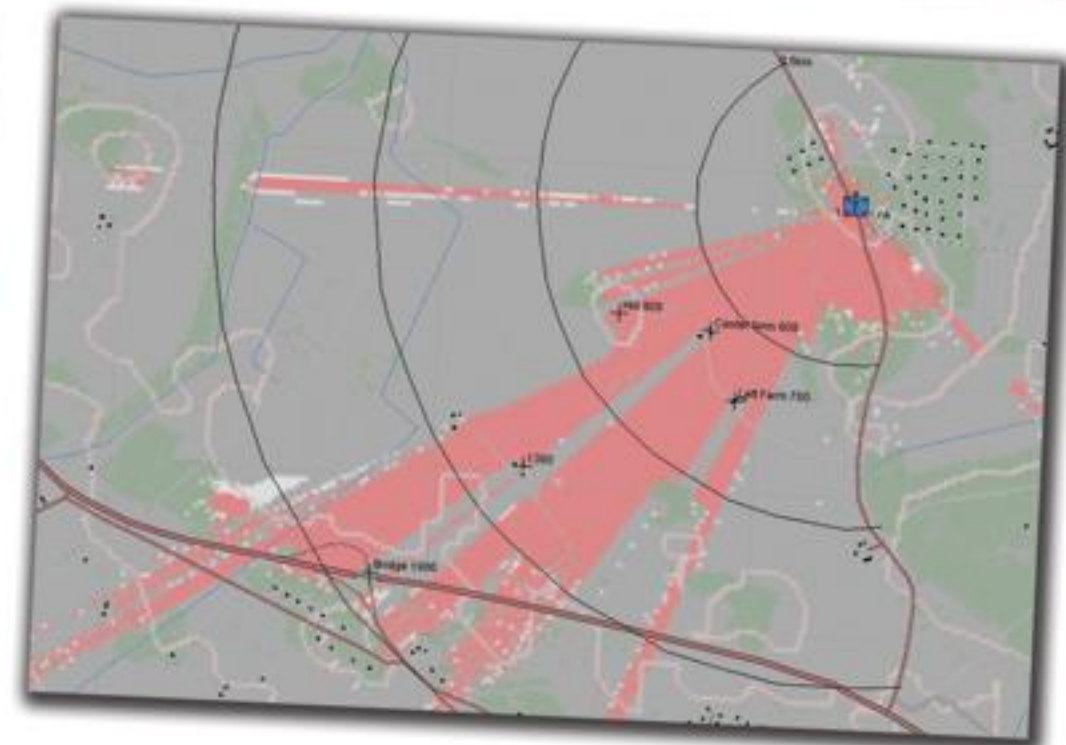
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ATGM Simulator

SIS ATGM simulator is a state-of-the-art indoor anti tank guided missile training simulator, designed and developed to meet the challenging requirement of ATGM operator. It trains ecruits and hones to skills of trained operator in handling and firing missiles.

The ATGM simulator trains the operator in detecting, prioritizing, acquiring,tracking and engaging the targets. The simulator has the actual control of missile launcher to enhance the training value.

Features :

- Provide real capability to form and maintain the required level of combat operations skills for ATGM Operator
- Develop skills of unit commanders to control over ATGM operator's action in battle
- Effectively train ATGM operators and units for field firing, to conduct tactical drill and tactical training
- Provide the required level of training standard of ATGM operators during the entire training period
- Realistic missile dynamics
- Training scenarios according to operator skills
- High quality of visualization
- Actual controls
- Realistic Re-Coil and Sound
- Nights Scenarios
- Multiple Scenarios
- Indoor Training
- Rugged, Safe Environment & Easy Setup
- Weather conditions – Sunny, rain and snow

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Range Firing Training System (RFTS)

The purpose of this product is to have an electronic system for the shooters that functions as a target with real-time feedback.
The target can fire laser to the shooter to simulate back fire and to evaluate back fire response.
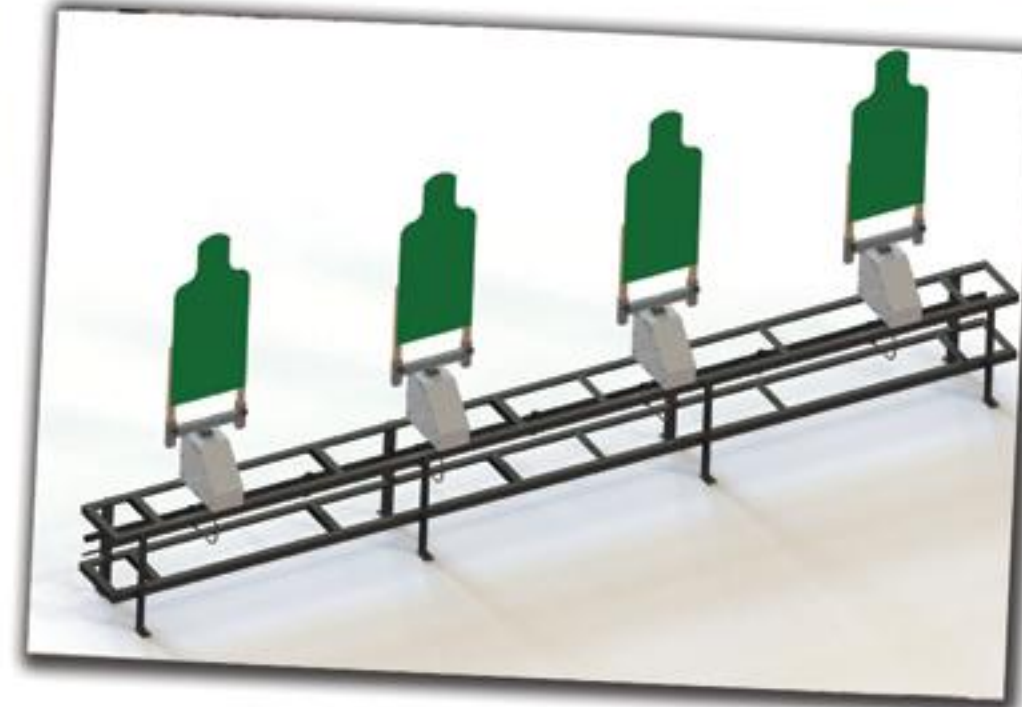
The system is comprised of five main modules:
- Smart Target with laser transmitter
- Control Unit equipped with RF
- Smart Camera for Bullet Detection
- Receiver Jacket and Helmet
- Rugged Laptop with Software

Once the shot information has been sent, the app receives the data and stores it for retrieval and analysis. Similarly the response of the shooter against laser fired from the target has been saved in the computer application for further analysis.
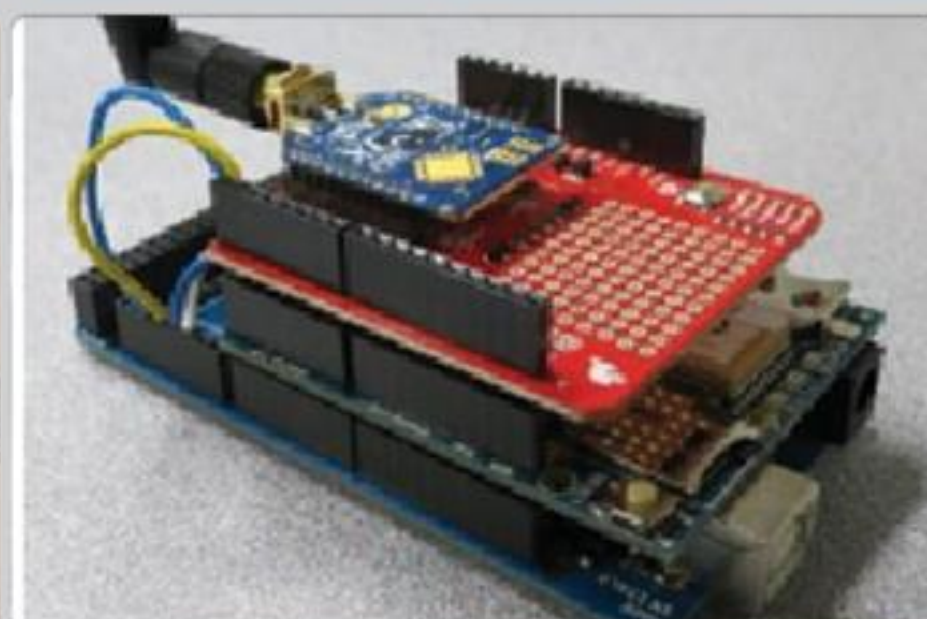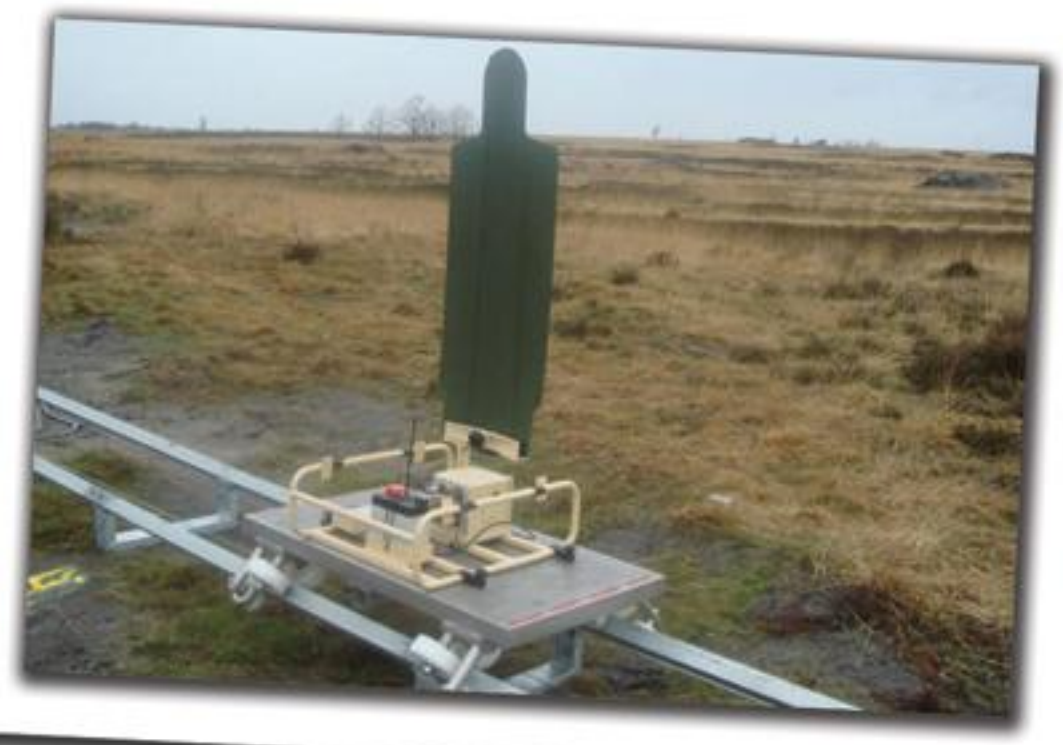
Systems Features

- 24 V Motors with mechanical linkage
- Simulation of moving targets with various target movements (Up/Down and Rotation)
- 360 degrees rotation for Friend and foe.
- Speed of targets are variable and could be controlled through laptop
- Equipped on a Carriage to provide moving and maneuvering.
- Up Light for Night Training
- Controlled by Laptop remotely
- IP67 protected
- Industrial-Std version where necessary
- Rechargeable batteries
- Target Figure 2

Basic Software features

Shows shot location on the target and miss location within the detection zone

- Displays the group size and Mean Point of Impact for accurate zeroing of weapons
- Indicates the lane operation status and allows the control operator to adjust the target exposure time between two and six seconds. Target can be operated in static or up-hold mode or horizontal mode
- Records single shot slow fire, single shot rapid fire and fully automatic fire
- Allows independent operation of each lane
- Operates between 0-50°C
- Detects projectiles having a residual velocity of 450 m/sec or more at the Target End.
- The system includes option for zooming in and zooming out and panning of the target on the screen
- Stores all training (firing) data collected and allows printing the data at any time
- Provides at each target and firing point a Lane Number Recognition (LNR) Unit
- All components of the systems are rain and rust proof

Driving Simulator (D SIM)

Driving simulators are being increasingly used for training drivers all over the world. Simulators are proven to be excellent practical and effective educational tools imparting safe driving training techniques. The simulator facilitates training in a 'to scale' vehicle with actual indicators and control, thereby creating a realistic driving environment. The simulator can be manufactured for both Left and Right hand drivers. The basic system is supplied with an instructor station and driver station.

Simulator Environment

Features:

- Provides basic training as well as enhances driving skills on Light, Medium and Heavy vehicles
- Has real dashboard assembly and controls, instrumentation and transmission
- Offers realistic operating environment and ergonomics
- Includes intelligent Traffic Models in driving scenes
- Provides a variety of terrains and driving conditions
- Allows creation of environmental conditions like rain, fog, snowfall and intensity of light
- Modular training setup increases levels of difficulty for trainees
- Training can be conducted at different stations with different exercises simultaneously
- Training pace can be set to suit trainees
- Record/playback facility can be used to detect errors of each trainee
- System is capable of giving out progress reports of each trainee
- Imparts safe driving techniques
- Instructor Station is comprehensive and user friendly
- Training can be conducted at multiple stations with different exercises simultaneously
- Trainee can start the assigned exercises, view his own replays and instructor can assess the reports later

Capabilities

SIS Driving Simulator is capable of providing comprehensive driving training under various synthesized environment and weather conditions as well as evaluation of driver training and performance. SIS simulator has wide-range of vehicles including;

- Light Transport
- Buses and Coach
- Heavy Transport

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Flight Simulator (FSIM)

SIS Flight Simulator provides an economic advantage over training in an actual aircraft. Once fuel, maintenance, and insurance costs are taken into account, the operating costs of a simulator are substantially lower than the operating costs of an actual plane.

Trainee pilots learn basic aviation concepts and theory like navigation, they get familiar with instruments and can be trained for situations that may be impractical (or even dangerous) to perform in the aircraft, while keeping the pilot and instructor in a relatively low-risk environment on the ground.

Technical Capabilities

- Aerodynamics simulation
- Cockpit Instrumentations with real / simulated parts
- Graphic Engine (customized)
- Wide FOV display system (Dome)
- Visual Systems (highly customizable)
- Weather Effects (fog, rain, thunder storm, CAT 1, CAT II, CAT III)
- Avionics systems simulation
- Customizable Acoustics (Noises of engine switches & aerodynamic effects)
- Geo-specific visual database with high resolution satellite image
- HLA Environment
- Instructor Operating System (IOS) (Interactive, generate & control scenarios, exercises)
- Exercises: Start up, Taxi, Before Take Off , After Take Off, Down wind Circuit, Landing Exercises
- Emergencies: Startup, Before Takeoff, Taxi, After Takeoff, Down Wind Circuit
- Comprehensive MIS to record behavior of Pilots
- Safety and Support Systems

Capabilities

- Cockpit Procedures Trainer (CPT)
- Basic Instrument Training Device (BITD)
- Navigation Procedures Trainer (NPT).
- Emergency & Exercise Procedure Trainer
- Communication & Weather Effect Trainer
- Flight Training Device (FTD)

Functionalities performed

- Normal checks and procedures
- Taxi
- Take Off / Landing (Circuit Work)
- Basic Exercises (climb, descend, turns, stall and rec etc)
- Instructor Flying
- Navigation
- Strip op (Short Landing and Take Off-(TO))
- Emergencies

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Helicopter Pilot Training System (HPTS)

SIS Helicopter Simulator provides an economic advantage over training in an actual Helicopter. It is highly cost effective and trainee pilots learn basic aviation concepts and theory like navigation etc and get familiar with instruments while keeping the pilot and instructor in a relatively low-risk environment on the ground.

SIS Helicopter Simulator Capabilities

- Cockpit Procedures Trainer (CPT)
- Instrument Training Device (ITD)
- Navigation Procedures Trainer (NPT)
- Normal Checks & Procedure Trainer
- Exercise Procedure Trainer

Technical Capabilities

- Aerodynamics simulation
- Aircraft Cockpit Module with real / simulated parts
- Visual Display System (Dome)
- Computing System
- Acoustic Simulator System
- Modeling System
- Instructor Operating System

Radar Operator Training System (ROTS)

SIS Radars Simulators are designed to give the exact feeling and behavior as the original device. Great attention has been given to maximize similarity in respect of:

Features :

- Tailor made mock-ups as per client requirements
- Highly flexible customized software
- Wear resistance design
- Easy service & maintenance
- Low cost
- Simple Interface

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