Gulfview Research, Inc.

About Us

Gulfview Research is an independent electronics design consulting firm specializing in embedded microprocessor applications, including both hardware and software design. Most innovative electronic products today require built-in microprocessor control systems to carry out complex tasks at high speed. Moreover, such products generally cost less, are brought to market faster, and are more flexible, because the microprocessor control system can replace many dedicated circuits, and the software can be modified to keep pace with changing customer needs.
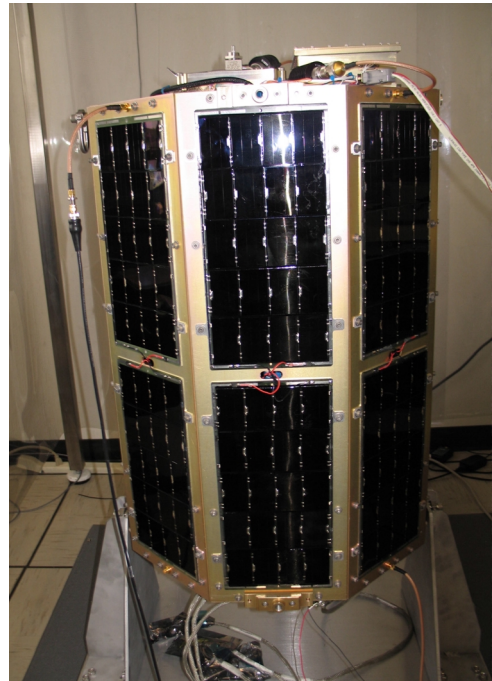
Gulfview Research was founded in 1991 by James K. Baughman, II. James holds a Bachelor of Science degree in Electrical Engineering, and has over 25 years experience designing microprocessor and microcontroller-based electronic systems for both the commercial and military sectors.

Gulfview Research provides design services to clients in areas such as digital and analog hardware design, embedded software design, real-time control systems, data acquisition, and data communications systems. Gulfview Research has expertise in all facets of electronic product research and development, including product definition and specifications, system architecture, man-machine interface, remote control/status, printed circuit board design, prototype development, hardware/software integration, performance analysis, automated test, production, and documentation.

Gulfview Research has a 1,300 square foot office and laboratory facility equipped to handle design, prototyping, test, and evaluation of client projects. Gulfview Research can also supply turn-key, off-the-shelf devices to integrate with customer products and systems.

Through a close network of consultants, Gulfview Research can provide engineering services in other areas of technical expertise, such as RF design and development, mechanical engineering, and packaging design. Gulfview Research often works in collaboration with other consultants on multidisciplinary projects.

Gulfview Research has a proven track record of providing cost-effective and reliable hardware and software design solutions on schedule and within budget. Please contact us and learn how Gulfview Research can help take your next project from concept to production.

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Capabilities

The following is a partial summary of capabilities offered by Gulfview Research:

- Licensed user of Altium Schematic Capture, Simulation, and Printed Circuit design software.
- Expertise in designing systems based on several microprocessors and microcontrollers, such as 68HC05, 68000, ColdFire, 8051, ARM, MSP430, P51-XA, AVR, PIC, COP8, Z80, and Z8.
- Programming experience in several microprocessor and microcontroller assembly languages, as well as C, PASCAL, FORTRAN, and BASIC.
- Design expertise in small, low-power, battery handheld instrumentation.
- Wireless RF data communications applications.
- Implementation of combinatorial and sequential logic and state machines using Programmable Logic Devices (PLDs, CPLDs, and FPGAs), such as Actel, Altera, Lattice, QuickLogic, and Xilinx.
- Design experience with LED, LCD, CRT, and Vacuum Fluorescent display technologies.
- Analog-to-Digital and Digital-to-Analog converter applications.
- VMEbus, VXIbus, ISA, and PC/104 interface design.
- Interfacing and control of RF subsystems, such as PLL and DDS frequency synthesizers, step-attenuators, filters, RF switches, frequency counters, oscillators, power amplifiers, etc.
- Integration of GPS receivers into data acquisition and communications systems.