



In the service of the Nation since 1982



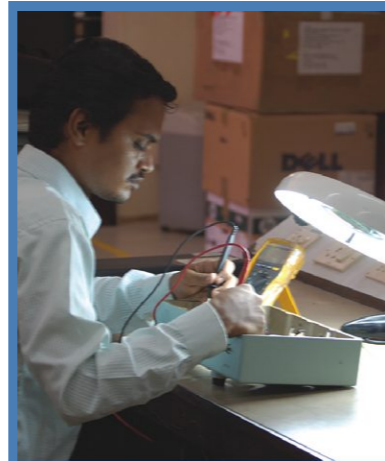
Mechanical Fabrication

Precision



Electronic Assembly

Reliability

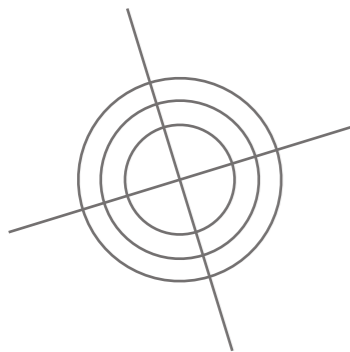


Testing & Calibration

Accuracy

customized ATEs
maintenance training simulators
obsolescence management
strategic electronics

ISO 9001:2008 Certified Company • DGQA Approved Facility



MEL SYSTEMS AND SERVICES LTD.

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MELSS/2010/002



Overview



MEL Systems and Services Ltd (MELSS) was formerly Murugappa Electronics Ltd, a member of the Rs 15,000 crores Murugappa Group. MELSS has been a leading supplier of high tech products since 1982. MELSS has its Corporate Office and factory on the IT highway at Perungudi, Chennai occupying 12,000 sq ft area.

MELSS has over 150 qualified and trained engineers in various disciplines of engineering. Over the last two decades, we have acquired expertise and specialised knowledge in Custom ATEs, Training Simulators, Legacy systems upgrade and MIL STD design/fabrication. We operate through our customer support offices at major metros. DGQA have capacity assessed our facility both as Manufacturer and

MELSS Expansion

MELSS is building another large manufacturing facility on a three acre plot at Sriperumpudur, Chennai Electronics City to cater to the increasing demands in the areas of our expertise.



Quality Standards

MELSS is an ISO 9001:2008 certified company. We subject our products to tests at ETDC, SAMEER labs nearby to ensure compliance to required Defence standards/user specifications. We adhere to IEEE standards for validation and technical documentation.

Foreign Tie-ups

MELSS has signed partnership arrangements with pioneers in various fields such as:

- Teradyne for integration and deployment of TPS
- American Systems Corporation for development of 3D Virtual Aircraft Maintenance Trainer that can be adapted for other weapon systems.
- Thales Defense Deutschland for development of Fire Arms Training Simulator

Association with Indian Defence

MELSS has been a registered supplier for Defense services, PSUs and DRDOs for more than 20 years.

MELSS indigenously designed PCB diagnostic testers, "Boardwizard/Melsswizard" bench-top testers and introduced new concept of clip-ons. In-circuit testing to the base repair depots of the three services.

Our Core Competencies

- System design and integration of custom ATEs Training Simulators
- Design, manufacture and testing of Electronic sub-systems/sub-assemblies
- Revamp/Upgrade of obsolete/legacy systems
- MIL STD Design, Engineering, Fabrication
- Software Development
- Engineering services

Project Experience

Custom ATE Projects

NAVY/ARMY

MELSS has been involved in migration and re-hosting of Test Program Sets (TPS) from legacy ATEs to make them functional on latest ATE platforms. TPS development is undertaken on LASAR platform. Custom testers, programs and accessories have been developed and supplied for specific projects such as RRD, VC, LH30, UL5B (Army) and ORION, BURIA (Navy).



HAL

Indigenous ATEs have been developed for Jaguar and Russian avionics using cPCI/PXI/VXI hardware. The test instrumentation and switch matrix hardware were integrated with custom designed fixtures for each module. The application software on Windows platform was developed in-house and software validated by ETDC.

BEL

ATEs have been developed for testing UHF cards used in communication equipment. MELSS have specialized in the development and manufacture of customized fixtures required for interfacing the UUTs with ATEs. Our fixture designs include use of gold plated plungers for access points required for high-density cards. ATE for testing Sonar transducers were also developed and supplied to BEL.



Training Simulator Projects

The range of MELSS Training Simulators include:

- Sea-King / Sea-Harrier Simulator (Navy)
- Mirage 2000 - Aircraft Systems Training Simulator (Air Force)
- Mirage 2000 - Navigation and Weapon Systems Training Simulator (Air Force)
- Mirage 2000 - Engine Maintenance Simulator (Air Force)
- Combat System Simulator (Navy)
- Replica Cockpit (MIG21) (HAL)
- Cockpit panels for IJT (HAL)
- Submarine simulator upgrade (Navy)



Interactive Fire Arms Simulator



MELSS also provides Fire Arms Training Simulators. The unique feature of the Simulator is Image Generation software, which provides realistic features of stationary and moving targets, in single/ multilane configuration. Students can experience realistic recoil, view replays and analyse own performance, which helps in improving one's marksmanship. These systems have been supplied to Defence after clearance by DGQA.

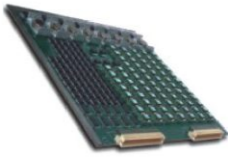
Virtual Maintenance Trainers and CBTs



MELSS offers 3D Virtual Maintenance Trainers in association with American Systems Corporation (ASC). This was originally developed for F/A 18 of the US Navy and can be adapted to any other weapon system. MELSS can also customize and supply web-enabled CBT modules developed by ASC to suit classroom training.

Legacy Systems Upgrade Projects

- TPS migration and re-hosting from legacy ATEs
- Upgrade of ATEs and Simulators
- Subsystem electronics for T90
- Weapon interlock system for onboard Naval weapon system
- Design upgrade and manufacture for MIL STD PCBs



MIL STD Designs and Fabrication

MELSS has established in-house facility for developing rugged mechanical enclosures and consoles meeting MIL STD specifications. Our facility includes 3D Solid Works application package and specially trained software engineers. The software expertise includes 3D designs, fatigue simulation and thermal / shock / vibration analysis. MELSS has developed and supplied rugged enclosures and consoles for the Indian Navy.



Software Development Projects

MELSS has developed a CRM software package, which can be used by both Defence and Industry for various applications like customer support, maintenance management, product management, etc. This MIS package can be customized and supplied as per user requirement.

Other Verticals

Electronic Manufacturing & Repair

www.melssindia.com/ems

- Automated testing and inspection of PCB assemblies
- Reliability testing and Vibration/Shock testing
- Testing of power supplies and passive components
- Soldering, De-soldering, SMT, BGA & CSP rework

Telecom, Photonics, Fibre Optics

www.melssindia.com/telecom

- Network testing (Fibre/Access/Datacom/Protocol)
- Photonics and Fibre Optics-Lab instruments for research
- Fibre optic sensors and signal conditioners for pressure strain, temperature, etc.

Industrial Automation and Process Control

www.melssautomation.com

- Process automation in large plants
- PLC based automation and control
- Instrumentation and SCADA