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About



STM

STM was established in 1991 with the purpose of providing system engineering, technical support, project management, and technology transfer and logistic support services; developing software technologies for civilian and military systems; and building and operating computer centres for software development and maintenance.

STM has played a leading role in contributing to today's level of national competence in the Turkish Defence Industry by employing highly qualified expert personnel as needed for identifying and procuring high-tech defence systems and ensuring the transfer of relevant technologies.

Through the passing years, our technological knowledge and institutional engineering experience, have become extensive; and as of today have expanded to cover many projects and areas of expertise.

**Sophisticated solutions in
Engineering, Technology and
Consultancy...**

The engineering experience STM has gained has paved the way for the company's participation in various defence industry projects focusing on software and platforms, hence initiating the process of building a variety of business areas in addition to STM's consulting services.

STM's Main Areas of Business

Engineering

- Engineering Services in Surface Warfare Ships and Submarines

Technology

- Command and Control Information Systems
- Mission Planning and Support Systems
- Cyber Security and Big Data
- Autonomous Systems
- Radar Technologies and Electronic Warfare
- Simulation Technologies
- Satellite Technologies
- Civil Sector IT Projects

Consultancy Services

- Project Technical Consultancy and System Engineering Services
- Airworthiness Certification Services
- Procurement and Logistics Services
- STM Academy
- Strategic Think Tank



Naval Platforms and Engineering

Naval Ships Design, Shipbuilding and Modernization



In the scope of naval projects; turnkey engineering services are offered in shipbuilding and modernization and maintenance / repair activities related with surface ships and submarine ships as well as military facilities / naval shipyards in response the national and international naval projects.

Area of Specialization

- Design and Engineering Services
- Project Management
- Research and Development Activities
- Platform and System Integration
- Acquisition Services For Systems, Equipment And Materials
- Infrastructural and Organizational Planning
- Repair and maintenance activities
- Procurement Model Determination and Feasibility Studies
- FAT, HAT, and SAT Support
- Integrated Logistics Support (ILS)
- Local Industrialization Support
- Consultancy Services



Projects

MiLGEM National Corvette Project

Within the scope of MiLGEM Project, a complex 21st Century surface warship equipped with modern technology at high standards was designed and integrated, for the first time, by maximum use of the national resources, engineering along with the support of local industry. The project has aimed at developing indigenous Turkish warship with modern combat skills and high-seas patrolling capabilities with extensive use of the principles of stealth technology.

In this project, the roles of STM are to provide;

- Design services
- Integration including main propulsion system
- Acquisition of systems, materials and equipment
- Integrated Logistics Services

Test and Training Ship

The Test and Training Ship Project is to be conducted and STM remains as the main-contractor of the Project.

The construction to be held at Istanbul Shipyard.

Pakistan Navy Fleet Tanker Project

The Fleet Tanker has been designed indigenously and uniquely to meet with the requirements of the Pakistan Navy and is expected to be one of the most advanced ships of its own class in the World. The Fleet Tanker designed for Pakistan Navy displaces 15.600 tones, approximately 155 m.length, speed of 20 knots and with a replenishment at sea system (RAS / FAS) and a helicopter landing / take-off capability.

The Project possesses the largest platform export in the field of Naval Projects in Turkey and has been successfully launched at sea on August 19, 2016 in Karachi, Pakistan. Upon the completion of tests and trials, the ship is to be to the Pakistan Navy delivered in 2018.



Naval Platforms and Engineering

Submarine Design Shipbuilding and Modernization



In the scope of naval projects; turnkey engineering services are offered in shipbuilding and modernization and maintenance / repair activities related with surface ships and submarine ships as well as military facilities / naval shipyards in response the national and international naval projects.

Area of Specilization

- Design and Engineering
- Project Management
- Research and Development Activities
- Platform and System Integration
- Acquisition Services For Systems, Equipment And Materials
- Infrastructural and Organizational Planning
- Repair and Maintenance Activities
- Procurement Model Determination and Feasibility Studies
- FAT, HAT, and SAT Support
- Integrated Logistics Support (ILS)
- Local Industrialization Support
- Consultancy Services



Projects

Turkish Navy New Type Submarine Project

Six 214-Class Air Independent Propulsion (AIP) Submarines will be constructed in Golcuk Naval Shipyard, Turkey.

The responsibilities of STM on this prestigious project which will last around 11 years are;

- Contribution into Design, Engineering and Integration activities
- Industrialization of the equipment's, systems and materials used for shipbuilding
- Production of non-pressure hull blocks and some GRP units at home
- Development of the infrastructure of Gölcük Naval Shipyard and Submarine Factories

Modernization of Turkish Navy Type 209 AY Class Submarines

The modernization project comprising renewal of Electronic Support, Attack and Search Periscopes and Inertial Navigation Systems has been carried out by STM as the main contractor and applied on TCG DOĞANAY and TCG DOLUNAY submarines.

Pakistan Navy Agosta 90-B Class Submarine Modernization

As the main-contractor, STM conducts the modernization of Pakistan Navy Agosta 90-B Class submarines. In the context of the project, the weapon control system, sonar suit, electronic warfare system, radar and periscopes (including search and attack), are to be replaced. In addition, STM also provides integration design, documentation, integration activities, and tests along with Integrated Logistics Services. The Projects continues in Pakistan and Pakistan Navy Dockyard provides the workmanship.



Engineering

Vertical Wind Tunnel (VWT)

Even though the Vertical Wind Tunnel (VWT) was designed and produced per the military needs, it can also be designed and produced in different configurations for civil use.

VWT Infrastructure in Turkish Special Forces

VWT was designed and constructed by STM engineers in order to satisfy the needs of the paratrooper trainings for Turkish Special Forces.

The closed circuit tunnel mechanism, having max 80 m/s air speed, provides energy efficiency by re-using the air and can be operated in all weather conditions.





VWT in Civil Use

Besides the military needs, the Vertical Wind Tunnel can be designed and constructed in different configurations as needed for civil use:

- Civil Aviation Activities,
- Science and Technology Centers,
- Entertainment Purposes; Shopping Centers, Municipality Game Parks.

VWT Configurations

- Open or close circuit (outdoor or indoor) design and construction
- Flying Time: 50-54 min per hour
- Wind Speed: up to 300 km/h
- Silent operation by means of high insulation technologies
- 5 persons flying capacity at the same time
- Fly up to 4 m height



Technology

Military Command Control Information Systems

With more than 15 years of experience gained from our command control systems projects, we are developing national Command Control Information System solutions for our defense industry. Since 2009, this experience has enabled us to take part in the NATO Air Command Control and Missile Defense Information System and Integration Core solutions of Information Systems.



Products and Projects

TANKOM™ Tactical Field Command Control Information System

A Tactical Field C2IS providing seamless command control functionalities based on authorization to be used by all levels of mounted and dismounted maneuver forces from a single tank/vehicle/soldier to battalion level. It's currently used in the ALTAY Turkish Main Battle Tank.

Multi-Layer Missile Defense Information System

A strategic and operational level System, capable of planning the Defense Design for assignment and placement of defense resources to protect effectively critical assets threatened by adversaries' missiles.

Information Systems Integration Core Solution

A simple, flexible, adaptable and robust Integration Framework to provide interoperability between legacy and future heterogeneous Information Systems.



Capabilities / Competencies

- Tactical Field C2IS
- Strategic and Operational Level Air C2IS
- Missile and Air Defense Information Systems
- Strategic and Operational Level Information Systems
- Information Systems Integration Solutions
- Decision Support Systems
- Data Center Storage and Backup Solutions
- Network Enabled Capability (NEC) based Solutions
- Service Oriented Architecture (SOA) based Solutions
- Distributed Architecture
- Web Based SW Development
- Database management
- Embedded Systems
- GIS Solutions
- Integration Middleware Software

Standards and Product Specifications

TANKOM™

- Mission / Operation Planning, Execution, Control and Monitoring
- Situational Awareness
- Enhanced Reporting Functions / Analyses
- Authorization
- Integrated VMF messaging complied with MIL-STD-6017

Multi-Layer Missile Defense Information System

- Missile Defence Design, Planning and Analysis
- Interactive decision support capability
- Integrated Air and Missile Defence Picture

Information Systems Integration Core Solution

- A simple, flexible, adaptable and robust Middleware Software
- Dynamic interoperability environment on battlefield



Technology

Military Aviation Solutions



By means of the experience obtained from developing fielded products, we provide a product range intended for unique airborne applications, mission management and support solutions for airborne platforms in the Turkish Armed Forces inventory.

Products and Projects

FOCUSFLITE™ Moving Map and Mission Support System

FocusFlite™ which is customizable for different platforms, provides mission data preparation, performance based planning, pre-flight rehearsal, advanced situational awareness during flight and post mission analysis functionalities.

TERRAFLITE™ Terrain Aided Autonomous Navigation

As a patented product of STM, TerraFlite™ is a terrain aided autonomous navigation solution for GNSS denied environments.

FUSIONFLITE™ Sensor Fusion for Geometric Altitude

FusionFlite™ is a fusion engine that converts altitude data from different sources on air platforms into one geometric altitude information.

WECDIS Map Display and Information System for Naval Platforms

WECDIS, is a navigational information system for naval platforms, which is integrated with platform's GNSS, Inertial Navigation systems, etc. and depicts optimized route, tracked route and route analysis information on Electronic Navigational Charts.



Capabilities

- Advanced mission and route planning
- UAV mission and payload planning
- Decomposition and integration of navigation databases
- Avionics integration
- Performance analysis and planning
- Cockpit situational awareness and augmented reality
- Usability optimization
- Terrain and obstacle analysis algorithm
- RTOS
- OpenGL based Synthetic Vision and Virtual Globe
- DO-178B/C, DO-200A/B certification
- C2 Integration
- Multi criteria route optimization
- High precision positioning
- GNSS independent navigation
- Terrain Aided Navigation
- Data fusion

Standards and Product Specifications

- Applicable Standards: ARINC 424, DAFIF, DO-200A/B, METAR/TAF, GRIB, HTAWS, RTCA DO309, DEVT,
- MT76-1A, MIL-STD-2525B, DO-178B, DO-257A, MIL-STD-6017A, MIL-STD-1553,
- ARINC 429, OpenGL SC 1.0, IMO MSC 232(82), IEC 61174, IEC 62288, IEC 61162, IEC 60945, NMEA 0183, IHO S-57, IHO S-52, NATO STANAG 4564, NATO STANAG 7170
- In house GIS infrastructure, big data management, 2D and 3D Virtual Globe
- Multi language support, UTM, MGRS and geographical coordinate systems, 50+ datum, true/magnetic north displays
- Real time obstacle, threat, terrain, border, TSU, NOTAM, VCS etc. analysis and warnings (visual/aural)
- IFR, VFR, Cargo, CARP / HARP, meteorological planning, national obstacle database integration
- Platform independent (Integrity 178B, Linux RT, Windows) and mobile compatible



Technology

Cyber Security

We are pioneering the activities to strengthen the cyber security ecosystem of our Country, with the help of our diverse capabilities and enablers for cyber security.

STM Cyber Security Capabilities

- Integrated Cyber Security Solutions
- Cyber Fusion Center Services
- Cyber Operation Centers Installation/ Operation
- Cyber Threat Intelligence Services
- Cyber Risk Management and Assessment
- Cyber Situational Awareness
- Cyber Information Sharing and Alerting Systems
- Cyber Decision Support Systems
- Smart and Autonomous Cyber Security Infrastructure
- Penetration Testing Services
- Cyber Exercise and Training Infrastructure
- Cyber Incident/Data Visualization Infrastructure
- Secure Software Development Processes
- Big Data-Based Cyber Security Analysis
- Cyber Security Interoperability



STM Cyber Security Areas of Activity

- Cyber Fusion Center: Cyber Intelligence, Cyber Operation and Malware Analysis Center
- R&D and Product Development
- Projects and Consultation
- STM Academy Training
- Common Criteria Test Center
- Periodical Reports on Cyber Security
- Capture The Flag (CTF) Competitions

Cyber Fusion Center

Large scale data in cyber environment is analyzed with scientific methods, and STM-patented OVERA large data infrastructure is transformed into a cyber threat intelligence platform with the help of artificial intelligence and analysis algorithms, and the necessary measures are taken in the systems before the attacks take place.

Via the Cyber Operations Center, IT systems are continuously monitored, event correlations are created and necessary steps are initiated in case of cyber incidents.

In the Malware Analysis Laboratory (Z-Lab), static and dynamic analyzes of malicious software are performed.

R&D and Product Development

The “Advanced Cyber Decision Support System (CYDECSYS)” project has been launched to develop a national product in this field. The aim is to detect, analyze and model attack simulations and provide situational awareness of security weaknesses in the systems by using big data analysis techniques.

Cyber Security Projects

- Turkish Armed Forces Cyber Defence Center Project

- National Police Information Security Project for Cyber Security Department of Cyber Crimes

Cyber Security Testing and Standards

- STM CCEL- Common Criteria Evaluation Lab-Security accreditation according to the ISO/IEC 15408 Standard is performed.
- TS 13638, Owner of Type A Penetration Test Company Certificate

Membership to EU Cyber Security Organizations

- European Cyber Security Organization (ECSO)
- European Organization of Security (EOS)
- European Cyber Security Protection Alliance (CYSPA)





We produce solutions tailored to the needs of the military and civil sector through the use of big data tools and data science applications, regardless of the data type, the subject and the source.

STM OVERA

STM has developed the Big Data Processing and Data Science Platform named OVERA as a result of its R&D activities. OVERA performs Extract Transform and Load (ETL) operations to allow analysis on large volumes, structured or non-structured data from different sources, and provides a combination of Data at Rest and Data in Motion allowing simultaneous processing. Big data processing to perform reliable analyzes with experienced data scientists are developing to obtain statistical, artificial intelligence and machine learning based models.

OVERA, which is used in many projects that STM has developed, offers an infrastructure that allows processing big data using different types of data sources from smart cities to the transformation of Industry 4.0, from cyber security to IoT.



In addition to Data Intensive applications, STM, which has developed its capabilities for applications that require high computing abilities (Computational Intensive), is actively continues the investments it has made in this field.

STM has the ability to process different types of sensors and data from IoT through the Big Data infrastructure and analyze them with data science methods. Having a very high GPU cluster infrastructure for high processing capacity, STM has successfully used its competence in many areas, from cyber safety to intelligent cities.

Industry 4.0 and Smart Cities

STM is working on to realize economy, living, people governance, mobility and environment which are defined as functional areas of Smart City Index issues and to increase the level of livability of cities in these issues and to gain smart city applications to our country. STM continues to work on the development and production of smart

city technologies within the framework of the Industry 4.0 concept, and develop many academic publications and products in this area. STM researchers are continuing to develop different technical solutions on IoT.

Intelligent Telemetry Analytics (InTeLA)

Intelligent Telemetry Analytics (InTeLA) is a smart bus system jointly developed by STM and TEMSA. Intel has contained the collection of telemetry data providing status information of the buses produced by TEMSA and the hardware, large data infrastructures, data interpretation applications and software that will enable these data to be displayed with central application.



Technology

Autonomous Systems



STM offers a wide range of products with autonomous navigation, learning and decision making capabilities, both in a single-platform and swarm formation. STM's competence on deep learning and computer vision facilitates real-time object detection, identification, tracking and classification.

Products and Projects

TOGAN™ Autonomous Multi-Rotor Reconnaissance UAV

TOGAN offers wide range of features such as autonomous navigation, partial autonomy in decision making and full functionality in GPS-denied environments. Multiple TOGAN platforms can be controlled by single personnel.

KARGU™ Autonomous Tactical Multi-Rotor Attack UAV

KARGU is a multi-rotor UAV solution that can be deployed and operated by single personnel. It features autonomous navigation, surveillance and reconnaissance abilities. The system can also be used to neutralize threats per operational requirements.

ALPAGU™ Fixed-Wing Autonomous Tactical Attack UAV

ALPAGU is a fixed-wing UAV solution that can be deployed and operated by single personnel. It features autonomous navigation with surveillance and reconnaissance capabilities. The system can also be used to neutralize threats per operational requirements.



Capabilities / Competences

- High performance autonomous dispatch and control algorithms
- Artificial intelligence
- Machine learning
- Sophisticated computer vision and deep learning algorithms
- Vision-based control
- Embedded and real-time object tracking, detection and classification
- Real-time obstacle detection and avoidance
- Real-time localization and mapping
- Platform-tailored, advanced electronic ammunition safety, arm and fire

Product Features and Standards

- Novel STM solution
- Adaptable to various mission requirements
- 45-seconds for mission readiness
- Minimum range of 5 kms
- Minimum endurance of 10 minutes for attack UAV
- Operational altitude of 150 m for fixed-wing, 500 m for multi-rotor UAV
- Operation speed of 80 km/h for fixed-wing, 72 km/h for multi-rotor UAV
- Novel electronics and gimbal solution
- Day and night operability
- Operability in GPS-denied environments



Technology

Radar Technologies and Electronic Warfare



With the systems that are developed with national algorithms and advanced technology hardware solutions, we provide mission - critical innovative radar and electronic warfare solutions for the Security Forces and the Armed Forces.

General Capabilities

- Ultra Wide Band Radar Technologies
- V / UHF Radar Technologies
- Antenna, Receiver/Transmitter Design
- Algorithm and Software Development
- Radar Signal Processing and Imaging
- Innovative Hardware Development
- System Integration and Testing

Radar Technologies and Products

Handheld or vehicle-mounted radar systems working in real-time are developed with innovative radar technologies for target detection.

- Detection Of Living / Moving Targets Behind Obstacle (Micro/Macro Movement)
- Detection Of Land Mines And Improvised Explosive Devices
- Detection Of Stealth Aircrafts
- Synthetic Aperture Radar (SAR) Signal Processing



Through The Wall Radar (DAR™)

STM provides innovative solutions that can detect stationary and moving targets inside buildings or rooms for the purposes of hostage rescue and special operations with high performance and minimum casualty in accordance with the needs of security forces and special forces.

DAR System Features

- Handheld (Portable) System
- Location Estimation in 2D
- Quickly Replacable/Rechargable Battery
- Touchscreen
- Remote Access and Control
- Tripod Integration

Electronic Warfare Technologies

Location Estimation Systems

Location estimation systems integrated with special and innovative algorithms are developed for the detection and monitoring of illegal and suspicious broadcasts/transmissions for civilian and military applications.

- Innovative Signal Processing Algorithms
- Integration of High-tech Hardware
- Precise Performance for Localization
- FM, AM, LSB, USB Demodulation
- Coverage of Extended Areas with Cost-effective Solutions



Technology

Simulation Technologies



STM offers simulation infrastructure and tool solutions to support mission planning and analysis for airborne/ maritime platforms and satellite systems.

General Capabilities

- Physics-Based and Mathematical Modelling
- Simulated Tactical Environment Software
- Analysis of Warfare Effectiveness
- 2D/3D Visualization
- Geographical Information Systems
- Simulation

Development Of Warfare Effectiveness Model for Naval Platforms

Development of the engineering level simulation system covering analysis and evaluation of warfare effectiveness on naval platforms.

- Conceptual Modelling
- Experiment Design
- Development of Simulation Scenarios
- Modelling of Weapon/Sensor/Countermeasure Systems
- Effectiveness Analysis



Synthetic Aperture Radar Payload Simulation

Development of simulation software for SAR capable satellites to support.

- Modelling of Satellite Missions
- Modelling of SAR Payload
- Conceptual and Preliminary Satellite Design
- Effective Mission Planning
- Operator Training Activities
- SAR Raw Data Production (Stripmap and Spotlight Modes)
- SAR Image Generation via Signal Processing (using both synthetic and real SAR raw data)

Hybrid Avionics Emulator System (HAVESIS)

Modular and configurable system to minimize the integration overhead of avionics sub-systems with air platforms. HAVESIS reduces the need for the real platform by utilizing emulated / simulated avionics equipment. HAVESIS scales well on high load thanks to its DDS middleware based distributed design.

- Modular and Scalable Integration Platform
- Avionics Emulators / Simulators (MFD, RADAR)
- Simulated Tactical Environment
- DDS Based Middleware
- Payload



Technology

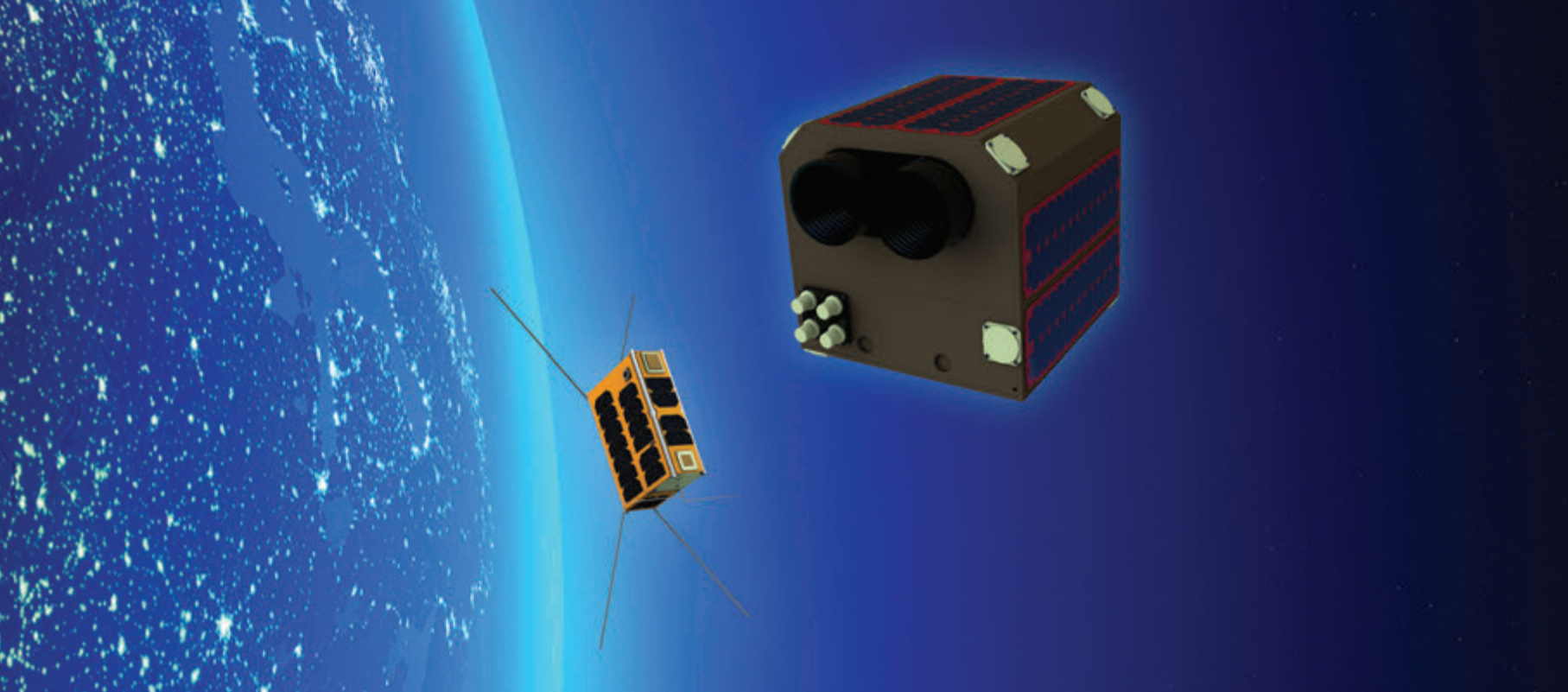
Satellite Technologies



New generation micro and nano satellite systems / constellations having different missions and payloads are being developed.

General Capabilities

- Satellite System Engineering
- Mission Analysis and Planning
- Satellite Mission Control Software
- Subsystem Design and Modelling
- Mechanical/Structural Design
- Hardware Design and Development
- Algorithm and Software Development
- System Integration and Test



Operational Capabilities

- Mission Planning
- Satellite Mission Control
- Image Processing

Projects

- New Generation Micro Earth Observation Satellite Development Project (LAGARI)
- Space Qualified High Performance Modular Processing Unit Development Project
- Nano Satellite Platform for AIS Applications Project
- Mission Planning Software Development Project



Technology

Civil Aviation Systems



Since 2012, by carrying our military aerospace experience to civil aviation sector, we have been developing products which are approved by aviation authorities, actively used in the field and have high customer satisfaction.

Products and Projects

AEROTAB™ Electronic Flight Bag (EFB)

AeroTab™ is a system that can be used both in military and civil aviation sectors, developed based on “paperless cockpit” concept to assist pilots in flight process and provides information security.

OPSEYE™ Apron Area Traffic Tracking System

OpsEye™ is a web based traffic monitoring system that displays the position and status information of aircrafts in the air and on the ground by real time processing.

OPSMET™ Weather Analysis and Reporting System

OpsMet™ is a web-based meteorological dashboard that processes and stores 20-years of weather reports from more than 1000 airports worldwide.

AEROSUITE™ Paperless Cockpit-Cabin-OCC Integration

AeroSuite™ is a product family that enables cockpit and cabin crews and operation center personnel to carry out flight operations electronically, without paper.



Capabilities / Competencies

- Operational Process Management Systems
- Electronic Flight Bag capabilities
- Electronic (paperless) integration of cockpit, cabin and flight operations center
- Flight charts generation and management applications
- Cabin Interiors Information Management applications
- Operational Situation Awareness applications
- Long-term meteorological airfield analysis
- Real-time, apron area and airspace traffic tracking
- iOS and Windows based, mobile and web applications
- Products with proven reliability in flight operations
- %100 indigenous solutions

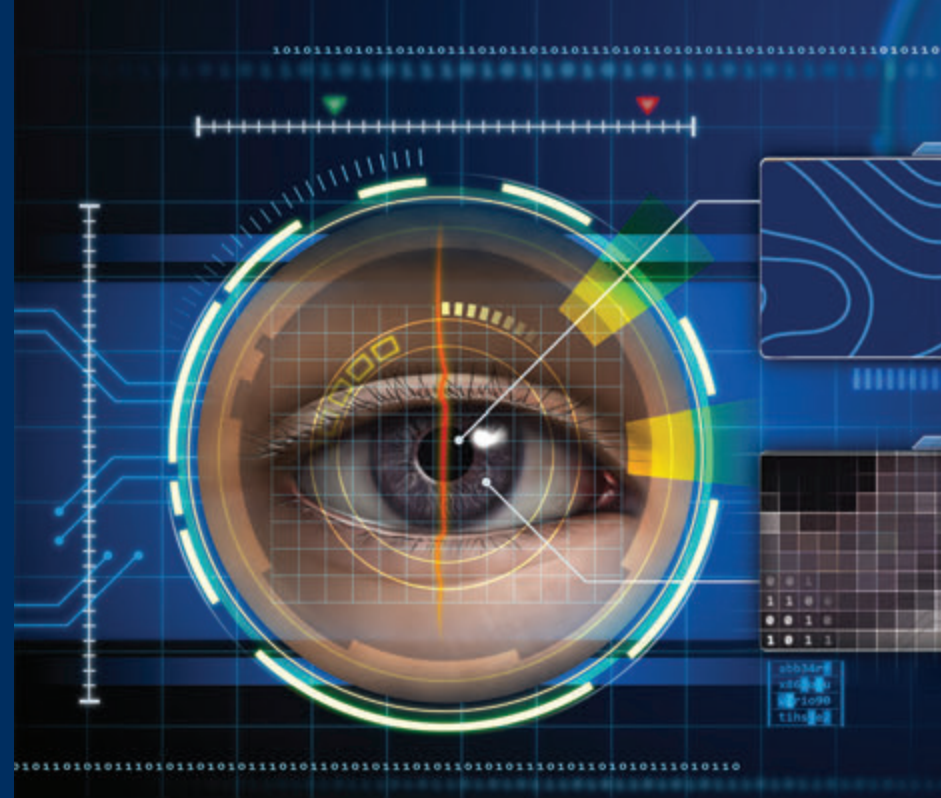
Standards and Product Specifications

- In accordance with ARINC 429, ARINC 633, ARINC 424, AIXM 5.x, AMC 20-25, METAR, TAF, SPECI standards
- Compatible with all aircraft types
- Effective use at all stages of flight
- Integrated with airline operational systems
- Avionics integration with aircraft
- Pre and post flight assistance services
- Direct contribution to operational decision support processes
- Flexible infrastructure that can be shaped to suit the operational needs of airlines



Technology

Civil Information Technologies



Leveraging our extensive experience gained through the military IT projects, we are developing solutions for the changing needs of the public and civil sectors to contribute the digital transformation. We provide feasible, effective and sustainable solutions to institutions such as the Ministry of Interior, the Ministry of Transport and the State Hydraulic Works at all scales.

Products and Projects

Smart Identity Card and Payment Systems

STM provides secure end-to-end solutions for public and private sector. Our competencies include contact and / or contactless smart cards, biometric data and payment systems, which are integrated with identity authentication systems.

Geographic Information System Based Asset and Project Management Software

This software is a Web based System Solution for management of project contracts and assets that are distributed through a large geographical area, via the Geographical Information Systems (GIS).



Capabilities / Competencies

- Smart Card Technologies
- Payment Systems
- Electronic Identity Authentication
- Biometric Data Management
- Smart Card Operating Systems
- 3D Geographic Information Systems (GIS)
- Dynamic Business Process Management (BPM)
- Business Intelligence (BI) Solutions

Standards and Product Specifications

- IEC/ISO 7810 ID-1,
- ICAO 9303-3,
- ISO/IEC 24789-1,
- IEC/ISO 7816-2,
- ISO/IEC10373,
- ISO 7816-3,
- ISO 14443-3 ve 14443-4 Tip A, EAL 5+



Consultancy

Consultancy Services



We provide systems engineering, project management services, acquisition consultancy, feasibility services, consultancy for R&D projects and quality assurance test services in advanced technology projects for military and public sectors.

Areas of Expertise

Technical Expertise

- Land, naval and air platforms
- Electronic warfare, radar and sensors
- Command, control and communication systems
- Cyber security and information technologies
- Satellite and space technologies
- Launch and rocket technologies
- Critical material technologies

Process Expertise

- Project management
- Systems engineering
- Quality assurance and test
- Feasibility study
- R&D and technology management
- Cluster and industry coordination
- Status analysis, need-gap analysis



Consultancy Services, Technical Support and Industry Coordination

- Undersecretariat for Defence Industries (SSM) Consultancy Services
- JSF/F-35 Industry Coordination Services
- Turkish Fighter Development (TF-X) Consultancy Services
- International Consultancy Services

Feasibility Activities

Aerospace Technologies Test Center of Excellence

Consultancy service for the feasibility study for establishment of test center and sub-units to enable the improvement of the existing industry infrastructure capacity, and development of high-graded, qualified aerospace products.

Export Oriented Localization for Nuclear Power Plants

Analyzing internal and external factors that define existing competitive power of Istanbul Chamber of Industry member companies, determining the joint vision and needs that will increase their international competitive capacities and export potentials in Nuclear Power Plant projects.

Feasibility Study for Sinop Nuclear Power Plant

Revealing the company capabilities and areas of development, executing localization activities, determining objectives in order to establish the infrastructure for international competitive product manufacturing to maximize the industrial participation.

Developing Strategic Decision Support System

To carry out scientific and technological studies and perform strategic analyses for variety of sectors.



Consultancy

Certification Services



We provide airworthiness certification service in line with international standards and national regulations, to Military and Civil Airworthiness Authorities in aircraft development and modernization projects.

Areas of Expertise

- Structural
- Avionics
- Software
- Safety
- Environmental Control Systems
- EMI/EMC
- Complex Electronic Hardware
- Power and Fuel Systems
- Flight Performance
- Flight Test & Evaluation
- Cabin Safety
- Continued Airworthiness
- Weapon Systems and External Load
- Hyomechanical Systems
- Human Factors
- Organization Approvals (DOA/POA)
- Processes and Rule Making



Services

- Performing all kinds of technical assessments in order to determine the compliance to the airworthiness requirements for the purpose of Authorities to issue type certificates/supplemental type certificates
- Providing consultancy on infrastructure and technical domains to the industry.
- Supporting SSM on qualification activities of military projects.

Projects

Projects involving airworthiness certification/assessment and/or qualification activities:

- C - 130 Modernization, F -16 Modernization, New Generation Basic Trainer Aircraft Development, National Helicopter Development, Operative UAV Engine Development, T - 38 Modernization, Atak Helicopter, Operative UAV Development

Supported Projects:

- A400M, JSF and Tactical UAV Development

Standards

- EASA IR 21
- CS 23, 25, 29, E
- FAR 23,25,29,33
- MIL-HDBK -516
- SAE / ARP 4761, 4754A
- MIL- STD-882
- DO -178B, DO-254, DO-160
- MIL-STD-810



Consultancy

STM Academy

We provide high quality, technology - oriented and sustainable training solutions that meet the requirements of the sector on a national, regional and global scale by transforming our 26 years of experience and know-how into training services.

Areas of Expertise

- Airworthiness Certification
- Cyber Security and Big Data

Products and Services

- STM Academy Trainings





Airworthiness Certification

- Introduction trainings of approvals that aircraft designing and producing companies must have
- Introduction to obligatory certificates and required conditions for certification of airworthiness
- Design - Design Verification Engineering and airworthiness rules trainings

Detailed Certification Requirement Trainings for Aircraft Systems:

- Software
- Structural and mechanical systems
- Avionic - electrical systems
- Fluid systems (hydraulic, fuel, oxygen)
- Motor - drive systems
- Cabin safety, cockpit, human factors
- Flight performance, tests and simulator

Cyber Security and Big Data

- Tactical and practical trainings
- Basic awareness of cyber security trainings
- Cyber security expertise trainings
- Advanced level cyber security
- Trainings for managers
- Laboratory, test and assessment trainings



Consultancy

Acquisition and Logistics Services



We provide services for satisfying the defence acquisition needs in a cost efficient way, establishing and efficiently managing the supply chain, management and execution of the logistic phases.

STM with its government controlled impartial consultant identity, effective expert basis and broad sectoral dominance in the sector is improving its activities for the cost-efficient acquisition of defence and security requirements, planning an infrastructure for effective management of logistics phase and construction of required infrastructures.

In this respect, needs of Turkish Army and National Police are being satisfied in a short time by qualified contributions from the determination of requirements to evaluation of alternatives with broad product and market experience.

In addition to the need for analysis, planning and modeling in procurement authorities, the responsibilities of producers in original projects are increasing in the life cycle management of the systems. In this context, STM continues to work in the areas of establishing an expertise infrastructure in the logistics phase of defense procurement, planning technology transfers and creating the models needed. Furthermore, STM carries on the efforts in the areas such as central planning of domestic test facilities in line with national strategic targets and sectoral needs, central-



based administration of test and evaluation facilities, operation of critical infrastructures such as military maintenance centers and shipyards from the point of view of private sector and increasing productivity.

Services

- Acquisition Services
- Logistics Consultancy and Support Services
- Critical Infrastructure Sustainment and Operation Services

Projects

- Homeland Security Emergency Requirements Acquisition Project
- Emergency Requirements Acquisition Project for Turkish National Police
- Reconnaissance & Surveillance Aerial Vehicle Hiring Project
- Vertical Wind Tunnel UPS Project
- Vertical Wind Tunnel Maintenance, Repair and Sustainment Project

Expertise

- Acquisition Process Management
- Logistic LifeCycle Planning and Management
- Performance Based Logistics
- Government - Private Ventures
- Test Center Modelling, Operation and Sustainment
- Critical Infrastructure Operation, Planning and Administration



Consultancy

Export Management Services

WASHINGTON / ABD 

Within the scope of export management services, we aim at managing the export of Turkish Defense Industry products from a single center, and accordingly, we carry out our operations by establishing an organization specialized in countries identified as potential markets.



Services Provided in This Field Can Be Listed as Follows

- Marketing and Promotion of Existing Turkish Defense Industry Products
- Establishment of Defense Industry Cooperation Offices in potential markets
- Examination of potential markets and their procurement systems
- Determination of potential countries to be exported and conducting analysis of the markets
- Initiatives to procure defense industry needs of foreign countries from local firms
- Obtaining the necessary permits from the Ministry of Defense for defense industry products subject to export license
- Assistance to the firm to benefit from the export promotion programs of public institutions such as Eximbank and Ministry of Economy
- Providing necessary support to the local firm for reliable transportation and payment of defense industry products exports
- Evaluation of procurement alternatives and creation of export opportunities
- Evaluation of defense industry products export potential with decision support systems
- Provision of export / marketing support to companies having exportable defense industry products.



Consultancy

Technologic Think Tank Activities



STM ThinkTech will contribute to the national vision by providing creative and sustainable solutions for strategic decision making process in defense, security, engineering, and technology areas. For this purpose, technology based researches and strategic analysis will be conducted with an independent, objective, and constructive approach. Reports will be produced, data will be provided, and professional network activities will be held under the umbrella of “STM ThinkTech Technology Center”.



thinktech
STM Future Technology Institute

STM ThinkTech Activities

- Developing custom solutions for the clients (Analysis, forecasting, research, identification of market opportunities, modelling, benchmarking etc.) and reporting these solutions with an independent, objective and constructive approach
- Publishing risk and industry analysis and data that are continuously updated
- Conducting professional «network» activities (high-level meetings and workshops, periodic meetings, etc.)
- Developing Decision Support Systems
- Carrying out joint analysis and research studies by establishing cooperations with government bodies, universities, research institutions, consulting companies, other Think Tank organizations, and NGOs

STM ThinkTech Areas of Expertise

Performing activities in the fields of Defense, Security, Engineering and Technology covering the below sectors:

- Aviation
- Transportation
- Health
- Education
- Energy





