

Wed, Oct 22, 1986

SDIO TECHNOLOGY PROFILE

- 1: INFORMATION SYSTEMS AND NETWORKS TECHNOLOGY
- 2: COMPUTER HARDWARE TECHNOLOGY
- 3: COMPUTER SOFTWARE TECHNOLOGY
- 4: AUTOMATED INDUSTRIAL CONTROL SYSTEMS (AICS) TECHNOLOGY
- 5: MATERIALS AND PROCESSING TECHNOLOGY
- 6: DIRECTED ENERGY SYSTEMS TECHNOLOGY
- 7: SEMICONDUCTOR AND ELECTRONIC COMPONENT TECHNOLOGY
- 8: INSTRUMENTATION TECHNOLOGY
- 9: TELECOMMUNICATIONS TECHNOLOGY
- 10: COMMUNICATION, NAVIGATION, GUIDANCE, CONTROL, AND IDENTIFICATION TECHNOLOGY
- 11: MICROWAVE TECHNOLOGY
- 12: VEHICULAR TECHNOLOGY
- 13: OPTICAL AND LOW ENERGY LASER TECHNOLOGY
- 14: SENSOR TECHNOLOGY
- 15: UNDERSEA SYSTEMS TECHNOLOGY
- 16: CHEMICAL TECHNOLOGY
- 17: NUCLEAR-RELATED TECHNOLOGY
- 18: ENERGY SYSTEMS TECHNOLOGY
- 19: ENERGETIC MATERIALS TECHNOLOGY

SDIO Technology ^{Revised}
Profile

Level 1: 19

Level 2: 106

Level 3: 309

- 1: INFORMATION SYSTEMS AND NETWORKS TECHNOLOGY**
- 1.1: SYSTEM ENGINEERING TECHNOLOGY**
- 1.2: INFORMATION PROCESSING TECHNOLOGY**
- 1.2.1: DATA ACQUISITION AND CONVERSION TECHNOLOGY
- 1.2.2: IMAGE PROCESSING SYSTEMS TECHNOLOGY
- 1.2.3: SPEECH PROCESSING SYSTEMS TECHNOLOGY
- 1.3: DECISION SUPPORT SYSTEMS TECHNOLOGY**
- 1.3.1: DECISION SUPPORT SYSTEMS TECHNOLOGY
- 1.3.2: MAN/MACHINE INTEGRATION TECHNOLOGY
- 1.3.3: ARTIFICIAL INTELLIGENCE TECHNOLOGY
- 1.3.4: DYNAMIC TRAINING/SIMULATION TECHNOLOGY
- 1.4: COMPUTER NETWORK TECHNOLOGY**
- 2: COMPUTER HARDWARE TECHNOLOGY**
- 2.1: SYSTEMS HARDWARE DEVELOPMENT AND PRODUCTION TECHNOLOGY**
- 2.1.1: COMPUTER HARDWARE DEVELOPMENT TECHNOLOGY
- 2.1.2: COMPUTER HARDWARE PRODUCTION TECHNOLOGY
- 2.1.3: COMPUTER PACKAGING TECHNOLOGY
- 2.2: DIGITAL COMPUTER SYSTEM UTILIZATION TECHNOLOGY**
- 2.2.1: COMPUTER-AIDED SERVICING (CAS) TECHNOLOGY
- 2.2.2: COMPUTER SYSTEM CONFIGURATION MANAGEMENT TECHNOLOGY
- 2.2.3: DIGITAL COMPUTER SECURITY TECHNOLOGY
- 2.3: LOGIC AND HIGH SPEED MEMORY ASSEMBLY TECHNOLOGY**
- 2.3.1: TECHNOLOGY FOR HIGH-SPEED LOGIC AND MEMORY ASSEMBLIES
- 2.3.2: MAGNETIC CORE MEMORY TECHNOLOGY
- 2.3.3: MICROCOMPUTER TECHNOLOGY
- 2.4: STORAGE TECHNOLOGY**
- 2.4.1: MAGNETIC DISK STORAGE TECHNOLOGY
- 2.4.2: MAGNETIC TAPE STORAGE TECHNOLOGY
- 2.4.3: OTHER STORAGE TECHNOLOGY
- 2.5: DIGITAL COMPUTER DISPLAY AND PERIPHERAL TECHNOLOGY**
- 2.5.1: ALPHANUMERIC AND GRAPHIC TERMINAL TECHNOLOGY
- 2.5.2: PERIPHERALS TECHNOLOGY
- 2.6: HYBRID COMPUTER TECHNOLOGY**
- 3: COMPUTER SOFTWARE TECHNOLOGY**
- 3.1: SOFTWARE LIFE-CYCLE TECHNOLOGY**
- 3.1.1: SOFTWARE LIFE-CYCLE MANAGEMENT TECHNOLOGY
- 3.1.2: SOFTWARE LIFECYCLE LIBRARY TECHNOLOGY
- 3.1.3: SOFTWARE LIFE-CYCLE TOOLS TECHNOLOGY
- 3.2: SYSTEMS AND APPLICATIONS SOFTWARE TECHNOLOGY**
- 3.2.1: SYSTEM SIMULATION AND MODELING TECHNOLOGY
- 3.2.2: OPERATING SYSTEMS SOFTWARE TECHNOLOGY
- 3.2.3: LOGISTICS SUPPORT TECHNOLOGY
- 3.3: SECURE SOFTWARE TECHNOLOGY**
- 3.4: MICROPROGRAMMABLE DEVICE SOFTWARE TECHNOLOGY**
- 4: AUTOMATED INDUSTRIAL CONTROL SYSTEMS (AICS) TECHNOLOGY**
- 4.1: FACILITY INTEGRATION TECHNOLOGY**
- 4.1.1: SYSTEM ENGINEERING TECHNOLOGY
- 4.2: MANUFACTURING LEVEL INTEGRATION TECHNOLOGY**
- 4.2.1: INDIVIDUAL MACHINE CONTROL AND PROCESS TECHNOLOGY
- 4.2.2: MANUFACTURING CELL CONTROL TECHNOLOGY
- 4.3: ENTERPRISE INTEGRATION TECHNOLOGY**
- 4.4: CAD/CAM/CAI/CAT/CAS ELEMENT CONTROL TECHNOLOGY**

- 4.4.1: COMPUTER-AIDED DESIGN TECHNOLOGY
- 4.4.2: COMPUTER-AIDED MANUFACTURING, INSPECTION, AND TESTING TECHNOLOGY
- 4.4.3: COMPUTER-AIDED SERVICING (CAS) AND MAINTENANCE TECHNOLOGY
- 5: **MATERIALS AND PROCESSING TECHNOLOGY**
- 5.1: **METALS AND ALLOYS TECHNOLOGY**
- 5.1.1: MAGNETIC AND AMORPHOUS METALS TECHNOLOGY
- 5.1.2: NICKEL-BASED AND COBALT-BASED ALLOYS TECHNOLOGY
- 5.1.3: TITANIUM ALLOYS TECHNOLOGY
- 5.1.4: COATINGS TECHNOLOGY FOR TITANIUM
- 5.1.5: MOLYBDENUM ALLOYS TECHNOLOGY
- 5.1.6: TUNGSTEN TECHNOLOGY
- 5.1.7: CASTING AND COATING TECHNOLOGY OF INTRICATE SUPERALLOY SHAPES
- 5.1.8: PLASMA SPRAYING TECHNOLOGY
- 5.1.9: ADVANCED POWDER METALLURGY TECHNOLOGY
- 5.1.10: SUPERPLASTIC FORMING/DIFFUSION BONDING (SPF/DB) TECHNOLOGY
- 5.1.11: TITANIUM, NICKEL, AND IRON ALUMINIDES TECHNOLOGY
- 5.1.12: SUPERCONDUCTING MATERIALS TECHNOLOGY
- 5.1.13: PRESSURE PIPE AND FITTINGS TECHNOLOGY
- 5.1.14: COATINGS TECHNOLOGY FOR REFRACTORY METALS
- 5.1.15: OPTICALLY TAILORED COATING TECHNOLOGY
- 5.1.16: HIGH YIELD STRENGTH STEEL TECHNOLOGY
- 5.1.17: COATINGS TECH. FOR CARBON-CARBON, METAL MATRIX AND CERAMIC MATRIX COMPOSIT
- 5.1.18: INGOT ALUMINUM-LITHIUM ALLOY TECHNOLOGY
- 5.2: **ADVANCED COMPOSITES AND CERAMICS TECHNOLOGY**
- 5.2.1: FIBERS AND FILAMENTARY MATERIALS TECHNOLOGY
- 5.2.2: FILAMENT WINDING, TAPE-LATING AND INTERLACING EQUIPMENT TECHNOLOGY
- 5.2.3: ORGANIC MATRIX COMPOSITES TECHNOLOGY
- 5.2.4: CERAMICS TECHNOLOGY
- 5.2.5: METAL-MATRIX COMPOSITES TECHNOLOGY
- 5.2.6: CERAMIC MATRIX COMPOSITES TECHNOLOGY
- 5.3: **PROCESSING AND FORMING TECHNOLOGY**
- 5.3.1: ISOSTATIC PRESSING TECHNOLOGY
- 5.3.2: HIGH-TEMPERATURE PRESS TECHNOLOGY
- 5.3.3: ISOTHERMAL ROLLING MILL TECHNOLOGY
- 5.3.4: ISOTHERMAL METAL WORKING TECHNOLOGY
- 5.3.5: HIGH-TEMPERATURE FURNACE AND COATING UNIT TECHNOLOGY
- 5.3.6: NUMERICALLY CONTROLLED MACHINE TECHNOLOGY
- 5.3.7: PRECISION TURNING MACHINE TECHNOLOGY
- 5.3.8: SPIN- AND FLOW-FORMING MACHINES TECHNOLOGY
- 5.3.9: HIGH VACUUM TECHNOLOGY
- 5.3.10: LASER PROCESSING TECHNOLOGY
- 5.3.11: HIGH PERFORMANCE WELDING TECHNOLOGY
- 5.3.12: FAILURE ANALYSIS, NONDESTRUCTIVE EVALUATION (NDE), AND CONTROL TECHNOLOGY
- 5.3.13: TEST EQUIPMENT FOR INTEGRATED STRUCTURAL TESTING TECHNOLOGY
- 5.3.14: ROBOT TECHNOLOGY
- 6: **DIRECTED ENERGY SYSTEMS TECHNOLOGY**
- 6.1: **HIGH-ENERGY LASER (HEL) SYSTEM TECHNOLOGY**
- 6.1.1: HIGH-ENERGY LASER DEVICE TECHNOLOGY
- 6.1.2: HEL MIRROR AND OPTICAL DEVICE TECHNOLOGY
- 6.1.3: HEL BEAM-POINTING AND CONTROL SYSTEM AND COMPONENT TECHNOLOGY
- 6.1.4: HEL BEAM-TARGET COUPLING AND PROPAGATION TECHNOLOGY

- 6.1.5: HEL TARGET EFFECTS AND COUNTERMEASURE TECHNOLOGY
- 6.2: HIGH-POWER RADIO-FREQUENCY ENERGY SYSTEMS TECHNOLOGY
 - 6.2.1: RADIO-FREQUENCY ENERGY SYSTEMS TECHNOLOGY
 - 6.2.2: RADIO-FREQUENCY TRANSMISSION TECHNOLOGY
 - 6.2.3: RADIO-FREQUENCY MATERIAL COUPLING TECHNOLOGY
 - 6.2.4: RADIO-FREQUENT TARGET EFFECTS AND COUNTERMEASURES TECHNOLOGY
- 6.3: PARTICLE BEAM SYSTEMS TECHNOLOGY
 - 6.3.1: PARTICLE BEAM INJECTOR TECHNOLOGY
 - 6.3.2: PARTICLE BEAM POINTING AND CONTROL SUBSYSTEM TECHNOLOGY
 - 6.3.3: PARTICLE BEAM NATURALIZATION TECHNOLOGY
 - 6.3.4: PARTICLE BEAM PROPAGATION TECHNOLOGY
 - 6.3.5: PARTICLE BEAM MATERIAL COUPLING TECHNOLOGY
 - 6.3.6: PARTICLE BEAM TARGET EFFECTS AND COUNTERMEASURES TECHNOLOGY
- 6.4: KINETIC ENERGY SYSTEMS TECHNOLOGY
- 6.5: NONNUCLEAR ELECTROMAGNETIC PULSE SYSTEMS TECHNOLOGY
- 6.7: DIRECTED TEST TARGETS AND MODELS TECHNOLOGY
- 7: SEMICONDUCTOR AND ELECTRONIC COMPONENT TECHNOLOGY
 - 7.1: MICROCIRCUIT TECHNOLOGY
 - 7.1.1: WAFER PREPARATION TECHNOLOGY
 - 7.1.2: EPITAXY PROCESS TECHNOLOGY
 - 7.1.3: OXIDATION PROCESSES TECHNOLOGY
 - 7.1.4: MASKMAKING TECHNOLOGY
 - 7.1.5: LITHOGRAPHIC TECHNOLOGY
 - 7.1.6: SELECTIVE REMOVAL TECHNOLOGY
 - 7.1.7: DIFFUSION/IMPLANTATION TECHNOLOGY
 - 7.1.8: THIN-FILM DEPOSITION TECHNOLOGY
 - 7.1.9: MICROCIRCUIT ASSEMBLY TECHNOLOGY
 - 7.1.10: MICROCIRCUIT TESTING TECHNOLOGY
 - 7.1.11: MICROCIRCUIT PRODUCTION FACILITIES TECHNOLOGY
 - 7.1.12: IC DESIGN TECHNOLOGY
 - 7.1.13: HYBRID MICROCIRCUITS TECHNOLOGY
 - 7.1.14: MICROWAVE INTEGRATED CIRCUITS TECHNOLOGY
 - 7.2: TRANSISTOR, DIODE, AND THYRISTOR TECHNOLOGY
 - 7.2.1: DISCRETE TRANSISTOR TECHNOLOGY
 - 7.2.2: SEMICONDUCTOR DIODE TECHNOLOGY
 - 7.2.3: THYRISTORS TECHNOLOGY
 - 7.3: DETECTOR, TUBE, INTENSIFIER, AND COOLER TECHNOLOGY
 - 7.3.1: SEMICONDUCTOR DETECTOR TECHNOLOGY
 - 7.3.2: PHOTOMULTIPLIER TUBE TECHNOLOGY
 - 7.3.3: IMAGE INTENSIFIER TECHNOLOGY
 - 7.3.4: THERMOELECTRIC COOLER TECHNOLOGY
 - 7.4: ACOUSTIC WAVE DEVICE TECHNOLOGY
 - 7.5: THIN-FILM MEMORY DEVICE TECHNOLOGY
 - 7.5.1: MAGNETIC BUBBLE MEMORY TECHNOLOGY
 - 7.5.2: PLATED WIRE MEMORY TECHNOLOGY
 - 7.5.3: CROSS-TIE MEMORY TECHNOLOGY
 - 7.6: PASSIVE COMPONENT TECHNOLOGY
 - 7.6.1: FERRITE MATERIAL AND DEVICE TECHNOLOGY
 - 7.6.2: STRONTIUM TITANATE MONOLITHIC CERAMIC CAPACITORS TECHNOLOGY
 - 7.6.3: HIGH ENERGY DENSITY CAPACITOR TECHNOLOGY
 - 7.6.4: QUARTZ CRYSTAL TECHNOLOGY
 - 7.6.5: PRINTED CIRCUIT BOARD TECHNOLOGY

- 7.7:** **CRYOGENIC COMPONENT TECHNOLOGY**
- 7.7.1: SUPERCONDUCTING DIGITAL COMPONENT TECHNOLOGY
- 7.7.2: CRYOGENIC COOLING TECHNOLOGY
- 7.8:** **ELECTRONIC MATERIAL TECHNOLOGY**
- 7.8.1: PREP., PURIFICATION, & COMPOUNDING OF ELECTRONIC, ELECTROOPTIC, & OPTICAL MATERIALS
- 7.8.2: BULK AND EPITAXIAL CRYSTAL GROWTH TECHNOLOGY
- 8:** **INSTRUMENTATION TECHNOLOGY**
- 8.1:** **TIME-DOMAIN MEASUREMENT TECHNOLOGY**
- 8.1.1: OSCILLOSCOPE TECHNOLOGY
- 8.1.2: TIME INTERVAL MEASURING TECHNOLOGY
- 8.1.3: ELECTRONIC STREAK CAMERA TECHNOLOGY
- 8.2:** **FREQUENCY-DOMAIN MEASUREMENT TECHNOLOGY**
- 8.2.1: RADIO SPECTRUM ANALYZER TECHNOLOGY
- 8.2.2: PANORAMIC AND DIGITAL RECEIVER TECHNOLOGY
- 8.2.3: REAL-TIME SPECTRUM ANALYZER TECHNOLOGY
- 8.2.4: FREQUENCY COUNTER TECHNOLOGY
- 8.3:** **FREQUENCY STANDARDS AND SIGNAL SOURCE TECHNOLOGY**
- 8.3.1: FREQUENCY STANDARD TECHNOLOGY
- 8.3.2: FREQUENCY SYNTHESIZER TECHNOLOGY
- 8.3.3: SIGNAL GENERATOR TECHNOLOGY
- 8.4:** **ELECTRICAL PARAMETER AND DIGITAL MEASURING TECHNOLOGY**
- 8.4.1: NETWORK ANALYZER TECHNOLOGY
- 8.4.2: DIGITAL VOLTAGE MEASURING TECHNOLOGY
- 8.4.3: MICROWAVE POWER MEASUREMENT TECHNOLOGY
- 8.4.4: ACTIVE SIGNAL ACQUISITION PROBE TECHNOLOGY
- 8.5:** **DIGITAL INSTRUMENT TECHNOLOGY**
- 8.5.1: LOGIC ANALYZER TECHNOLOGY
- 8.5.2: MICROPROCESSOR AND BIT SLICE DEVELOPMENT SYSTEM TECHNOLOGY
- 8.5.3: ANALOG-TO-DIGITAL AND DIGITAL-TO-ANALOG CONVERTER TECHNOLOGY
- 8.5.4: AUTOMATIC TEST EQUIPMENT TECHNOLOGY
- 8.5.5: ACOUSTIC EMISSION TEST EQUIPMENT TECHNOLOGY
- 8.5.6: DIGITAL STORAGE OSCILLOSCOPE AND DIGITIZER TECHNOLOGY
- 8.6:** **RECORDING TECHNOLOGY**
- 8.6.1: RECORDER/REPRODUCER TECHNOLOGY
- 8.7:** **PHOTOGRAPHIC AND OPTICAL MEASUREMENT TECHNOLOGY**
- 8.7.1: PHOTOGRAPHIC INTERPRETATION TECHNOLOGY
- 8.7.2: LASER MEASUREMENT TECHNOLOGY
- 8.7.3: AERIAL CAMERA TECHNOLOGY
- 8.7.4: INSTRUMENTATION CAMERA TECHNOLOGY
- 8.7.5: MICRODENSITOMETER TECHNOLOGY
- 8.7.6: FLASH X-RAY PHOTOGRAPHY TECHNOLOGY
- 9:** **TELECOMMUNICATIONS TECHNOLOGY**
- 9.1:** **TELECOMMUNICATIONS SYSTEMS TECHNOLOGY**
- 9.1.1: RF COMMUNICATIONS SYSTEMS TECHNOLOGY
- 9.1.2: OPTICAL COMMUNICATIONS TECHNOLOGY
- 9.1.3: UNDERWATER ACOUSTIC COMMUNICATIONS SYSTEMS TECHNOLOGY
- 9.1.4: COMPUTER-CONTROLLED COMMUNICATIONS NETWORK TECHNOLOGY
- 9.1.5: HIGH-FREQUENCY COMMUNICATIONS TECHNOLOGY
- 9.2:** **SWITCHING TECHNOLOGY**
- 9.2.1: CIRCUIT SWITCHING TECHNOLOGY
- 9.2.2: MESSAGE SWITCHING TECHNOLOGY

- 9.2.3: PACKET SWITCHING TECHNOLOGY
- 9.2.4: LOCAL AREA NETWORK TECHNOLOGY
- 9.3: **MODEMS AND MULTIPLEXING TECHNOLOGY**
- 9.3.1: MODEM TECHNOLOGY
- 9.3.2: MULTIPLEXING TECHNOLOGY
- 9.3.3: TRANSMISSION MEDIA SIMULATION TECHNOLOGY
- 9.4: **RADIO RELAY TECHNOLOGY**
- 9.4.1: LINE-OF-SIGHT RADIO RELAY TECHNOLOGY
- 9.4.2: TROPOSPHERIC SCATTER RADIO RELAY TECHNOLOGY
- 9.4.3: SATELLITE GROUND TERMINAL TECHNOLOGY
- 9.4.4: SATELLITE SPACE SEGMENT TECHNOLOGY
- 9.5: **COMMUNICATIONS COUNTERMEASURES TECHNOLOGY**
- 9.6: **CABLES AND CABLE MANUFACTURING TECHNOLOGY**
- 10: **COMMUNICATION, NAVIGATION, GUIDANCE, CONTROL, AND IDENTIFICATION TECHNOLOGY**
- 10.1: **VEHICLE CONTROL TECHNOLOGY**
- 10.1.1: SPACECRAFT GUIDANCE AND CONTROL TECHNOLOGY
- 10.1.2: AIR VEHICLE GUIDANCE AND CONTROL TECHNOLOGY
- 10.1.3: SHIP GUIDANCE AND CONTROL TECHNOLOGY
- 10.2: **INERTIAL NAVIGATION SYSTEMS (INS) AND RELATED TECHNOLOGY**
- 10.2.1: INERTIAL NAVIGATION SYSTEMS INTEGRATION TECHNOLOGY
- 10.2.2: INERTIAL GIMBALLED PLATFORM TECHNOLOGY
- 10.2.3: INERTIAL STRAPDOWN SYSTEMS TECHNOLOGY
- 10.2.4: FLOATED BALL-BEARING GYROSCOPE TECHNOLOGY
- 10.2.5: GAS BEARING GYROSCOPE TECHNOLOGY
- 10.2.6: FLEXURE ROTOR GYROSCOPE TECHNOLOGY
- 10.2.7: GAS LASER GYROSCOPE TECHNOLOGY
- 10.2.8: ELECTROSTATICALLY SUPPORTED GYROSCOPE TECHNOLOGY
- 10.2.9: NUCLEAR MAGNETIC RESONANCE GYROSCOPE TECHNOLOGY
- 10.2.10: SOLID-STATE LASER GYROSCOPE TECHNOLOGY
- 10.2.11: LOW-COST GYROSCOPE TECHNOLOGY
- 10.2.12: HEMISPHERICAL RESONATOR GYROSCOPE TECHNOLOGY
- 10.2.13: ACCELEROMETER TECHNOLOGY
- 10.2.14: AUTOPILOT TECHNOLOGY
- 10.2.15: TEST, CALIBRATION, ALIGNMENT, AND ERROR COMPENSATION TECHNOLOGY
- 10.2.16: MULTIFUNCTION INERTIAL SENSOR TECHNOLOGY
- 10.2.17: HIGH-G AIR-BEARING GYROSCOPE TECHNOLOGY
- 10.3: **COOPERATIVE SYSTEMS FOR RADIO NAVIGATION AND RADIO COMMUNICATION TECHNOLOGY**
- 10.3.1: TECHNIQUES FOR PLATFORM COOP RADIO-NAVIGATION AND RADIO DIRECTION FINDING T
- 10.3.2: COOPERATIVE RADIO COMMUNICATION TECHNOLOGY
- 10.3.3: GENERAL AVIONICS/ELECTRONICS SYSTEMS TECHNOLOGY
- 10.3.4: DISPLAY AND CONTROL INTERFACE FOR INTEGRATED COMMUNICATION/NAVIGATION TECHN
- 10.4: **TARGET IDENTIFICATION SYSTEMS AND RELATED TECHNOLOGY**
- 11: **MICROWAVE TECHNOLOGY**
- 11.1: **MICROWAVE TUBE TECHNOLOGY**
- 11.1.1: ELECTRON GUN AND BEAM TECHNOLOGY
- 11.1.2: MICROWAVE TUBE CIRCUIT TECHNOLOGY
- 11.1.3: MICROWAVE TUBE ASSEMBLY TECHNOLOGY
- 11.2: **SOLID-STATE MICROWAVE DEVICE TECHNOLOGY**
- 11.3: **HIGH POWER MICROWAVE CONTROL COMPONENT TECHNOLOGY**

- 11.3.1: CONTROL COMPONENTS TECHNOLOGY
- 11.3.2: HIGH-POWER SWITCH TECHNOLOGY
- 11.4: **WAVEGUIDE AND COMPONENT TECHNOLOGY**
- 12: **VEHICULAR TECHNOLOGY**
- 12.1: **AERONAUTICAL VEHICLE TECHNOLOGY**
- 12.1.1: LAMINAR FLOW CONTROL (LFC) TECHNOLOGY
- 12.1.2: AIRFOIL, HELICOPTER ROTOR AND WING DESIGN TECHNOLOGY (INCL. HIGH-LIFT DEVIC
- 12.1.3: COMPUTER-AIDED DESIGN AND MANUFACTURE (CAD/CAM) TECHNOLOGY
- 12.1.4: INTEGRATED SENSORY SUBSYSTEMS TECHNOLOGY
- 12.1.5: CONTROL CONFIGURED VEHICLES TECHNOLOGY
- 12.1.6: FLIGHT CONTROL AND FLIGHT MANAGEMENT TECHNOLOGY
- 12.1.7: ELECTROMAGNETIC HARDENING TECHNOLOGY
- 12.1.8: LIGHTWEIGHT, HIGH CONTACT RATIO, DOUBLE-HELICAL (BERRINGBONE) GEARS TECHNOL
- 12.1.9: HIGH SURVIVABILITY (LOSS OF LUBRICATION) TECHNOLOGY
- 12.1.10: ADVANCED PROPELLERS TECHNOLOGY
- 12.2: **MARINE VEHICLE TECHNOLOGY**
- 12.2.1: HYDRODYNAMIC DESIGN OF ADVANCED JULL FORMS TECHNOLOGY
- 12.2.2: FOIL AND FOIL STRUCTURE DESIGN FOR ADVANCED HYDROFOILS TECHNOLOGY
- 12.2.3: LIGHTWEIGHT MARINE PLATFORM STRUCTURE TECHNOLOGY
- 12.2.4: FLEXIBLE CURTAINS AND SKIRTS FOR AIR BUBBLE SUPPORTED PLATFORMS TECHNOLOGY
- 12.2.5: AUTOMATED PLATFORM CONTROLS FOR HYDROFOILS AND OTHER HIGH-SPEED MARINE
BEHI
- 12.2.6: POLYMER INJECTION TECHNOLOGY FOR DRAG REDUCTION
- 12.2.7: QUIET BALL BEARING TECHNOLOGY
- 12.3: **DEEP SUBMERGENCE VEHICLE TECHNOLOGY**
- 12.3.1: UNTETHERED SUBMERSIBLES TECHNOLOGY
- 12.3.2: TETHERED SUBMERSIBLES AND DIVING EQUIPMENT TECHNOLOGY
- 12.3.3: SYNTACTIC FOAM TECHNOLOGY
- 12.4: **GAS TURBINE PROPULSION TECHNOLOGY FOR AERONAUTICAL VEHICLES**
- 12.4.1: SYSTEM CONFIGURATION, AERODYNAMIC AND THERMODYNAMIC ANALYSIS TECHNOLOGY
- 12.4.2: VARIABLE FLOWPATH TECHNOLOGY
- 12.4.3: CENTRIFUGAL FLOW COMPRESSOR AERODYNAMICS TECHNOLOGY
- 12.4.4: AXIAL FLOW FAN AND COMPRESSOR AERODYNAMICS TECHNOLOGY
- 12.4.5: TURBINE TECHNOLOGY
- 12.4.6: COOLED TURBINE TECHNOLOGY
- 12.4.7: ROTATING PROPULSION SYSTEM STRUCTURES TECHNOLOGY
- 12.4.8: HIGH DN ROLLING ELEMENT BEARINGS TECHNOLOGY
- 12.4.9: GAS-FILM BEARING DESIGN TECHNOLOGY
- 12.4.10: CERAMIC/HYBRID BEARING DESIGN TECHNOLOGY
- 12.4.11: LUBE SYSTEM SEALS TECHNOLOGY
- 12.4.12: GASPATH SEALING TECHNOLOGY
- 12.4.13: COATING TECHNOLOGY
- 12.4.14: COMBUSTOR AERODYNAMICS TECHNOLOGY
- 12.4.15: COMBUSTION SYSTEM STRUCTURES TECHNOLOGY
- 12.4.16: AFTERBURNER/DUCTBURNER AEROTHERMODYNAMICS TECHNOLOGY
- 12.4.17: FRAMES, DUCTS, AND CASES TECHNOLOGY
- 12.4.18: PROPULSION SYSTEM INTEGRATION TECHNOLOGY
- 12.4.19: ELECTRONIC CONTROL AND DIAGNOSTICS TECHNOLOGY
- 12.4.20: SENSORS, ACTUATORS, INTERFACES AND INTERCONNECTIONS FOR ADVANCED ENGINE
CON
- 12.4.21: ELECTRICAL POWER GENERATION TECHNOLOGY
- 12.4.22: INLET TECHNOLOGY

- 12.4.23: NOZZLES, THRUST VECTORING, AND THRUST REVERSING
- 12.4.24: WIND TUNNEL AND PROPULSION TEST CELL TECHNOLOGY
- 12.5: **GAS TURBINE PROPULSION TECHNOLOGY FOR MARINE VEHICLES**
- 12.5.1: GAS-TURBINE ENGINE MOISTURE AND PARTICULATE SEPARATOR SYSTEMS TECHNOLOGY
- 12.5.2: PROTECTIVE COATING TECHNOLOGY FOR MARINE GAS TURBINE ENGINES
- 12.5.3: HEAVY FUEL CAPABILITY TECHNOLOGY FOR MARINE GAS TURBINE ENGINES
- 12.5.4: HIGH-TEMPERATURE HEAT EXCHANGER TECHNOLOGY
- 12.5.5: LIGHTWEIGHT COMBINES GAS- AND STEAM-TURBINE (COGAS) SYSTEMS TECHNOLOGY
- 12.6: **OTHER MARINE PROPULSION TECHNOLOGY**
- 12.6.1: COMPOSITE SHAFTING TECHNOLOGY
- 12.6.2: LIGHTWEIGHT MARINE GEARING TECHNOLOGY
- 12.6.3: WATER-COOLED AND SUPERCONDUCTING ELECTRICAL MACHINERY TECHNOLOGY
- 12.6.4: SHIP PROPELLERS TECHNOLOGY
- 12.6.5: ADVANCED LIFT FANS TECHNOLOGY
- 12.6.6: LARGE ADVANCED WATERJETS TECHNOLOGY
- 12.7: **SPACECRAFT VEHICLE TECHNOLOGY**
- 12.7.1: SPACECRAFT SYSTEM ARCHITECTURE TECHNOLOGY
- 12.7.2: STRUCTURAL MATERIALS TECHNOLOGY
- 12.7.3: STRUCTURAL INTEGRITY TECHNOLOGY
- 12.7.4: LOW-THRUST SPACECRAFT PROPULSION TECHNOLOGY
- 12.7.5: INTERNAL COMMAND AND CONTROL TECHNOLOGY
- 12.8: **SPACE LAUNCH VEHICLE TECHNOLOGY**
- 12.8.1: LIQUID PROPELLANT ROCKET TECHNOLOGY
- 12.8.2: SOLID PROPELLANT ROCKET TECHNOLOGY
- 12.8.3: PROPELLANT MANAGEMENT DEVICES TECHNOLOGY
- 12.8.4: LONG-TERM CRYOGENIC STORAGE DEVICES TECHNOLOGY
- 12.8.5: LARGE-SCALE RECOVERY SYSTEM TECHNOLOGY
- 12.8.6: SPACE LAUNCH VEHICLE THERMAL SUBSYSTEMS TECHNOLOGY
- 12.9: **HEAVY DUTY GROUND VEHICLE TECHNOLOGY**
- 12.9.1: HEAVY DUTY GROUND VEHICLE PROPULSION SYSTEMS TECHNOLOGY
- 13: **OPTICAL AND LOW ENERGY LASER TECHNOLOGY**
- 13.1: **FIBER-OPTIC TECHNOLOGY**
- 13.1.1: OPTICAL FIBER TECHNOLOGY
- 13.1.2: FIBER-OPTIC CABLE TECHNOLOGY
- 13.1.3: SOURCE AND DETECTOR TECHNOLOGY
- 13.1.4: FIBER-OPTIC CONNECTING AND SPLICING TECHNOLOGY
- 13.1.5: OPTICAL COUPLER TECHNOLOGY
- 13.2: **INTEGRATED OPTIC TECHNOLOGY**
- 13.3: **FILTER TECHNOLOGY**
- 13.4: **OPTICAL COATING TECHNOLOGY**
- 13.5: **DYE LASER TECHNOLOGY**
- 13.6: **GAS LASER TECHNOLOGY**
- 13.7: **SEMICONDUCTOR LASER TECHNOLOGY**
- 13.8: **SOLID-STATE LASER TECHNOLOGY**
- 13.9: **CHEMICAL LASER TECHNOLOGY**
- 13.10: **LASER TRANSMITTER TECHNOLOGY**
- 13.11: **LOW ENERGY LASER SYSTEMS TECHNOLOGY**
- 13.11.1: LOW-ENERGY LASER TECHNOLOGY
- 13.11.2: LASER RANGEFINDING TECHNOLOGY
- 13.11.3: LIGHT DETECTION AND RANGING (LIDAR) TECHNOLOGY
- 14: **SENSOR TECHNOLOGY**
- 14.1: **OPTICAL (INFRARED, VISIBLE AND UV SENSOR) TECHNOLOGY**

- 14.2: PASSIVE X-RAY SENSOR TECHNOLOGY**
- 14.3: CONVENTIONAL ACOUSTIC SENSOR TECHNOLOGY**
- 14.4: FIBER-OPTIC SENSOR SYSTEM TECHNOLOGY**
- 14.5: MAGNETOMETER AND MAGNETIC SENSOR TECHNOLOGY**
 - 14.5.1: FLUXGATE MAGNETOMETER TECHNOLOGY**
 - 14.5.2: RESONANCE MAGNETOMETER TECHNOLOGY**
 - 14.5.3: CRYOGENIC MAGNETIC SENSOR TECHNOLOGY**
 - 14.5.4: FIBER-OPTIC MAGNETIC SENSOR TECHNOLOGY**
- 14.6: GRAVITY METER AND GRAVITY GRADIOMETER TECHNOLOGY**
- 14.7: RADAR AND SIGNAL INTERCEPT RELATED (SIR) TECHNOLOGY**
 - 14.7.1: SYSTEMS ARCHITECTURE, DESIGN, AND INTEGRATION TECHNOLOGY**
 - 14.7.2: TRANSMITTER TECHNOLOGY**
 - 14.7.3: ANTENNA DESIGN TECHNOLOGY**
 - 14.7.4: RADAR AND SIGNAL INTERCEPT (SIR) RECEIVER TECHNOLOGY**
 - 14.7.5: SIGNAL PROCESSING TECHNOLOGY FOR RADAR AND SIGNAL INTERCEPTION**
 - 14.7.6: POST-DETECTION PROCESSING AND DISPLAY TECHNOLOGY**
- 15: UNDERSEA SYSTEMS TECHNOLOGY**
 - 15.1: UNDERSEA ACOUSTIC AND SEISMIC TECHNOLOGY**
 - 15.1.1: ACOUSTIC PROPAGATION, MODELING, AND FORECASTING TECHNOLOGY**
 - 15.1.2: ACOUSTIC RECEPTION TECHNOLOGY**
 - 15.1.3: ACOUSTIC TRANSMISSION TECHNOLOGY**
 - 15.1.4: ACOUSTIC PROCESSING AND DISPLAY TECHNOLOGY**
 - 15.2: PLATFORM ACOUSTIC TECHNOLOGY**
 - 15.3: SALVAGE TECHNOLOGY**
 - 15.4: DEEP SEA SENSOR IMPLANTATION TECHNOLOGY**
 - 15.5: TEST AND EVALUATION FACILITY TECHNOLOGY**
- 16: CHEMICAL TECHNOLOGY**
 - 16.1: POLYMERIC MATERIAL TECHNOLOGY**
 - 16.2: HYDRAULIC AND FLOTATION/DAMPING FLUID TECHNOLOGY**
 - 16.3: LUBRICATION OIL AND GREASE TECHNOLOGY**
 - 16.4: SYNTHETIC ELASTOMER TECHNOLOGY**
 - 16.5: ATMOSPHERIC PURIFICATION AND CONTROL TECHNOLOGY**
 - 16.6: TECHNOLOGY FOR MANUFACTURE AND DISSEMINATION OF TOXIC SUBSTANCES**
 - 16.7: DETECTION AND PROTECTIVE EQUIPMENT TECHNOLOGY**
 - 16.7.1: DETECTION OF TOXIC SUBSTANCES TECHNOLOGY**
 - 16.7.2: INDIVIDUAL TOXIC SUBSTANCE PROTECTIVE EQUIPMENT TECHNOLOGY**
 - 16.8: TECHNOLOGY FOR MANUFACTURE AND DISSEMINATION OF BIOLOGICAL AND TOXIN MATERI**
- 17: NUCLEAR-RELATED TECHNOLOGY**
- 18: ENERGY SYSTEMS TECHNOLOGY**
 - 18.1: ELECTROCHEMICAL ENERGY CONVERSION TECHNOLOGY**
 - 18.1.1: SPECIAL-PURPOSE PRIMARY AND RESERVE BATTERY TECHNOLOGY**
 - 18.1.2: LITHIUM PRIMARY BATTERY TECHNOLOGY**
 - 18.1.3: AEROSPACE QUALIFIED NICKEL-CADMIUM AND NICKEL-HYDROGEN BATTERY TECHNOLOGY**
 - 18.1.4: LITHIUM SECONDARY BATTERY TECHNOLOGY**
 - 18.1.5: HIGH ENERGY DENSITY, HIGH-TEMPERATURE SECONDARY BATTERY TECHNOLOGY**
 - 18.1.6: FUEL CELLS TECHNOLOGY**
 - 18.2: ELECTROMECHANICAL ENERGY CONVERSION TECHNOLOGY**
 - 18.2.1: ELECTROMAGNETIC TECHNOLOGY**
 - 18.2.2: MAGNETOHYDRODYNAMICS TECHNOLOGY**
 - 18.2.3: ELECTROHYDRODYNAMICS TECHNOLOGY**

- 18.2.4: PIEZOELECTRIC TECHNOLOGY
- 18.3: **DIRECT CONVERSION TECHNOLOGY**
- 18.3.1: PHOTOVOLTAIC CELL TECHNOLOGY
- 18.3.2: THERMOELECTRIC TECHNOLOGY
- 18.3.3: THERMIONIC CONVERSION TECHNOLOGY
- 18.3.4: THERMOPHOTOVOLTAIC TECHNOLOGY
- 18.4: **ENERGY STORAGE AND PULSE POWER TECHNOLOGY**
- 18.4.1: MAGNETIC FLUX COMPRESSION GENERATOR (MCGS) TECHNOLOGY
- 18.4.2: INDUCTIVE STORAGE TECHNOLOGY
- 18.4.3: CAPACITIVE STORAGE TECHNOLOGY
- 18.4.4: KINETIC ENERGY STORAGE TECHNOLOGY
- 18.4.5: PULSED BATTERIES TECHNOLOGY
- 18.5: **POWER AND CONDITIONING AND CONTROL TECHNOLOGY**
- 18.5.1: POWER CONDITIONING SYSTEMS TECHNOLOGY
- 18.5.2: POWER CONTROL TECHNOLOGY
- 18.6: **HIGH PULSE POWER TECHNOLOGY**
- 19: **ENERGETIC MATERIALS TECHNOLOGY**
- 19.1: **MANUFACTURING TECHNOLOGY**
- 19.1.1: PRODUCTION OF METAL FUELS, METAL ALKYLs AND CARBORANES TECHNOLOGY
- 19.1.2: PRODUCTION OF SPECIAL SALTS TECHNOLOGY
- 19.1.3: PRODUCTION OF NITRAMINES AND NITRO COMPOUNDS TECHNOLOGY
- 19.1.4: PRODUCTION OF ORGANIC NITRATES TECHNOLOGY
- 19.1.5: PRODUCTION OF ENERGETIC POLYMERS AND MONOMERS TECHNOLOGY
- 19.1.6: PRODUCTION OF MISCELLANEOUS ADDITIVES AND PRECURSORS TECHNOLOGY
- 19.2: **TECHNOLOGY FOR FORMULATION OF ENERGETIC MATERIALS**
- 19.3: **TECHNOLOGY FOR FABRICATION AND LOADING OF ENERGETIC MATERIALS**
- 19.4: **TECHNOLOGY FOR TESTING ENERGETIC MATERIALS**